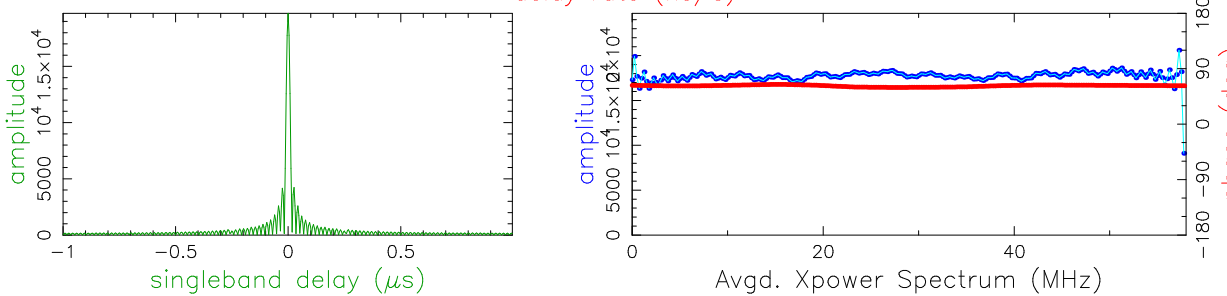


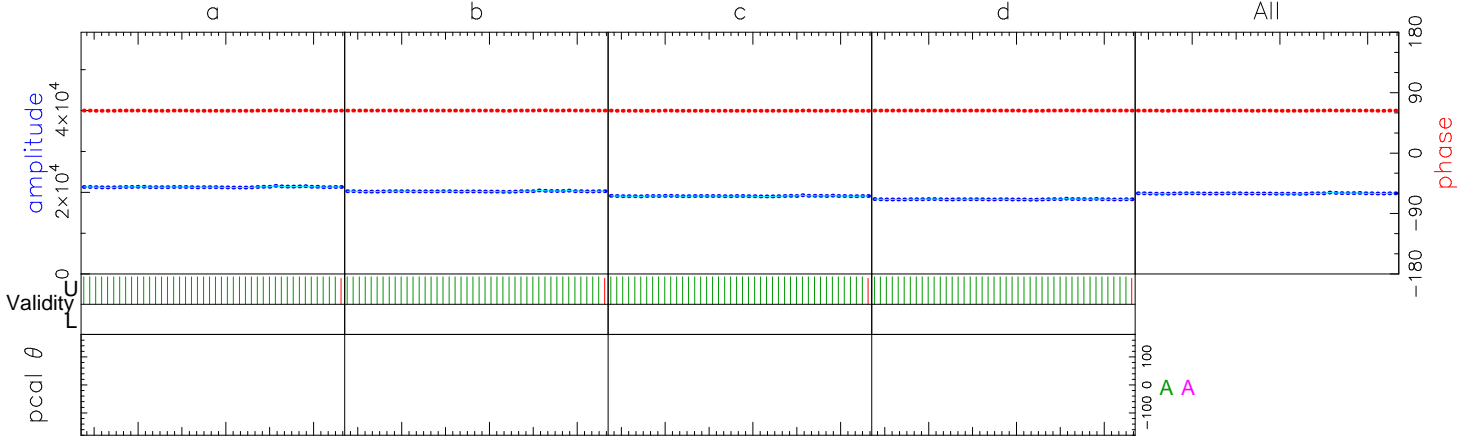
Fringe quality 9

SNR 487058.5  
 Int time 179.983  
 Amp 19722.335  
 Phase 63.2  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.000005  
 MBD -0.000082  
 Fringe rate (Hz) 0.000002  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512

Exp. mb007  
 Exper # 16383  
 Yr:day 2017:093  
 Start 131121.00  
 Stop 131421.22  
 FRT 131251.00  
 Corr/FF/build  
 2017:237:145428  
 2017:243:170524  
 2017:170:130423  
 RA & Dec (J2000)  
 19h24m51.0560s  
 -29°14'30.121"



Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec

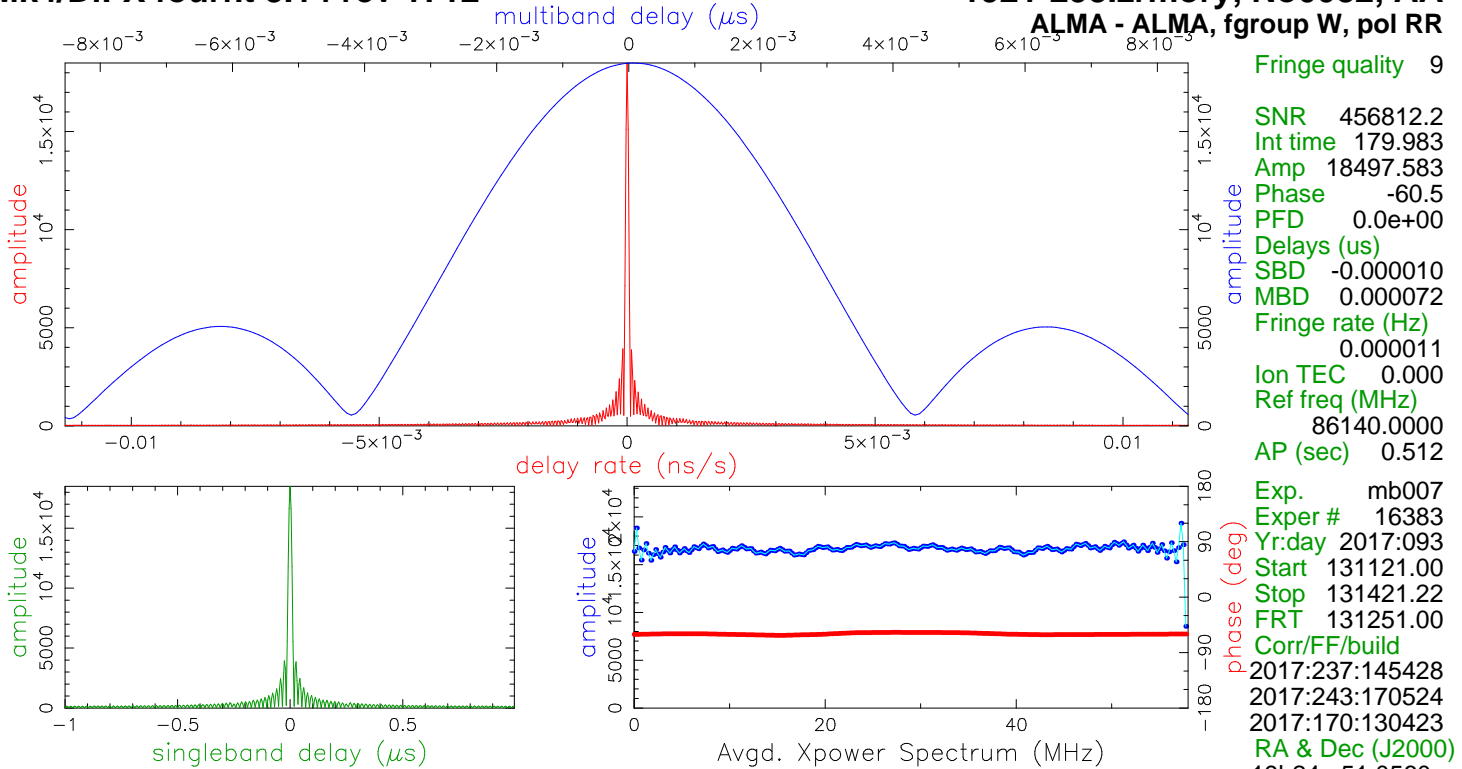


	86151.11	86209.70	86268.30	86326.89	86326.89	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0		
A	0	0	0	0	0		
A:A	0:0	0:0	0:0	0:0	0:0	Phase	63.2
A:A	0:0	0:0	0:0	0:0	0:0	Ampl.	19722.4
A	1000	1000	1000	1000	1000	Sbd box	233.0
A	1000	1000	1000	1000	1000	APs used	
A	W00UL	W01UL	W02UL	W03UL	W03UL	PC freqs	
A	W00UL	W01UL	W02UL	W03UL	W03UL	PC freqs	
A	W00UL	W01UL	W02UL	W03UL	W03UL	PC phase	
A	W00UL	W01UL	W02UL	W03UL	W03UL	Main PC	
A	W00UL	W01UL	W02UL	W03UL	W03UL	PC amp	
A	W00UL	W01UL	W02UL	W03UL	W03UL	Chan ids	
A	W00UL	W01UL	W02UL	W03UL	W03UL	Tracks	
A	W00UL	W01UL	W02UL	W03UL	W03UL	Chan ids	
A	W00UL	W01UL	W02UL	W03UL	W03UL	Tracks	

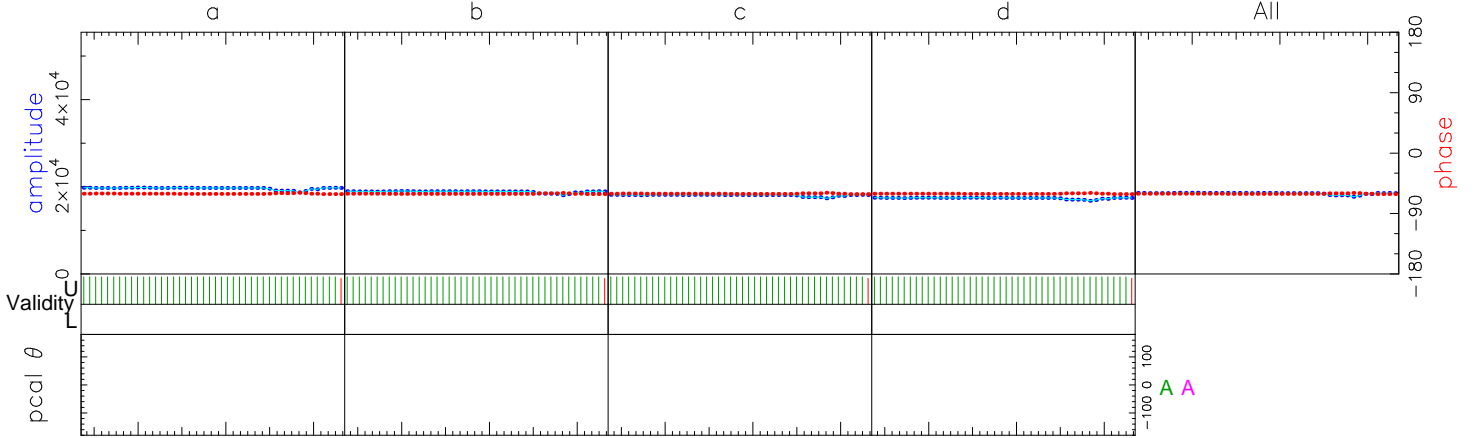
Group delay (usec)(sbd)	-8.232960000000E-05	Apriori delay (usec)	0.000000000000E+00	Resid mbdelay (usec)	-8.23296E-05	+/-	5.0E-09
Sband delay (usec)	5.24137931034E-06	Apriori clock (usec)	0.00000000E+00	Resid sbdelay (usec)	5.24138E-06	+/-	2.0E-08
Phase delay (usec)	2.03789156649E-06	Apriori clockrate (us/s)	0.00000000E+00	Resid phdelay (usec)	2.03789E-06	+/-	7.6E-12
Delay rate (us/s)	1.84224981092E-11	Apriori rate (us/s)	0.000000000000E+00	Resid rate (us/s)	1.84225E-11	+/-	7.3E-14
Total phase (deg)	63.2	Apriori accel (us/s/s)	0.000000000000E+00	Resid phase (deg)	63.2	+/-	0.0

ph/seg (deg)	0.1	Theor.	0.0	Amplitude	19722.336 +/- 0.040	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	0.3	0.0	Search (1024X16)	19711.012		Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	0.1	0.0	Interp.	0.000		Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.009 0.009
amp/frq (%)	5.8	0.0	Inc. seg. avg.	19722.365		Sample rate(MSamp/s):	116	dr window (ns/s)	-0.011 0.011	
			Inc. frq. avg.	19722.363		Data rate(Mb/s):	928	ion window (TEC)	0.00 0.00	
						nlags:	232	t_cohere infinite		

A: az 250.7 el 62.2 pa 84.2      A: az 250.7 el 62.2 pa 84.2      u,v (fr/asec) 0.000 0.000      simultaneous interpolator



Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	86151.11	86209.70	86268.30	86326.89	All
86151.11	86209.70	86268.30	86326.89	86151.11	86151.11
-60.4	-60.6	-60.4	-60.5	-60.4	-60.5
19653.1	18880.8	18054.1	17402.3	19653.1	18497.6
233.0	232.9	233.1	233.0	233.0	233.0
U/L 352/0	352/0	352/0	352/0	352/0	352/0
A 0	0	0	0	0	0
A 0	0	0	0	0	0
A:A 0:0	0:0	0:0	0:0	0:0	0:0
A:A 0:0	0:0	0:0	0:0	0:0	0:0
A 1000	1000	1000	1000	1000	1000
A 1000	1000	1000	1000	1000	1000
A W00UR	W01UR	W02UR	W03UR	W00UR	W00UR
A W00UR	W01UR	W02UR	W03UR	A	A
Group delay (usec)(sbd)	7.16117333333E-05	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	7.16117E-05 +/- 5.3E-09
Sband delay (usec)	-1.04827586207E-05	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	-1.04828E-05 +/- 2.1E-08
Phase delay (usec)	-1.95030552215E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-1.95031E-06 +/- 8.1E-12
Delay rate (us/s)	1.31791717243E-10	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	1.31792E-10 +/- 7.8E-14
Total phase (deg)	-60.5	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	-60.5 +/- 0.0

ph/seg (deg) 0.4 0.0      Search (1024X16) 18489.409      Pcal mode: MANUAL, MANUAL      PC period (AP's) 5, 5

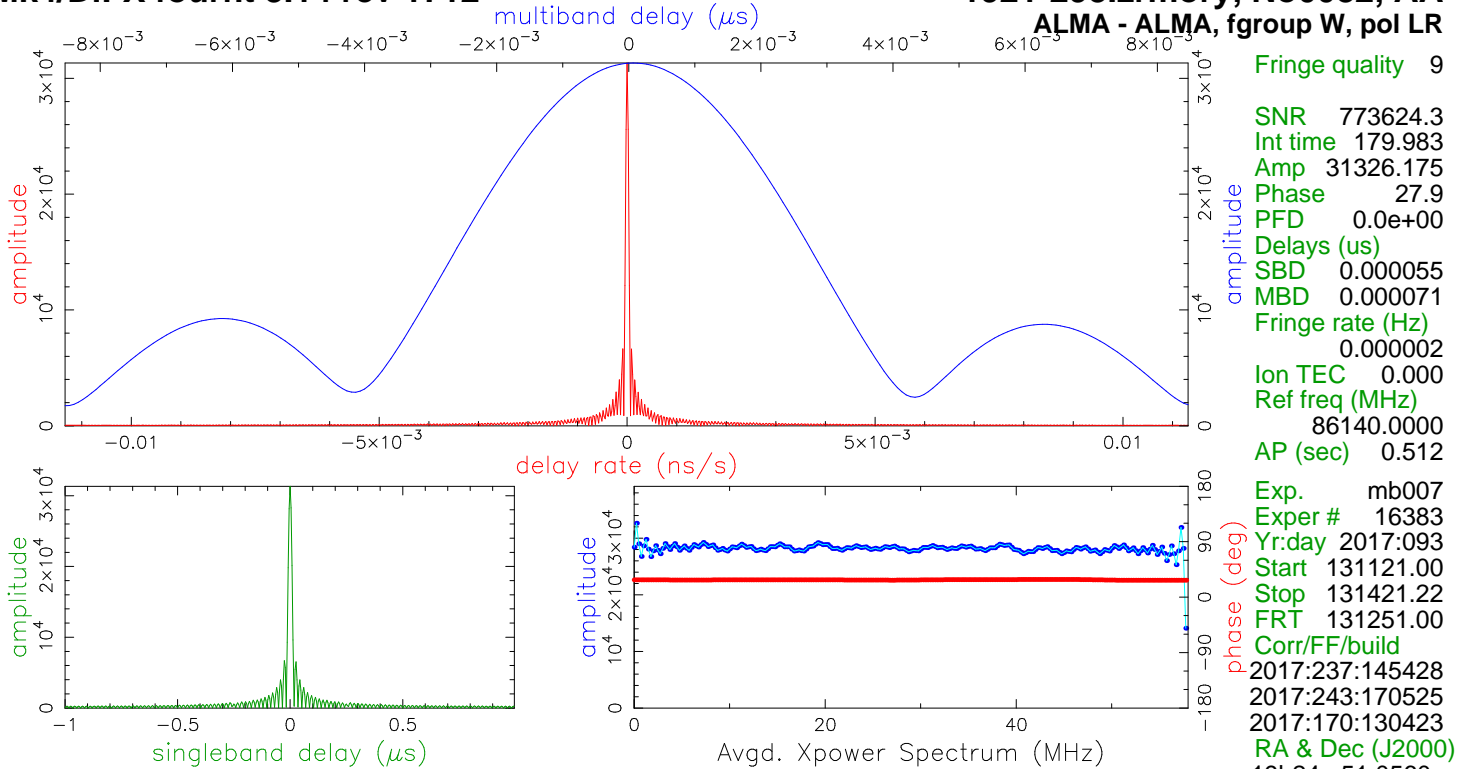
amp/seg (%) 1.1 0.0      Interp. 0.000      Pcal rate: 0.000E+00, 0.000E+00 (us/s)      sb window (us) -1.000 1.000

ph/frq (deg) 0.1 0.0      Inc. seg. avg. 18497.953      Bits/sample: 2x2      SampCntNorm: enabled      mb window (us) -0.009 0.009

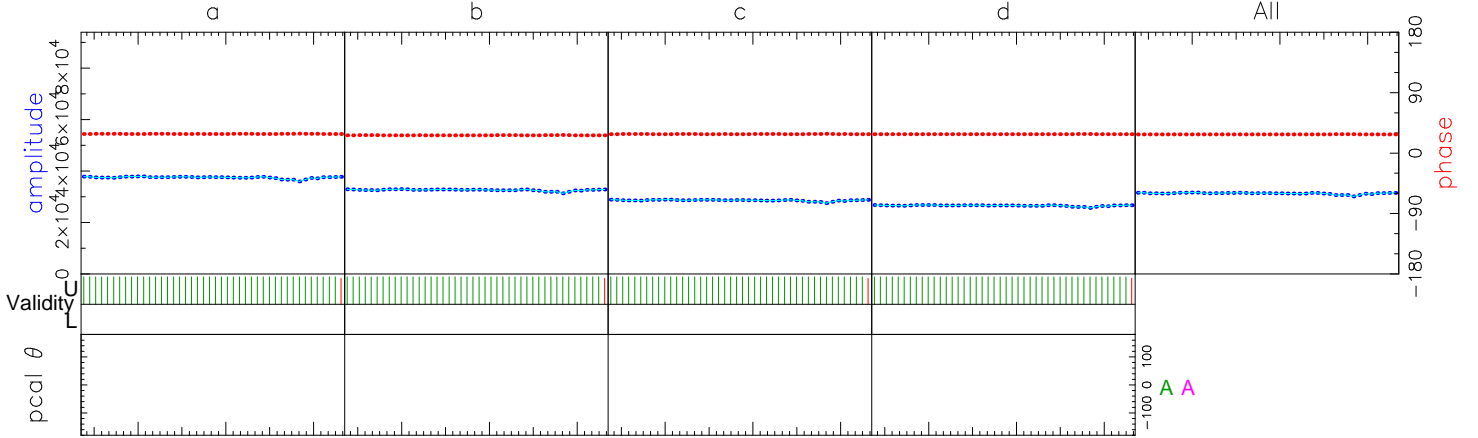
amp/frq (%) 4.6 0.0      Inc. frq. avg. 18497.582      Sample rate(MSamp/s): 116      Data rate(Mb/s): 928      nlags: 232      t\_cohere infinite      dr window (ns/s) -0.011 0.011

A: az 250.7 el 62.2 pa 84.2      A: az 250.7 el 62.2 pa 84.2      u,v (fr/asec) 0.000 0.000      simultaneous interpolator

Control file: cf\_1234      Input file: /Exps/mb007/gmva\_58\_merged\_pc1/1234/No0082/AA..zrmony      Output file: /Exps/mb007/gmva\_58\_merged\_pc1/1234/No0082/AA.W.2.zrmony



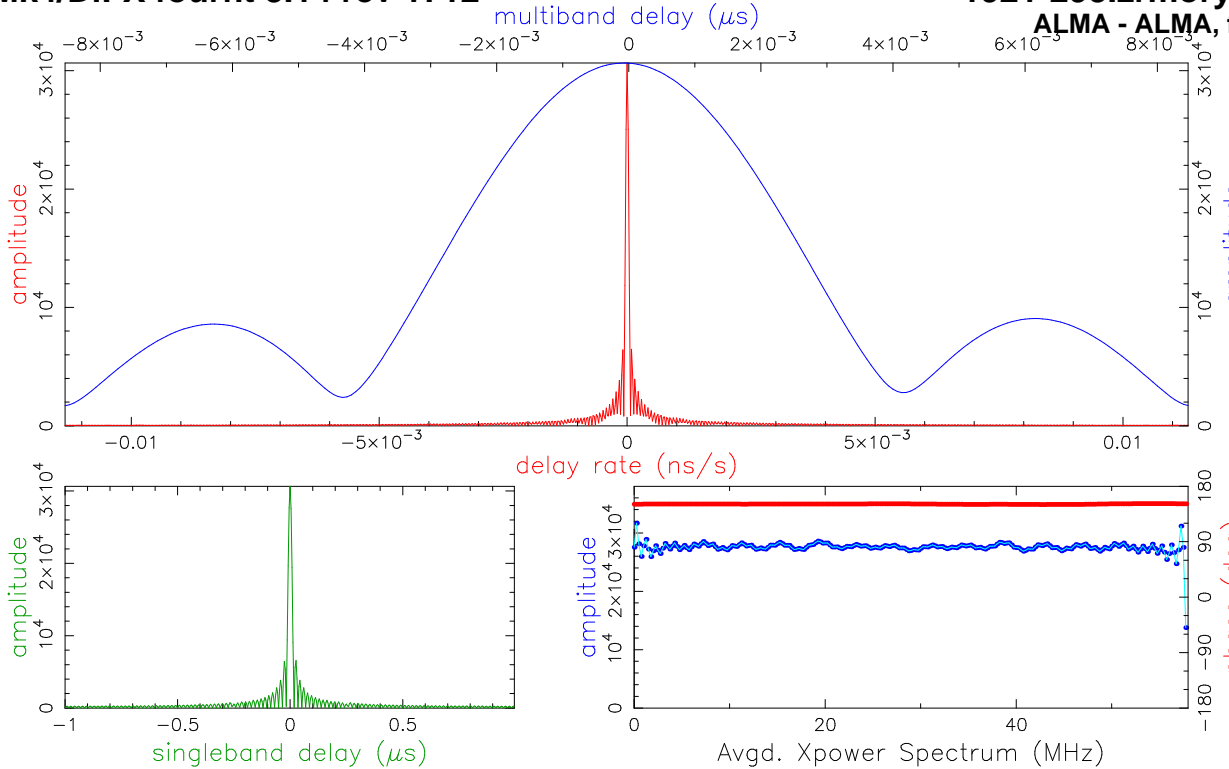
Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	86151.11	86209.70	86268.30	86326.89	Freq (MHz)	All
	28.6	26.6	28.3	28.2	Phase	27.9
	37499.7	32618.6	28619.6	26577.5	Ampl.	31328.8
	233.0	233.0	233.0	233.0	Sbd box	233.0
U/L	352/0	352/0	352/0	352/0	APs used	
A	0	0	0	0	PC freqs	
A	0	0	0	0	PC freqs	
A:A	0:0	0:0	0:0	0:0	PC phase	
A:A	0:0	0:0	0:0	0:0	Mani PC	
A	1000	1000	1000	1000	PC amp	
A	1000	1000	1000	1000		
A	W00UL	W01UL	W02UL	W03UL	Chan ids	
A	W00UR	W01UR	W02UR	W03UR	Tracks	
					Chan ids	
					Tracks	

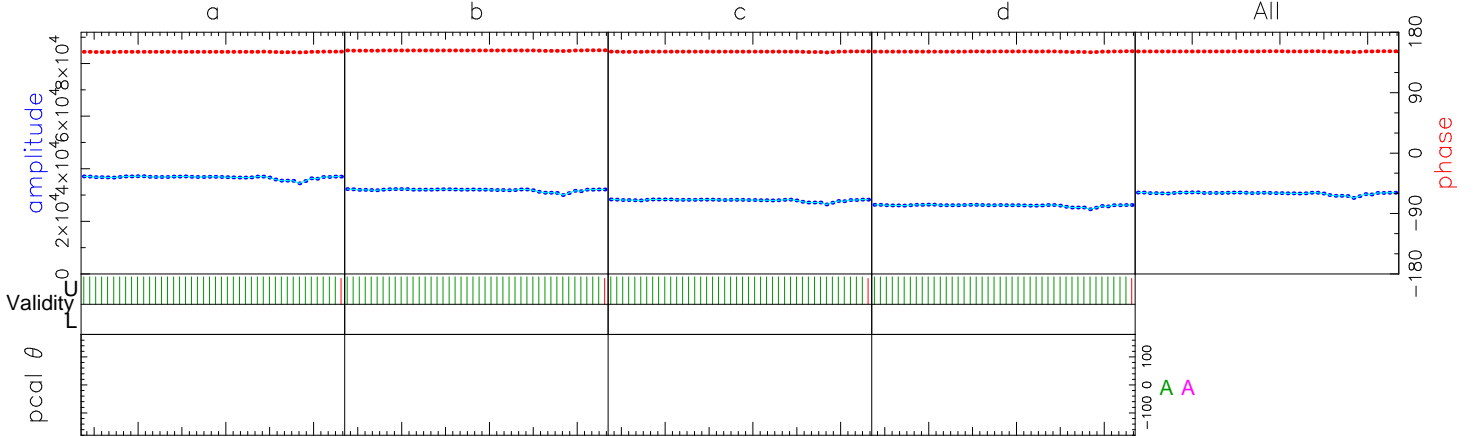
Group delay (usec)(sbd)	7.058773333333E-05	Apriori delay (usec)	0.000000000000E+00	Resid mbdelay (usec)	7.05877E-05	+/-	3.1E-09
Sband delay (usec)	5.46206896552E-05	Apriori clock (usec)	0.000000000000E+00	Resid sbdelay (usec)	5.46207E-05	+/-	1.2E-08
Phase delay (usec)	8.99705066105E-07	Apriori clockrate (us/s)	0.000000000000E+00	Resid phdelay (usec)	8.99705E-07	+/-	4.8E-12
Delay rate (us/s)	2.55080743050E-11	Apriori rate (us/s)	0.000000000000E+00	Resid rate (us/s)	2.55081E-11	+/-	4.6E-14
Total phase (deg)	27.9	Apriori accel (us/s/s)	0.000000000000E+00	Resid phase (deg)	27.9	+/-	0.0

ph/seg (deg)	0.1	0.0	Search (1024X16)	31312.384	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	1.0	0.0	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)	1.1	0.0	Inc. seg. avg.	31325.697	Bits/sample: 2x2	Sample rate(MSamp/s): 116	dr window (ns/s)	-0.011	0.011
amp/frq (%)	13.3	0.0	Inc. frq. avg.	31328.828	Data rate(Mb/s): 928	nlags: 232	ion window (TEC)	0.00	0.00



Fringe quality 9  
 SNR 756871.9  
 Int time 179.983  
 Amp 30647.821  
 Phase 151.3  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.000057  
 MBD -0.000072  
 Fringe rate (Hz)  
 -0.000007  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512  
 Exp. mb007  
 Exper # 16383  
 Yr:day 2017:093  
 Start 131121.00  
 Stop 131421.22  
 FRT 131251.00  
 Corr/FF/build  
 2017:237:145428  
 2017:243:170525  
 2017:170:130423  
 RA & Dec (J2000)  
 19h24m51.0560s  
 -29°14'30.121"

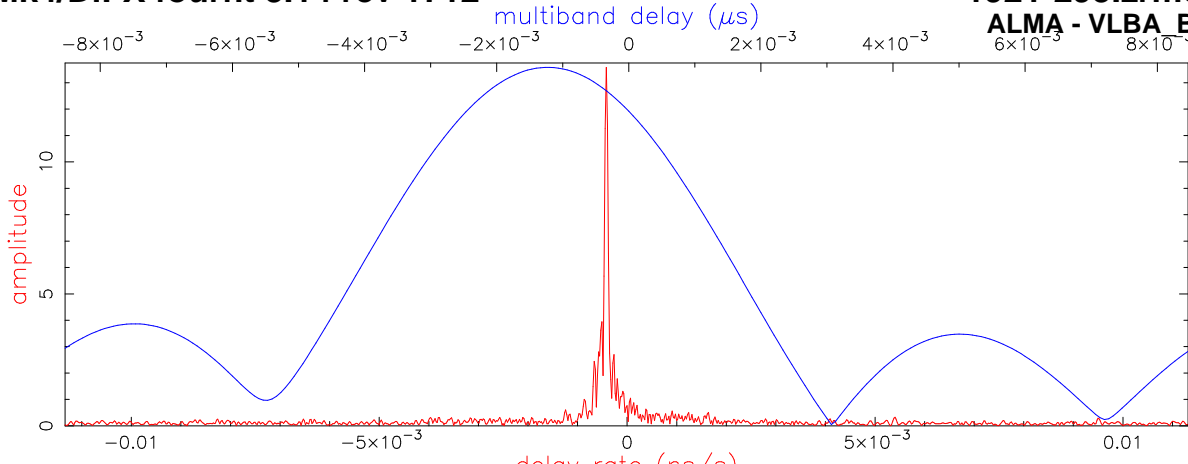
Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	86151.11	86209.70	86268.30	86326.89	Freq (MHz)	All
	150.7	152.6	150.9	151.1	Phase	151.3
	36676.1	31880.2	28015.7	26028.8	Ampl.	30650.2
	233.0	233.0	233.0	233.0	Sbd box	233.0
U/L	352/0	352/0	352/0	352/0	APs used	
A	0	0	0	0	PC freqs	
A	0	0	0	0	PC freqs	
A:A	0:0	0:0	0:0	0:0	PC phase	
A:A	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	PC amp	
A	1000	1000	1000	1000		
A	W00UR	W01UR	W02UR	W03UR	Chan ids	
A	W00UL	W01UL	W02UL	W03UL	Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	-7.222613333333E-05	Apriori delay (usec)	0.000000000000E+00	Resid mbdelay (usec)	-7.22261E-05	+/-	3.2E-09
Sband delay (usec)	-5.65517241379E-05	Apriori clock (usec)	0.000000000000E+00	Resid sbdelay (usec)	-5.65517E-05	+/-	1.3E-08
Phase delay (usec)	4.87974285030E-06	Apriori clockrate (us/s)	0.000000000000E+00	Resid phdelay (usec)	4.87974E-06	+/-	4.9E-12
Delay rate (us/s)	-8.64440295893E-11	Apriori rate (us/s)	0.000000000000E+00	Resid rate (us/s)	-8.64440E-11	+/-	4.7E-14
Total phase (deg)	151.3	Apriori accel (us/s/s)	0.000000000000E+00	Resid phase (deg)	151.3	+/-	0.0

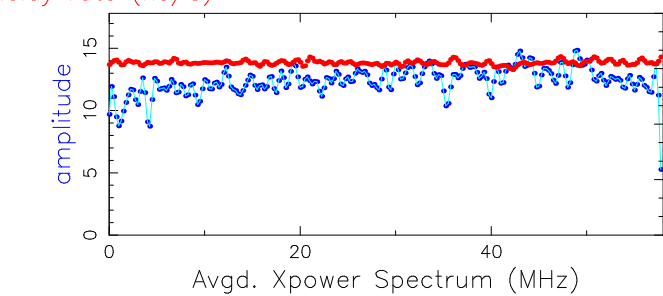
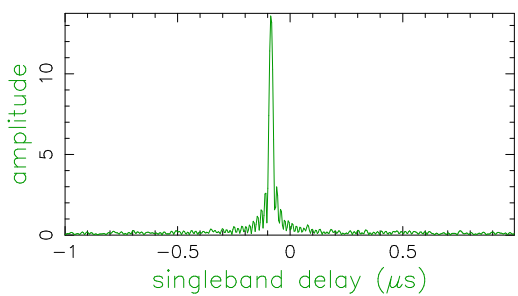
ph/seg (deg)	0.2	0.0	Amplitude	30647.822 +/- 0.040	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	1.5	0.0	Search (1024X16)	30633.604	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	1.1	0.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	13.3	0.0	Inc. seg. avg.	30647.562	Sample rate(MSamp/s):	116	mb window (us)	-0.009 0.009
			Inc. frq. avg.	30650.219	Data rate(Mb/s):	928	dr window (ns/s)	-0.011 0.011
					nlags:	232	ion window (TEC)	0.00 0.00



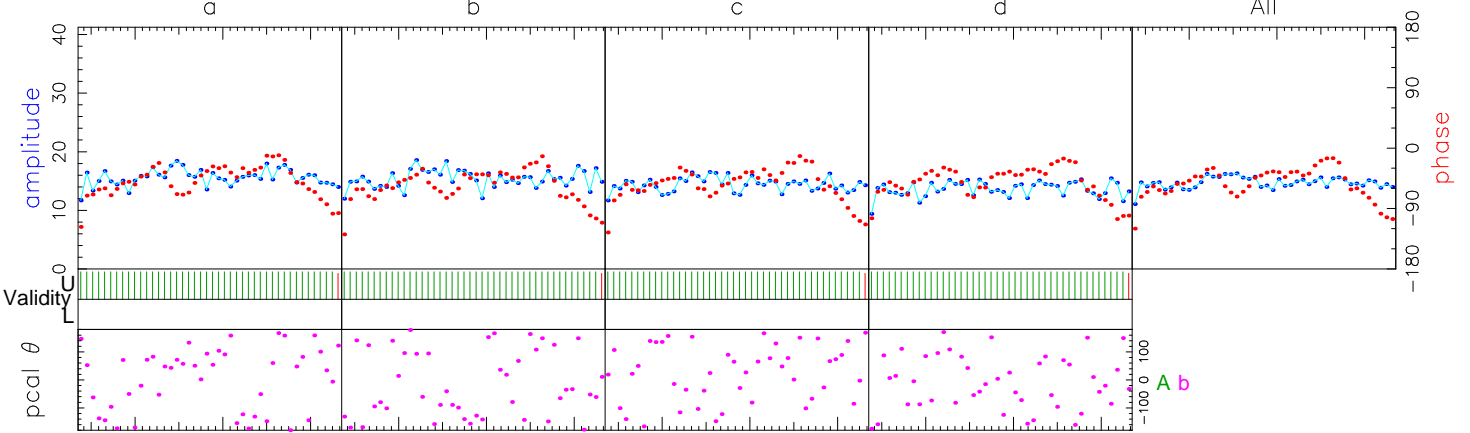
Fringe quality 7

SNR 339.2  
 Int time 179.817  
 Amp 13.749  
 Phase 289.2  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.084731  
 MBD -0.001210  
 Fringe rate (Hz)  
 -0.035335  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

Exp. mb007  
 Exper # 16383  
 Yr:day 2017:093  
 Start 131121.00  
 Stop 131421.22  
 FRT 131251.00  
 Corr/FF/build  
 2017:237:145428  
 2017:243:170527  
 2017:170:130423  
 RA & Dec (J2000)  
 19h24m51.0560s  
 -29°14'30.121"



Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec

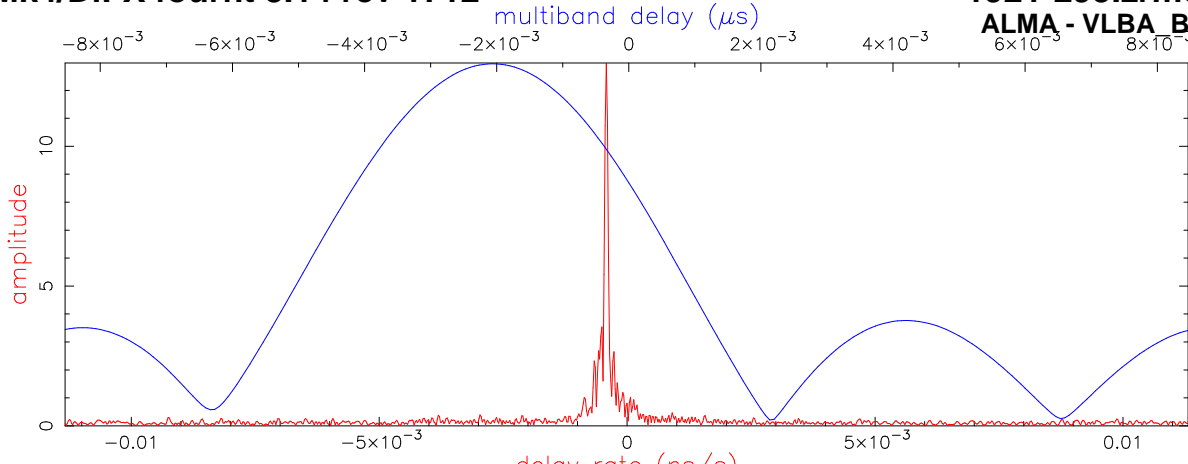


	86151.11	86209.70	86268.30	86326.89	Freq (MHz)	All
	-48.4	-56.2	-53.6	-50.2	Phase	-52.1
	14.4	14.2	13.2	12.6	Ampl.	13.6
	213.2	213.3	213.4	213.5	Sbd box	213.3
U/L	352/0	352/0	352/0	352/0	APs used	
A	0	0	0	0	PC freqs	
b	3890	296	1703	3109	PC freqs	
A:b	0:0	0:0	0:0	0:0	PC phase	
A:b	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	PC amp	
b	1000	1000	1000	1000		
A	W00UL	W01UL	W02UL	W03UL	Chan ids	
b	W00UL	W01UL	W02UL	W03UL	Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd) 1.26922012405E+04 Apriori delay (usec) 1.26922877842E+04 Resid mbdelay (usec) -1.21037E-03 +/- 7.2E-06  
 Sband delay (usec) 1.26922030532E+04 Apriori clock (usec) -2.1011538E+03 Resid sbdelay (usec) -8.47310E-02 +/- 2.8E-05  
 Phase delay (usec) 1.26922877826E+04 Apriori clockrate (us/s) 1.7493731E-06 Resid phdelay (usec) -1.68054E-06 +/- 1.1E-08  
 Delay rate (us/s) -9.66333792886E-01 Apriori rate (us/s) -9.66333382680E-01 Resid rate (us/s) -4.10205E-07 +/- 1.0E-10  
 Total phase (deg) 553.9 Apriori accel (us/s/s) -1.62770849417E-05 Resid phase (deg) 289.2 +/- 0.3

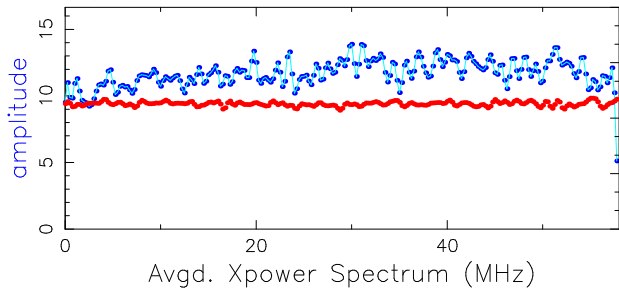
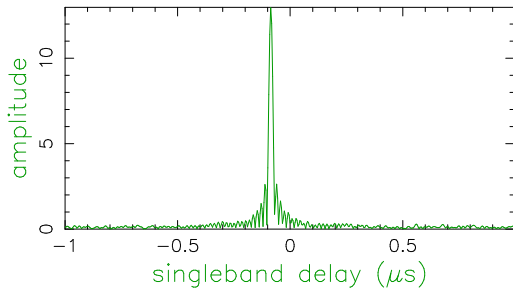
RMS Theor. Amplitude 13.749 +/- 0.041 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 23.6 1.1 Search (1024X16) 12.980 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 10.0 2.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.009 0.009  
 ph/frq (deg) 4.3 0.3 Inc. seg. avg. 14.721 Sample rate(MSamp/s): 116 dr window (ns/s) -0.011 0.011  
 amp/frq (%) 5.4 0.6 Inc. frq. avg. 13.609 Data rate(Mb/s): 928 nlags: 232 t\_cohere infinite ion window (TEC) 0.00 0.00

A: az 250.7 el 62.2 pa 84.2 b: az 160.9 el 10.3 pa -14.5 u,v (fr/asec) 6306.793 -8022.592 simultaneous interpolator  
 Control file: cf\_1234 Input file: /Exps/mb007/gmva\_58\_merged\_pc1/1234/No0082/Ab..zrmony Output file: /Exps/mb007/gmva\_58\_merged\_pc1/1234/No0082/Ab.W.5.zrmony



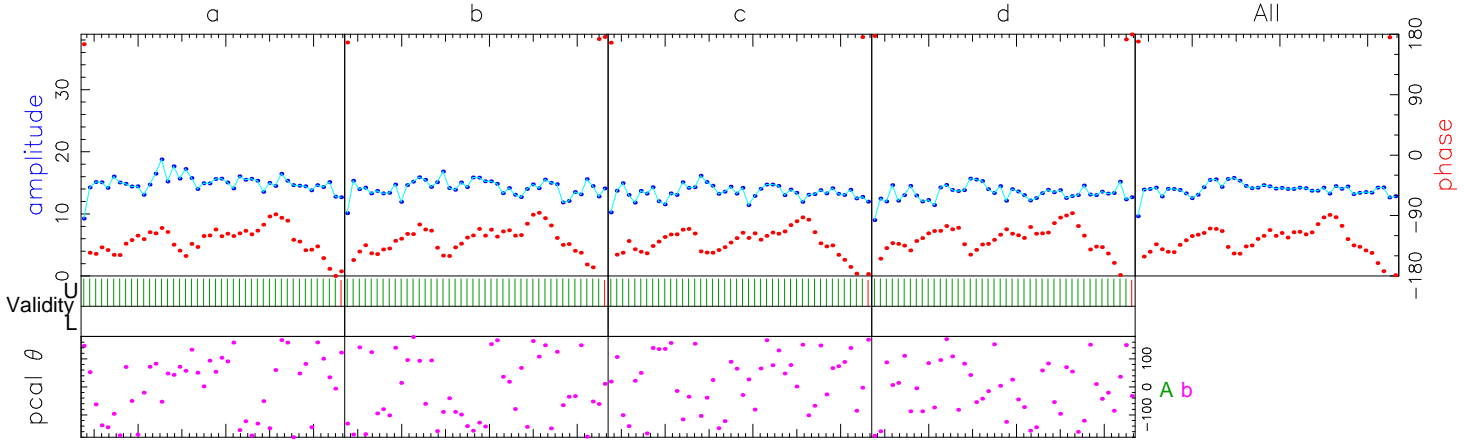
Fringe quality 7

SNR 320.2  
 Int time 179.817  
 Amp 12.979  
 Phase 212.1  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.085627  
 MBD -0.002053  
 Fringe rate (Hz)  
 -0.035332  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. mb007  
 Exper # 16383  
 Yr:day 2017:093  
 Start 131121.00  
 Stop 131421.22  
 FRT 131251.00  
 Corr/FF/build  
 2017:237:145428  
 2017:243:170527  
 2017:170:130423  
 RA & Dec (J2000)  
 19h24m51.0560s  
 -29°14'30.121"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



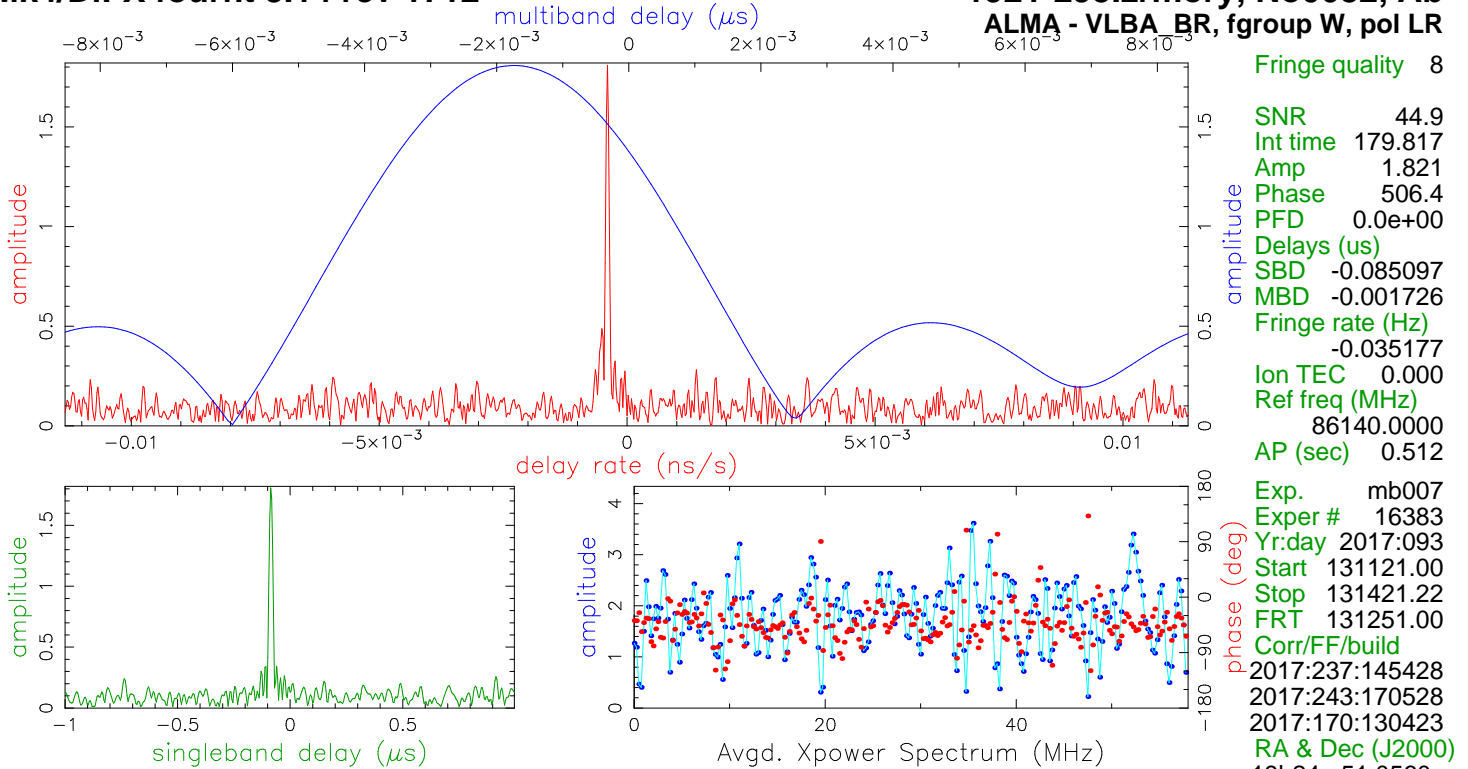
	86151.11	86209.70	86268.30	86326.89	Freq (MHz)	All
	-128.3	-129.2	-131.7	-127.7	Phase	-129.2
	13.9	13.1	12.5	12.3	Ampl.	13.0
	213.1	213.2	213.0	213.3	Sbd box	213.1
U/L	352/0	352/0	352/0	352/0	APs used	
A	0	0	0	0	PC freqs	
b	3890	296	1703	3109	PC freqs	
A:b	0:0	0:0	0:0	0:0	PC phase	
A:b	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	PC amp	
b	1000	1000	1000	1000		
A	W00UR	W01UR	W02UR	W03UR	Chan ids	
b	W00UR	W01UR	W02UR	W03UR	Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	1.26922003982E+04	Apriori delay (usec)	1.26922877842E+04	Resid mbdelay (usec)	-2.05271E-03	+/-	7.6E-06
Sband delay (usec)	1.26922021569E+04	Apriori clock (usec)	-2.1011538E+03	Resid sbdelay (usec)	-8.56273E-02	+/-	3.0E-05
Phase delay (usec)	1.26922877801E+04	Apriori clockrate (us/s)	1.7493731E-06	Resid phdelay (usec)	-4.16717E-06	+/-	1.2E-08
Delay rate (us/s)	-9.66333792853E-01	Apriori rate (us/s)	-9.66333382680E-01	Resid rate (us/s)	-4.10173E-07	+/-	1.1E-10
Total phase (deg)	476.7	Apriori accel (us/s/s)	-1.62770849417E-05	Resid phase (deg)	212.1	+/-	0.4

ph/seg (deg)	22.9	RMS	12.979 +/- 0.041	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	10.8	Theor.	12.377	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	2.2	Search (1024X16)	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.009 0.009
amp/frq (%)	4.7	Interp.	13.957	Sample rate(MSamp/s):	116	dr window (ns/s)	-0.011 0.011	
		Inc. seg. avg.	12.960	Data rate(Mb/s):	928	ion window (TEC)	0.00 0.00	
		Inc. frq. avg.		nlags:	232	t_cohere	infinite	

A: az 250.7 el 62.2 pa 84.2      b: az 160.9 el 10.3 pa -14.5      u,v (fr/asec) 6306.793 -8022.592      simultaneous interpolator

Control file: cf\_1234    Input file: /Exps/mb007/gmva\_58\_merged\_pc1/1234/No0082/Ab..zrmony    Output file: /Exps/mb007/gmva\_58\_merged\_pc1/1234/No0082/Ab.W.6.zrmony



Fringe quality 8

SNR 44.9

Int time 179.817

Amp 1.821

Phase 506.4

PFD 0.0e+00

Delays (us)

SBD -0.085097

MBD -0.001726

Fringe rate (Hz)

-0.035177

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. mb007

Exper # 16383

Yr:day 2017:093

Start 131121.00

Stop 131421.22

FRT 131251.00

Corr/FF/build

2017:237:145428

2017:243:170528

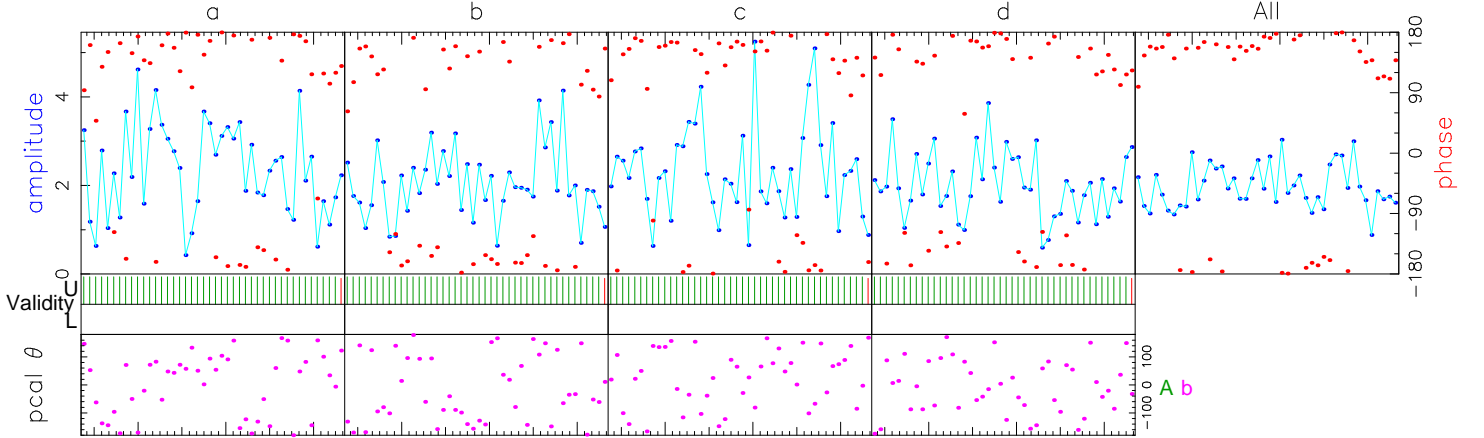
2017:170:130423

RA & Dec (J2000)

19h24m51.0560s

-29°14'30.121"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	86151.11	86209.70	86268.30	86326.89	Freq (MHz)	All
	166.1	164.7	164.0	165.7	Phase	165.1
	2.0	1.6	2.0	1.6	Ampl.	1.8
	212.8	213.5	213.2	213.5	Sbd box	213.3
U/L	352/0	352/0	352/0	352/0	APs used	
A	0	0	0	0	PC freqs	
b	3890	296	1703	3109	PC freqs	
A:b	0:0	0:0	0:0	0:0	PC phase	
A:b	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	PC amp	
b	1000	1000	1000	1000		
A	W00UL	W01UL	W02UL	W03UL	Chan ids	
b	W00UR	W01UR	W02UR	W03UR	Tracks	
					Chan ids	
					Tracks	
Group delay (usec)(sbd)	1.26922007245E+04	Apriori delay (usec)	1.26922877842E+04	Resid mbdelay (usec)	-1.72639E-03	+/- 5.4E-05
Sband delay (usec)	1.26922026874E+04	Apriori clock (usec)	-2.1011538E+03	Resid sbdelay (usec)	-8.50968E-02	+/- 2.1E-04
Phase delay (usec)	1.26922877896E+04	Apriori clockrate (us/s)	1.7493731E-06	Resid phdelay (usec)	5.32475E-06	+/- 8.2E-08
Delay rate (us/s)	-9.66333791053E-01	Apriori rate (us/s)	-9.66333382680E-01	Resid rate (us/s)	-4.08373E-07	+/- 7.9E-10
Total phase (deg)	411.1	Apriori accel (us/s/s)	-1.62770849417E-05	Resid phase (deg)	506.4	+/- 2.6

RMS 24.9 Theor. 8.5 Amplitude 1.821 +/- 0.041 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

ph/seg (deg) 24.9 8.5 Search (1024X16) 1.715 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

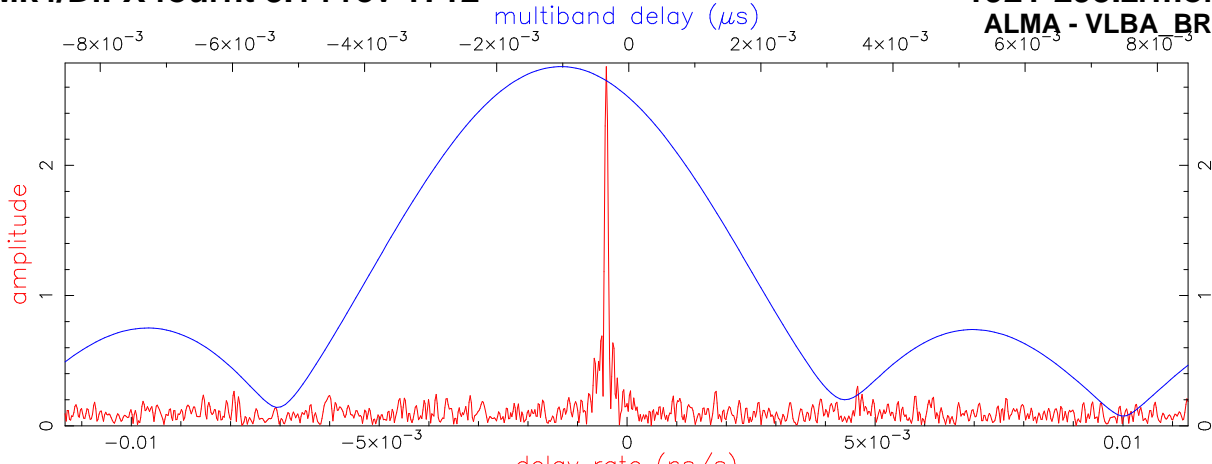
amp/seg (%) 27.8 14.8 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.009 0.009

ph/frq (deg) 1.2 2.6 Inc. seg. avg. 1.957 Sample rate(MSamp/s): 116 Data rate(Mb/s): 928 nlags: 232 t\_cohere infinite dr window (ns/s) -0.011 0.011

amp/frq (%) 10.8 4.5 Inc. frq. avg. 1.807 simultaneous interpolator ion window (TEC) 0.00 0.00

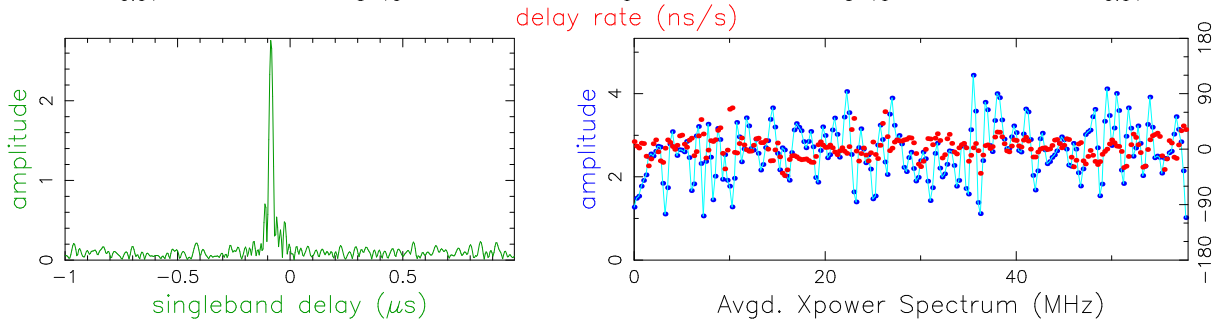
A: az 250.7 el 62.2 pa 84.2 b: az 160.9 el 10.3 pa -14.5 u,v (fr/asec) 6306.793 -8022.592

Control file: cf\_1234 Input file: /Exps/mb007/gmva\_58\_merged\_pc1/1234/No0082/Ab..zrmony Output file: /Exps/mb007/gmva\_58\_merged\_pc1/1234/No0082/Ab.W.7.zrmony



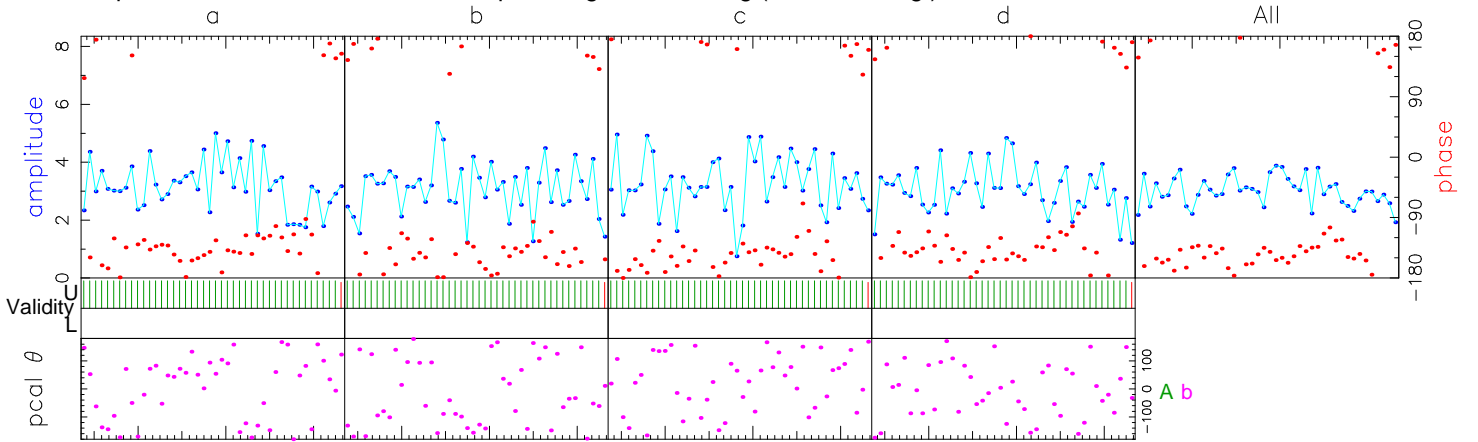
Fringe quality 7

SNR 68.7  
 Int time 179.817  
 Amp 2.786  
 Phase 188.5  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.084872  
 MBD -0.001018  
 Fringe rate (Hz)  
 -0.035360  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. mb007  
 Exper # 16383  
 Yr:day 2017:093  
 Start 131121.00  
 Stop 131421.22  
 FRT 131251.00  
 Corr/FF/build  
 2017:237:145428  
 2017:243:170529  
 2017:170:130423  
 RA & Dec (J2000)  
 19h24m51.0560s  
 -29°14'30.121"

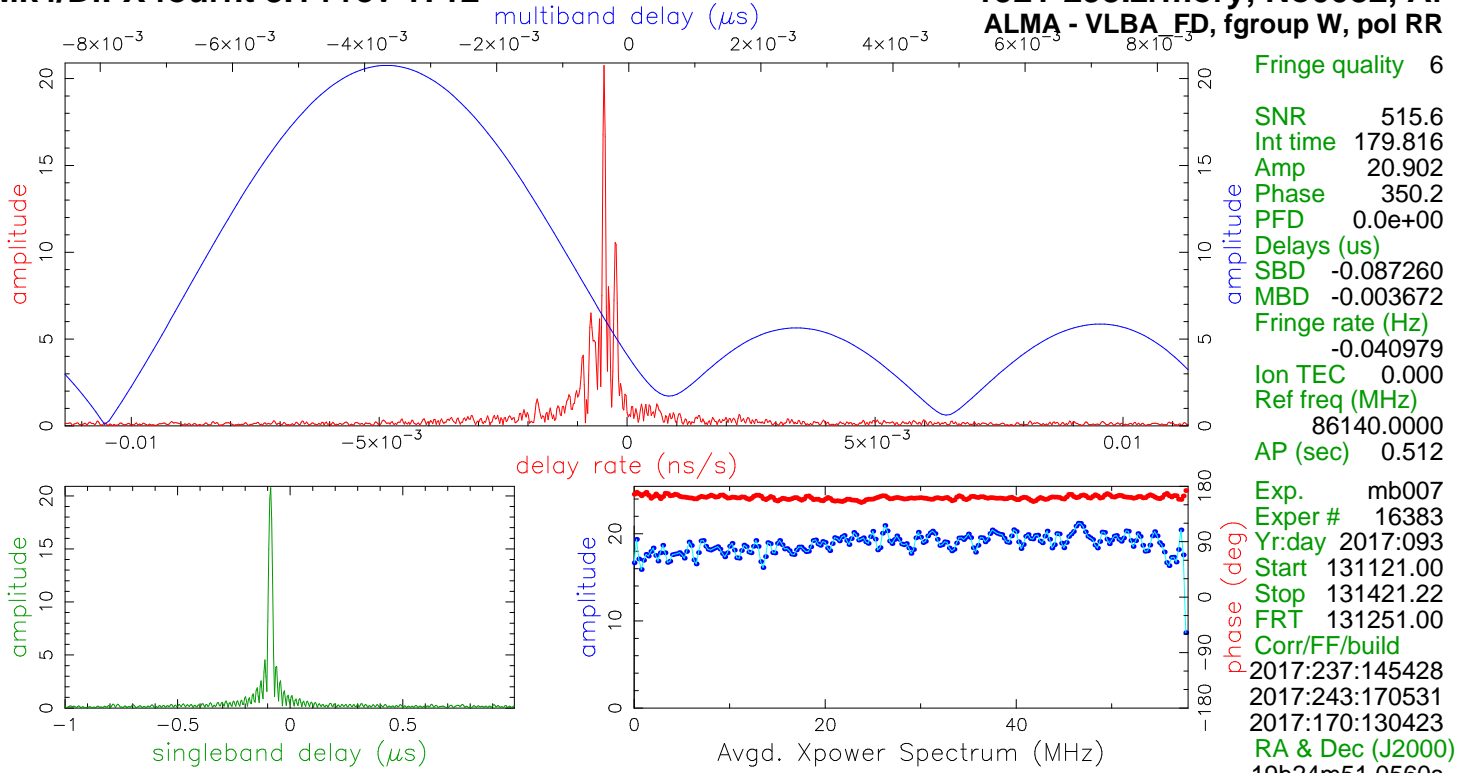
Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



86151.11	86209.70	86268.30	86326.89	86140.00	All
-147.3	-158.6	-156.9	-148.2	-152.8	-152.8
2.8	2.7	2.9	2.7	2.8	2.8
213.1	213.2	213.6	213.4	213.3	213.3
U/L 352/0	352/0	352/0	352/0	352/0	352/0
A 0	0	0	0	0	0
b 3890	296	1703	3109	296	296
A:b 0:0	0:0	0:0	0:0	0:0	0:0
A:b 0:0	0:0	0:0	0:0	0:0	0:0
A 1000	1000	1000	1000	1000	1000
b 1000	1000	1000	1000	1000	1000
A W00UR	W01UR	W02UR	W03UR	W00UR	W00UR
b W00UL	W01UL	W02UL	W03UL	W00UL	W00UL
Group delay (usec)(sbd)	1.26922014325E+04	Apriori delay (usec)	1.26922877842E+04	Resid mbdelay (usec)	-1.01841E-03 +/- 3.5E-05
Sband delay (usec)	1.26922029122E+04	Apriori clock (usec)	-2.1011538E+03	Resid sbdelay (usec)	-8.48720E-02 +/- 1.4E-04
Phase delay (usec)	1.2692287793E+04	Apriori clockrate (us/s)	1.7493731E-06	Resid phdelay (usec)	-4.92734E-06 +/- 5.4E-08
Delay rate (us/s)	-9.66333793175E-01	Apriori rate (us/s)	-9.66333382680E-01	Resid rate (us/s)	-4.10494E-07 +/- 5.2E-10
Total phase (deg)	453.2	Apriori accel (us/s/s)	-1.62770849417E-05	Resid phase (deg)	188.5 +/- 1.7

RMS Theor. Amplitude 2.786 +/- 0.041  
 ph/seg (deg) 25.5 5.5 Search (1024X16) 2.646  
 amp/seg (%) 19.7 9.7 Interp. 0.000  
 ph/frq (deg) 7.1 1.7 Inc. seg. avg. 2.999  
 amp/frq (%) 3.2 2.9 Inc. frq. avg. 2.768  
 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  
 A: az 250.7 el 62.2 pa 84.2 b: az 160.9 el 10.3 pa -14.5 u,v (fr/asec) 6306.793 -8022.592 simultaneous interpolator  
 Control file: cf\_1234 Input file: /Exps/mb007/gmva\_58\_merged\_pc1/1234/No0082/Ab..zrmony Output file: /Exps/mb007/gmva\_58\_merged\_pc1/1234/No0082/Ab.W.8.zrmony



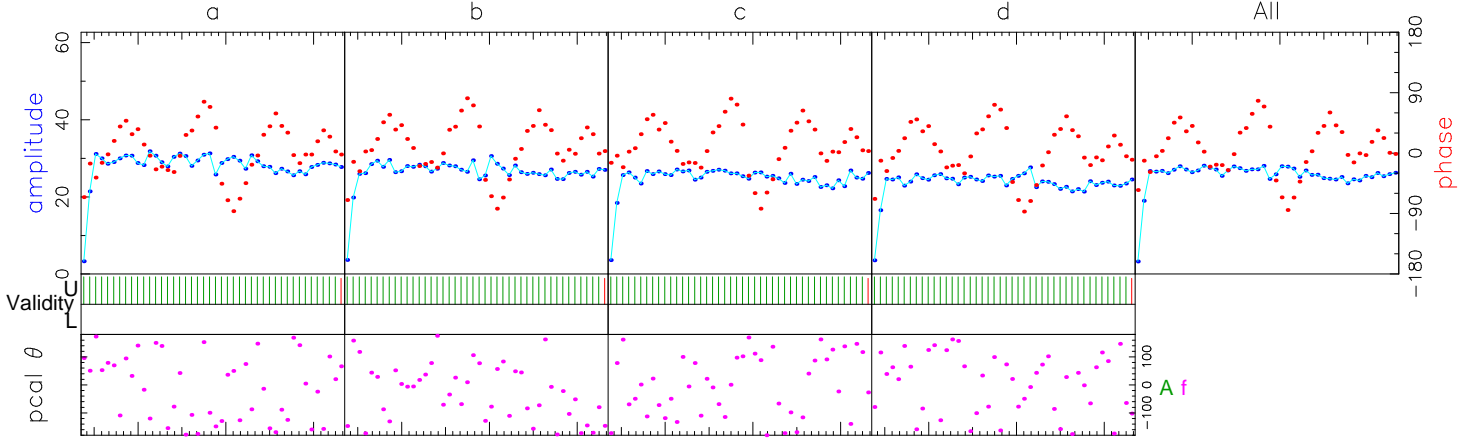


Fringe quality 6

SNR 515.6  
Int time 179.816  
Amp 20.902  
Phase 350.2  
PFD 0.0e+00  
Delays (us)  
SBD -0.087260  
MBD -0.003672  
Fringe rate (Hz)  
-0.040979  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. mb007  
Exper # 16383  
Yr:day 2017:093  
Start 131121.00  
Stop 131421.22  
FRT 131251.00  
Corr/FF/build  
2017:237:145428  
2017:243:170531  
2017:170:130423  
RA & Dec (J2000)  
19h24m51.0560s  
-29°14'30.121"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec

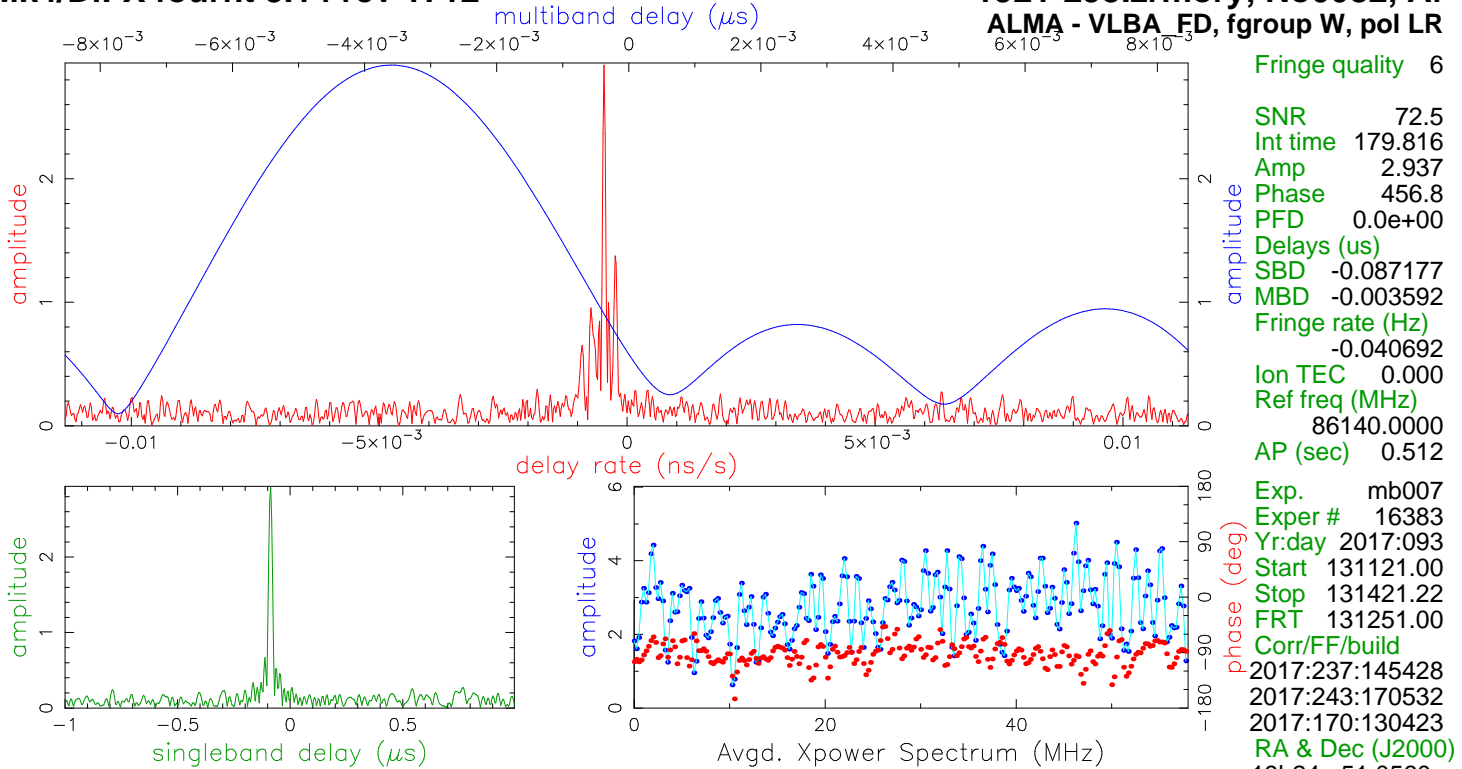


	86151.11	86209.70	86268.30	86326.89	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	Sbd box	212.8
A	0	0	0	0	APs used	
f	3890	296	1703	3109	PC freqs	
A:f	0:0	0:0	0:0	0:0	PC phase	
A:f	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	PC amp	
f	1000	1000	1000	1000		
A	W00UR	W01UR	W02UR	W03UR	Chan ids	
f	W00UR	W01UR	W02UR	W03UR	Tracks	
					Chan ids	
					Tracks	
Group delay (usec)(sbd)	5.92525801515E+03	Apriori delay (usec)	5.92534702043E+03	Resid mbdelay (usec)	-3.67195E-03	+/- 4.7E-06
Sband delay (usec)	5.92525976085E+03	Apriori clock (usec)	-2.1048022E+03	Resid sbdelay (usec)	-8.72596E-02	+/- 1.8E-05
Phase delay (usec)	5.92534702072E+03	Apriori clockrate (us/s)	2.1828075E-06	Resid phdelay (usec)	2.86635E-07	+/- 7.2E-09
Delay rate (us/s)	-7.48180259338E-01	Apriori rate (us/s)	-7.48179783611E-01	Resid rate (us/s)	-4.75727E-07	+/- 6.9E-11
Total phase (deg)		472.6	Apriori accel (us/s/s)	6.74835170169E-06	Resid phase (deg)	350.2 +/- 0.2

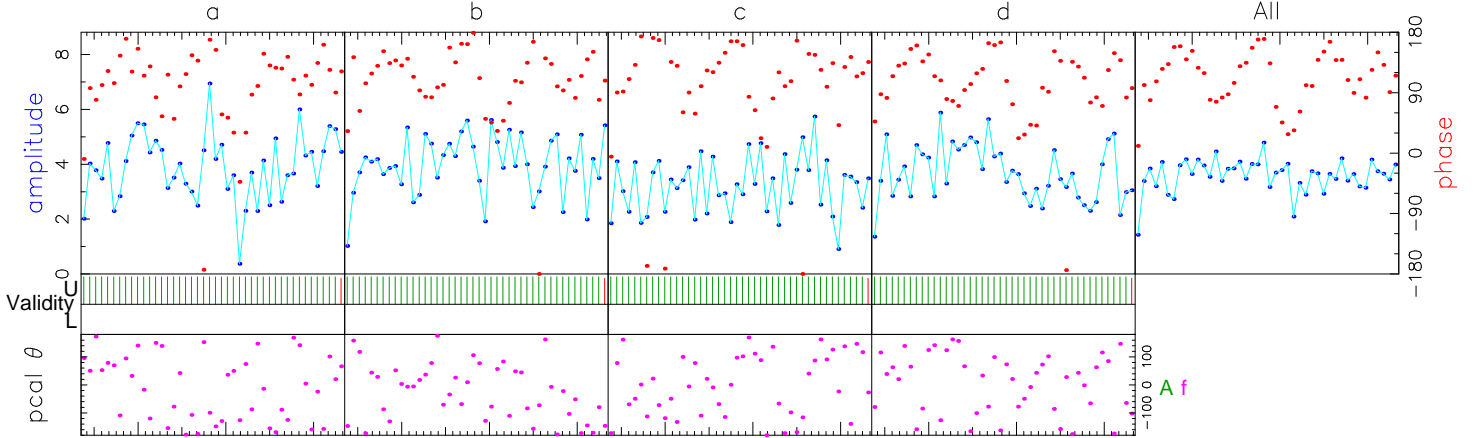
	RMS	Theor.	Amplitude	20.902 +/- 0.041	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	37.2	0.7	Search (1024X16)	19.386	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	28.8	1.3	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.009 0.009
ph/frq (deg)	4.8	0.2	Inc. seg. avg.	25.614	Sample rate(MSamp/s): 116	dr window (ns/s) -0.011 0.011
amp/frq (%)	6.5	0.4	Inc. frq. avg.	20.814	Data rate(Mb/s): 928	ion window (TEC) 0.00 0.00

A: az 250.7 el 62.2 pa 84.2 f: az 174.1 el 29.9 pa -5.5 u,v (fr/asec) 4902.872 -7221.921 simultaneous interpolator

Control file: cf\_1234 Input file: /Exps/m007/gvma\_58\_merged\_pc1/1234/No0082/Af..zrmony Output file: /Exps/m007/gvma\_58\_merged\_pc1/1234/No0082/Af.W.10.zrmony



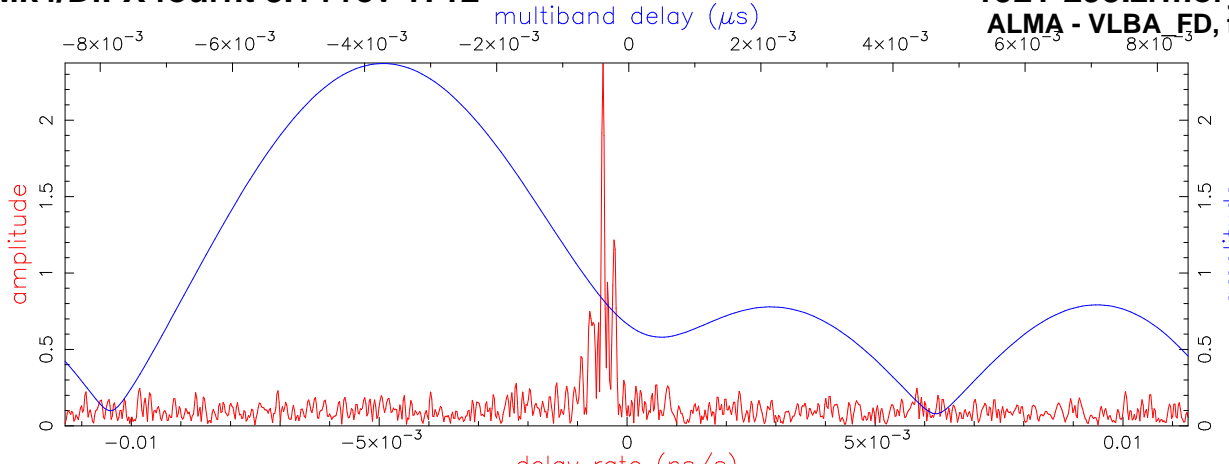
Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	86151.11	86209.70	86268.30	86326.89	Freq (MHz)	All
	114.5	114.7	122.0	112.3	Phase	115.5
	3.1	3.2	2.4	2.9	Ampl.	2.9
	212.9	212.5	213.0	212.8	Sbd box	212.8
U/L	352/0	352/0	352/0	352/0	APs used	
A	0	0	0	0	PC freqs	
f	3890	296	1703	3109	PC freqs	
A:f	0:0	0:0	0:0	0:0	PC phase	
A:f	0:0	0:0	0:0	0:0	Mani PC	
A	1000	1000	1000	1000	PC amp	
f	1000	1000	1000	1000		
A	W00UL	W01UL	W02UL	W03UL	Chan ids	
f	W00UR	W01UR	W02UR	W03UR	Tracks	
					Chan ids	
					Tracks	
Group delay (usec)(sbd)	5.92525809530E+03	Apriori delay (usec)	5.92534702043E+03	Resid mbdelay (usec)	-3.59180E-03	+/- 3.4E-05
Sband delay (usec)	5.92525984388E+03	Apriori clock (usec)	-2.1048022E+03	Resid sbdelay (usec)	-8.71766E-02	+/- 1.3E-04
Phase delay (usec)	5.92534702416E+03	Apriori clockrate (us/s)	2.1828075E-06	Resid phdelay (usec)	3.72598E-06	+/- 5.1E-08
Delay rate (us/s)	-7.48180256006E-01	Apriori rate (us/s)	-7.48179783611E-01	Resid rate (us/s)	-4.72395E-07	+/- 4.9E-10
Total phase (deg)		Apriori accel (us/s/s)	6.74835170169E-06	Resid phase (deg)	456.8	+/- 1.6

RMS Theor. Amplitude 2.937 +/- 0.041 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 38.8 5.2 Search (1024X16) 2.818 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 30.0 9.2 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.009 0.009  
 ph/frq (deg) 5.2 1.6 Inc. seg. avg. 3.576 Sample rate(MSamp/s): 116 dr window (ns/s) -0.011 0.011  
 amp/frq (%) 10.5 2.8 Inc. frq. avg. 2.926 Data rate(Mb/s): 928 nlags: 232 t\_cohere infinite ion window (TEC) 0.00 0.00

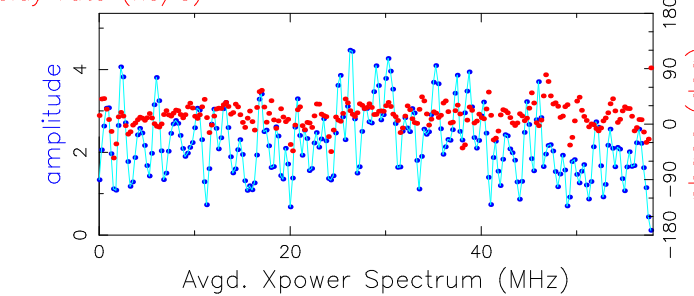
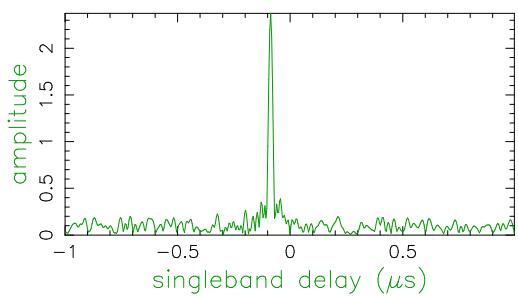
A: az 250.7 el 62.2 pa 84.2 f: az 174.1 el 29.9 pa -5.5 u,v (fr/asec) 4902.872 -7221.921 simultaneous interpolator  
 Control file: cf\_1234 Input file: /Exps/mb007/gvma\_58\_merged\_pc1/1234/No0082/Af...zrmony Output file: /Exps/mb007/gvma\_58\_merged\_pc1/1234/No0082/Af.W.11.zrmony



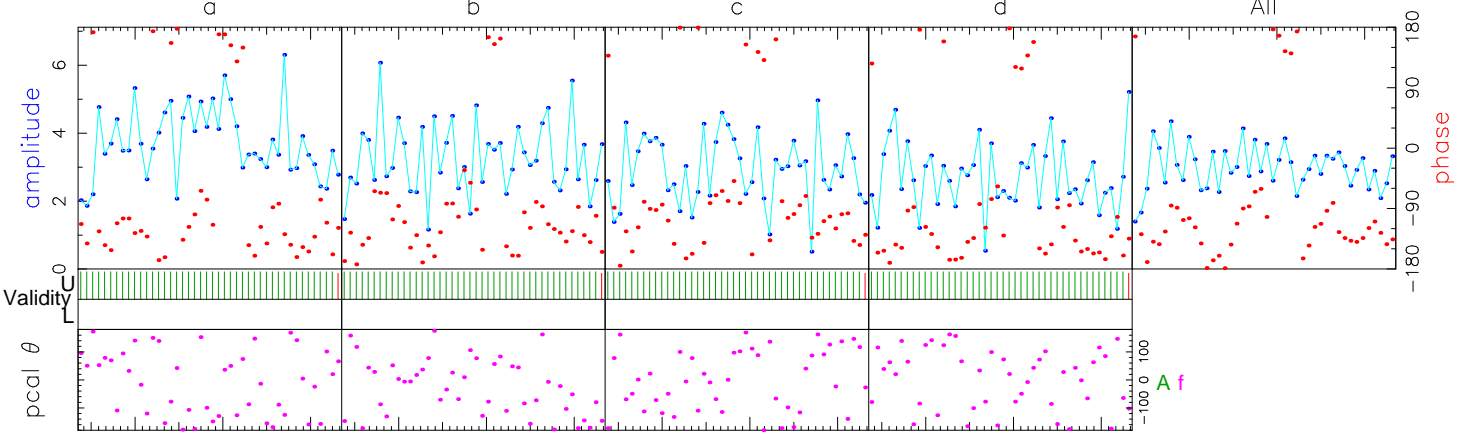
Fringe quality 7

SNR 58.6  
Int time 179.816  
Amp 2.374  
Phase 210.7  
PFD 0.0e+00  
Delays (us)  
SBD -0.086610  
MBD -0.003714  
Fringe rate (Hz)  
-0.041045  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. mb007  
Exper # 16383  
Yr:day 2017:093  
Start 131121.00  
Stop 131421.22  
FRT 131251.00  
Corr/FF/build  
2017:237:145428  
2017:243:170533  
2017:170:130423  
RA & Dec (J2000)  
19h24m51.0560s  
-29°14'30.121"



Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



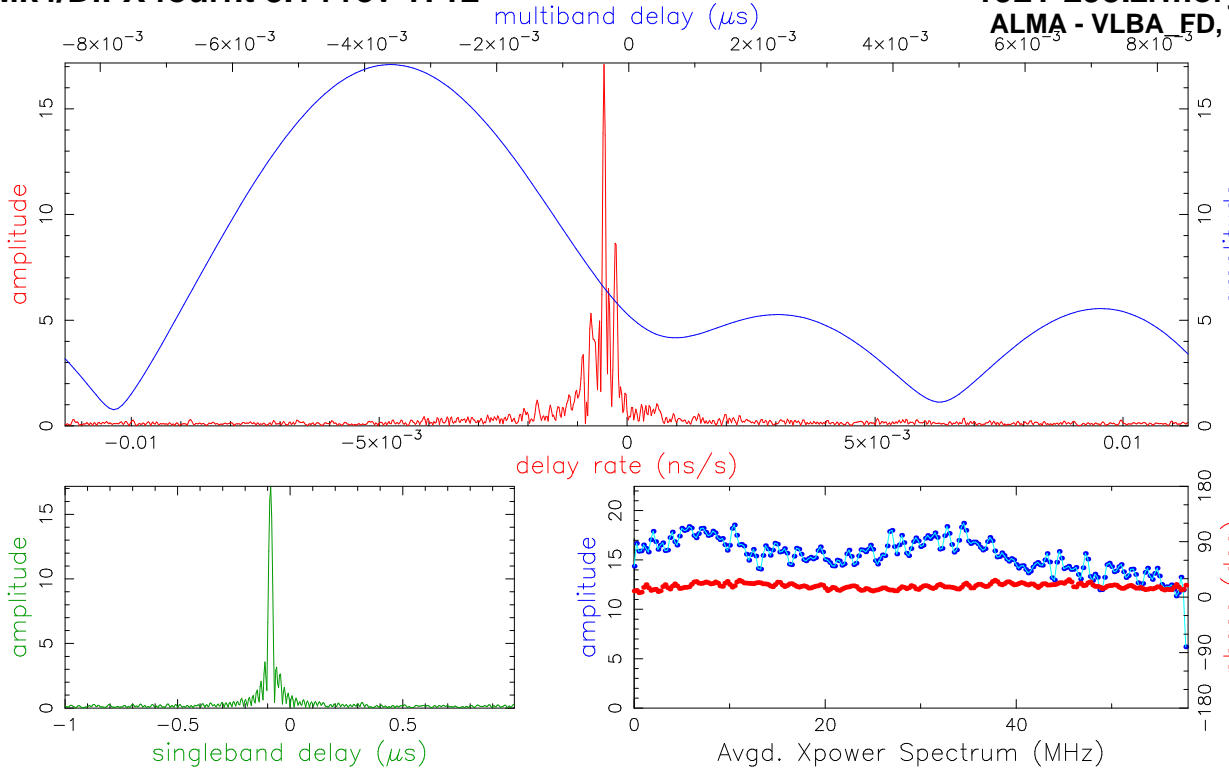
	86151.11	86209.70	86268.30	86326.89	Freq (MHz)	All
	-139.7	-121.2	-115.4	-145.1	Phase	-130.6
	2.9	2.6	2.1	2.1	Ampl.	2.4
	213.1	213.0	212.8	212.6	Sbd box	212.9
U/L	352/0	352/0	352/0	352/0	APs used	
A	0	0	0	0	PC freqs	
f	3890	296	1703	3109	PC freqs	
A:f	0:0	0:0	0:0	0:0	PC phase	
A:f	0:0	0:0	0:0	0:0	Mani PC	
A	1000	1000	1000	1000	PC amp	
f	1000	1000	1000	1000		
A	W00UR	W01UR	W02UR	W03UR	Chan ids	
f	W00UL	W01UL	W02UL	W03UL	Tracks	
					Chan ids	
					Tracks	
Group delay (usec)(sbd)	5.92525797289E+03	Apriori delay (usec)	5.92534702043E+03	Resid mbdelay (usec)	-3.71421E-03	+/- 4.1E-05
Sband delay (usec)	5.92526040995E+03	Apriori clock (usec)	-2.1048022E+03	Resid sbdelay (usec)	-8.66105E-02	+/- 1.6E-04
Phase delay (usec)	5.92534701622E+03	Apriori clockrate (us/s)	2.1828075E-06	Resid phdelay (usec)	-4.21196E-06	+/- 6.3E-08
Delay rate (us/s)	-7.48180260103E-01	Apriori rate (us/s)	-7.48179783611E-01	Resid rate (us/s)	-4.76492E-07	+/- 6.1E-10
Total phase (deg)	333.1	Apriori accel (us/s/s)	6.74835170169E-06	Resid phase (deg)	210.7	+/- 2.0

RMS Theor. Amplitude 2.374 +/- 0.041  
ph/seg (deg) 38.0 6.5 Search (1024X16) 2.213  
amp/seg (%) 37.2 11.3 Interp. 0.000  
ph/frq (deg) 17.5 2.0 Inc. seg. avg. 2.966  
amp/frq (%) 14.4 3.4 Inc. frq. avg. 2.424

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

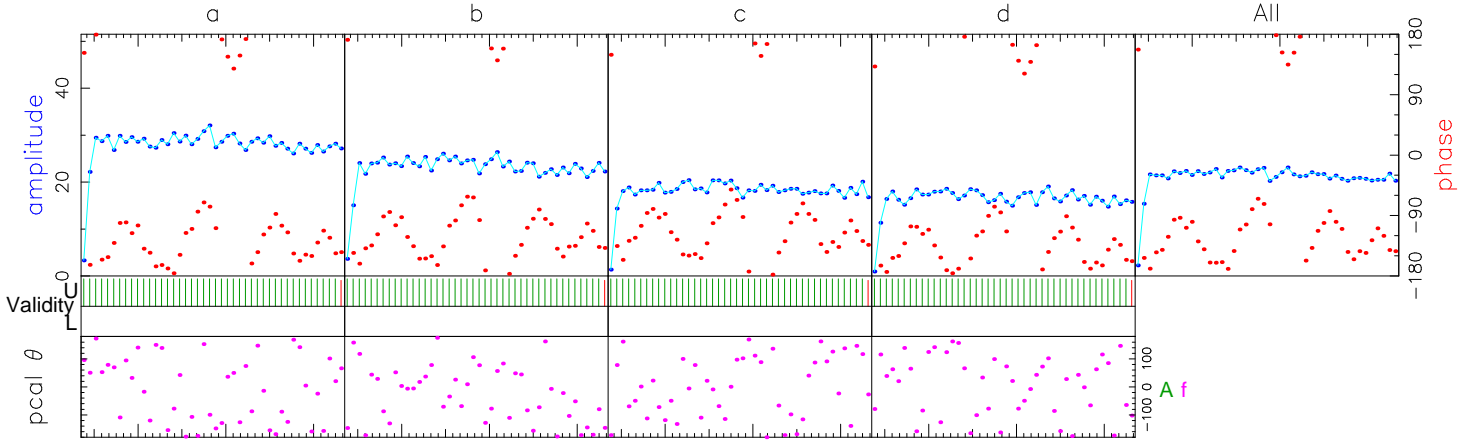
sb window (us) -1.000 1.000  
mb window (us) -0.009 0.009  
dr window (ns/s) -0.011 0.011  
ion window (TEC) 0.00 0.00

A: az 250.7 el 62.2 pa 84.2 f: az 174.1 el 29.9 pa -5.5 u,v (fr/asec) 4902.872 -7221.921 simultaneous interpolator  
Control file: cf\_1234 Input file: /Exps/mb007/gmva\_58\_merged\_pc1/1234/No0082/Af...zrmony Output file: /Exps/mb007/gmva\_58\_merged\_pc1/1234/No0082/Af.W.12.zrmony



Fringe quality 4  
 SNR 423.6  
 Int time 179.816  
 Amp 17.172  
 Phase 208.4  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.087050  
 MBD -0.003605  
 Fringe rate (Hz)  
 -0.040984  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512  
 Exp. mb007  
 Exper # 16383  
 Yr:day 2017:093  
 Start 131121.00  
 Stop 131421.22  
 FRT 131251.00  
 Corr/FF/build  
 2017:237:145428  
 2017:243:170530  
 2017:170:130423  
 RA & Dec (J2000)  
 19h24m51.0560s  
 -29°14'30.121"

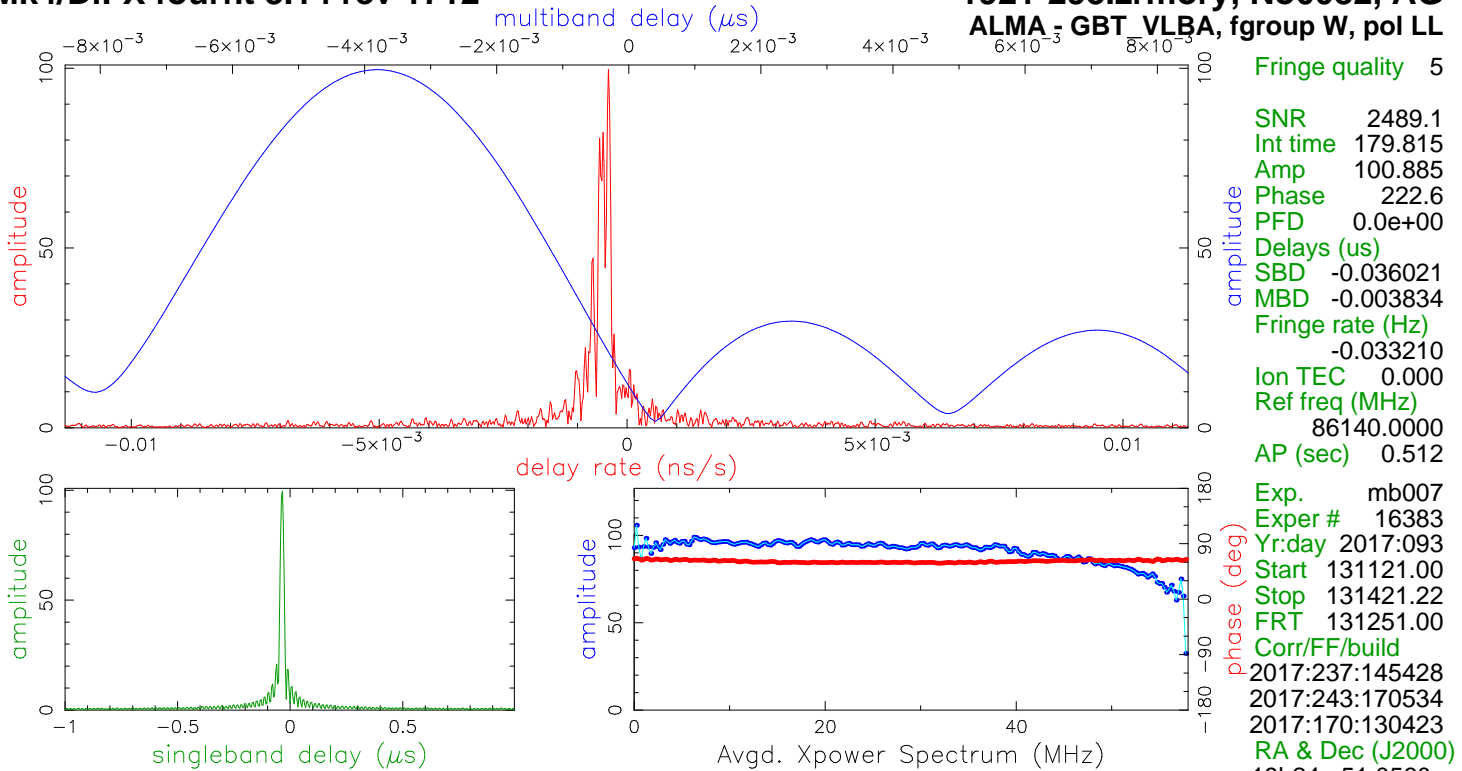
Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



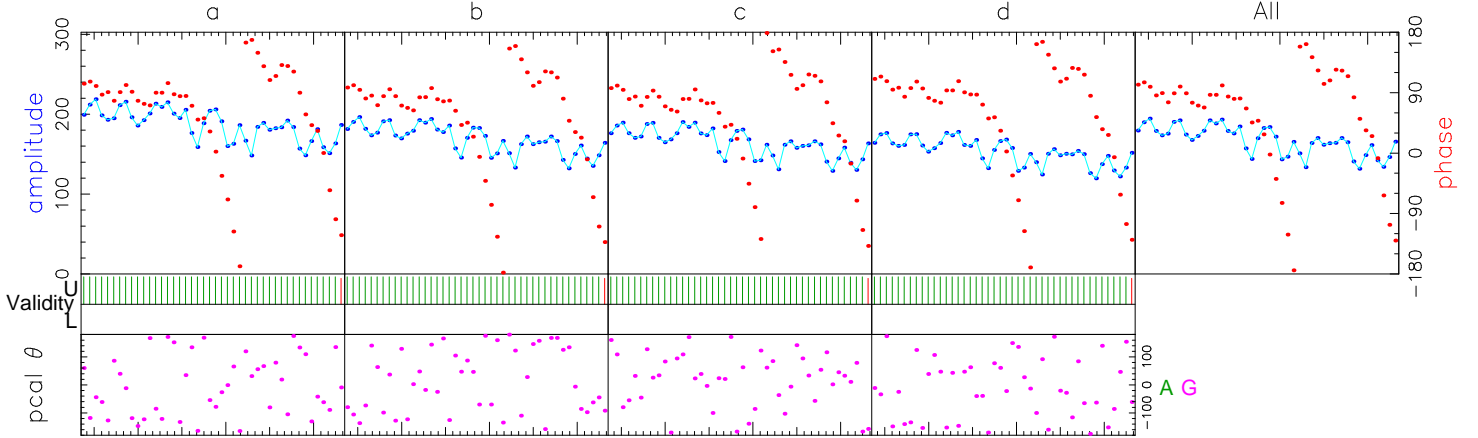
	86151.11	86209.70	86268.30	86326.89	Freq (MHz)	All
	-138.6	-127.1	-120.8	-144.6	Phase	-132.9
	22.5	18.7	14.7	13.3	Ampl.	17.3
	213.2	212.8	212.5	212.7	Sbd box	212.8
U/L	352/0	352/0	352/0	352/0	APs used	
A	0	0	0	0	PC freqs	
f	3890	296	1703	3109	PC freqs	
A:f	0:0	0:0	0:0	0:0	PC phase	
A:f	0:0	0:0	0:0	0:0	Mani PC	
A	1000	1000	1000	1000	PC amp	
f	1000	1000	1000	1000		
A	W00UL	W01UL	W02UL	W03UL	Chan ids	
f	W00UL	W01UL	W02UL	W03UL	Tracks	
					Chan ids	
					Tracks	
Group delay (usec)(sbd)	5.92525808212E+03	Apriori delay (usec)	5.92534702043E+03	Resid mbdelay (usec)	-3.60498E-03	+/- 5.7E-06
Sband delay (usec)	5.92525996995E+03	Apriori clock (usec)	-2.1048022E+03	Resid sbdelay (usec)	-8.70505E-02	+/- 2.2E-05
Phase delay (usec)	5.92534701615E+03	Apriori clockrate (us/s)	2.1828075E-06	Resid phdelay (usec)	-4.28448E-06	+/- 8.7E-09
Delay rate (us/s)	-7.48180259400E-01	Apriori rate (us/s)	-7.48179783611E-01	Resid rate (us/s)	-4.75789E-07	+/- 8.4E-11
Total phase (deg)		330.9	Apriori accel (us/s/s)	6.74835170169E-06	Resid phase (deg)	208.4 +/- 0.3

	RMS	Theor.	Amplitude	17.172 +/- 0.041	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	37.3	0.9	Search (1024X16)	16.038	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	28.9	1.6	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.009 0.009
ph/frq (deg)	13.2	0.3	Inc. seg. avg.	21.035	Sample rate(MSamp/s): 116	dr window (ns/s) -0.011 0.011
amp/frq (%)	21.0	0.5	Inc. frq. avg.	17.310	Data rate(Mb/s): 928	ion window (TEC) 0.00 0.00
					nlags: 232 t_cohere infinite	

A: az 250.7 el 62.2 pa 84.2 f: az 174.1 el 29.9 pa -5.5 u,v (fr/asec) 4902.872 -7221.921 simultaneous interpolator  
 Control file: cf\_1234 Input file: /Exps/mb007/gmva\_58\_merged\_pc1/1234/No0082/Af..zrmony Output file: /Exps/mb007/gmva\_58\_merged\_pc1/1234/No0082/Af.W.9.zrmony



Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



86151.11	86209.70	86268.30	86326.89	86151.11	86209.70	86268.30	86326.89	86151.11
89.4	82.4	80.1	92.5	89.4	82.4	80.1	92.5	89.4
110.8	100.2	97.8	91.2	110.8	100.2	97.8	91.2	110.8
224.6	224.5	224.6	225.0	224.6	224.5	224.6	225.0	224.6
U/L 352/0	352/0	352/0	352/0	U/L 352/0	352/0	352/0	352/0	U/L 352/0
A 0	0	0	0	A 0	0	0	0	A 0
G 3890	296	1703	3109	G 3890	296	1703	3109	G 3890
A:G 0:0	0:0	0:0	0:0	A:G 0:0	0:0	0:0	0:0	A:G 0:0
A:G 0:0	0:0	0:0	0:0	A:G 0:0	0:0	0:0	0:0	A:G 0:0
A 1000	1000	1000	1000	A 1000	1000	1000	1000	A 1000
G 1000	1000	1000	1000	G 1000	1000	1000	1000	G 1000
A W00UL	W01UL	W02UL	W03UL	A W00UL	W01UL	W02UL	W03UL	A W00UL
G W00UL	W01UL	W02UL	W03UL	G W00UL	W01UL	W02UL	W03UL	G W00UL
Group delay (usec)(sbd)	9.24815495417E+03	Apriori delay (usec)	9.24819292100E+03	Resid mbdelay (usec)	-3.83350E-03	+/-	9.8E-07	Group delay (usec)(sbd)
Sband delay (usec)	9.24815689976E+03	Apriori clock (usec)	-2.0944766E+03	Resid sbdelay (usec)	-3.60212E-02	+/-	3.8E-06	Sband delay (usec)
Phase delay (usec)	9.24819292378E+03	Apriori clockrate (us/s)	1.5300000E-06	Resid phdelay (usec)	2.77585E-06	+/-	1.5E-09	Phase delay (usec)
Delay rate (us/s)	-2.98400828872E-01	Apriori rate (us/s)	-2.98400443338E-01	Resid rate (us/s)	-3.85533E-07	+/-	1.4E-11	Delay rate (us/s)
Total phase (deg)	300.1	Apriori accel (us/s/s)	-4.70558005347E-06	Resid phase (deg)	222.6	+/-	0.0	Total phase (deg)

ph/seg (deg) 67.0 0.2 Theor. Amplitude 100.885 +/- 0.041 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

amp/seg (%) 68.2 0.3 Search (1024X16) 95.661 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

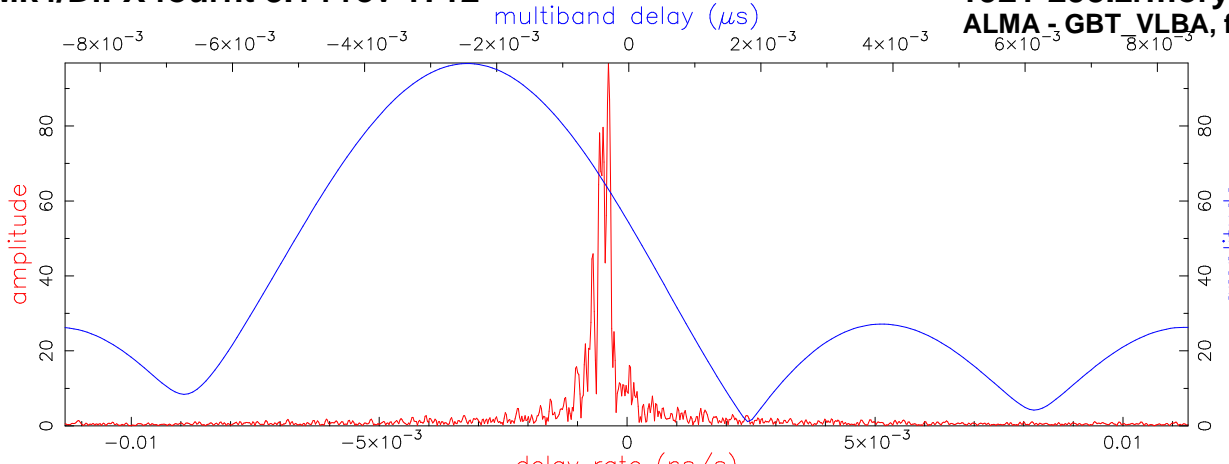
ph/frq (deg) 7.1 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.009 0.009

amp/frq (%) 7.0 0.1 Inc. seg. avg. 167.426 Sample rate(MSamp/s): 116 dr window (ns/s) -0.011 0.011

amp/frq (%) 7.0 0.1 Inc. frq. avg. 100.004 Data rate(Mb/s): 928 nlags: 232 t\_cohere infinite ion window (TEC) 0.00 0.00

A: az 250.7 el 62.2 pa 84.2 G: az 196.9 el 20.2 pa 15.5 u,v (fr/asec) 1938.939 -7597.389 simultaneous interpolator

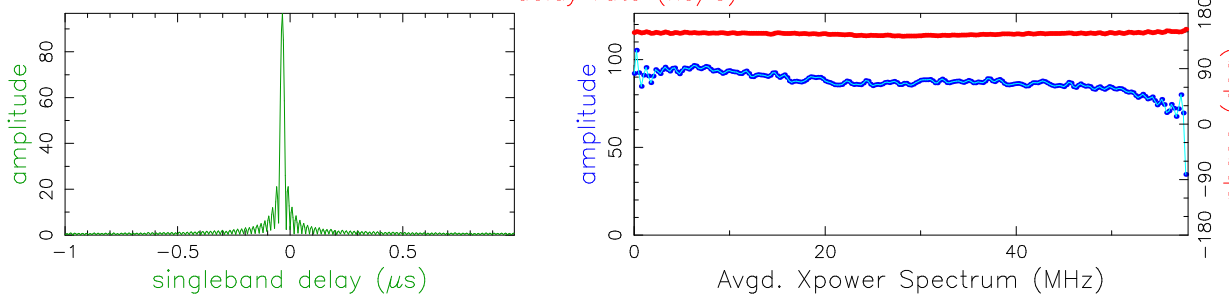
Control file: cf\_1234 Input file: /Exps/mb007/gmva\_58\_merged\_pc1/1234/No0082/AG..zrmony Output file: /Exps/mb007/gmva\_58\_merged\_pc1/1234/No0082/AG.W.13.zrmony



Fringe quality 5

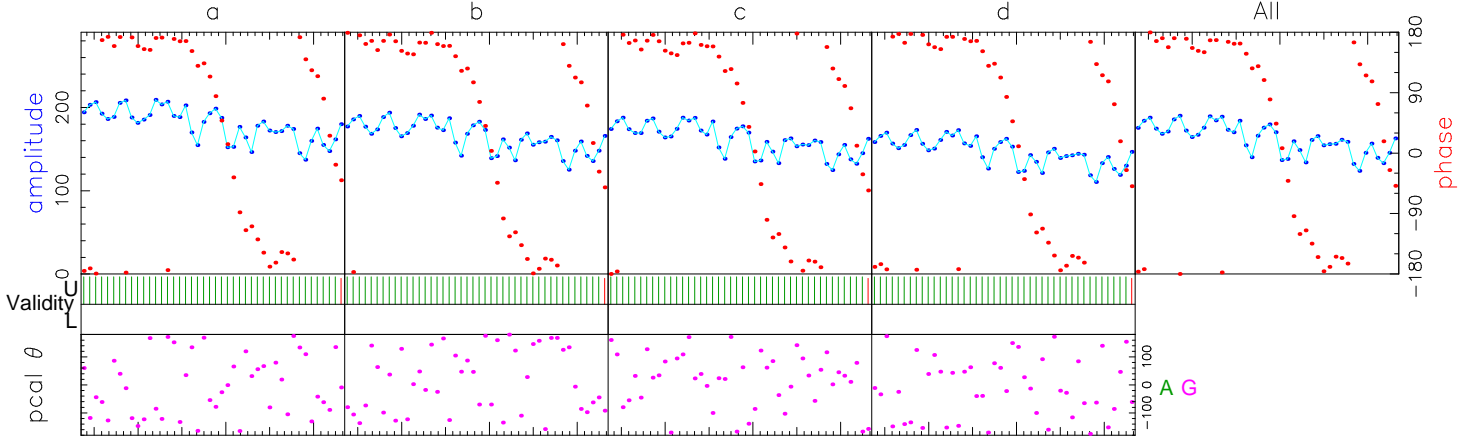
SNR 2388.6  
 Int time 179.815  
 Amp 96.811  
 Phase 304.2  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.034954  
 MBD -0.002451  
 Fringe rate (Hz)  
 -0.033210  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

Exp. mb007  
 Exper # 16383  
 Yr:day 2017:093  
 Start 131121.00  
 Stop 131421.22  
 FRT 131251.00  
 Corr/FF/build  
 2017:237:145428  
 2017:243:170534  
 2017:170:130423  
 RA & Dec (J2000)  
 19h24m51.0560s  
 -29°14'30.121"



Avgd. Xpower Spectrum (MHz)

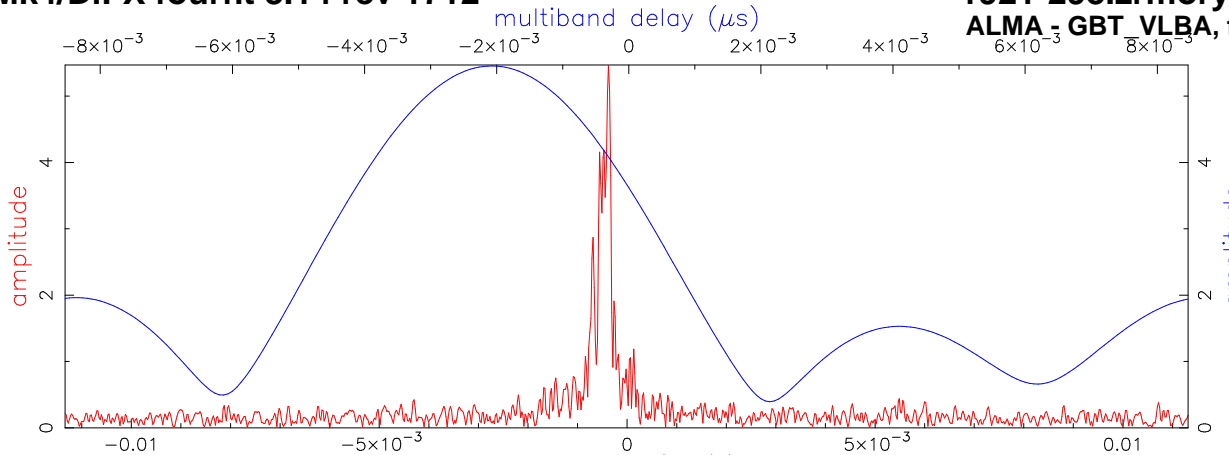
Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



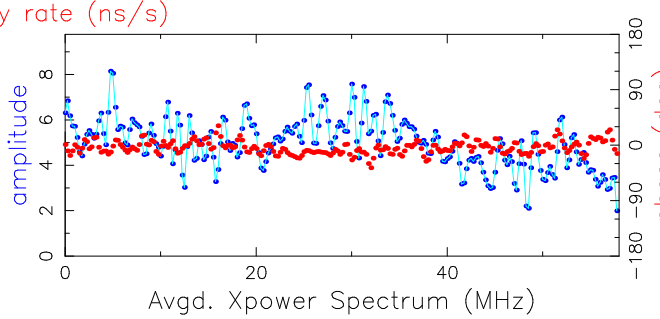
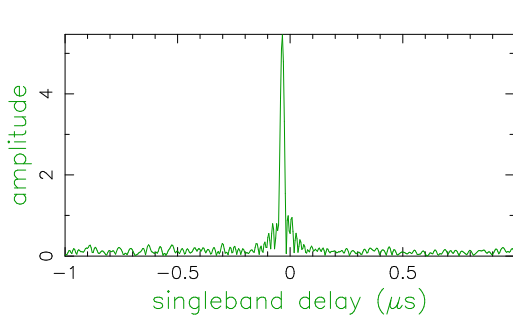
	86151.11	86209.70	86268.30	86326.89	Freq (MHz)	All
	170.9	163.9	163.4	172.4	Phase	167.6
	106.4	97.8	96.1	87.5	Ampl.	96.9
	224.9	224.9	224.9	225.0	Sbd box	224.9
U/L	352/0	352/0	352/0	352/0	APs used	
A	0	0	0	0	PC freqs	
G	3890	296	1703	3109	PC freqs	
A:G	0:0	0:0	0:0	0:0	PC phase	
A:G	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	PC amp	
G	1000	1000	1000	1000		
A	W00UR	W01UR	W02UR	W03UR	Chan ids	
G	W00UR	W01UR	W02UR	W03UR	Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	9.24815633636E+03	Apriori delay (usec)	9.24819292100E+03	Resid mbdelay (usec)	-2.45131E-03	+/-	1.0E-06
Sband delay (usec)	9.24815796680E+03	Apriori clock (usec)	-2.0944766E+03	Resid sbdelay (usec)	-3.49542E-02	+/-	4.0E-06
Phase delay (usec)	9.24819292641E+03	Apriori clockrate (us/s)	1.5300000E-06	Resid phdelay (usec)	5.40608E-06	+/-	1.5E-09
Delay rate (us/s)	-2.98400828877E-01	Apriori rate (us/s)	-2.98400443338E-01	Resid rate (us/s)	-3.85539E-07	+/-	1.5E-11
Total phase (deg)	381.7	Apriori accel (us/s/s)	-4.70558005347E-06	Resid phase (deg)	304.2	+/-	0.0

ph/seg (deg)	67.0	RMS	67.0	Theor.	0.2	Amplitude	96.811 +/- 0.041	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	70.6		70.6		0.3	Search (1024X16)	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	SampCntNorm:	enabled	mb window (us)	-0.009	0.009
ph/frq (deg)	5.7		5.7		0.0	Inc. seg. avg.	162.896	Bits/sample:	2x2	dr window (ns/s)	-0.011	0.011		
amp/frq (%)	6.9		6.9		0.1	Inc. frq. avg.	96.930	Sample rate(MSamp/s):	116	ion window (TEC)	0.00	0.00		
								Data rate(Mb/s):	928	nlags:	232	t_cohere	infinite	

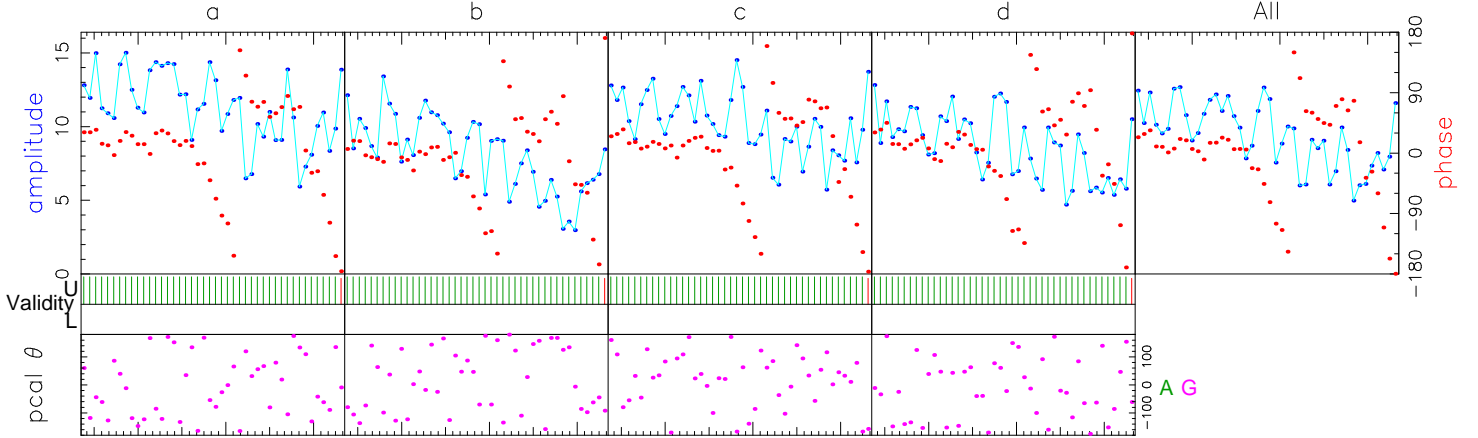


Fringe quality 4  
 SNR 134.9  
 Int time 179.815  
 Amp 5.469  
 Phase 147.4  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.035132  
 MBD -0.002075  
 Fringe rate (Hz)  
 -0.033210  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. mb007  
 Exper # 16383  
 Yr:day 2017:093  
 Start 131121.00  
 Stop 131421.22  
 FRT 131251.00  
 Corr/FF/build  
 2017:237:145428  
 2017:243:170535  
 2017:170:130423  
 RA & Dec (J2000)  
 19h24m51.0560s  
 -29°14'30.121"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec

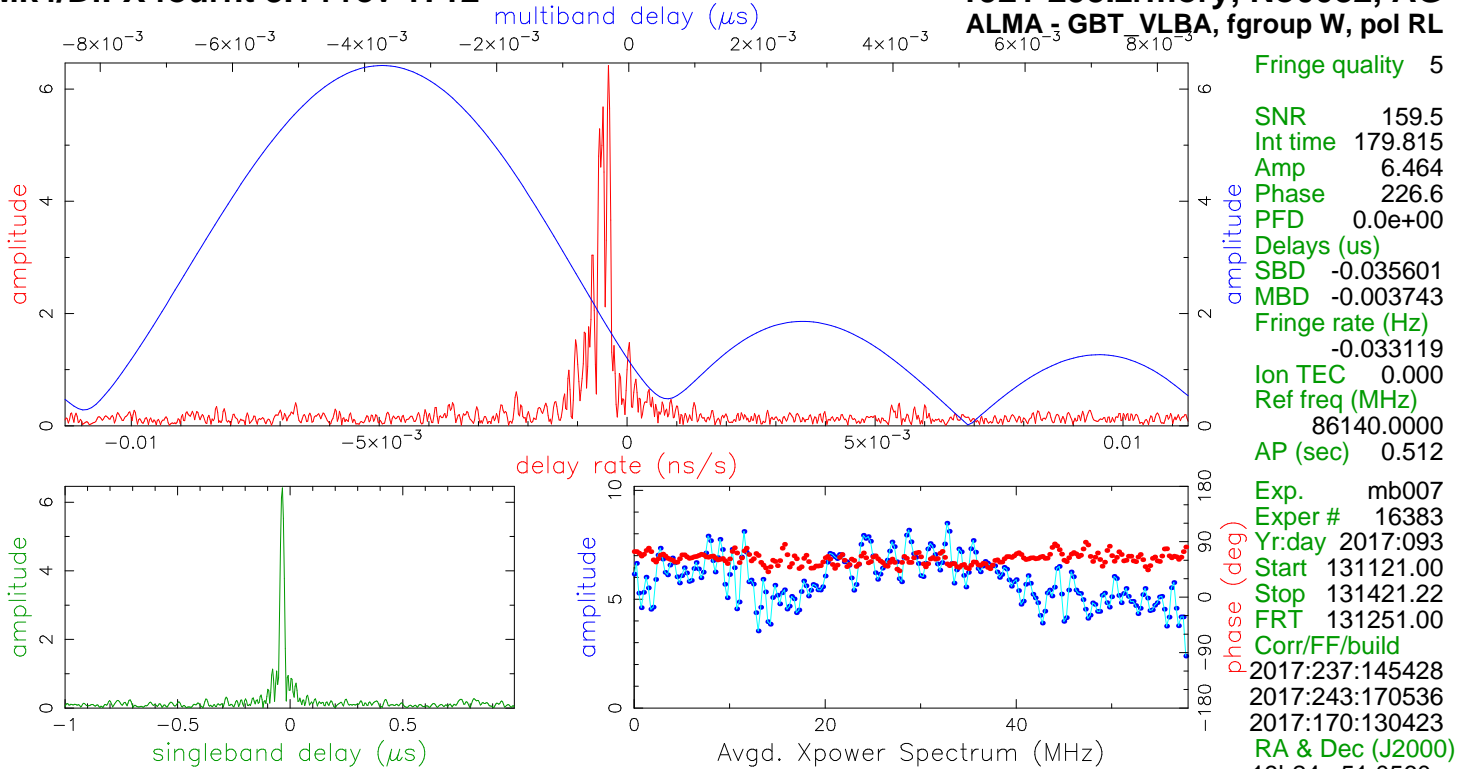


	86151.11	86209.70	86268.30	86326.89	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
A	0	0	0	0	APs used	
G	3890	296	1703	3109	PC freqs	
A:G	0:0	0:0	0:0	0:0	PC phase	
A:G	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	PC amp	
G	1000	1000	1000	1000		
A	W00UL	W01UL	W02UL	W03UL	Chan ids	
G	W00UR	W01UR	W02UR	W03UR	Tracks	
					Chan ids	
					Tracks	
Group delay (usec)(sbd)	9.24815671299E+03	Apriori delay (usec)	9.24819292100E+03	Resid mbdelay (usec)	-2.07468E-03	+/- 1.8E-05
Sband delay (usec)	9.24815778859E+03	Apriori clock (usec)	-2.0944766E+03	Resid sbdelay (usec)	-3.51324E-02	+/- 7.0E-05
Phase delay (usec)	9.24819292135E+03	Apriori clockrate (us/s)	1.5300000E-06	Resid phdelay (usec)	3.49767E-07	+/- 2.7E-08
Delay rate (us/s)	-2.98400828874E-01	Apriori rate (us/s)	-2.98400443338E-01	Resid rate (us/s)	-3.85536E-07	+/- 2.6E-10
Total phase (deg)	224.9	Apriori accel (us/s/s)	-4.70558005347E-06	Resid phase (deg)	147.4	+/- 0.8

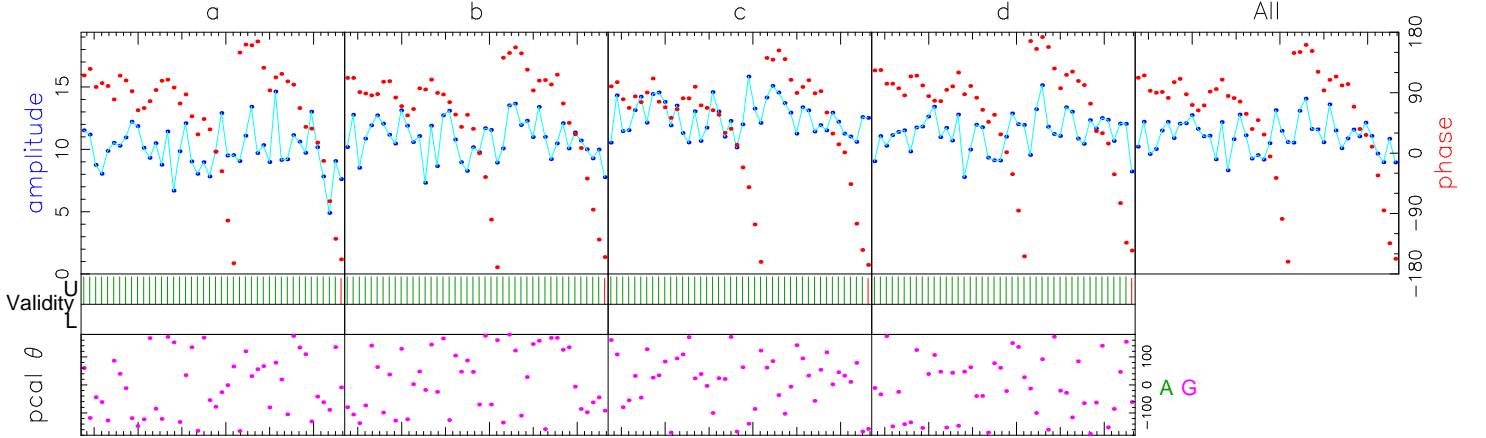
RMS Theor. Amplitude 5.469 +/- 0.041  
 ph/seg (deg) 67.7 2.8 Search (1024X16) 5.383  
 amp/seg (%) 82.5 4.9 Interp. 0.000  
 ph/frq (deg) 12.3 0.8 Inc. seg. avg. 9.438  
 amp/frq (%) 11.1 1.5 Inc. frq. avg. 5.515

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

A: az 250.7 el 62.2 pa 84.2 G: az 196.9 el 20.2 pa 15.5 u,v (fr/asec) 1938.939 -7597.389 simultaneous interpolator  
 Control file: cf\_1234 Input file: /Exps/m007/gmva\_58\_merged\_pc1/1234/No0082/AG..zrmony Output file: /Exps/m007/gmva\_58\_merged\_pc1/1234/No0082/AG.W.15.zrmony



Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec

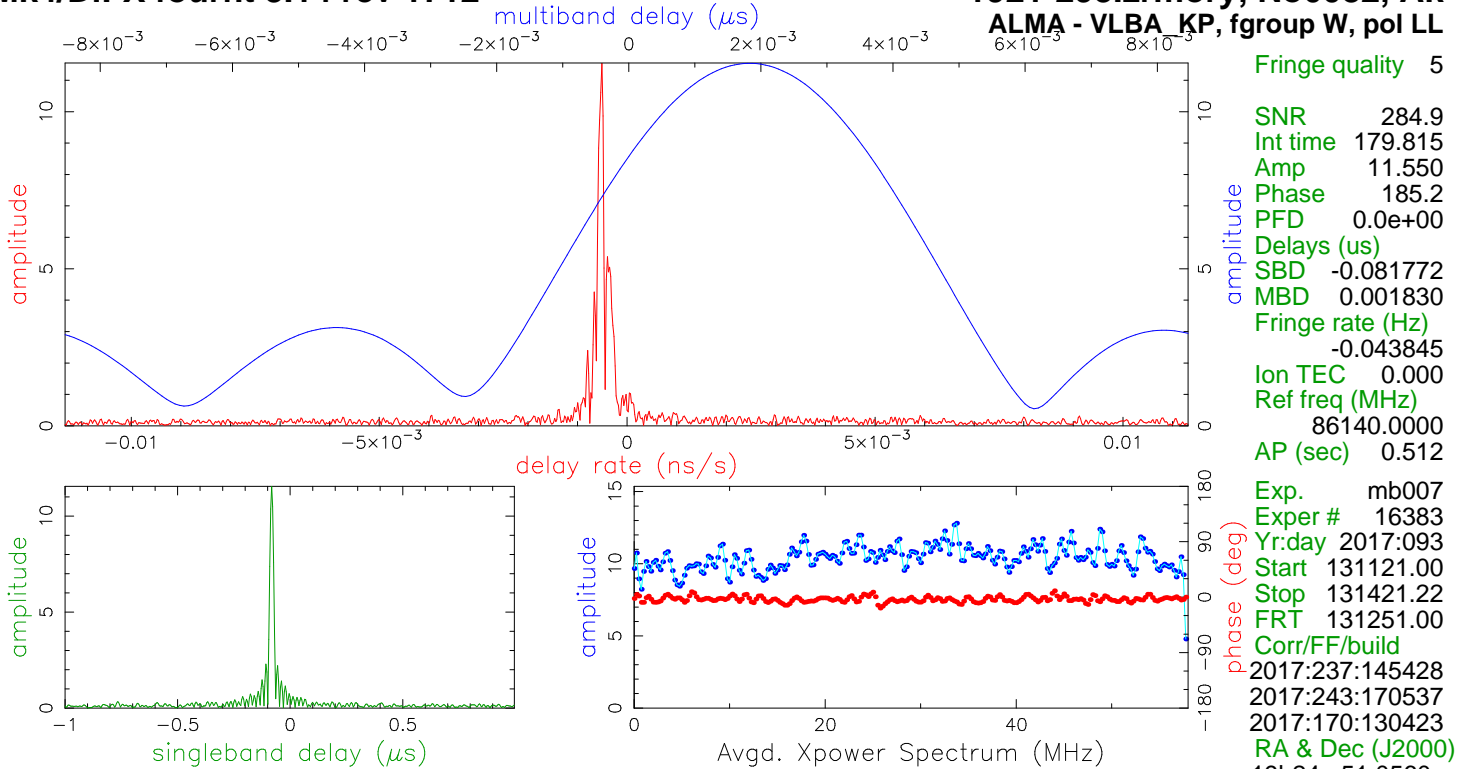


	86151.11	86209.70	86268.30	86326.89	Freq (MHz)	All
93.1	90.3	81.3	96.9		Phase	90.1
6.0	6.5	7.1	6.2		Ampl.	6.5
224.6	224.7	225.0	224.8		Sbd box	224.7
U/L 352/0	352/0	352/0	352/0		APs used	
A 0	0	0	0		PC freqs	
G 3890	296	1703	3109		PC freqs	
A:G 0:0	0:0	0:0	0:0		PC phase	
A:G 0:0	0:0	0:0	0:0		Mani PC	
A 1000	1000	1000	1000		PC amp	
G 1000	1000	1000	1000			
A W00UR	W01UR	W02UR	W03UR		Chan ids	
G W00UL	W01UL	W02UL	W03UL		Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	9.24815504517E+03	Apriori delay (usec)	9.24819292100E+03	Resid mbdelay (usec)	-3.74250E-03	+/-	1.5E-05
Sband delay (usec)	9.24815731990E+03	Apriori clock (usec)	-2.0944766E+03	Resid sbdelay (usec)	-3.56011E-02	+/-	6.0E-05
Phase delay (usec)	9.24819292391E+03	Apriori clockrate (us/s)	1.5300000E-06	Resid phdelay (usec)	2.90492E-06	+/-	2.3E-08
Delay rate (us/s)	-2.98400827814E-01	Apriori rate (us/s)	-2.98400443338E-01	Resid rate (us/s)	-3.84476E-07	+/-	2.2E-10
Total phase (deg)	304.1	Apriori accel (us/s/s)	-4.70558005347E-06	Resid phase (deg)	226.6	+/-	0.7

ph/seg (deg)	65.5	2.4	Amplitude	6.464 +/- 0.041	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	74.2	4.2	Search (1024X16)	6.189	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	8.1	0.7	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.009 0.009
amp/frq (%)	6.1	1.3	Inc. seg. avg.	11.071	Sample rate (MSamp/s):	116	dr window (ns/s)	-0.011 0.011	
			Inc. frq. avg.	6.456	Data rate (Mb/s):	928	ion window (TEC)	0.00 0.00	
					nlags:	232	t_cohere	infinite	



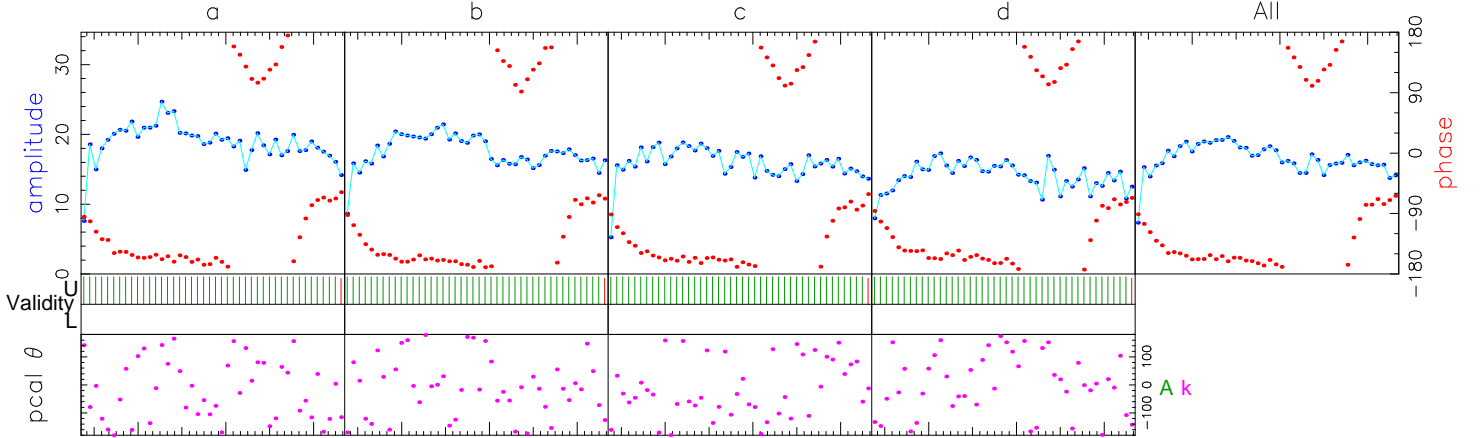


Fringe quality 5

SNR 284.9  
Int time 179.815  
Amp 11.550  
Phase 185.2  
PFD 0.0e+00  
Delays (us)  
SBD -0.081772  
MBD 0.001830  
Fringe rate (Hz)  
-0.043845  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. mb007  
Exper # 16383  
Yr:day 2017:093  
Start 131121.00  
Stop 131421.22  
FRT 131251.00  
Corr/FF/build  
2017:237:145428  
2017:243:170537  
2017:170:130423  
RA & Dec (J2000)  
19h24m51.0560s  
-29°14'30.121"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



86151.11	86209.70	86268.30	86326.89	Freq (MHz)	All
-154.7	-157.8	-157.0	-154.7	Phase	-156.1
13.1	12.1	11.2	9.8	Ampl.	11.6
214.0	213.9	214.2	214.0	Sbd box	214.0
U/L 352/0	352/0	352/0	352/0	APs used	
A 0	0	0	0	PC freqs	
k 3890	296	1703	3109	PC freqs	
A:k 0:0	0:0	0:0	0:0	PC phase	
A:k 0:0	0:0	0:0	0:0	Manl PC	
A 1000	1000	1000	1000	PC amp	
k 1000	1000	1000	1000		
A W00UL	W01UL	W02UL	W03UL	Chan ids	
k W00UL	W01UL	W02UL	W03UL	Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	6.68102292069E+03	Apriori delay (usec)	6.68110642431E+03	Resid mbdelay (usec)	1.82972E-03 +/- 8.5E-06
Sband delay (usec)	6.68102465217E+03	Apriori clock (usec)	-2.1025950E+03	Resid sbdelay (usec)	-8.17721E-02 +/- 3.3E-05
Phase delay (usec)	6.68110641928E+03	Apriori clockrate (us/s)	1.7640192E-06	Resid phdelay (usec)	-5.03331E-06 +/- 1.3E-08
Delay rate (us/s)	-8.98682815235E-01	Apriori rate (us/s)	-8.98682306241E-01	Resid rate (us/s)	-5.08994E-07 +/- 1.2E-10
Total phase (deg)	325.6	Apriori accel (us/s/s)	3.82630710692E-06	Resid phase (deg)	185.2 +/- 0.4

ph/seg (deg) 50.7 1.3  
amp/seg (%) 46.9 2.3  
ph/frq (deg) 1.9 0.4  
amp/frq (%) 10.7 0.7

RMS Theor. Amplitude 11.550 +/- 0.041  
50.7 1.3 Search (1024X16) 11.447  
46.9 2.3 Interp. 0.000  
1.9 0.4 Inc. seg. avg. 16.535  
10.7 0.7 Inc. frq. avg. 11.552

Group delay (usec)(sbd) 6.68102292069E+03  
Sband delay (usec) 6.68102465217E+03  
Phase delay (usec) 6.68110641928E+03  
Delay rate (us/s) -8.98682815235E-01  
Total phase (deg) 325.6

Apriori delay (usec) 6.68110642431E+03  
Apriori clock (usec) -2.1025950E+03  
Apriori clockrate (us/s) 1.7640192E-06  
Apriori rate (us/s) -8.98682306241E-01  
Apriori accel (us/s/s) 3.82630710692E-06

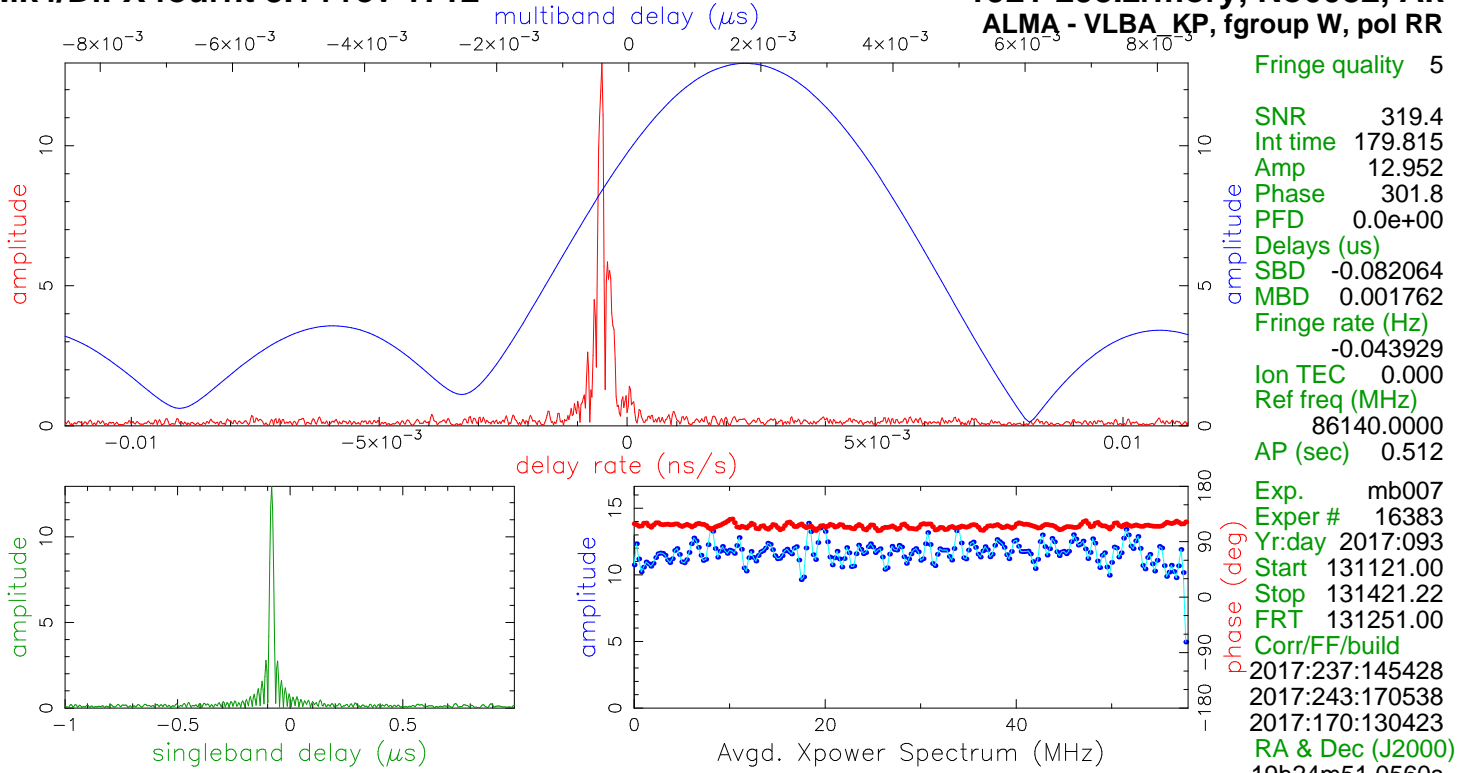
Resid mbdelay (usec) 1.82972E-03 +/- 8.5E-06  
Resid sbdelay (usec) -8.17721E-02 +/- 3.3E-05  
Resid phdelay (usec) -5.03331E-06 +/- 1.3E-08  
Resid rate (us/s) -5.08994E-07 +/- 1.2E-10  
Resid phase (deg) 185.2 +/- 0.4

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

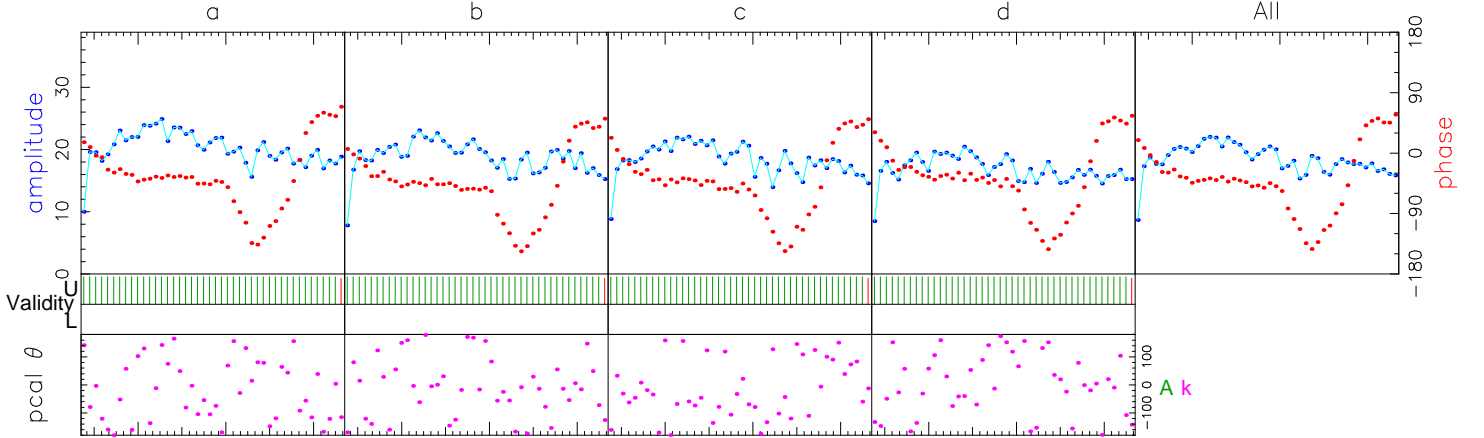
sb window (us) -1.000 1.000  
mb window (us) -0.009 0.009  
dr window (ns/s) -0.011 0.011  
ion window (TEC) 0.00 0.00

A: az 250.7 el 62.2 pa 84.2 k: az 166.7 el 27.5 pa -12.7 u,v (fr/asec) 5886.845 -7241.816 simultaneous interpolator

Control file: cf\_1234 Input file: /Exps/mb007/gmva\_58\_merged\_pc1/1234/No0082/Ak..zrmony Output file: /Exps/mb007/gmva\_58\_merged\_pc1/1234/No0082/Ak.W.17.zrmony



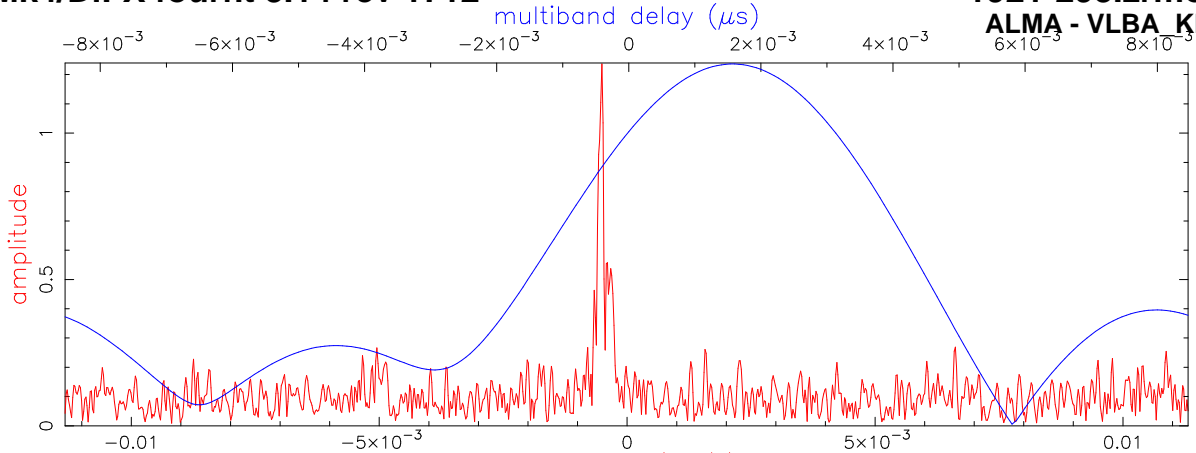
Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	86151.11	86209.70	86268.30	86326.89	Freq (MHz)	All
	-35.7	-44.2	-42.4	-35.4	Phase	-39.5
	14.2	13.2	13.0	11.5	Ampl.	13.0
	214.0	213.8	214.2	213.8	Sbd box	214.0
U/L	352/0	352/0	352/0	352/0	APs used	
A	0	0	0	0	PC freqs	
k	3890	296	1703	3109	PC freqs	
A:k	0:0	0:0	0:0	0:0	PC phase	
A:k	0:0	0:0	0:0	0:0	Mani PC	
A	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000		
A	W00UR	W01UR	W02UR	W03UR	Chan ids	
k	W00UR	W01UR	W02UR	W03UR	Tracks	
					Chan ids	
					Tracks	
Group delay (usec)(sbd)	6.68102285270E+03	Apriori delay (usec)	6.68110642431E+03	Resid mbdelay (usec)	1.76172E-03	+/- 7.6E-06
Sband delay (usec)	6.68102436031E+03	Apriori clock (usec)	-2.1025950E+03	Resid sbdelay (usec)	-8.20640E-02	+/- 3.0E-05
Phase delay (usec)	6.68110642304E+03	Apriori clockrate (us/s)	1.7640192E-06	Resid phdelay (usec)	-1.27287E-06	+/- 1.2E-08
Delay rate (us/s)	-8.98682816214E-01	Apriori rate (us/s)	-8.98682306241E-01	Resid rate (us/s)	-5.09973E-07	+/- 1.1E-10
Total phase (deg)	442.3	Apriori accel (us/s/s)	3.82630710692E-06	Resid phase (deg)	301.8	+/- 0.4

RMS Theor. Amplitude 12.952 +/- 0.041 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 50.5 1.2 Search (1024X16) 12.791 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 46.2 2.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.009 0.009  
 ph/frq (deg) 5.5 0.4 Inc. seg. avg. 18.450 Sample rate(MSamp/s): 116 dr window (ns/s) -0.011 0.011  
 amp/frq (%) 7.3 0.6 Inc. frq. avg. 12.980 Data rate(Mb/s): 928 nlags: 232 t\_cohere infinite ion window (TEC) 0.00 0.00

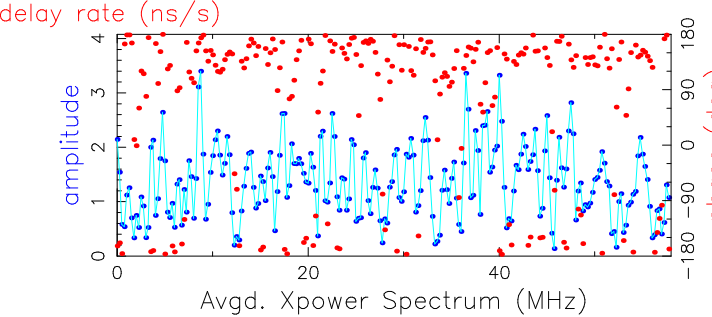
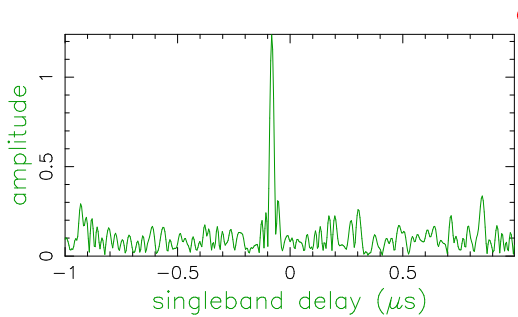
A: az 250.7 el 62.2 pa 84.2 k: az 166.7 el 27.5 pa -12.7 u,v (fr/asec) 5886.845 -7241.816 simultaneous interpolator  
 Control file: cf\_1234 Input file: /Exps/mb007/gmva\_58\_merged\_pc1/1234/No0082/Ak..zrmony Output file: /Exps/mb007/gmva\_58\_merged\_pc1/1234/No0082/Ak.W.18.zrmony



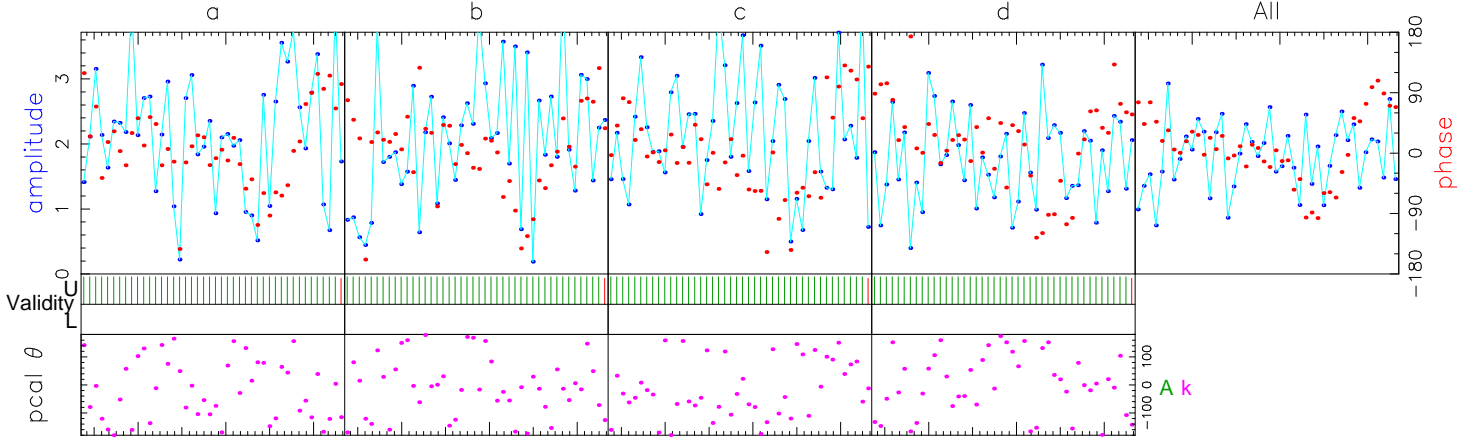
Fringe quality 8

SNR 30.6  
 Int time 179.815  
 Amp 1.240  
 Phase 351.0  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.081252  
 MBD 0.001563  
 Fringe rate (Hz)  
 -0.043295  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

Exp. mb007  
 Exper # 16383  
 Yr:day 2017:093  
 Start 131121.00  
 Stop 131421.22  
 FRT 131251.00  
 Corr/FF/build  
 2017:237:145428  
 2017:243:170539  
 2017:170:130423  
 RA & Dec (J2000)  
 19h24m51.0560s  
 -29°14'30.121"



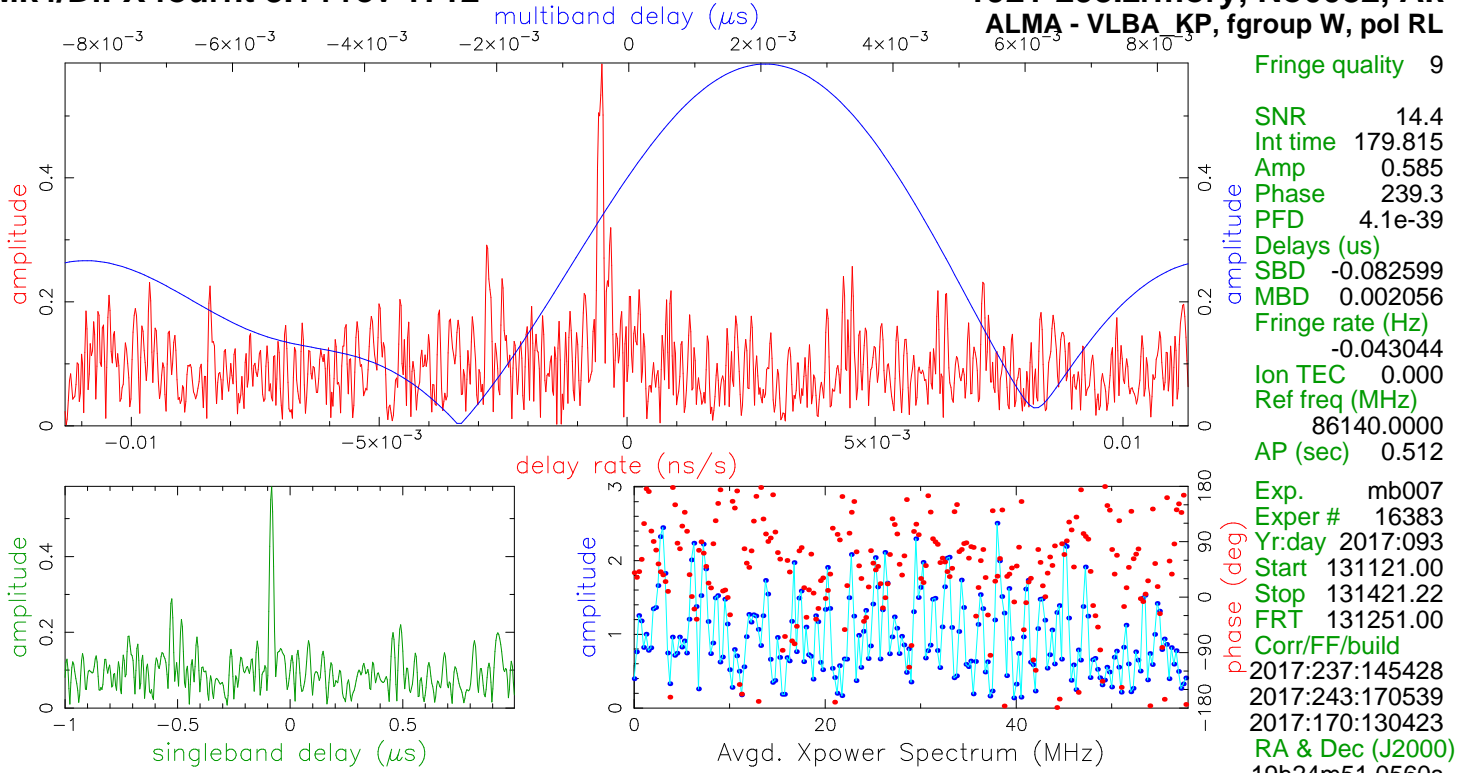
Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	86151.11	86209.70	86268.30	86326.89	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
A	0	0	0	0	APs used	
k	3890	296	1703	3109	PC freqs	
A:k	0:0	0:0	0:0	0:0	PC phase	
A:k	0:0	0:0	0:0	0:0	Mani PC	
A	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000		
A	W00UL	W01UL	W02UL	W03UL	Chan ids	
k	W00UR	W01UR	W02UR	W03UR	Tracks	

Group delay (usec)(sbd)	6.68102265357E+03	Apriori delay (usec)	6.68110642431E+03	Resid mbdelay (usec)	1.56259E-03	+/- 7.9E-05
Sband delay (usec)	6.68102517245E+03	Apriori clock (usec)	-2.1025950E+03	Resid sbdelay (usec)	-8.12519E-02	+/- 3.1E-04
Phase delay (usec)	6.68110642462E+03	Apriori clockrate (us/s)	1.7640192E-06	Resid phdelay (usec)	3.13095E-07	+/- 1.2E-07
Delay rate (us/s)	-8.98682808854E-01	Apriori rate (us/s)	-8.98682306241E-01	Resid rate (us/s)	-5.02613E-07	+/- 1.2E-09
Total phase (deg)	491.4	Apriori accel (us/s/s)	3.82630710692E-06	Resid phase (deg)	351.0	+/- 3.7

ph/seg (deg)	50.1	Theor.	12.4	Amplitude	1.240 +/- 0.041	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	62.3	Search (1024X16)	1.190	Search	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	11.5	Interp.	0.000	Inc. seg. avg.	1.780	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	13.4	Inc. frq. avg.	1.246	Inc. frq. avg.	1.246	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 9

SNR 14.4

Int time 179.815

Amp 0.585

Phase 239.3

PFD 4.1e-39

Delays (us)

SBD -0.082599

MBD 0.002056

Fringe rate (Hz)

-0.043044

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. mb007

Exper # 16383

Yr:day 2017:093

Start 131121.00

Stop 131421.22

FRT 131251.00

Corr/FF/build

2017:237:145428

2017:243:170539

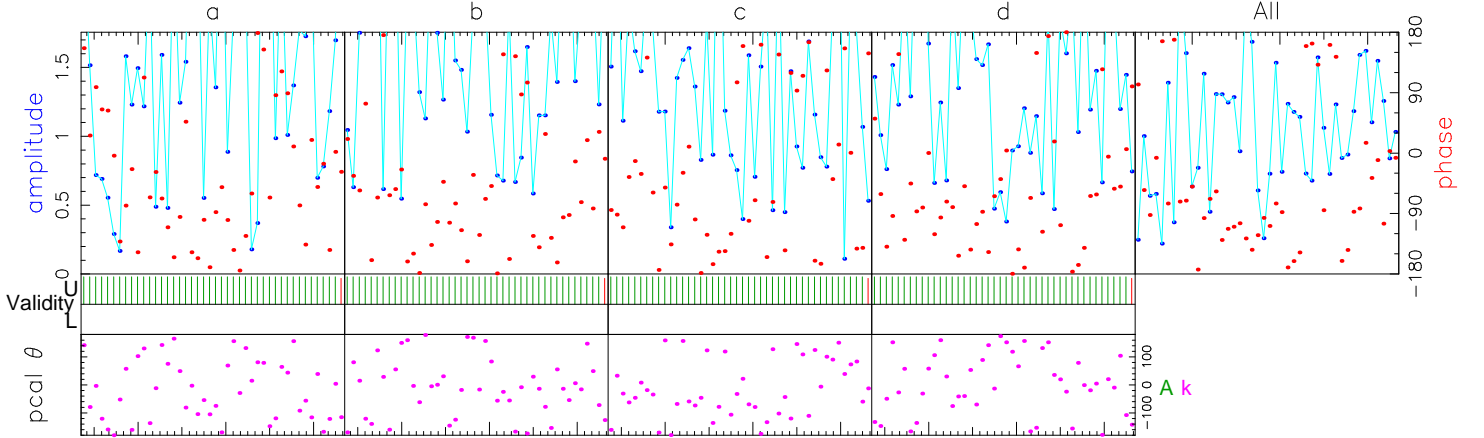
2017:170:130423

RA & Dec (J2000)

19h24m51.0560s

-29°14'30.121"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	86151.11	86209.70	86268.30	86326.89	Freq (MHz)	All
	-113.7	-89.4	-116.1	-100.8	Phase	-102.0
	0.4	0.8	0.4	0.7	Ampl.	0.6
	449.9	214.8	252.1	213.7	Sbd box	213.8
U/L	352/0	352/0	352/0	352/0	APs used	
A	0	0	0	0	PC freqs	
k	3890	296	1703	3109	PC freqs	
A:k	0:0	0:0	0:0	0:0	PC phase	
A:k	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000		
A	W00UR	W01UR	W02UR	W03UR	Chan ids	
k	W00UL	W01UL	W02UL	W03UL	Tracks	
					Chan ids	
					Tracks	
Group delay (usec)(sbd)	6.68102314679E+03	Apriori delay (usec)	6.68110642431E+03	Resid mbdelay (usec)	2.05582E-03	+/- 1.7E-04
Sband delay (usec)	6.68102382514E+03	Apriori clock (usec)	-2.1025950E+03	Resid sbdelay (usec)	-8.25992E-02	+/- 6.6E-04
Phase delay (usec)	6.68110642102E+03	Apriori clockrate (us/s)	1.7640192E-06	Resid phdelay (usec)	-3.28918E-06	+/- 2.6E-07
Delay rate (us/s)	-8.98682805944E-01	Apriori rate (us/s)	-8.98682306241E-01	Resid rate (us/s)	-4.99703E-07	+/- 2.5E-09
Total phase (deg)	379.7	Apriori accel (us/s/s)	3.82630710692E-06	Resid phase (deg)	239.3	+/- 7.9

RMS Theor. Amplitude 0.585 +/- 0.041

ph/seg (deg) 65.7 26.3 Search (1024X16) 0.569

amp/seg (%) 112.6 45.9 Interp. 0.000

ph/frq (deg) 15.8 7.9 Inc. seg. avg. 0.957

amp/frq (%) 29.3 13.9 Inc. frq. avg. 0.589

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

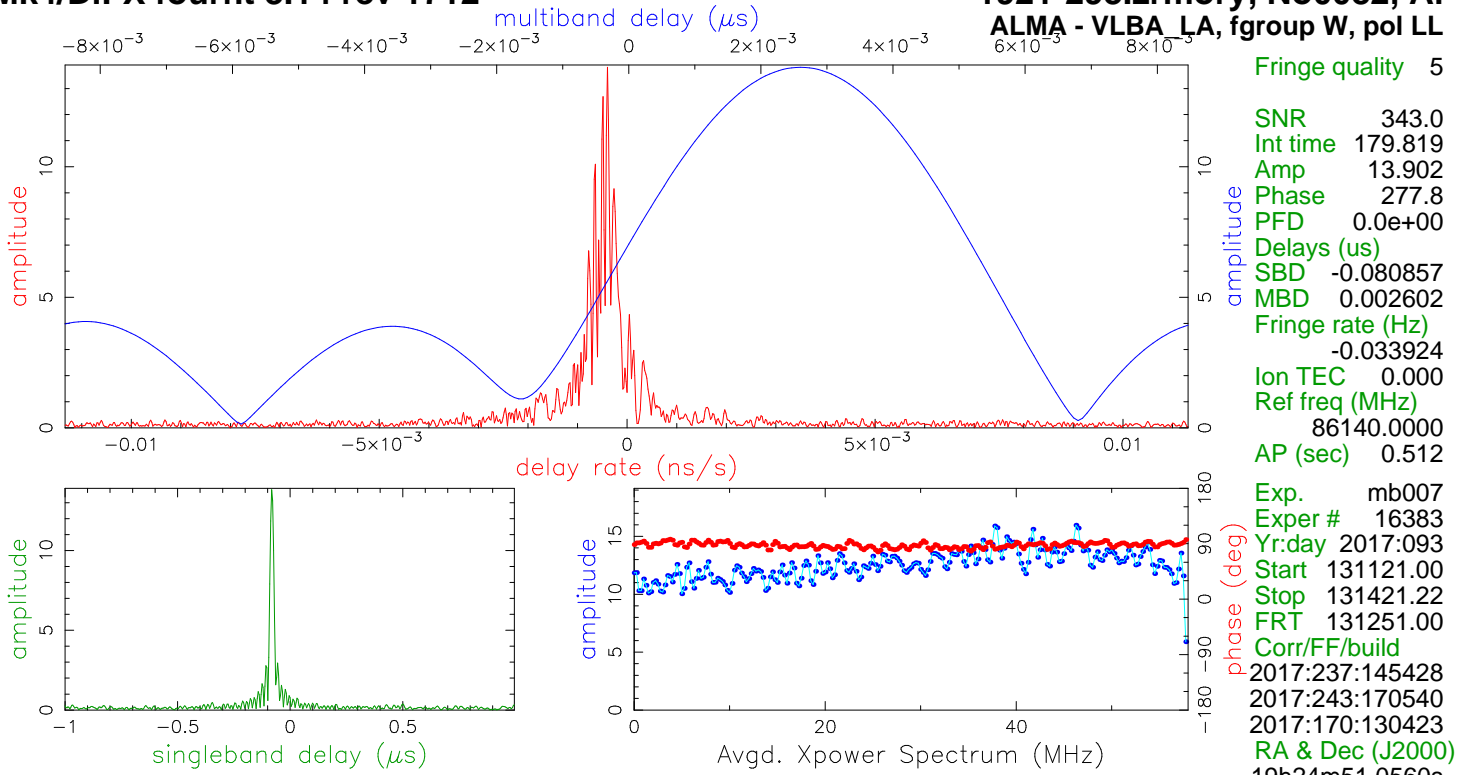
mb window (us) -0.009 0.009

dr window (ns/s) -0.011 0.011

ion window (TEC) 0.00 0.00

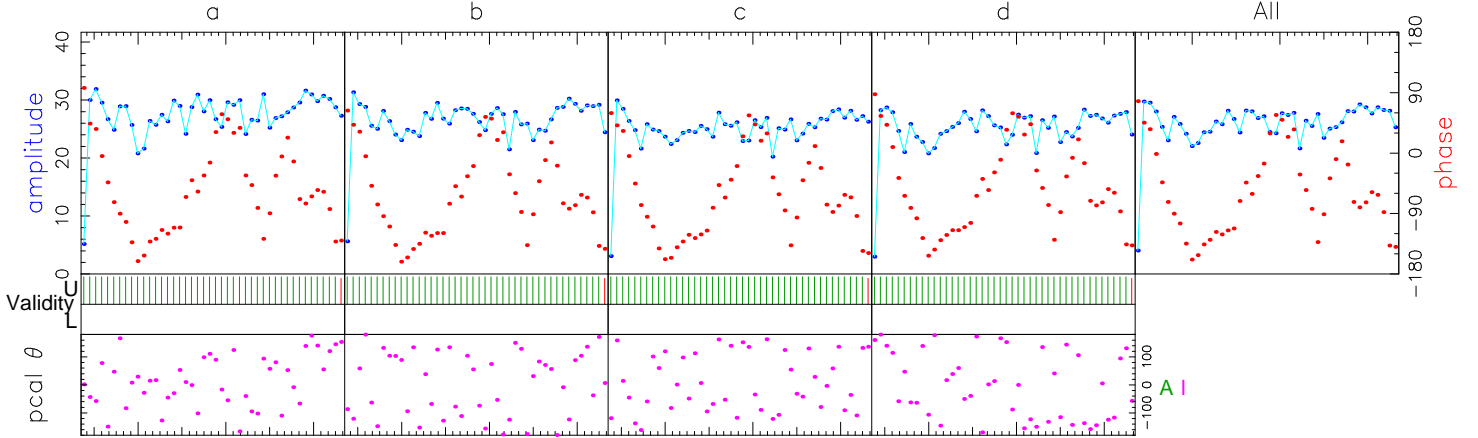
A: az 250.7 el 62.2 pa 84.2 k: az 166.7 el 27.5 pa -12.7 u,v (fr/asec) 5886.845 -7241.816 simultaneous interpolator

Control file: cf\_1234 Input file: /Exps/mb007/gmva\_58\_merged\_pc1/1234/No0082/Ak..zrmony Output file: /Exps/mb007/gmva\_58\_merged\_pc1/1234/No0082/Ak.W.20.zrmony



Fringe quality 5  
SNR 343.0  
Int time 179.819  
Amp 13.902  
Phase 277.8  
PFD 0.0e+00  
Delays (us)  
SBD -0.080857  
MBD 0.002602  
Fringe rate (Hz)  
-0.033924  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512  
Exp. mb007  
Exper # 16383  
Yr:day 2017:093  
Start 131121.00  
Stop 131421.22  
FRT 131251.00  
Corr/FF/build  
2017:237:145428  
2017:243:170540  
2017:170:130423  
RA & Dec (J2000)  
19h24m51.0560s  
-29°14'30.121"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec

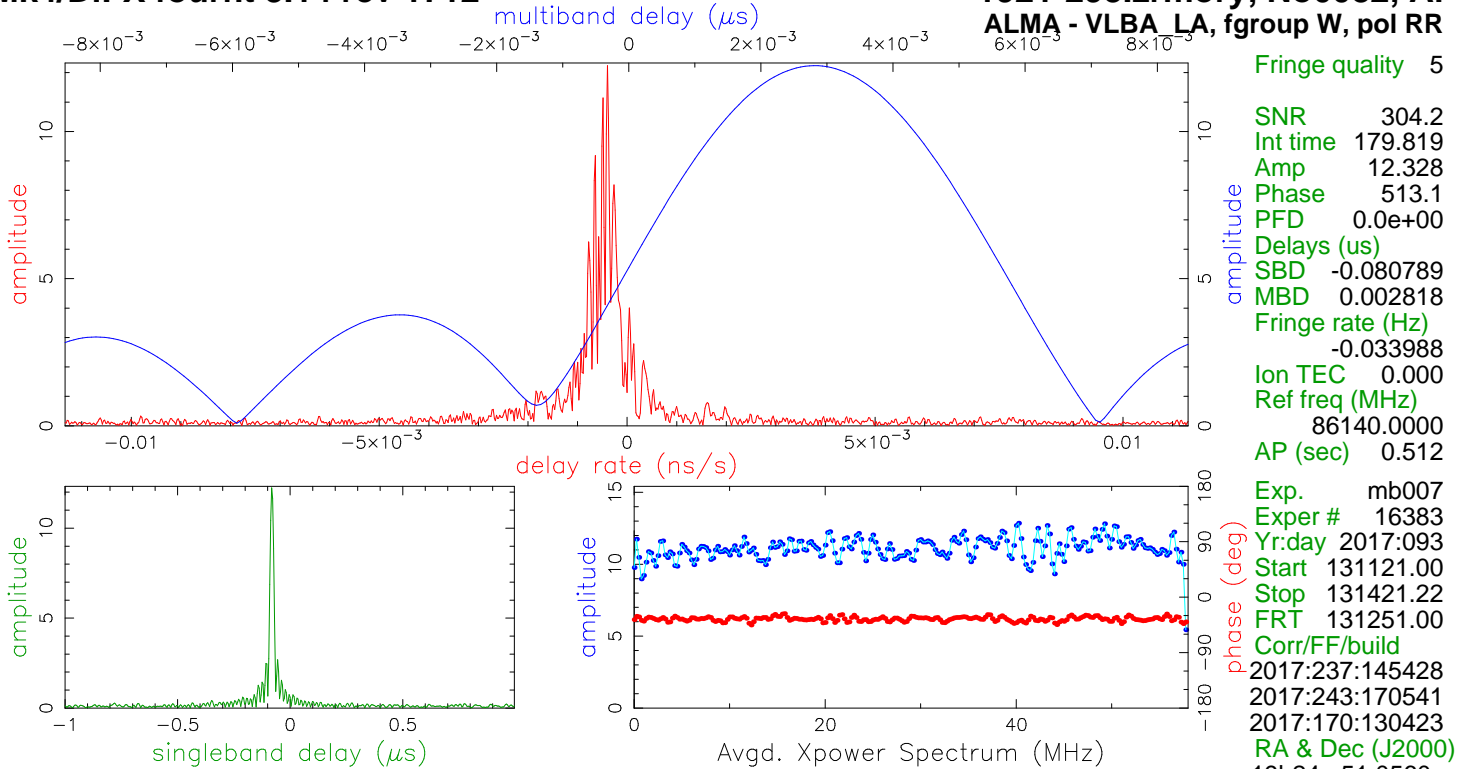


	86151.11	86209.70	86268.30	86326.89	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	Sbd box	214.2
A	0	0	0	0	APs used	
I	3890	296	1703	3109	PC freqs	
A:I	0:0	0:0	0:0	0:0	PC phase	
A:I	0:0	0:0	0:0	0:0	Main PC	
A	1000	1000	1000	1000	PC amp	
I	1000	1000	1000	1000	Chan ids	
A	W00UL	W01UL	W02UL	W03UL	Tracks	
I	W00UL	W01UL	W02UL	W03UL	Chan ids	
					Tracks	

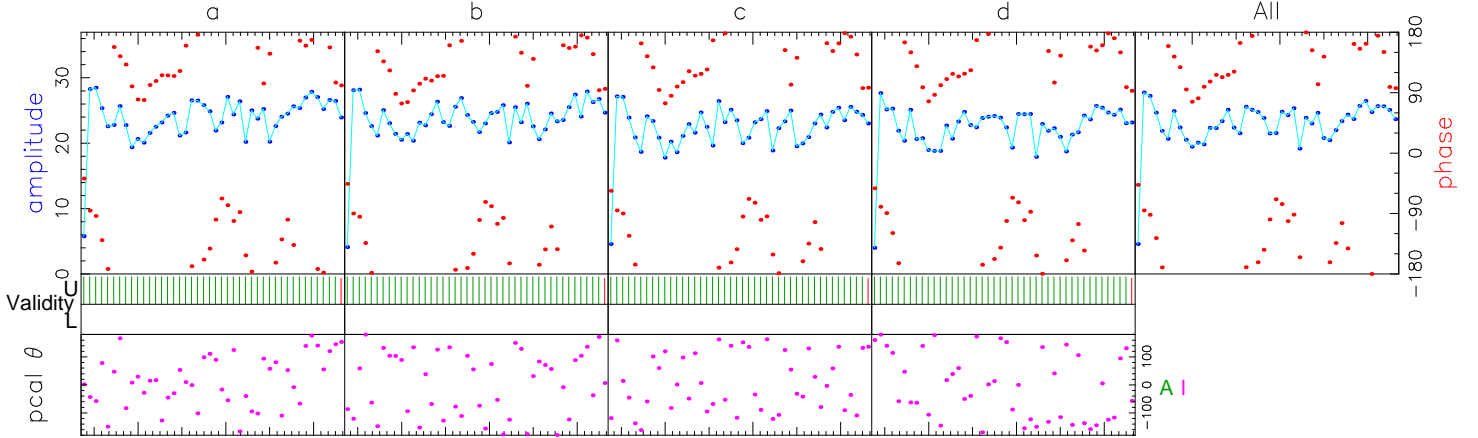
Group delay (usec)(sbd)	7.67630162114E+03	Apriori delay (usec)	7.67638435221E+03	Resid mbdelay (usec)	2.60226E-03	+/-	7.1E-06
Sband delay (usec)	7.67630349483E+03	Apriori clock (usec)	-2.1013105E+03	Resid sbdelay (usec)	-8.08574E-02	+/-	2.8E-05
Phase delay (usec)	7.67638435016E+03	Apriori clockrate (us/s)	1.8626131E-06	Resid phdelay (usec)	-2.04742E-06	+/-	1.1E-08
Delay rate (us/s)	-7.86146820959E-01	Apriori rate (us/s)	-7.86146427131E-01	Resid rate (us/s)	-3.93828E-07	+/-	1.0E-10
Total phase (deg)		Apriori accel (us/s/s)	1.58542064681E-06	Resid phase (deg)	277.8	+/-	0.3

ph/seg (deg)	63.9	1.1	Search (1024X16)	13.349	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	90.5	1.9	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)	5.9	0.3	Inc. seg. avg.	25.863	Bits/sample:	2x2	Sample rate (MSamp/s):	116	dr window (ns/s)	-0.011	0.011
amp/frq (%)	4.6	0.6	Inc. frq. avg.	13.857	Data rate (Mb/s):	928	nlags:	232	ion window (TEC)	0.00	0.00

A: az 250.7 el 62.2 pa 84.2 I: az 172.2 el 24.6 pa -7.0 u,v (fr/asec) 5145.543 -7574.395 simultaneous interpolator  
Control file: cf\_1234 Input file: /Exps/mb007/gvma\_58\_merged\_pc1/1234/No0082/AI..zrmory Output file: /Exps/mb007/gvma\_58\_merged\_pc1/1234/No0082/AI.W.21.zrmory



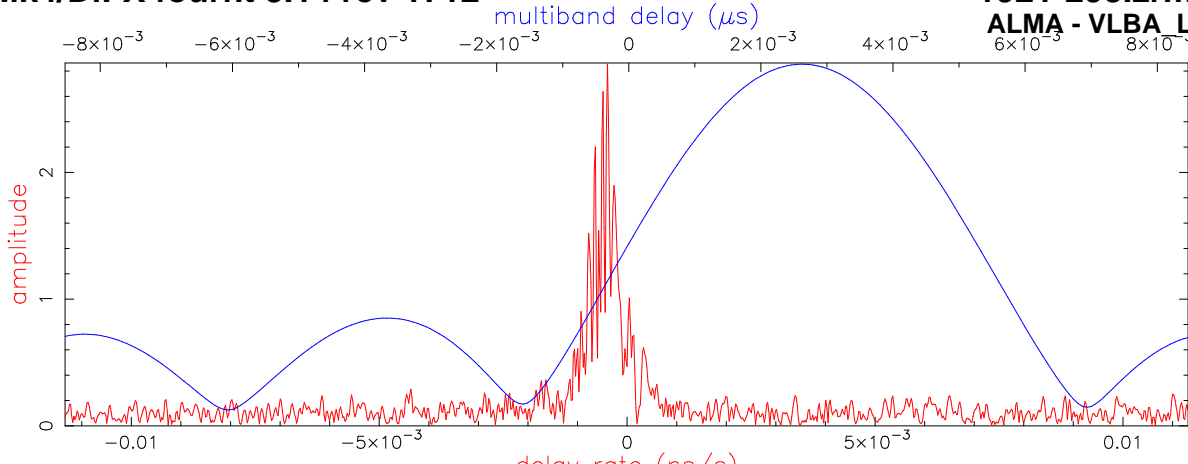
Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



86151.11	86209.70	86268.30	86326.89	Freq (MHz)	All
175.7	166.0	172.6	173.2	Phase	171.8
12.8	12.6	11.8	11.8	Ampl.	12.3
214.1	214.5	214.2	214.3	Sbd box	214.3
U/L 352/0	352/0	352/0	352/0	APs used	
A 0	0	0	0	PC freqs	
I 3890	296	1703	3109	PC freqs	
A:I 0:0	0:0	0:0	0:0	PC phase	
A:I 0:0	0:0	0:0	0:0	ManI PC	
A 1000	1000	1000	1000	PC amp	
I 1000	1000	1000	1000		
A W00UR	W01UR	W02UR	W03UR	Chan ids	
I W00UR	W01UR	W02UR	W03UR	Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	7.67630183652E+03	Apriori delay (usec)	7.67638435221E+03	Resid mbdelay (usec)	2.81764E-03 +/- 8.0E-06
Sband delay (usec)	7.67630356297E+03	Apriori clock (usec)	-2.1013105E+03	Resid sbdelay (usec)	-8.07892E-02 +/- 3.1E-05
Phase delay (usec)	7.67638435775E+03	Apriori clockrate (us/s)	1.8626131E-06	Resid phdelay (usec)	5.54166E-06 +/- 1.2E-08
Delay rate (us/s)	-7.86146821694E-01	Apriori rate (us/s)	-7.86146427131E-01	Resid rate (us/s)	-3.94563E-07 +/- 1.2E-10
Total phase (deg)	548.9	Apriori accel (us/s/s)	1.58542064681E-06	Resid phase (deg)	513.1 +/- 0.4

ph/seg (deg) 63.7 1.2 Theor. Amplitude 12.328 +/- 0.041 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 90.9 2.2 Search (1024X16) 11.984 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 5.0 0.4 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.009 0.009  
 amp/frq (%) 3.6 0.7 Inc. seg. avg. 22.970 Sample rate(MSamp/s): 116 dr window (ns/s) -0.011 0.011  
 Inc. frq. avg. 12.269 Data rate(Mb/s): 928 nlags: 232 t\_cohere infinite ion window (TEC) 0.00 0.00

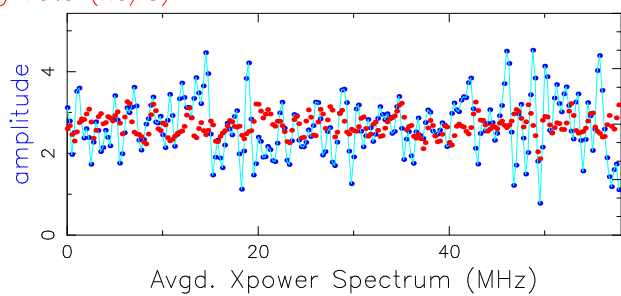
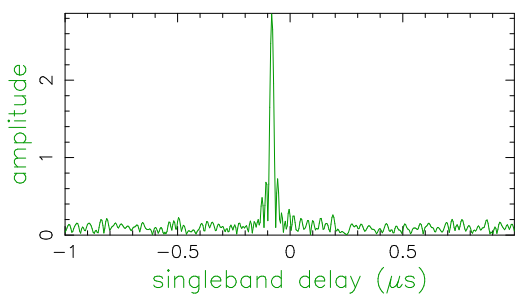
A: az 250.7 el 62.2 pa 84.2 I: az 172.2 el 24.6 pa -7.0 u,v (fr/asec) 5145.543 -7574.395 simultaneous interpolator  
 Control file: cf\_1234 Input file: /Exps/mb007/gmva\_58\_merged\_pc1/1234/No0082/AI..zrmory Output file: /Exps/mb007/gmva\_58\_merged\_pc1/1234/No0082/AI.W.22.zrmory



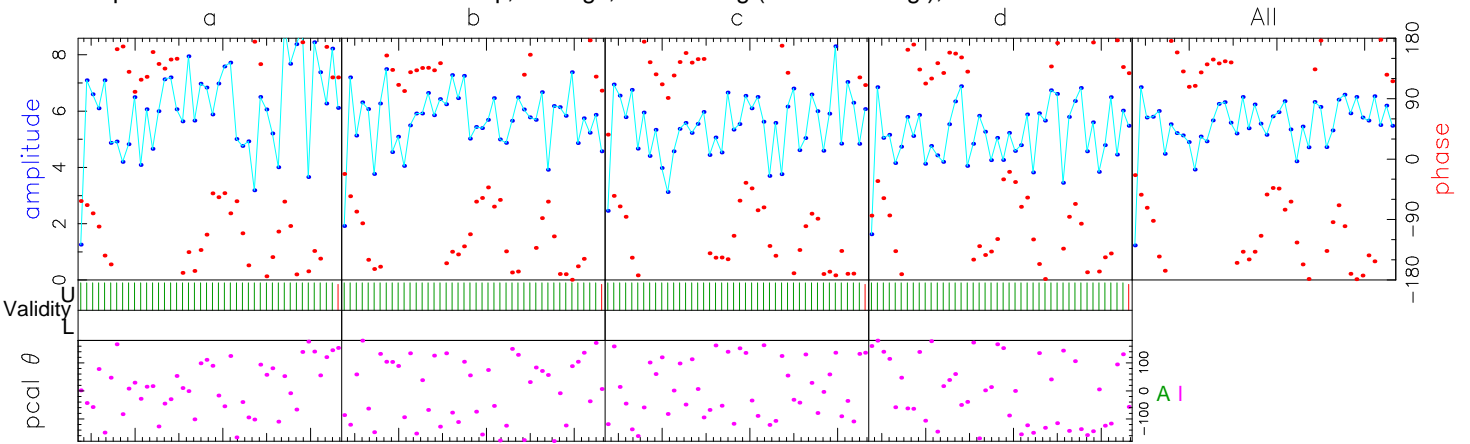
Fringe quality 5

SNR 70.7  
Int time 179.819  
Amp 2.864  
Phase 183.9  
PFD 0.0e+00  
Delays (us)  
SBD -0.081196  
MBD 0.002635  
Fringe rate (Hz)  
-0.033961  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. mb007  
Exper # 16383  
Yr:day 2017:093  
Start 131121.00  
Stop 131421.22  
FRT 131251.00  
Corr/FF/build  
2017:237:145428  
2017:243:170542  
2017:170:130423  
RA & Dec (J2000)  
19h24m51.0560s  
-29°14'30.121"



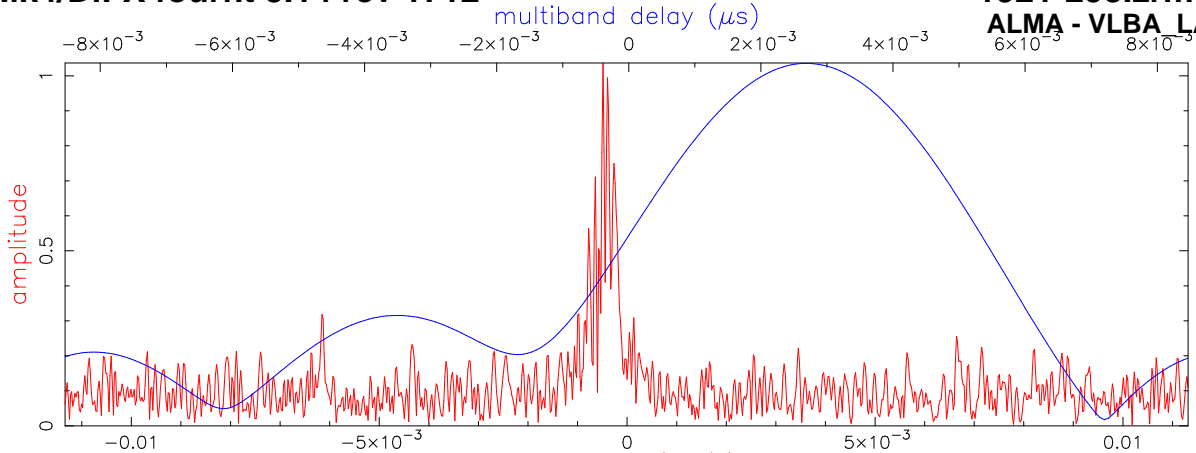
Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



86151.11	86209.70	86268.30	86326.89	Freq (MHz)	All
-156.0	-160.0	-155.2	-158.4	Phase	-157.4
3.2	2.9	2.7	2.5	Ampl.	2.9
213.9	214.3	214.3	214.2	Sbd box	214.2
U/L 352/0	352/0	352/0	352/0	APs used	
A 0	0	0	0	PC freqs	
I 3890	296	1703	3109	PC freqs	
A:I 0:0	0:0	0:0	0:0	PC phase	
A:I 0:0	0:0	0:0	0:0	ManI PC	
A 1000	1000	1000	1000	PC amp	
I 1000	1000	1000	1000		
A W00UL	W01UL	W02UL	W03UL	Chan ids	
I W00UR	W01UR	W02UR	W03UR	Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	7.67630165390E+03	Apriori delay (usec)	7.67638435221E+03	Resid mbdelay (usec)	2.63503E-03 +/- 3.4E-05
Sband delay (usec)	7.67630315662E+03	Apriori clock (usec)	-2.1013105E+03	Resid sbdelay (usec)	-8.11956E-02 +/- 1.3E-04
Phase delay (usec)	7.67638434714E+03	Apriori clockrate (us/s)	1.8626131E-06	Resid phdelay (usec)	-5.07460E-06 +/- 5.2E-08
Delay rate (us/s)	-7.86146821387E-01	Apriori rate (us/s)	-7.86146427131E-01	Resid rate (us/s)	-3.94256E-07 +/- 5.0E-10
Total phase (deg)	219.7	Apriori accel (us/s/s)	1.58542064681E-06	Resid phase (deg)	183.9 +/- 1.6

ph/seg (deg) 64.2 5.4 Theor. Amplitude 2.864 +/- 0.041 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 99.0 9.4 Search (1024X16) 2.756 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 2.7 1.6 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.009 0.009  
 amp/frq (%) 9.0 2.8 Inc. seg. avg. 5.518 Sample rate(MSamp/s): 116 Data rate(Mb/s): 928 nlags: 232 t\_cohere infinite dr window (ns/s) -0.011 0.011  
 Inc. frq. avg. 2.856 ion window (TEC) 0.00 0.00

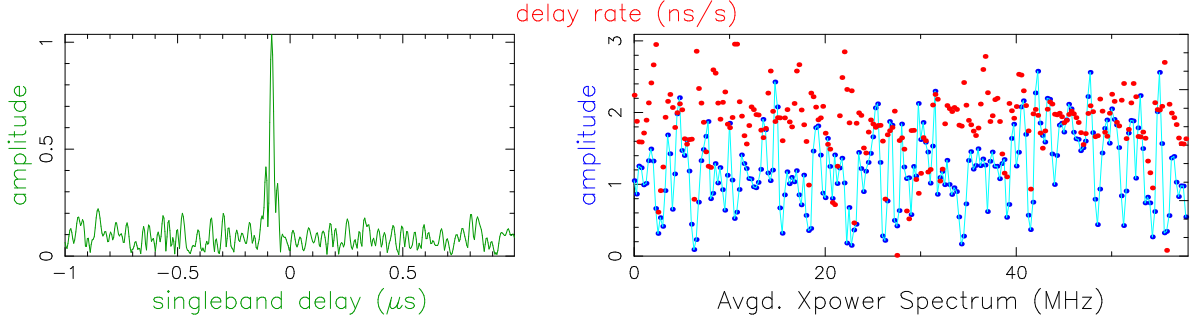
A: az 250.7 el 62.2 pa 84.2 I: az 172.2 el 24.6 pa -7.0 u,v (fr/asec) 5145.543 -7574.395 simultaneous interpolator  
 Control file: cf\_1234 Input file: /Exps/mb007/gmva\_58\_merged\_pc1/1234/No0082/AI..zrmory Output file: /Exps/mb007/gmva\_58\_merged\_pc1/1234/No0082/AI.W.23.zrmory



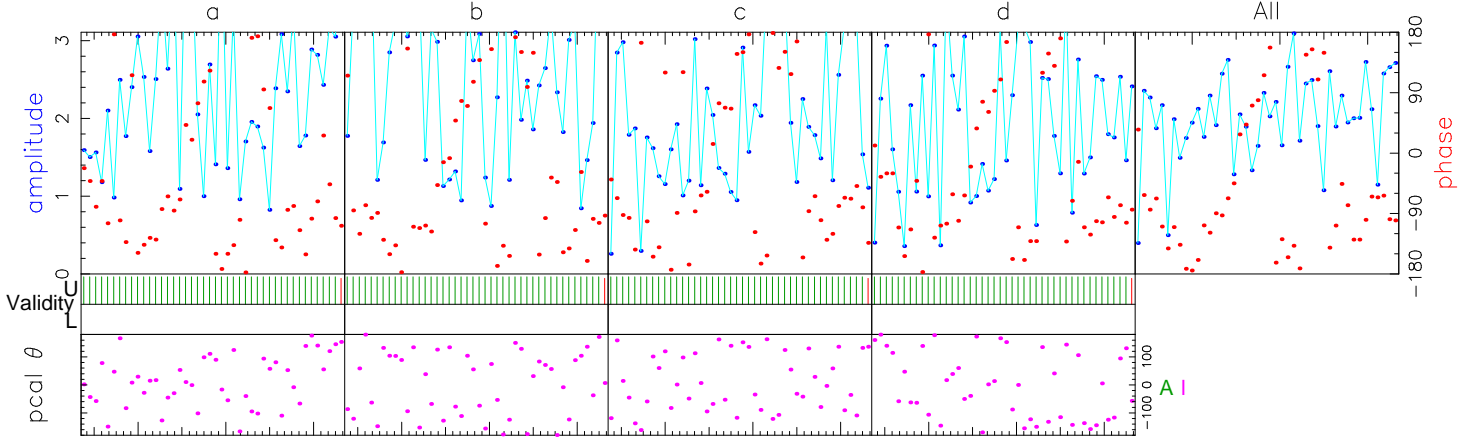
Fringe quality 8

SNR 25.6  
Int time 179.819  
Amp 1.037  
Phase 222.3  
PFD 0.0e+00  
Delays (us)  
SBD -0.081701  
MBD 0.002686  
Fringe rate (Hz)  
-0.042241  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. mb007  
Exper # 16383  
Yr:day 2017:093  
Start 131121.00  
Stop 131421.22  
FRT 131251.00  
Corr/FF/build  
2017:237:145428  
2017:243:170543  
2017:170:130423  
RA & Dec (J2000)  
19h24m51.0560s  
-29°14'30.121"



Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec

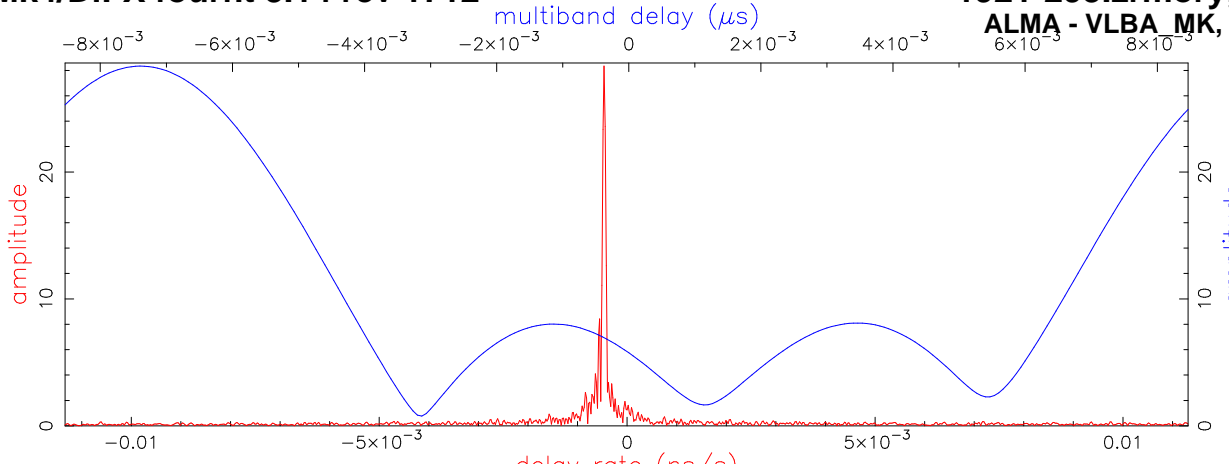


86151.11	86209.70	86268.30	86326.89	Freq (MHz)	All
-109.9	-127.7	-125.4	-110.4	Phase	-119.0
1.1	1.3	0.9	0.9	Ampl.	1.0
214.0	213.9	214.2	214.2	Sbd box	214.0
U/L 352/0	352/0	352/0	352/0	APs used	
A 0	0	0	0	PC freqs	
I 3890	296	1703	3109	PC freqs	
A:I 0:0	0:0	0:0	0:0	PC phase	
A:I 0:0	0:0	0:0	0:0	ManI PC	
A 1000	1000	1000	1000	PC amp	
I 1000	1000	1000	1000		
A W00UR	W01UR	W02UR	W03UR	Chan ids	
I W00UL	W01UL	W02UL	W03UL	Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	7.67630170514E+03	Apriori delay (usec)	7.67638435221E+03	Resid mbdelay (usec)	2.68627E-03 +/- 9.5E-05
Sband delay (usec)	7.67630265124E+03	Apriori clock (usec)	-2.1013105E+03	Resid sbdelay (usec)	-8.17010E-02 +/- 3.7E-04
Phase delay (usec)	7.67638434837E+03	Apriori clockrate (us/s)	1.8626131E-06	Resid phdelay (usec)	-3.83807E-06 +/- 1.4E-07
Delay rate (us/s)	-7.86146917508E-01	Apriori rate (us/s)	-7.86146427131E-01	Resid rate (us/s)	-4.90377E-07 +/- 1.4E-09
Total phase (deg)	258.0	Apriori accel (us/s/s)	1.58542064681E-06	Resid phase (deg)	222.3 +/- 4.5

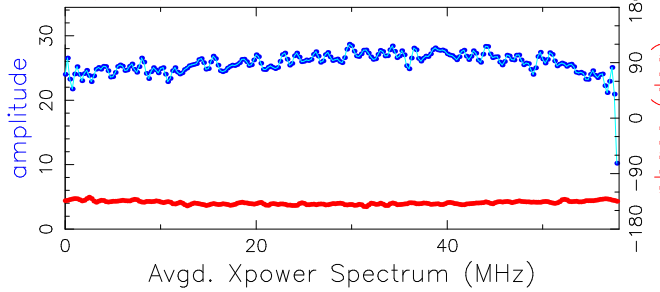
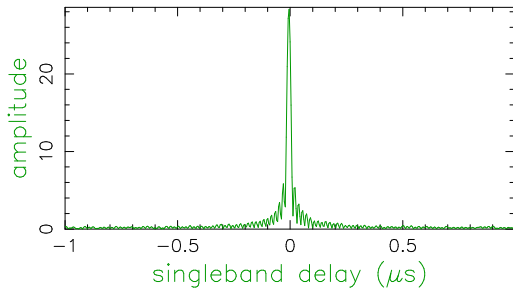
RMS 74.1 Theor. 14.9 Amplitude 1.037 +/- 0.041 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 74.1 14.9 Search (1024X16) 1.006 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 109.0 25.9 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.009 0.009  
 ph/frq (deg) 11.7 4.5 Inc. seg. avg. 1.952 Sample rate(MSamp/s): 116 dr window (ns/s) -0.011 0.011  
 amp/frq (%) 16.1 7.8 Inc. frq. avg. 1.044 Data rate(Mb/s): 928 nlags: 232 t\_cohere infinite ion window (TEC) 0.00 0.00

A: az 250.7 el 62.2 pa 84.2 I: az 172.2 el 24.6 pa -7.0 u,v (fr/asec) 5145.543 -7574.395 simultaneous interpolator  
 Control file: cf\_1234 Input file: /Exps/mb007/gmva\_58\_merged\_pc1/1234/No0082/AI..zrmory Output file: /Exps/mb007/gmva\_58\_merged\_pc1/1234/No0082/AI.W.24.zrmory

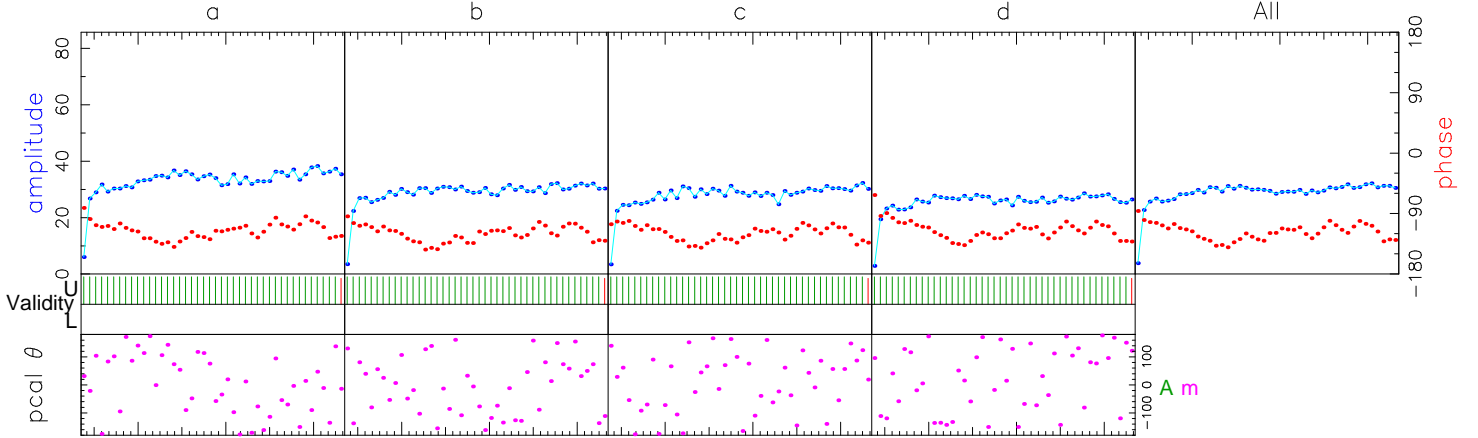




Fringe quality 8  
 SNR 705.1  
 Int time 179.817  
 Amp 28.586  
 Phase -118.1  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.005538  
 MBD -0.007389  
 Fringe rate (Hz)  
 -0.040802  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512  
 Exp. mb007  
 Exper # 16383  
 Yr:day 2017:093  
 Start 131121.00  
 Stop 131421.22  
 FRT 131251.00  
 Corr/FF/build  
 2017:237:145428  
 2017:243:170544  
 2017:170:130423  
 RA & Dec (J2000)  
 19h24m51.0560s  
 -29°14'30.121"



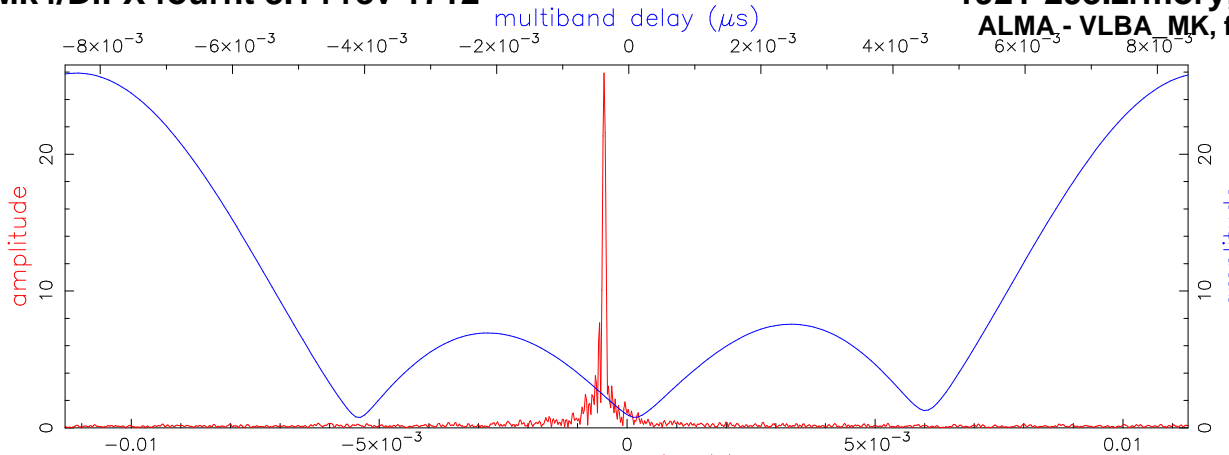
Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



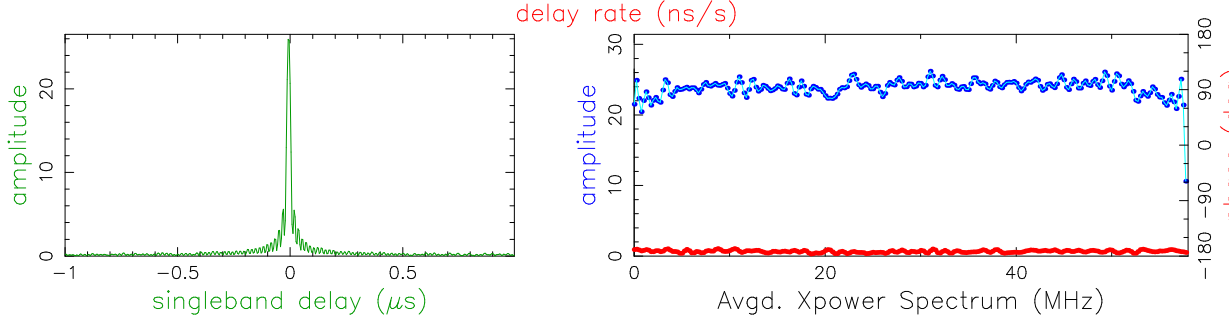
	86151.11	86209.70	86268.30	86326.89	Freq (MHz)	All
	-116.1	-120.5	-120.0	-115.7	Phase	-118.1
	32.6	28.4	27.5	25.1	Ampl.	28.4
	231.9	231.5	231.9	231.6	Sbd box	231.7
U/L	352/0	352/0	352/0	352/0	APs used	
A	0	0	0	0	PC freqs	
m	3890	296	1703	3109	PC freqs	
A:m	0:0	0:0	0:0	0:0	PC phase	
A:m	0:0	0:0	0:0	0:0	Mani PC	
A	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000		
A	W00UL	W01UL	W02UL	W03UL	Chan ids	
m	W00UL	W01UL	W02UL	W03UL	Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	1.04801585203E+04	Apriori delay (usec)	1.04801659095E+04	Resid mbdelay (usec)	-7.38920E-03	+/-	3.4E-06
Sband delay (usec)	1.04801603718E+04	Apriori clock (usec)	-2.1066985E+03	Resid sbdelay (usec)	-5.53766E-03	+/-	1.3E-05
Phase delay (usec)	1.04801659057E+04	Apriori clockrate (us/s)	1.8247400E-06	Resid phdelay (usec)	-3.80772E-06	+/-	5.2E-09
Delay rate (us/s)	-1.70893775837E+00	Apriori rate (us/s)	-1.70893728471E+00	Resid rate (us/s)	-4.73668E-07	+/-	5.0E-11
Total phase (deg)	41.3	Apriori accel (us/s/s)	-2.68596395991E-05	Resid phase (deg)	-118.1	+/-	0.2

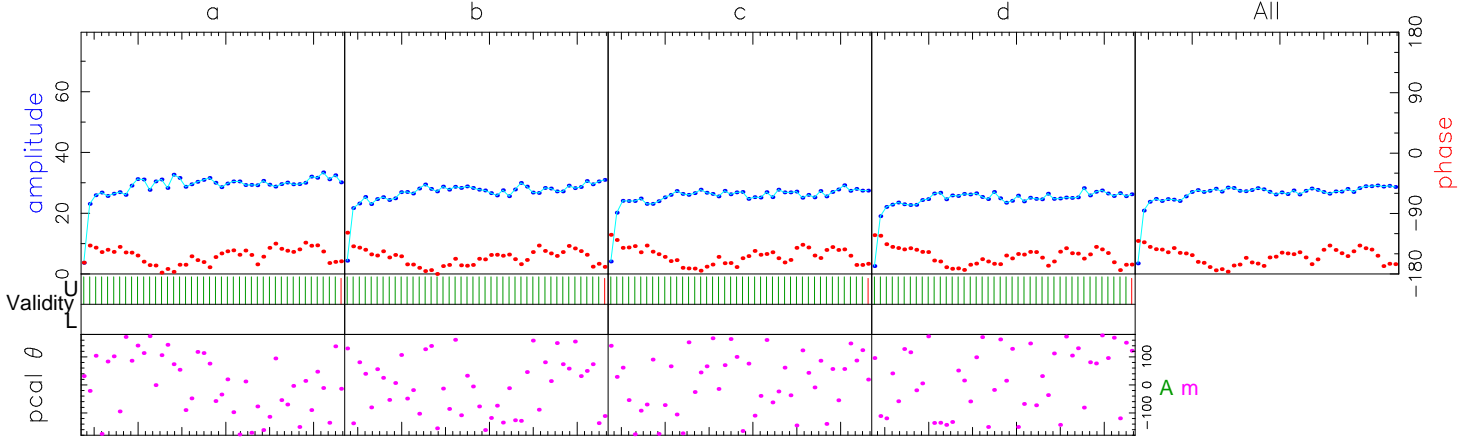
ph/seg (deg)	11.7	0.5	Amplitude	28.586 +/- 0.041	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	14.9	0.9	Search (1024X16)	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	3.1	0.2	Inc. seg. avg.	28.874	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.009 0.009
amp/frq (%)	9.5	0.3	Inc. frq. avg.	28.379	Sample rate(MSamp/s): 116	Data rate(Mb/s): 928	dr window (ns/s)	-0.011 0.011
					nlags: 232	t_cohere infinite	ion window (TEC)	0.00 0.00



Fringe quality 8  
SNR 654.3  
Int time 179.817  
Amp 26.526  
Phase -154.5  
PFD 0.0e+00  
Delays (us)  
SBD -0.006607  
MBD -0.008338  
Fringe rate (Hz)  
-0.040820  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512  
Exp. mb007  
Exper # 16383  
Yr:day 2017:093  
Start 131121.00  
Stop 131421.22  
FRT 131251.00  
Corr/FF/build  
2017:237:145428  
2017:243:170545  
2017:170:130423  
RA & Dec (J2000)  
19h24m51.0560s  
-29°14'30.121"



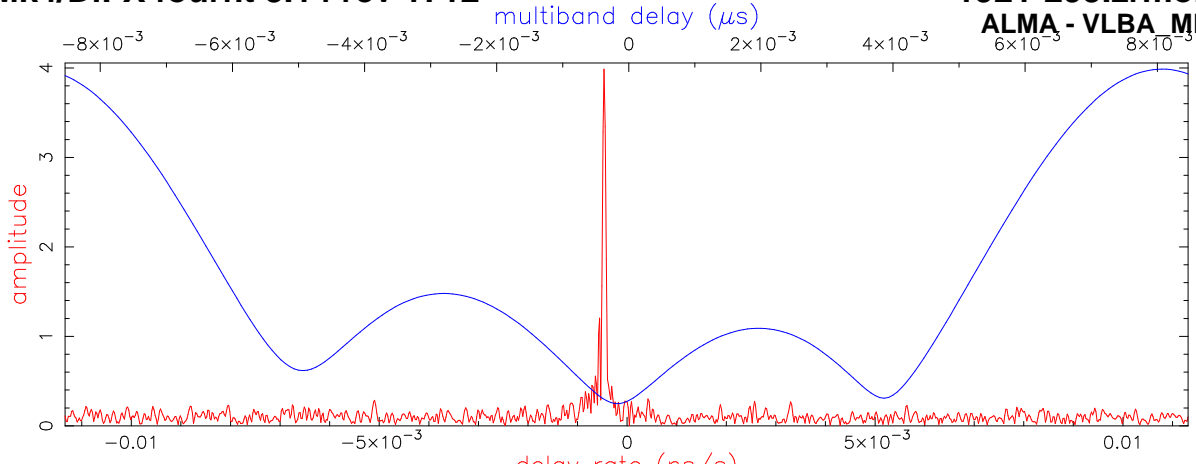
Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



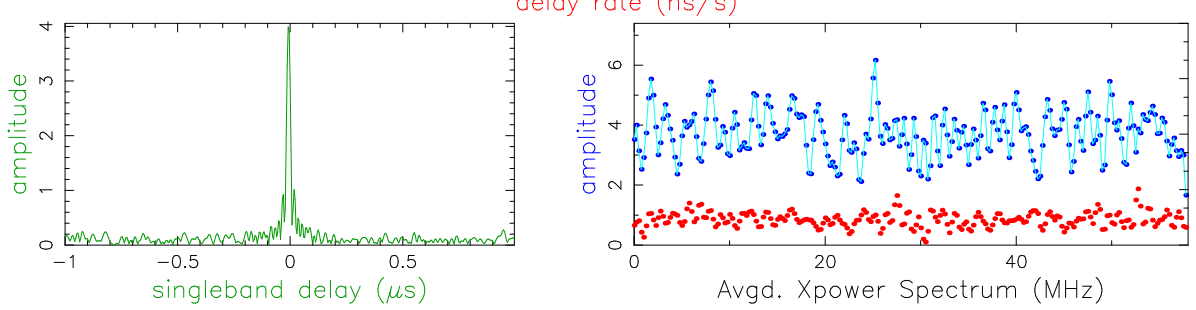
	86151.11	86209.70	86268.30	86326.89	Freq (MHz)	All
	-152.9	-156.5	-154.0	-154.7	Phase	-154.5
	28.4	26.3	25.0	24.1	Ampl.	26.0
	231.4	231.5	231.5	231.4	Sbd box	231.5
U/L	352/0	352/0	352/0	352/0	APs used	
A	0	0	0	0	PC freqs	
m	3890	296	1703	3109	PC freqs	
A:m	0:0	0:0	0:0	0:0	PC phase	
A:m	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000		
A	W00UR	W01UR	W02UR	W03UR	Chan ids	
m	W00UR	W01UR	W02UR	W03UR	Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	1.04801575712E+04	Apriori delay (usec)	1.04801659095E+04	Resid mbdelay (usec)	-8.33830E-03	+/-	3.7E-06
Sband delay (usec)	1.04801593029E+04	Apriori clock (usec)	-2.1066985E+03	Resid sbdelay (usec)	-6.60662E-03	+/-	1.5E-05
Phase delay (usec)	1.04801659045E+04	Apriori clockrate (us/s)	1.8247400E-06	Resid phdelay (usec)	-4.98248E-06	+/-	5.6E-09
Delay rate (us/s)	-1.70893775859E+00	Apriori rate (us/s)	-1.70893728471E+00	Resid rate (us/s)	-4.73883E-07	+/-	5.4E-11
Total phase (deg)	4.9	Apriori accel (us/s/s)	-2.68596395991E-05	Resid phase (deg)	-154.5	+/-	0.2

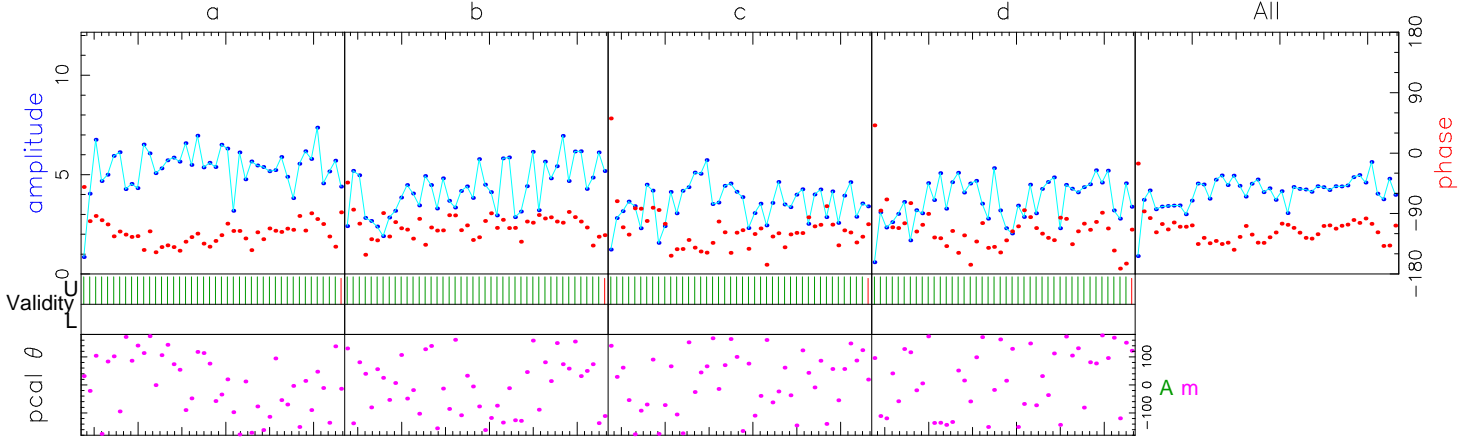
ph/seg (deg)	11.5	Theor.	0.6	Amplitude	26.526 +/- 0.041	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	14.6		1.0	Search (1024X16)	24.982	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	SampCntNorm:	enabled	mb window (us)	-0.009	0.009
ph/frq (deg)	1.9		0.2	Inc. seg. avg.	26.442	Bits/sample:	2x2	Sample rate (MSamp/s):	116	dr window (ns/s)	-0.011	0.011
amp/frq (%)	6.5		0.3	Inc. frq. avg.	25.956	Data rate (Mb/s):	928	nlags:	232	ion window (TEC)	0.00	0.00



Fringe quality 8  
 SNR 100.0  
 Int time 179.817  
 Amp 4.056  
 Phase -116.9  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.006913  
 MBD -0.008976  
 Fringe rate (Hz)  
 -0.040865  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512  
 Exp. mb007  
 Exper # 16383  
 Yr:day 2017:093  
 Start 131121.00  
 Stop 131421.22  
 FRT 131251.00  
 Corr/FF/build  
 2017:237:145428  
 2017:243:170546  
 2017:170:130423  
 RA & Dec (J2000)  
 19h24m51.0560s  
 -29°14'30.121"



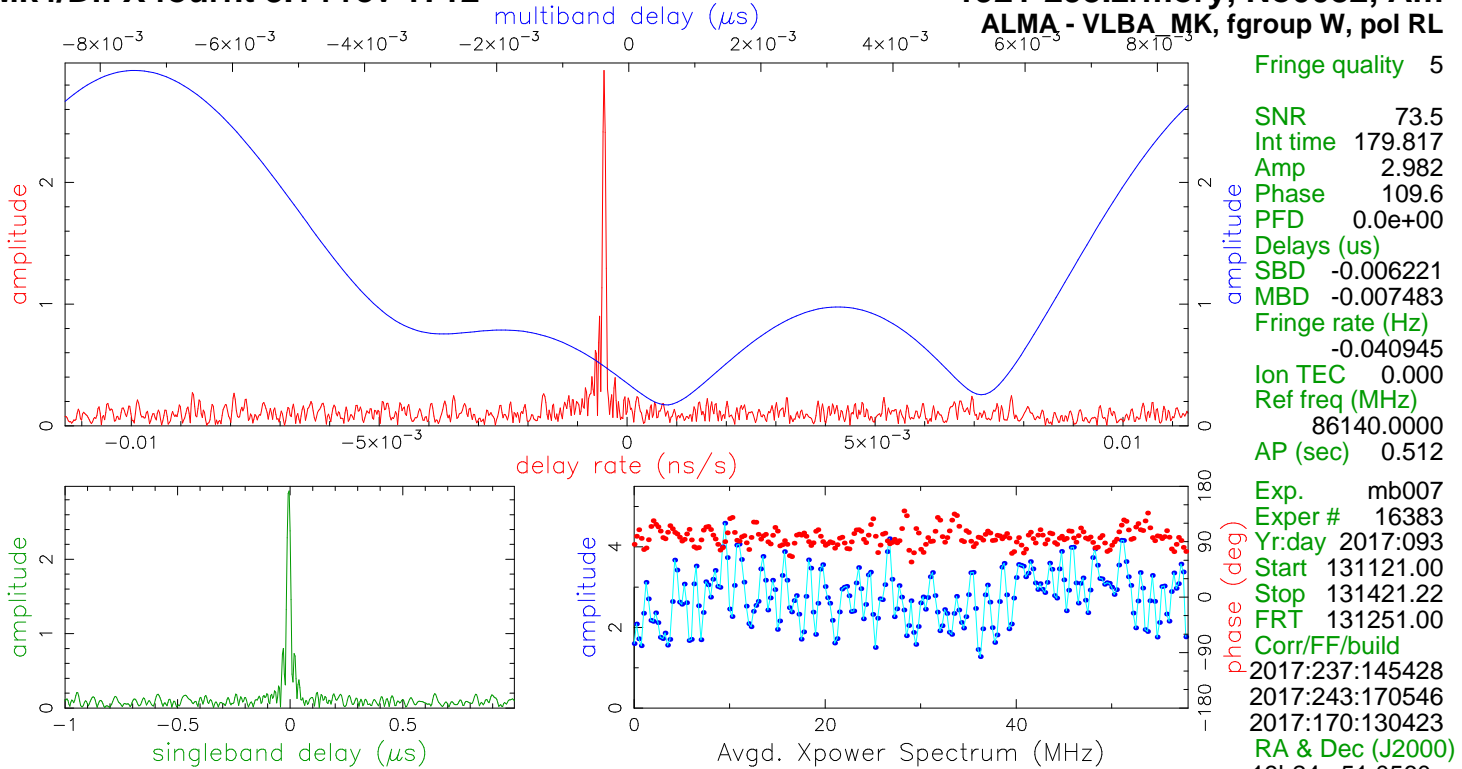
Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



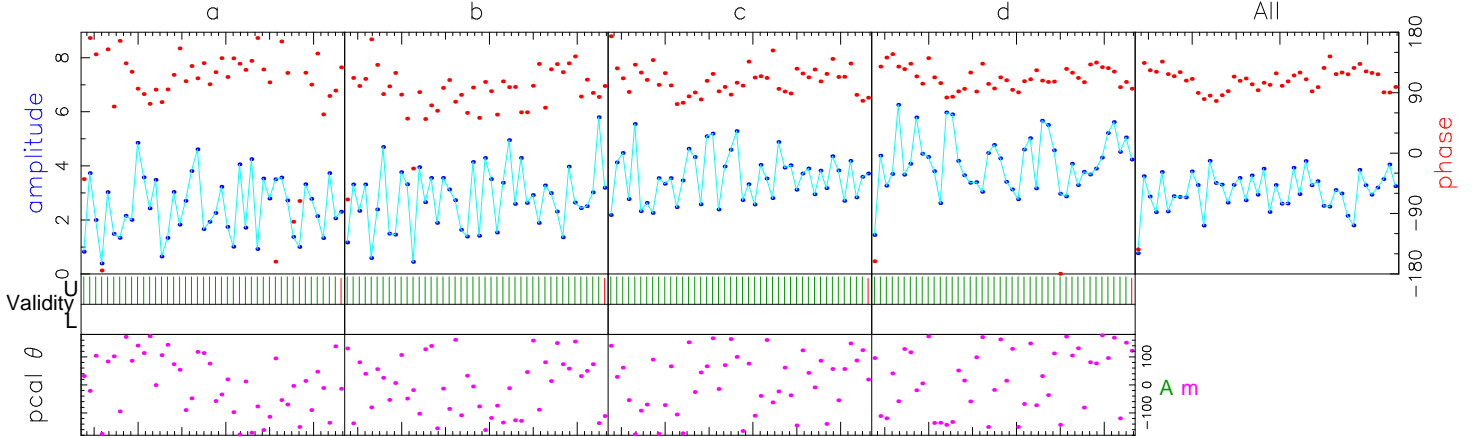
	86151.11	86209.70	86268.30	86326.89	86385.48	All
86151.11	-120.2	-108.6	-120.1	-118.9	-120.1	-116.9
U/L	5.1	4.2	3.3	3.4	3.3	4.0
A	231.6	231.4	231.5	231.1	231.4	231.4
m	352/0	352/0	352/0	352/0	352/0	352/0
A	0	0	0	0	0	0
m	3890	296	1703	3109	3109	3109
A:m	0:0	0:0	0:0	0:0	0:0	0:0
A:m	0:0	0:0	0:0	0:0	0:0	0:0
A	1000	1000	1000	1000	1000	1000
m	1000	1000	1000	1000	1000	1000
A	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR

Group delay (usec)(sbd)	1.04801569332E+04	Apriori delay (usec)	1.04801659095E+04	Resid mbdelay (usec)	-8.97625E-03	+/-	2.4E-05
Sband delay (usec)	1.04801589969E+04	Apriori clock (usec)	-2.1066985E+03	Resid sbdelay (usec)	-6.91255E-03	+/-	9.5E-05
Phase delay (usec)	1.04801659057E+04	Apriori clockrate (us/s)	1.8247400E-06	Resid phdelay (usec)	-3.76986E-06	+/-	3.7E-08
Delay rate (us/s)	-1.70893775910E+00	Apriori rate (us/s)	-1.70893728471E+00	Resid rate (us/s)	-4.74396E-07	+/-	3.5E-10
Total phase (deg)	42.5	Apriori accel (us/s/s)	-2.68596395991E-05	Resid phase (deg)	-116.9	+/-	1.1

ph/seg (deg)	20.2	Theor.	3.8	Amplitude	4.056 +/- 0.041	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	18.3	6.6	Interp.	0.000	3.791	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	6.8	1.1	Inc. seg. avg.	4.120	4.004	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	18.1	2.0	Inc. frq. avg.	4.004	4.004	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



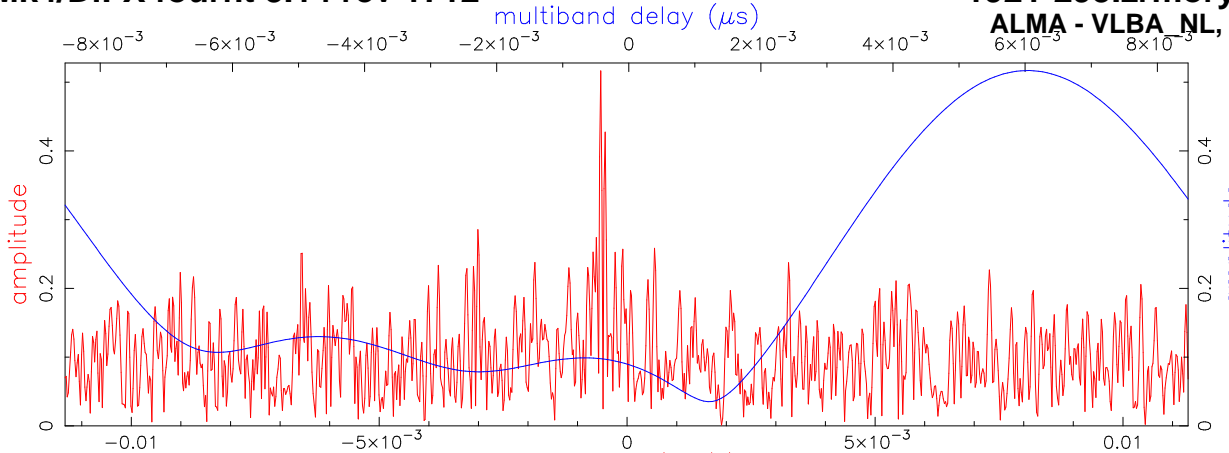
Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



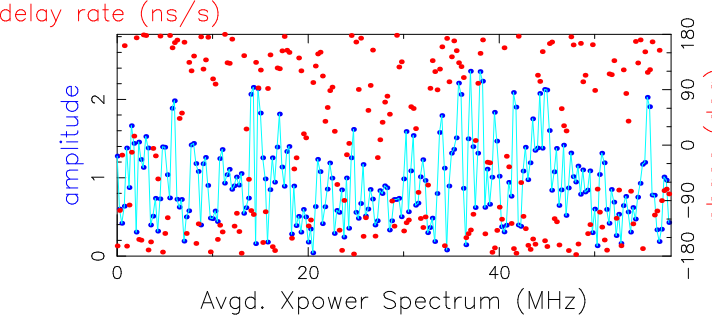
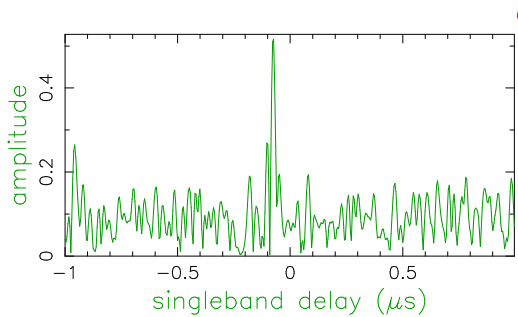
	86151.11	86209.70	86268.30	86326.89	Freq (MHz)	All
U/L	123.2	93.9	108.2	113.8	Phase	109.6
A	2.0	2.5	3.4	3.9	Ampl.	3.0
m	231.0	231.2	231.8	231.8	Sbd box	231.6
A	352/0	352/0	352/0	352/0	APs used	
A	0	0	0	0	PC freqs	
m	3890	296	1703	3109	PC freqs	
A:m	0:0	0:0	0:0	0:0	PC phase	
A:m	0:0	0:0	0:0	0:0	Mani PC	
A	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000	Chan ids	
A	W00UR	W01UR	W02UR	W03UR	Tracks	
m	W00UL	W01UL	W02UL	W03UL	Chan ids	
					Tracks	

Group delay (usec)(sbd)	1.04801584268E+04	Apriori delay (usec)	1.04801659095E+04	Resid mbdelay (usec)	-7.48266E-03	+/-	3.3E-05
Sband delay (usec)	1.04801596888E+04	Apriori clock (usec)	-2.1066985E+03	Resid sbdelay (usec)	-6.22069E-03	+/-	1.3E-04
Phase delay (usec)	1.04801659130E+04	Apriori clockrate (us/s)	1.8247400E-06	Resid phdelay (usec)	3.53435E-06	+/-	5.0E-08
Delay rate (us/s)	-1.70893776004E+00	Apriori rate (us/s)	-1.70893728471E+00	Resid rate (us/s)	-4.75330E-07	+/-	4.8E-10
Total phase (deg)	269.0	Apriori accel (us/s/s)	-2.68596395991E-05	Resid phase (deg)	109.6	+/-	1.6

ph/seg (deg)	22.3	RMS	22.3	Theor.	5.2	Amplitude	2.982 +/- 0.041	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	23.2	Search (1024X16)	2.783	Interp.	0.000	Search	2.783	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	15.0	Inc. seg. avg.	3.043	Inc. seg. avg.	3.043	Inc. seg. avg.	3.043	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.009 0.009	
amp/frq (%)	24.7	Inc. frq. avg.	2.962	Inc. frq. avg.	2.962	Inc. frq. avg.	2.962	Sample rate(MSamp/s):	116	nlags: 232	t_cohere infinite	dr window (ns/s)	-0.011 0.011
								Data rate(Mb/s):	928		ion window (TEC)	0.00 0.00	

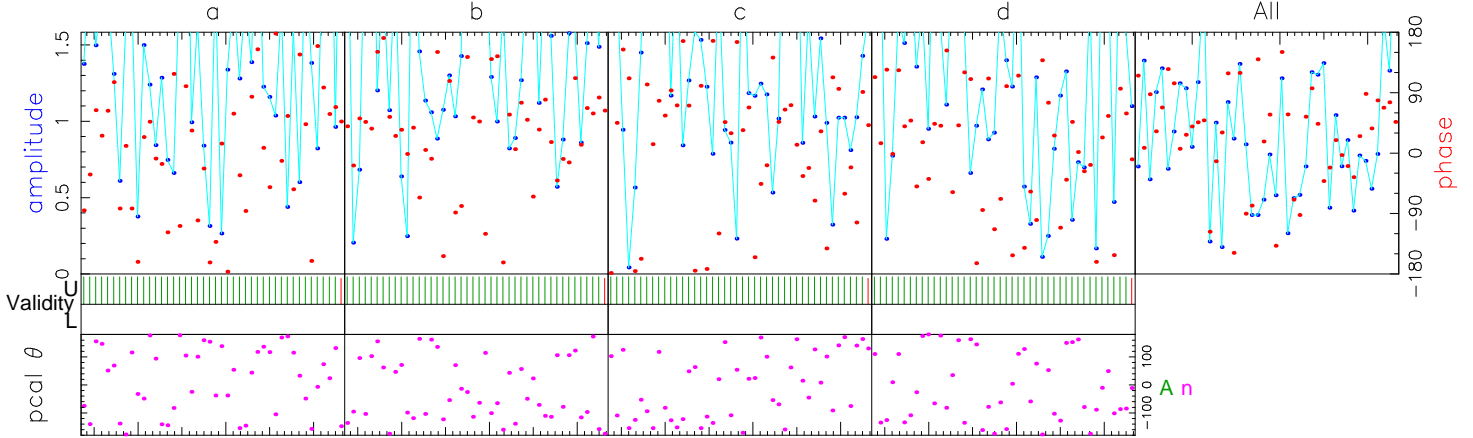


Fringe quality 9  
 SNR 13.0  
 Int time 179.818  
 Amp 0.528  
 Phase 390.4  
 PFD 1.2e-30  
 Delays (us)  
 SBD -0.075191  
 MBD 0.005936  
 Fringe rate (Hz)  
 -0.045836  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. mb007  
 Exper # 16383  
 Yr:day 2017:093  
 Start 131121.00  
 Stop 131421.22  
 FRT 131251.00  
 Corr/FF/build  
 2017:237:145428  
 2017:243:170548  
 2017:170:130423  
 RA & Dec (J2000)  
 19h24m51.0560s  
 -29°14'30.121"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec

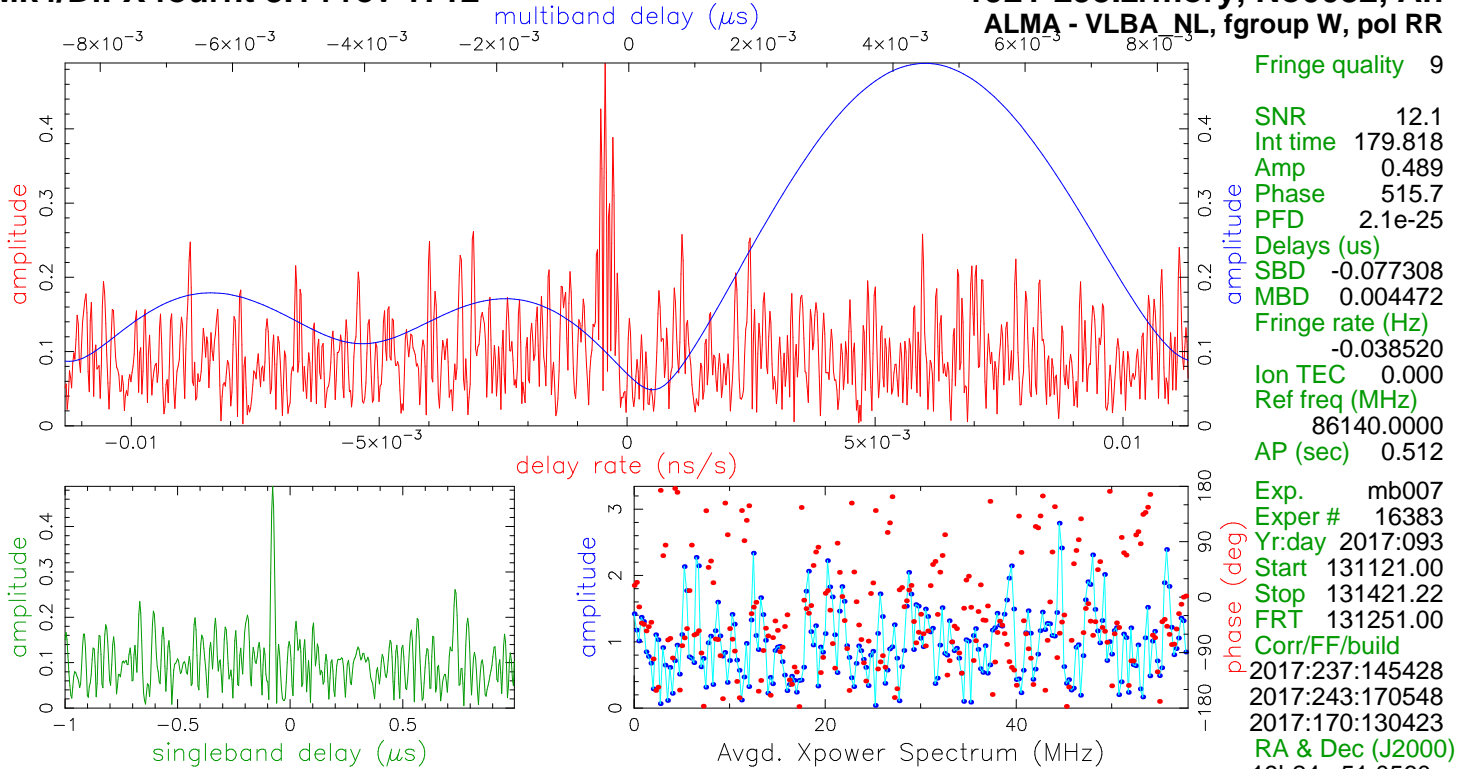


	86151.11	86209.70	86268.30	86326.89	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	APs used	215.6
A	0	0	0	0	PC freqs	
n	3890	296	1703	3109	PC freqs	
A:n	0:0	0:0	0:0	0:0	PC phase	
A:n	0:0	0:0	0:0	0:0	Mani PC	
A	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	Chan ids	
A	W00UL	W01UL	W02UL	W03UL	Tracks	
n	W00UL	W01UL	W02UL	W03UL	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	Tracks	

Group delay (usec)(sbd) 9.70899799278E+03 Apriori delay (usec) 9.70907738975E+03 Resid mbdelay (usec) 5.93636E-03 +/- 1.9E-04  
 Sband delay (usec) 9.70900219885E+03 Apriori clock (usec) -2.1110715E+03 Resid sbdelay (usec) -7.51909E-02 +/- 7.3E-04  
 Phase delay (usec) 9.70907739133E+03 Apriori clockrate (us/s) 1.4650534E-06 Resid phdelay (usec) 1.58252E-06 +/- 2.8E-07  
 Delay rate (us/s) -5.16325981432E-01 Apriori rate (us/s) -5.16325449321E-01 Resid rate (us/s) -5.32111E-07 +/- 2.7E-09  
 Total phase (deg) 517.4 Apriori accel (us/s/s) -4.79440526067E-06 Resid phase (deg) 390.4 +/- 8.8

RMS Theor. Amplitude 0.528 +/- 0.041 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 74.1 29.2 Search (1024X16) 0.510 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 112.1 51.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.009 0.009  
 ph/frq (deg) 17.0 8.8 Inc. seg. avg. 0.811 Sample rate(MSamp/s): 116 dr window (ns/s) -0.011 0.011  
 amp/frq (%) 24.1 15.4 Inc. frq. avg. 0.521 Data rate(Mb/s): 928 nlags: 232 t\_cohere infinite ion window (TEC) 0.00 0.00

A: az 250.7 el 62.2 pa 84.2 n: az 186.0 el 18.8 pa 5.3 u,v (fr/asec) 3367.809 -7931.530 simultaneous interpolator  
 Control file: cf\_1234 Input file: /Exps/mb007/gmva\_58\_merged\_pc1/1234/No0082/An..zrmony Output file: /Exps/mb007/gmva\_58\_merged\_pc1/1234/No0082/An.W.29.zrmony



Fringe quality 9

SNR 12.1

Int time 179.818

Amp 0.489

Phase 515.7

PFD 2.1e-25

Delays (us)

SBD -0.077308

MBD 0.004472

Fringe rate (Hz)

-0.038520

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. mb007

Exper # 16383

Yr:day 2017:093

Start 131121.00

Stop 131421.22

FRT 131251.00

Corr/FF/build

2017:237:145428

2017:243:170548

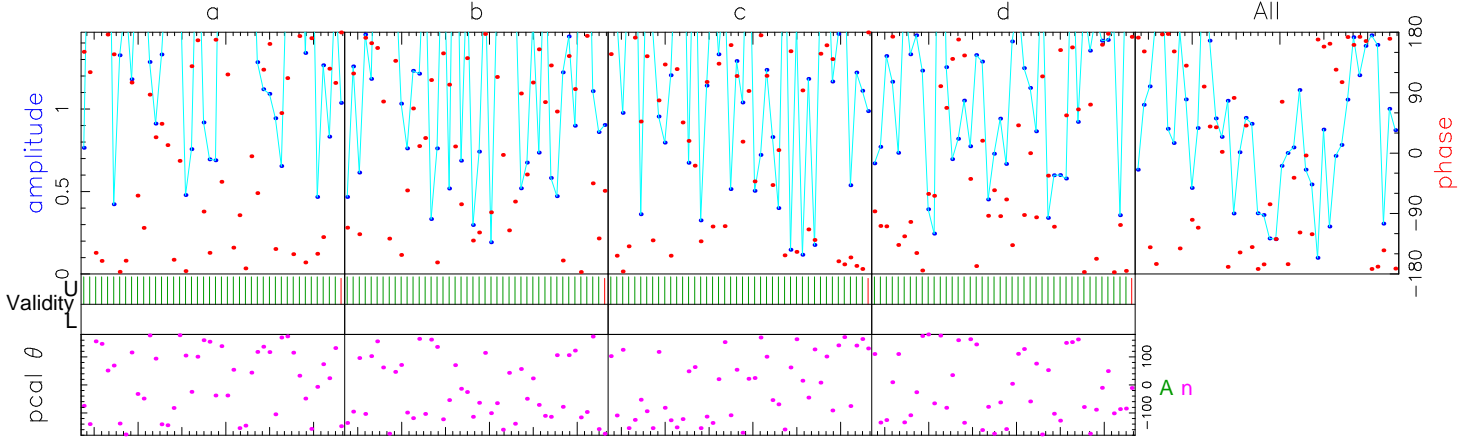
2017:170:130423

RA & Dec (J2000)

19h24m51.0560s

-29°14'30.121"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	86151.11	86209.70	86268.30	86326.89	Freq (MHz)	All
	-174.7	150.2	170.7	-174.9	Phase	174.4
	0.6	0.4	0.6	0.4	Ampl.	0.5
	214.8	38.5	215.8	261.0	Sbd box	215.1
U/L	352/0	352/0	352/0	352/0	APs used	
A	0	0	0	0	PC freqs	
n	3890	296	1703	3109	PC freqs	
A:n	0:0	0:0	0:0	0:0	PC phase	
A:n	0:0	0:0	0:0	0:0	Mani PC	
A	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000		
A	W00UR	W01UR	W02UR	W03UR	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	Tracks	
					Chan ids	
					Tracks	
Group delay (usec)(sbd)	9.70899652883E+03	Apriori delay (usec)	9.70907738975E+03	Resid mbdelay (usec)	4.47241E-03	+/- 2.0E-04
Sband delay (usec)	9.70900008134E+03	Apriori clock (usec)	-2.1110715E+03	Resid sbdelay (usec)	-7.73084E-02	+/- 7.9E-04
Phase delay (usec)	9.70907739537E+03	Apriori clockrate (us/s)	1.4650534E-06	Resid phdelay (usec)	5.62318E-06	+/- 3.1E-07
Delay rate (us/s)	-5.16325896494E-01	Apriori rate (us/s)	-5.16325449321E-01	Resid rate (us/s)	-4.47174E-07	+/- 2.9E-09
Total phase (deg)	642.7	Apriori accel (us/s/s)	-4.79440526067E-06	Resid phase (deg)	515.7	+/- 9.5

ph/seg (deg) 71.0 31.5 Search (1024X16) 0.478 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

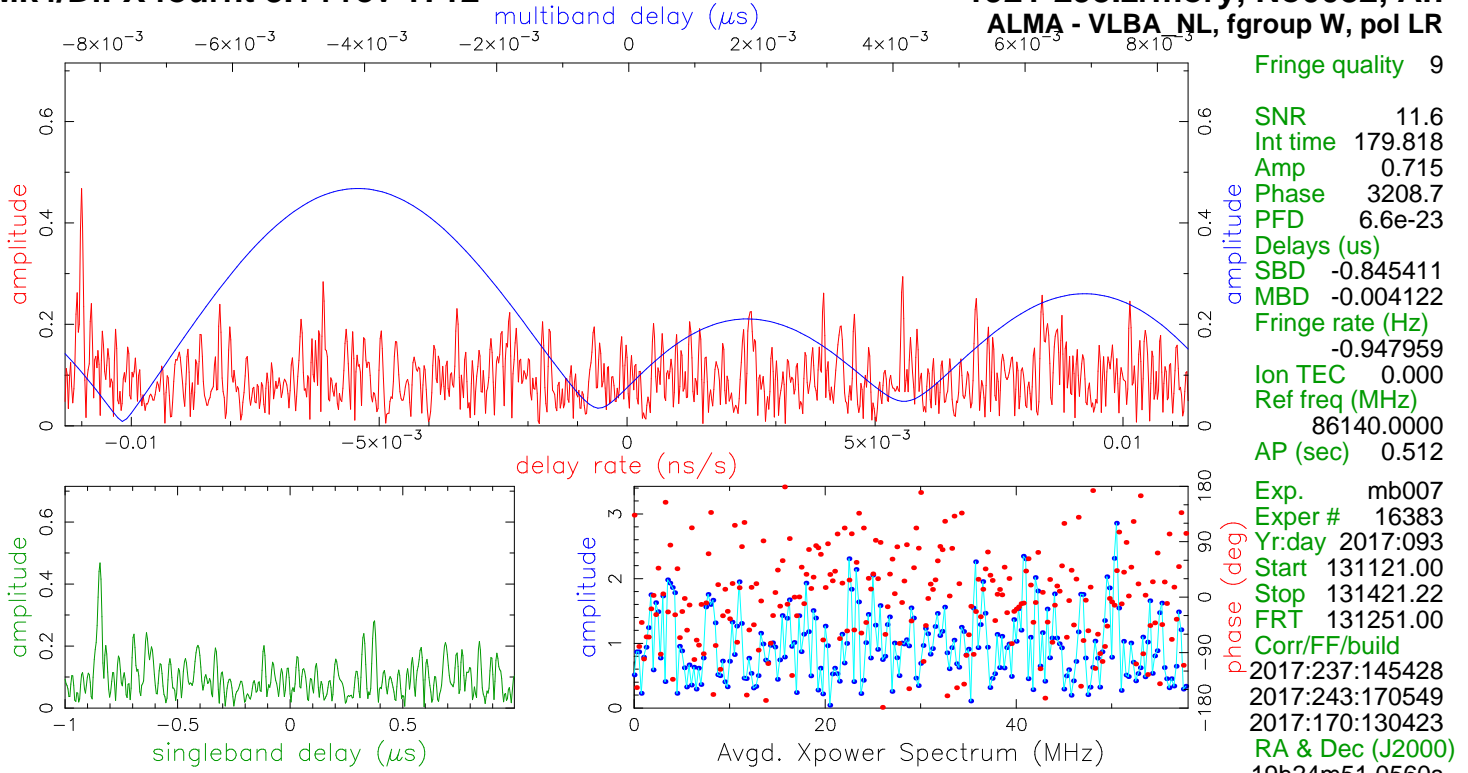
amp/seg (%) 122.6 55.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 20.4 9.5 Inc. seg. avg. 0.781 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.009 0.009

amp/frq (%) 20.7 16.6 Inc. frq. avg. 0.495 Sample rate(MSamp/s): 116 Data rate(Mb/s): 928 nlags: 232 t\_cohere infinite dr window (ns/s) -0.011 0.011

A: az 250.7 el 62.2 pa 84.2 n: az 186.0 el 18.8 pa 5.3 u,v (fr/asec) 3367.809 -7931.530 simultaneous interpolator

Control file: cf\_1234 Input file: /Exps/mb007/gmva\_58\_merged\_pc1/1234/No0082/An..zrmony Output file: /Exps/mb007/gmva\_58\_merged\_pc1/1234/No0082/An.W.30.zrmony

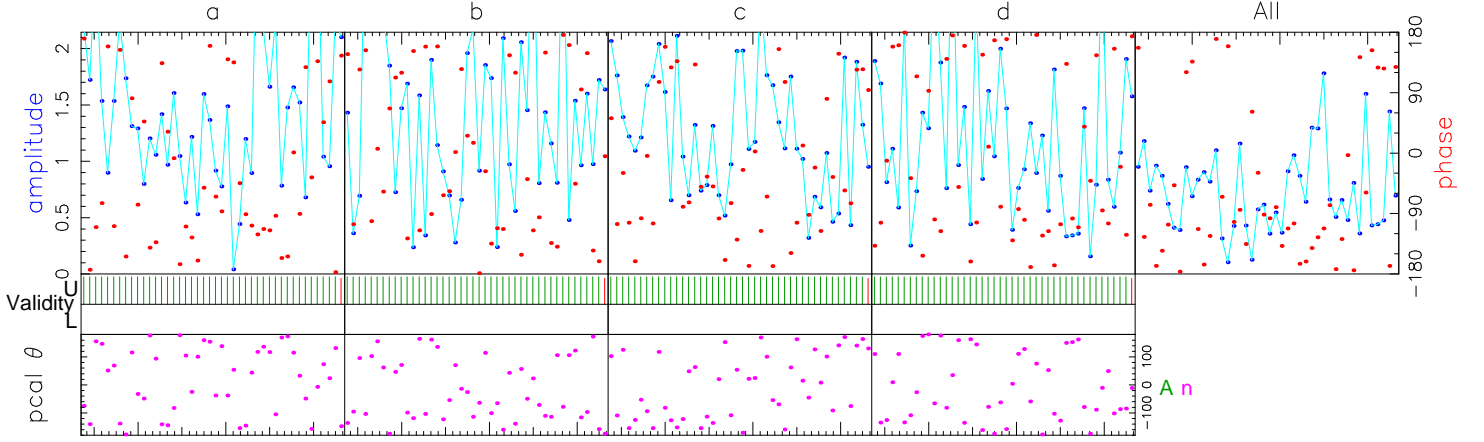


Fringe quality 9

SNR 11.6  
 Int time 179.818  
 Amp 0.715  
 Phase 3208.7  
 PFD 6.6e-23  
 Delays (us)  
 SBD -0.845411  
 MBD -0.004122  
 Fringe rate (Hz)  
 -0.947959  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

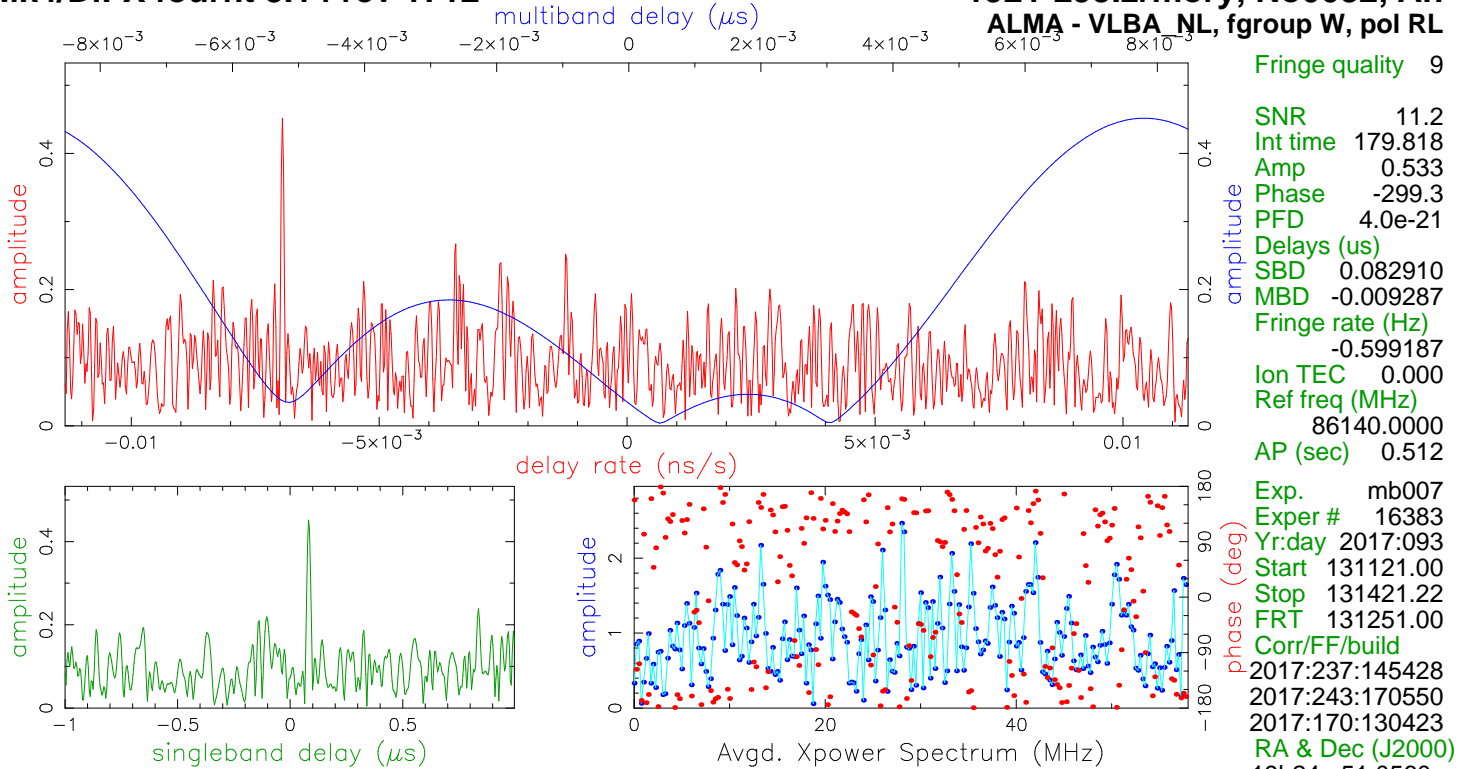
Exp. mb007  
 Exper # 16383  
 Yr:day 2017:093  
 Start 131121.00  
 Stop 131421.22  
 FRT 131251.00  
 Corr/FF/build  
 2017:237:145428  
 2017:243:170549  
 2017:170:130423  
 RA & Dec (J2000)  
 19h24m51.0560s  
 -29°14'30.121"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec

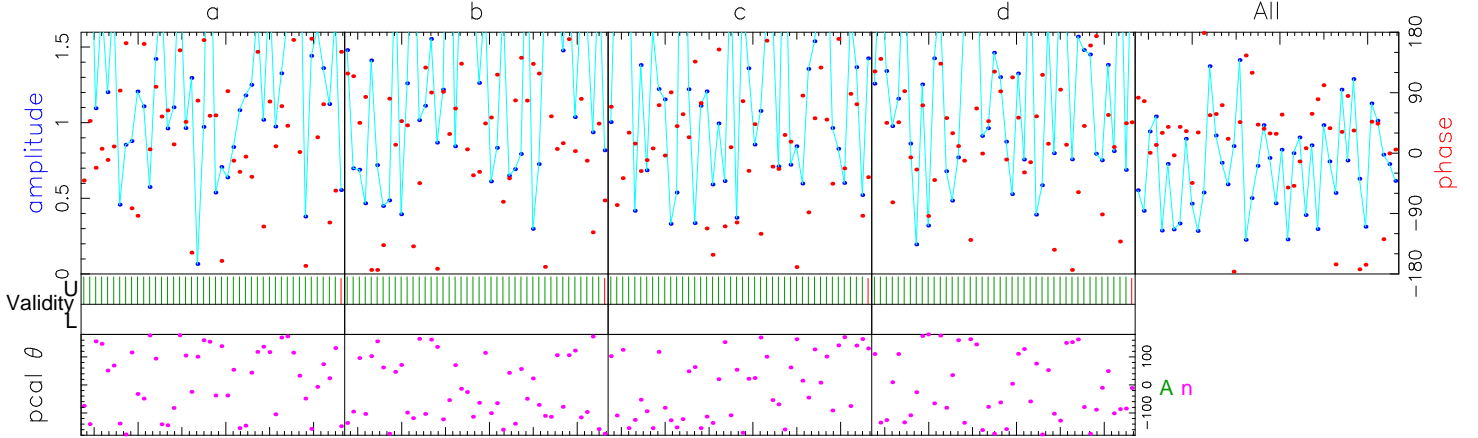


	86151.11	86209.70	86268.30	86326.89	Freq (MHz)	All
	-137.9	-139.8	-114.6	-140.2	Phase	-135.8
	0.9	0.6	0.4	1.0	Ampl.	0.7
	37.6	403.4	397.7	36.8	Sbd box	36.9
U/L	352/0	352/0	352/0	352/0	APs used	
A	0	0	0	0	PC freqs	
n	3890	296	1703	3109	PC freqs	
A:n	0:0	0:0	0:0	0:0	PC phase	
A:n	0:0	0:0	0:0	0:0	Mani PC	
A	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000		
A	W00UL	W01UL	W02UL	W03UL	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	Tracks	
					Chan ids	
					Tracks	
Group delay (usec)(sbd)	9.70823700135E+03		Apriori delay (usec)	9.70907738975E+03	Resid mbdelay (usec)	-4.12174E-03 +/- 2.1E-04
Sband delay (usec)	9.70823197844E+03		Apriori clock (usec)	-2.1110715E+03	Resid sbdelay (usec)	-8.45411E-01 +/- 8.2E-04
Phase delay (usec)	9.70907738537E+03		Apriori clockrate (us/s)	1.4650534E-06	Resid phdelay (usec)	-4.38016E-06 +/- 3.2E-07
Delay rate (us/s)	-5.16336454184E-01		Apriori rate (us/s)	-5.16325449321E-01	Resid rate (us/s)	-1.10049E-05 +/- 3.1E-09
Total phase (deg)		3335.8	Apriori accel (us/s/s)	-4.79440526067E-06	Resid phase (deg)	3208.7 +/- 9.9

	RMS	Theor.	Amplitude	0.715 +/- 0.062	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	62.9	32.9	Search (1024X16)	0.463	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	99.1	57.3	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.009 0.009
ph/frq (deg)	15.7	9.9	Inc. seg. avg.	0.979	Sample rate(MSamp/s): 116	dr window (ns/s) -0.011 0.011
amp/frq (%)	32.1	17.3	Inc. frq. avg.	0.712	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., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec

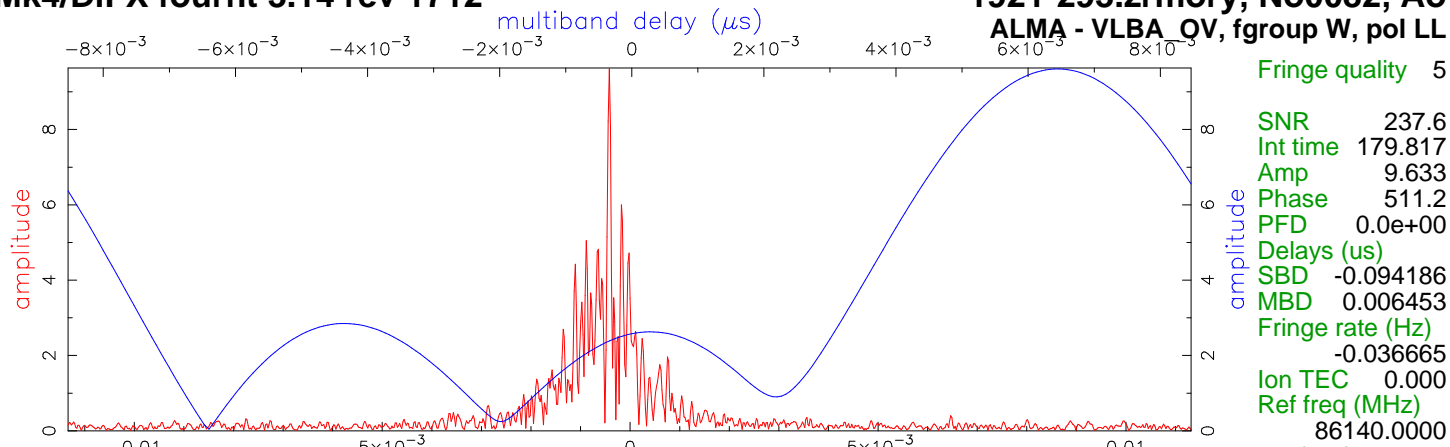


	86151.11	86209.70	86268.30	86326.89	Freq (MHz)	All
	37.9	56.5	25.4	50.9	Phase	42.0
	0.5	0.5	0.6	0.5	Ampl.	0.5
	92.0	267.0	252.3	252.7	Sbd box	252.2
U/L	352/0	352/0	352/0	352/0	APs used	
A	0	0	0	0	PC freqs	
n	3890	296	1703	3109	PC freqs	
A:n	0:0	0:0	0:0	0:0	PC phase	
A:n	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000		
A	W00UR	W01UR	W02UR	W03UR	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	Tracks	
					Chan ids	
					Tracks	
Group delay (usec)(sbd)	9.70915343568E+03	Apriori delay (usec)	9.70907738975E+03	Resid mbdelay (usec)	-9.28741E-03	+/- 2.2E-04
Sband delay (usec)	9.70916029927E+03	Apriori clock (usec)	-2.1110715E+03	Resid sbdelay (usec)	8.29095E-02	+/- 8.5E-04
Phase delay (usec)	9.70907739110E+03	Apriori clockrate (us/s)	1.4650534E-06	Resid phdelay (usec)	1.35460E-06	+/- 3.3E-07
Delay rate (us/s)	-5.16332405289E-01	Apriori rate (us/s)	-5.16325449321E-01	Resid rate (us/s)	-6.95597E-06	+/- 3.2E-09
Total phase (deg)		Apriori accel (us/s/s)	-4.79440526067E-06	Resid phase (deg)	-299.3	+/- 10.2

RMS Theor. Amplitude 0.533 +/- 0.048 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 67.6 33.9 Search (1024X16) 0.448 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 88.9 59.2 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.009 0.009  
 ph/frq (deg) 17.1 10.2 Inc. seg. avg. 0.711 Sample rate(MSamp/s): 116 dr window (ns/s) -0.011 0.011  
 amp/frq (%) 9.3 17.8 Inc. frq. avg. 0.534 Data rate(Mb/s): 928 nlags: 232 t\_cohere infinite ion window (TEC) 0.00 0.00

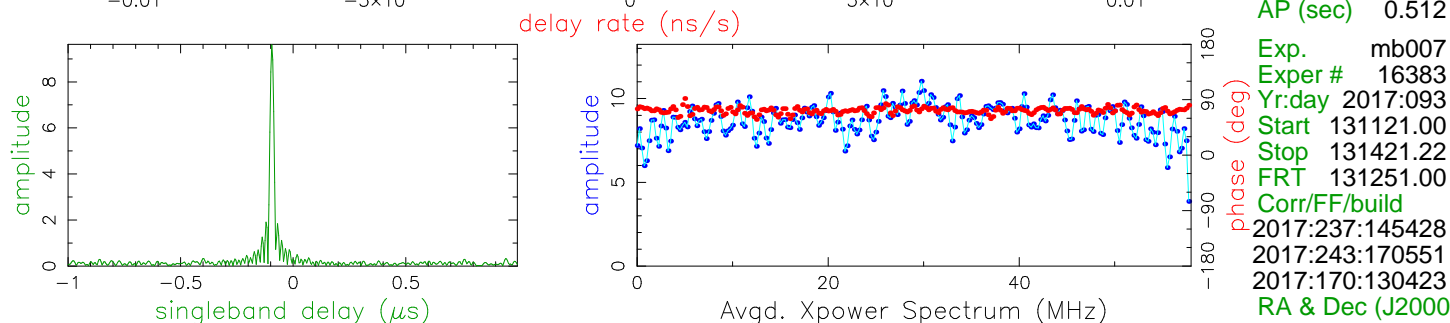
A: az 250.7 el 62.2 pa 84.2 n: az 186.0 el 18.8 pa 5.3 u,v (fr/asec) 3367.809 -7931.530 simultaneous interpolator  
 Control file: cf\_1234 Input file: /Exps/mb007/gmva\_58\_merged\_pc1/1234/No0082/An..zrmony Output file: /Exps/mb007/gmva\_58\_merged\_pc1/1234/No0082/An.W.32.zrmony





Fringe quality 5

SNR 237.6
Int time 179.817
Amp 9.633
Phase 511.2
PFD 0.0e+00
Delays (us)
SBD -0.094186
MBD 0.006453
Fringe rate (Hz) -0.036665
Ion TEC 0.000
Ref freq (MHz) 86140.000
AP (sec) 0.512



Exp. mb007
Exper # 16383
Yr:day 2017:093
Start 131121.00
Stop 131421.22
FRT 131251.00
Corr/FF/build 2017:237:145428
2017:243:170551
2017:170:130423
RA & Dec (J2000) 19h24m51.0560s -29°14'30.121"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec

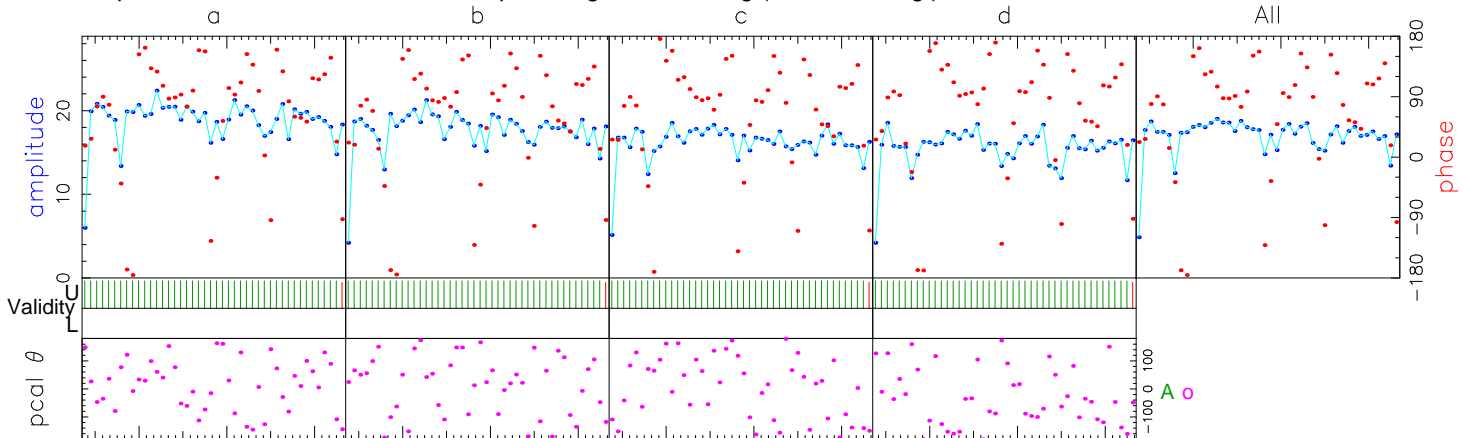
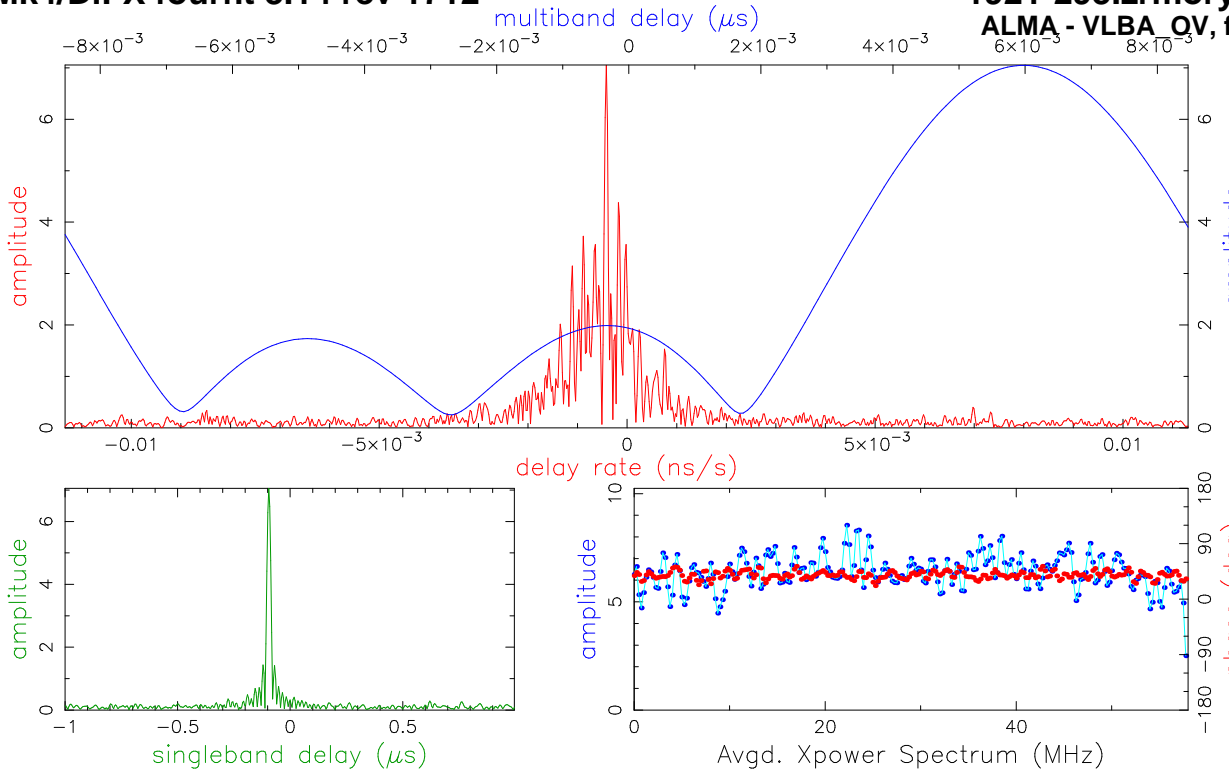


Table with columns for frequency (MHz), phase, amplitude, and other parameters for five different frequency bands.

Summary table with columns for Group delay, Sband delay, Phase delay, Delay rate, and Total phase for different components.

Summary table with columns for RMS, Theor. Amplitude, Search, Interp., Inc. seg. avg., and Inc. frq. avg.

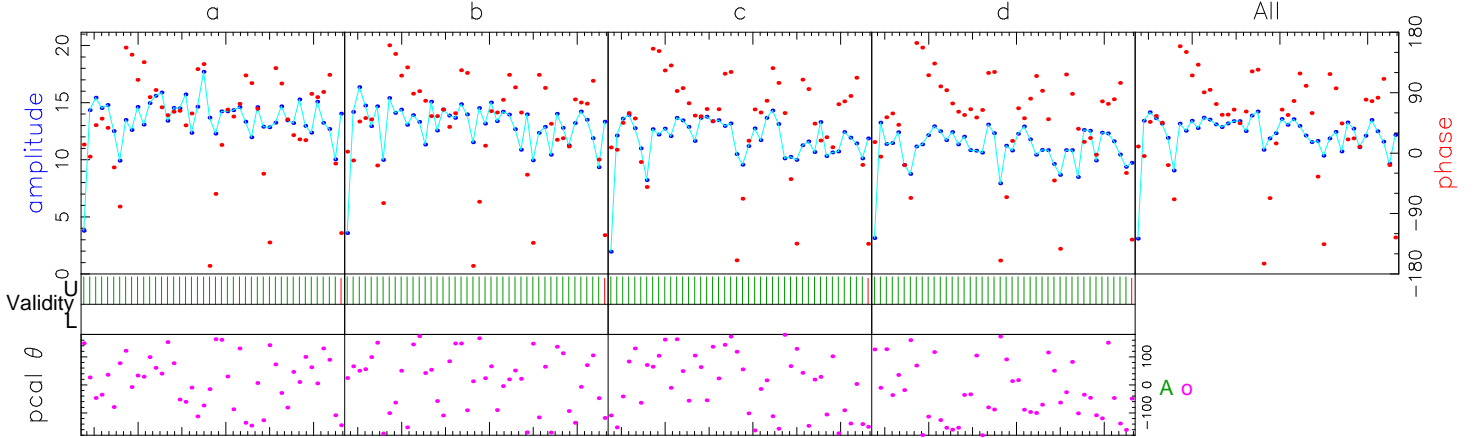


Fringe quality 5

SNR 174.1  
Int time 179.817  
Amp 7.056  
Phase 479.5  
PFD 0.0e+00  
Delays (us)  
SBD -0.094507  
MBD 0.005976  
Fringe rate (Hz)  
-0.036619  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. mb007  
Exper # 16383  
Yr:day 2017:093  
Start 131121.00  
Stop 131421.22  
FRT 131251.00  
Corr/FF/build  
2017:237:145428  
2017:243:170552  
2017:170:130423  
RA & Dec (J2000)  
19h24m51.0560s  
-29°14'30.121"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec

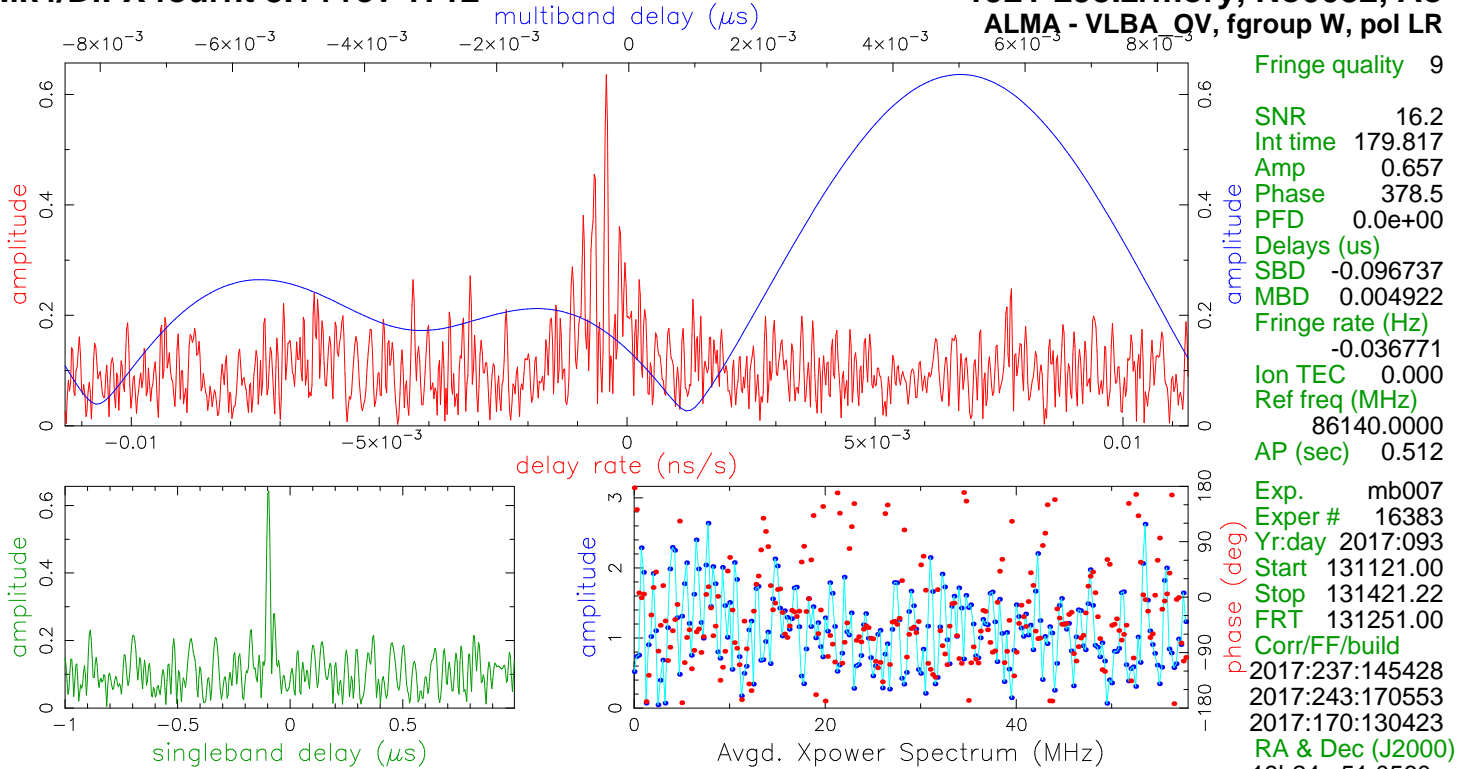


86151.11	86209.70	86268.30	86326.89	Freq (MHz)	All
70.5	68.3	72.2	68.9	Phase	70.0
7.6	7.3	7.0	6.3	Ampl.	7.1
211.0	211.1	211.1	211.1	Sbd box	211.1
U/L 352/0	352/0	352/0	352/0	APs used	
A 0	0	0	0	PC freqs	
o 3890	296	1703	3109	PC freqs	
A:o 0:0	0:0	0:0	0:0	PC phase	
A:o 0:0	0:0	0:0	0:0	Manl PC	
A 1000	1000	1000	1000	PC amp	
o 1000	1000	1000	1000		
A W00UR	W01UR	W02UR	W03UR	Chan ids	
o W00UR	W01UR	W02UR	W03UR	Tracks	
				Chan ids	
				Tracks	

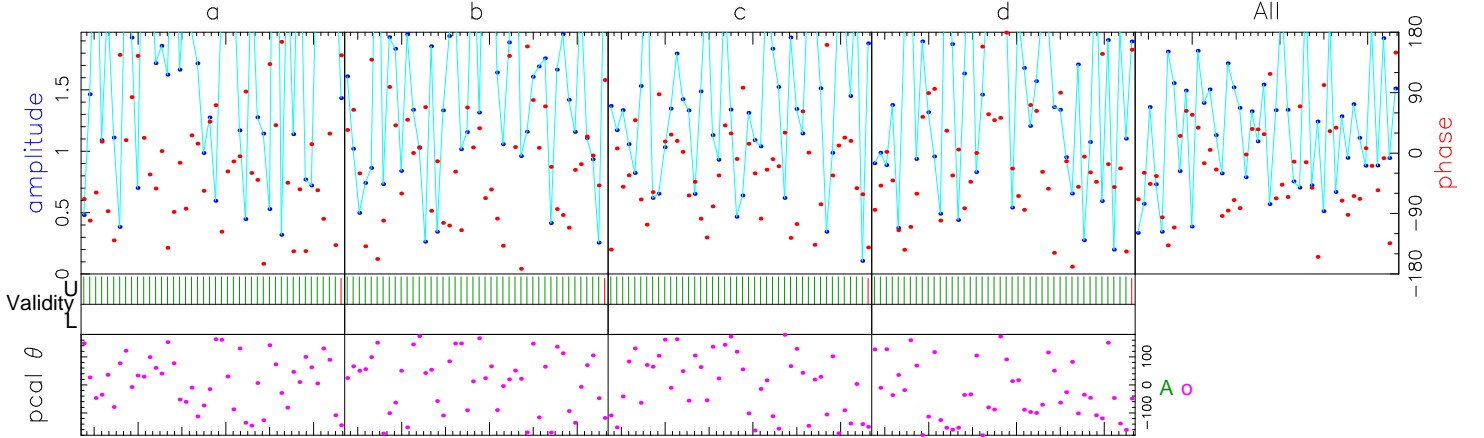
Group delay (usec)(sbd) 8.88277959575E+03 Apriori delay (usec) 8.88287601962E+03 Resid mbdelay (usec) 5.97613E-03 +/- 1.4E-05  
 Sband delay (usec) 8.88278151286E+03 Apriori clock (usec) -2.1078730E+03 Resid sbdelay (usec) -9.45068E-02 +/- 5.5E-05  
 Phase delay (usec) 8.88287602188E+03 Apriori clockrate (us/s) 1.5021560E-06 Resid phdelay (usec) 2.25695E-06 +/- 2.1E-08  
 Delay rate (us/s) -1.00357323745E+00 Apriori rate (us/s) -1.00357281234E+00 Resid rate (us/s) -4.25112E-07 +/- 2.0E-10  
 Total phase (deg) 598.4 Apriori accel (us/s/s) -3.74419244333E-06 Resid phase (deg) 479.5 +/- 0.7

RMS Theor. Amplitude 7.056 +/- 0.041 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 65.5 2.2 Search (1024X16) 6.893 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 78.8 3.8 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.009 0.009  
 ph/frq (deg) 2.2 0.7 Inc. seg. avg. 12.307 Sample rate(MSamp/s): 116 dr window (ns/s) -0.011 0.011  
 amp/frq (%) 7.1 1.1 Inc. frq. avg. 7.054 Data rate(Mb/s): 928 nlags: 232 t\_cohere infinite ion window (TEC) 0.00 0.00

A: az 250.7 el 62.2 pa 84.2 o: az 161.2 el 20.9 pa -16.9 u,v (fr/asec) 6566.016 -7491.730 simultaneous interpolator  
 Control file: cf\_1234 Input file: /Exps/mb007/gmva\_58\_merged\_pc1/1234/No0082/Ao..zrmony Output file: /Exps/mb007/gmva\_58\_merged\_pc1/1234/No0082/Ao.W.34.zrmony



Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	86151.11	86209.70	86268.30	86326.89	Freq (MHz)	All
	-35.2	-23.3	-33.9	-25.9	Phase	-31.0
	0.9	0.4	0.7	0.5	Ampl.	0.6
	210.2	191.5	210.2	211.8	Sbd box	210.6
U/L	352/0	352/0	352/0	352/0	APs used	
A	0	0	0	0	PC freqs	
o	3890	296	1703	3109	PC freqs	
A:o	0:0	0:0	0:0	0:0	PC phase	
A:o	0:0	0:0	0:0	0:0	Mani PC	
A	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000		
A	W00UL	W01UL	W02UL	W03UL	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	Tracks	
					Chan ids	
					Tracks	
Group delay (usec)(sbd)	8.88277854178E+03	Apriori delay (usec)	8.88287601962E+03	Resid mbdelay (usec)	4.92216E-03	+/- 1.5E-04
Sband delay (usec)	8.88277928307E+03	Apriori clock (usec)	-2.1078730E+03	Resid sbdelay (usec)	-9.67366E-02	+/- 5.9E-04
Phase delay (usec)	8.88287601862E+03	Apriori clockrate (us/s)	1.5021560E-06	Resid phdelay (usec)	-9.99481E-07	+/- 2.3E-07
Delay rate (us/s)	-1.00357323922E+00	Apriori rate (us/s)	-1.00357281234E+00	Resid rate (us/s)	-4.26873E-07	+/- 2.2E-09
Total phase (deg)	497.4	Apriori accel (us/s/s)	-3.74419244333E-06	Resid phase (deg)	378.5	+/- 7.1

ph/seg (deg) RMS Theor. Amplitude 0.657 +/- 0.041 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

amp/seg (%) 67.9 23.5 Search (1024X16) 0.623 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

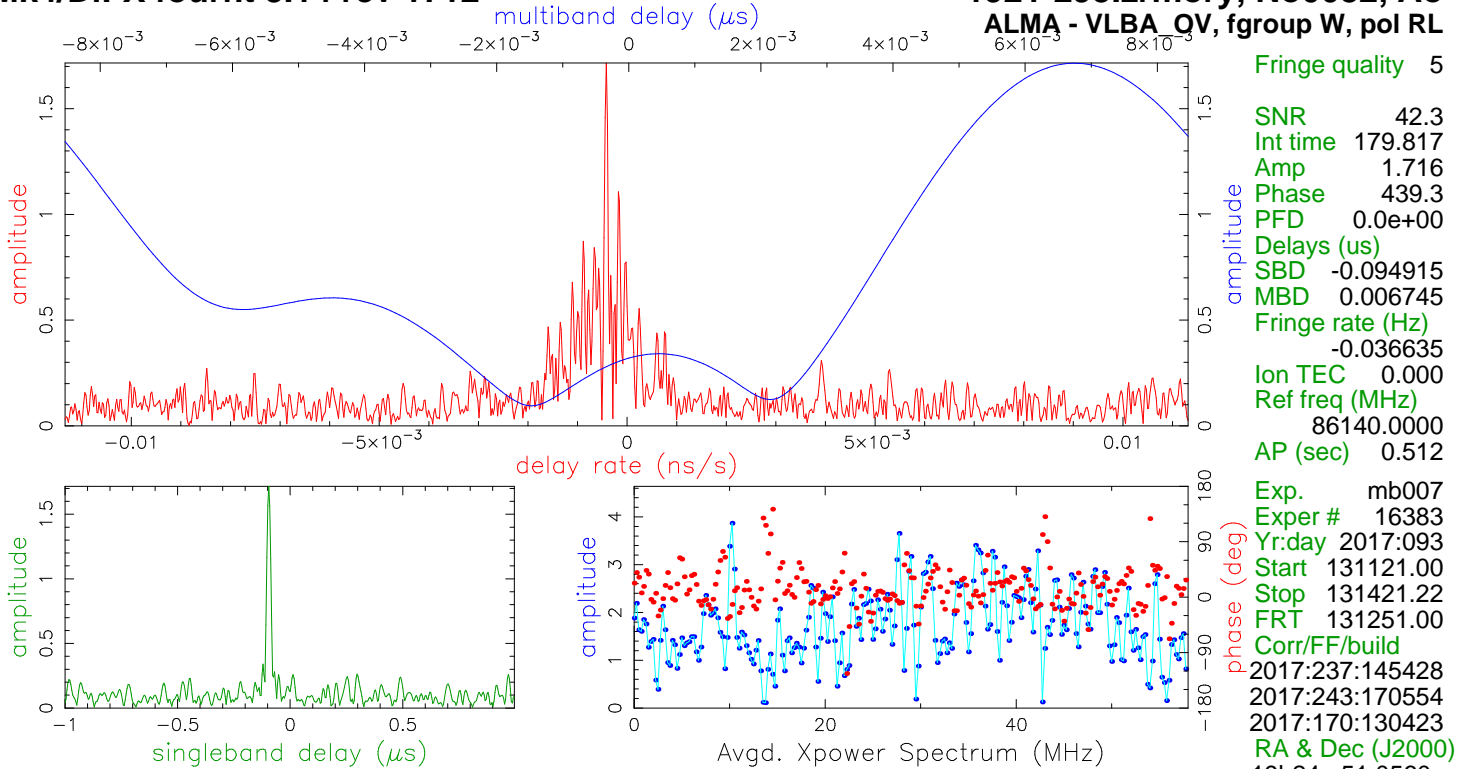
ph/frq (deg) 113.8 40.9 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.009 0.009

amp/frq (%) 7.5 7.1 Inc. seg. avg. 1.108 Sample rate(MSamp/s): 116 dr window (ns/s) -0.011 0.011

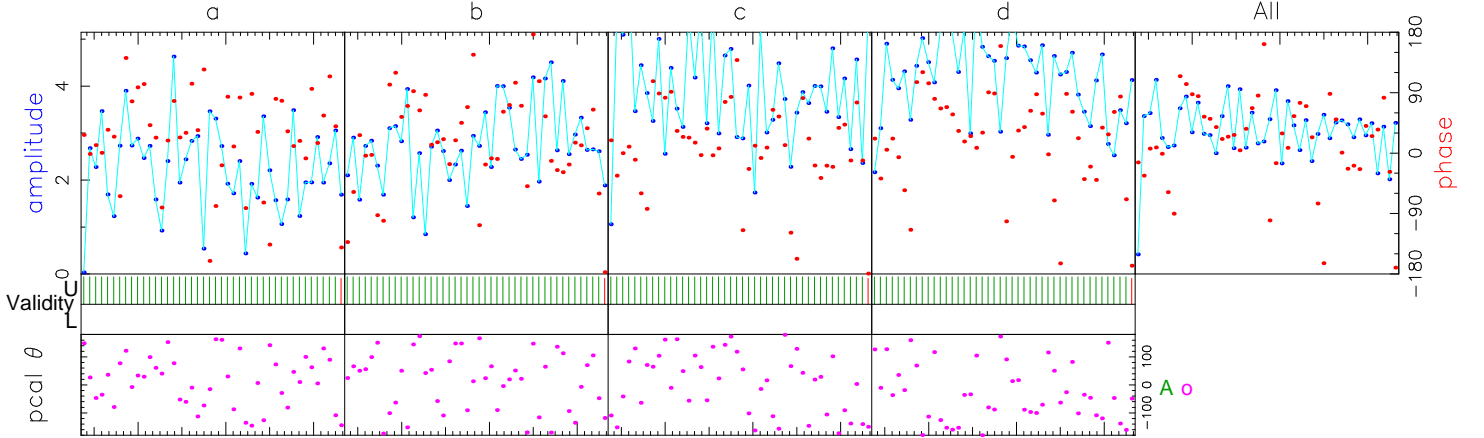
amp/frq (%) 28.6 12.3 Inc. frq. avg. 0.633 Data rate(Mb/s): 928 nlags: 232 t\_cohere infinite ion window (TEC) 0.00 0.00

A: az 250.7 el 62.2 pa 84.2 o: az 161.2 el 20.9 pa -16.9 u,v (fr/asec) 6566.016 -7491.730 simultaneous interpolator

Control file: cf\_1234 Input file: /Exps/mb007/gmva\_58\_merged\_pc1/1234/No0082/Ao..zrmony Output file: /Exps/mb007/gmva\_58\_merged\_pc1/1234/No0082/Ao.W.35.zrmony



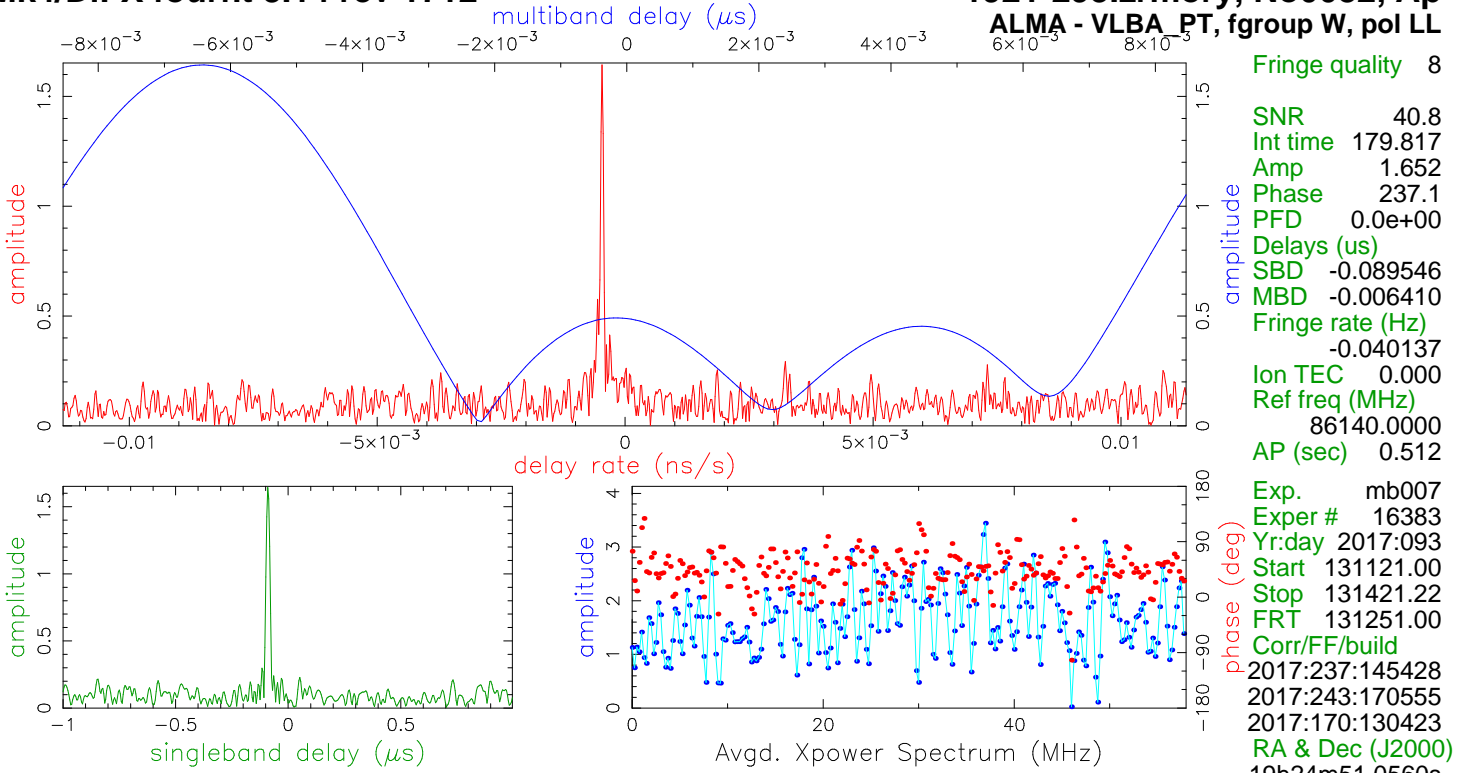
Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



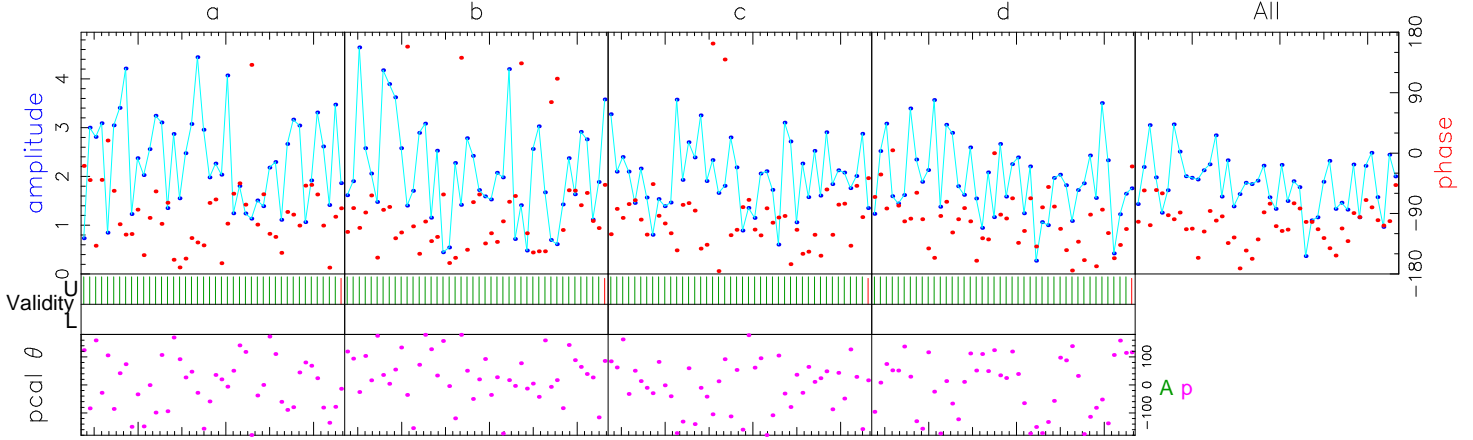
86151.11	86209.70	86268.30	86326.89	29.8	All
41.4	25.1	18.3	38.5	1.7	
1.1	1.3	2.3	2.2	211.0	
210.5	210.9	211.2	211.1		
U/L 352/0	352/0	352/0	352/0		
A 0	0	0	0		
o 3890	296	1703	3109		
A:o 0:0	0:0	0:0	0:0		
A:o 0:0	0:0	0:0	0:0		
A 1000	1000	1000	1000		
o 1000	1000	1000	1000		
A W00UR	W01UR	W02UR	W03UR		
o W00UL	W01UL	W02UL	W03UL		
Group delay (usec)(sbd)	8.88278036443E+03	Apriori delay (usec)	8.88287601962E+03	Resid mbdelay (usec)	6.74481E-03 +/- 5.7E-05
Sband delay (usec)	8.88278110459E+03	Apriori clock (usec)	-2.1078730E+03	Resid sbdelay (usec)	-9.49150E-02 +/- 2.2E-04
Phase delay (usec)	8.88287602058E+03	Apriori clockrate (us/s)	1.5021560E-06	Resid phdelay (usec)	9.60145E-07 +/- 8.7E-08
Delay rate (us/s)	-1.00357323764E+00	Apriori rate (us/s)	-1.00357281234E+00	Resid rate (us/s)	-4.25302E-07 +/- 8.4E-10
Total phase (deg)	558.2	Apriori accel (us/s/s)	-3.74419244333E-06	Resid phase (deg)	439.3 +/- 2.7

RMS Theor. Amplitude 1.716 +/- 0.041 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 63.7 9.0 Search (1024X16) 1.675 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 86.0 15.7 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.009 0.009  
 ph/frq (deg) 13.5 2.7 Inc. seg. avg. 3.020 Sample rate(MSamp/s): 116 dr window (ns/s) -0.011 0.011  
 amp/frq (%) 30.5 4.7 Inc. frq. avg. 1.739 Data rate(Mb/s): 928 nlags: 232 t\_cohere infinite ion window (TEC) 0.00 0.00

A: az 250.7 el 62.2 pa 84.2 o: az 161.2 el 20.9 pa -16.9 u,v (fr/asec) 6566.016 -7491.730 simultaneous interpolator  
 Control file: cf\_1234 Input file: /Exps/mb007/gmva\_58\_merged\_pc1/1234/No0082/Ao..zrmony Output file: /Exps/mb007/gmva\_58\_merged\_pc1/1234/No0082/Ao.W.36.zrmony



Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



86151.11	86209.70	86268.30	86326.89	Freq (MHz)	All
-100.7	-106.7	-109.3	-100.2	Phase	-104.2
1.8	1.6	1.6	1.5	Ampl.	1.6
212.1	212.5	212.3	212.0	Sbd box	212.2
U/L 352/0	352/0	352/0	352/0	APs used	
A 0	0	0	0	PC freqs	
p 3890	296	1703	3109	PC freqs	
A:p 0:0	0:0	0:0	0:0	PC phase	
A:p 0:0	0:0	0:0	0:0	ManI PC	
A 1000	1000	1000	1000	PC amp	
p 1000	1000	1000	1000		
A W00UL	W01UL	W02UL	W03UL	Chan ids	
p W00UL	W01UL	W02UL	W03UL	Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	7.25311638468E+03	Apriori delay (usec)	7.25320812827E+03	Resid mbdelay (usec)	-6.41026E-03 +/- 6.0E-05
Sband delay (usec)	7.25311858234E+03	Apriori clock (usec)	-2.1080571E+03	Resid sbdelay (usec)	-8.95459E-02 +/- 2.3E-04
Phase delay (usec)	7.25320812491E+03	Apriori clockrate (us/s)	1.4954652E-06	Resid phdelay (usec)	-3.35935E-06 +/- 9.1E-08
Delay rate (us/s)	-8.24983425898E-01	Apriori rate (us/s)	-8.24982959947E-01	Resid rate (us/s)	-4.65950E-07 +/- 8.7E-10
Total phase (deg)	298.0	Apriori accel (us/s/s)	2.64253789891E-06	Resid phase (deg)	237.1 +/- 2.8

RMS Theor. Amplitude 1.652 +/- 0.041

ph/seg (deg) 28.0 9.3 Search (1024X16) 1.637

amp/seg (%) 35.3 16.3 Interp. 0.000

ph/frq (deg) 5.5 2.8 Inc. seg. avg. 1.829

amp/frq (%) 7.0 4.9 Inc. frq. avg. 1.646

Group delay (usec)(sbd) 7.25311638468E+03

Sband delay (usec) 7.25311858234E+03

Phase delay (usec) 7.25320812491E+03

Delay rate (us/s) -8.24983425898E-01

Total phase (deg) 298.0

Apriori delay (usec) 7.25320812827E+03

Apriori clock (usec) -2.1080571E+03

Apriori clockrate (us/s) 1.4954652E-06

Apriori rate (us/s) -8.24982959947E-01

Apriori accel (us/s/s) 2.64253789891E-06

Resid mbdelay (usec) -6.41026E-03 +/- 6.0E-05

Resid sbdelay (usec) -8.95459E-02 +/- 2.3E-04

Resid phdelay (usec) -3.35935E-06 +/- 9.1E-08

Resid rate (us/s) -4.65950E-07 +/- 8.7E-10

Resid phase (deg) 237.1 +/- 2.8

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

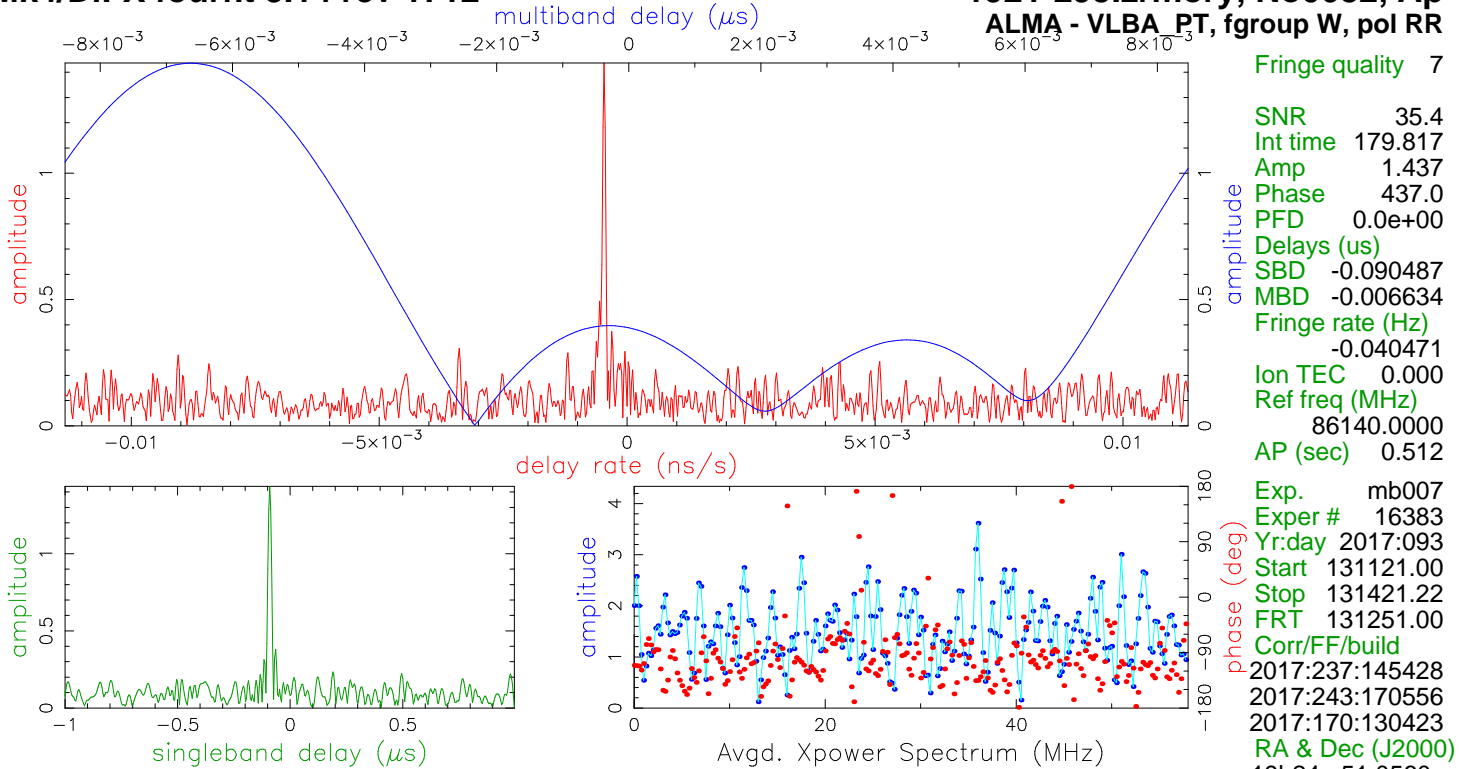
mb window (us) -0.009 0.009

dr window (ns/s) -0.011 0.011

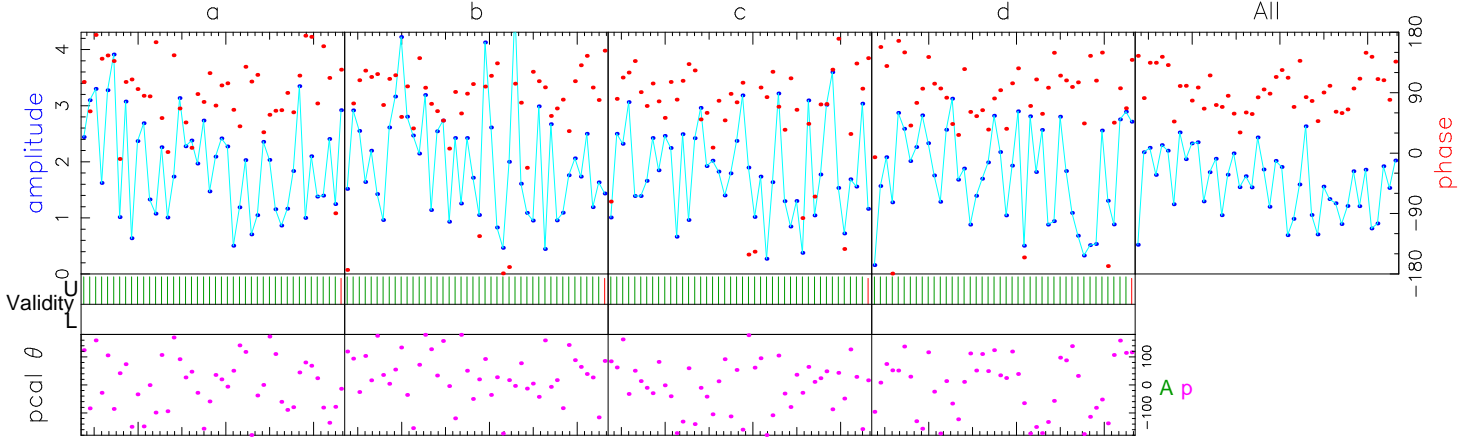
ion window (TEC) 0.00 0.00

A: az 250.7 el 62.2 pa 84.2 p: az 170.3 el 25.8 pa -8.9 u,v (fr/asec) 5401.688 -7457.114 simultaneous interpolator

Control file: cf\_1234 Input file: /Exps/mb007/gmva\_58\_merged\_pc1/1234/No0082/Ap..zrmony Output file: /Exps/mb007/gmva\_58\_merged\_pc1/1234/No0082/Ap.W.37.zrmony

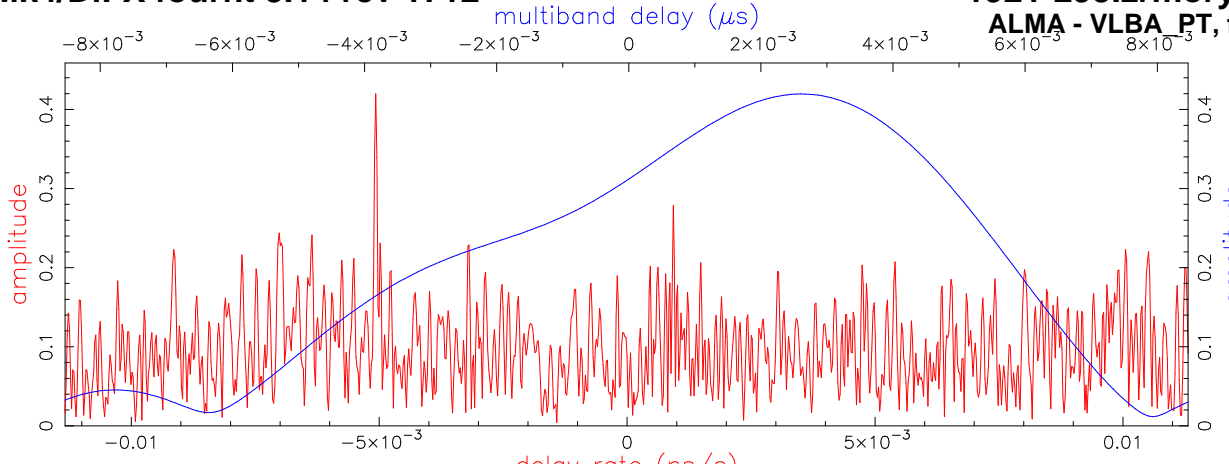


Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec

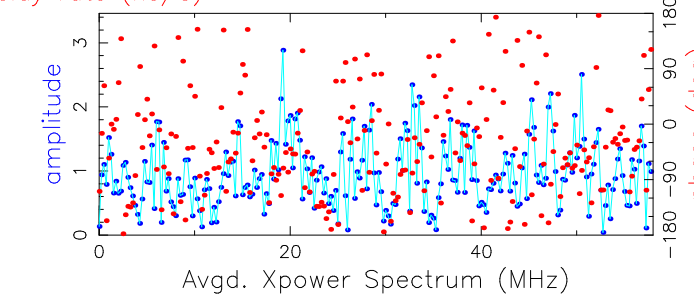
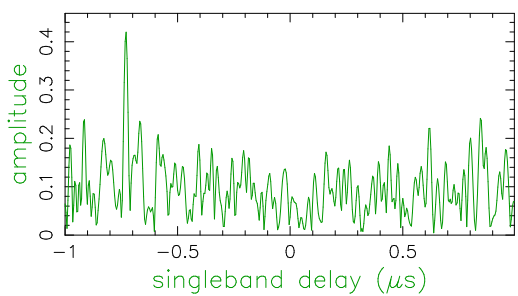


	86151.11	86209.70	86268.30	86326.89	Freq (MHz)	All
	97.5	95.8	89.9	99.5	Phase	95.7
	1.4	1.6	1.4	1.4	Ampl.	1.4
	212.1	212.0	211.8	212.2	Sbd box	212.0
U/L	352/0	352/0	352/0	352/0	APs used	
A	0	0	0	0	PC freqs	
p	3890	296	1703	3109	PC freqs	
A:p	0:0	0:0	0:0	0:0	PC phase	
A:p	0:0	0:0	0:0	0:0	Mani PC	
A	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000		
A	W00UR	W01UR	W02UR	W03UR	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	Tracks	
					Chan ids	
					Tracks	
Group delay (usec)(sbd)	7.25311616110E+03	Apriori delay (usec)	7.25320812827E+03	Resid mbdelay (usec)	-6.63383E-03	+/- 6.9E-05
Sband delay (usec)	7.25311764137E+03	Apriori clock (usec)	-2.1080571E+03	Resid sbdelay (usec)	-9.04869E-02	+/- 2.7E-04
Phase delay (usec)	7.25320813136E+03	Apriori clockrate (us/s)	1.4954652E-06	Resid phdelay (usec)	3.08650E-06	+/- 1.0E-07
Delay rate (us/s)	-8.24983429780E-01	Apriori rate (us/s)	-8.24982959947E-01	Resid rate (us/s)	-4.69833E-07	+/- 1.0E-09
Total phase (deg)		497.9	Apriori accel (us/s/s)	2.64253789891E-06	Resid phase (deg)	437.0 +/- 3.2

ph/seg (deg) 30.4 10.7 Search (1024X16) 1.412 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 40.5 18.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 5.1 3.2 Inc. seg. avg. 1.611 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.009 0.009  
 amp/frq (%) 6.7 5.6 Inc. frq. avg. 1.437 Sample rate(MSamp/s): 116 Data rate(Mb/s): 928 nlags: 232 t\_cohere infinite dr window (ns/s) -0.011 0.011  
 A: az 250.7 el 62.2 pa 84.2 p: az 170.3 el 25.8 pa -8.9 u,v (fr/asec) 5401.688 -7457.114 simultaneous interpolator  
 Control file: cf\_1234 Input file: /Exps/mb007/gmva\_58\_merged\_pc1/1234/No0082/Ap..zrmony Output file: /Exps/mb007/gmva\_58\_merged\_pc1/1234/No0082/Ap.W.38.zrmony

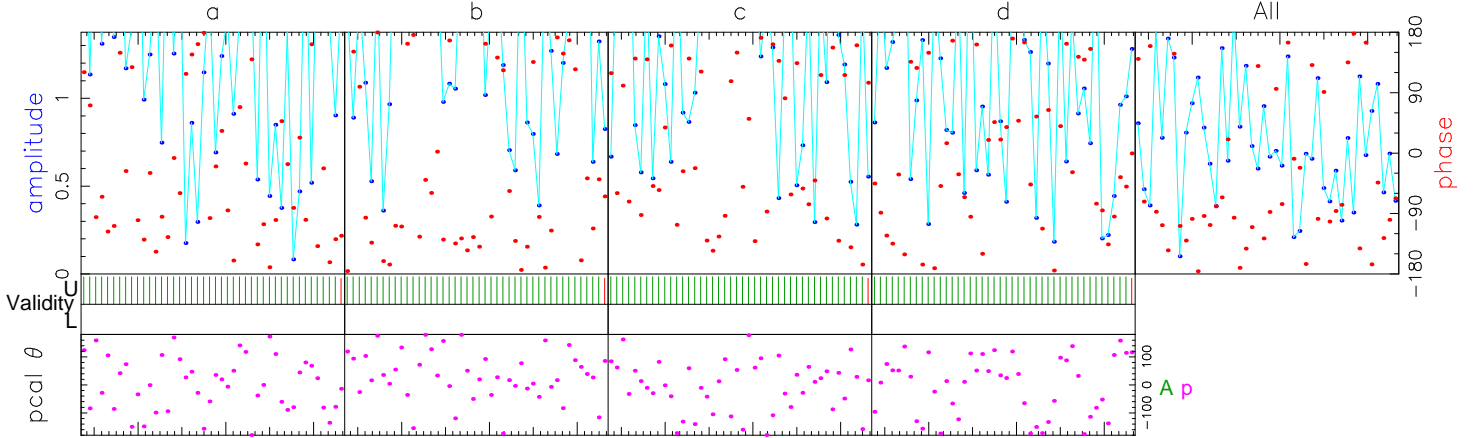


Fringe quality 7  
 SNR 10.4  
 Int time 179.817  
 Amp 0.459  
 Phase 2805.2  
 PFD 2.2e-17  
 Delays (us)  
 SBD -0.729497  
 MBD 0.002635  
 Fringe rate (Hz)  
 -0.437478  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. mb007  
 Exper # 16383  
 Yr:day 2017:093  
 Start 131121.00  
 Stop 131421.22  
 FRT 131251.00  
 Corr/FF/build  
 2017:237:145428  
 2017:243:170556  
 2017:170:130423  
 RA & Dec (J2000)  
 19h24m51.0560s  
 -29°14'30.121"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



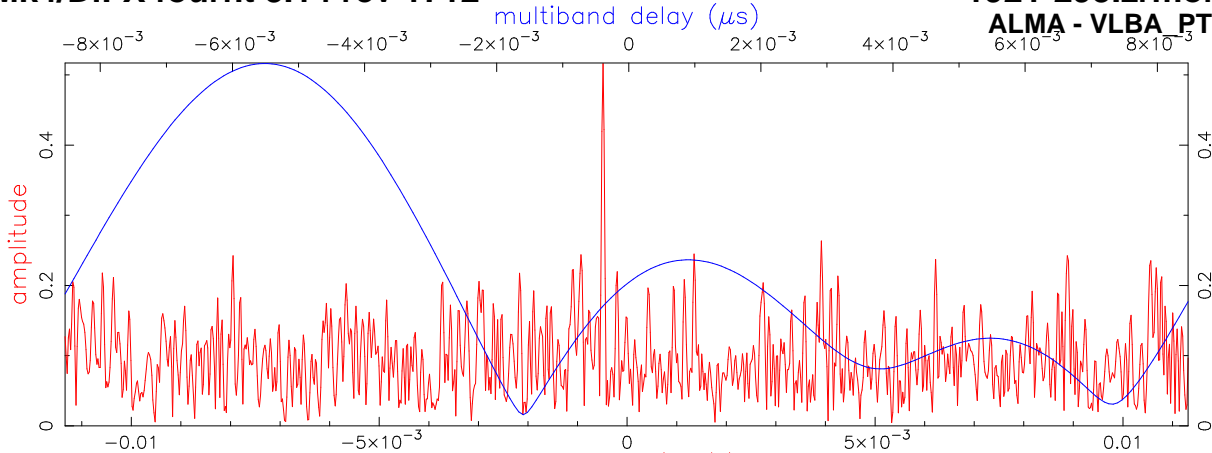
	86151.11	86209.70	86268.30	86326.89	86326.89	All
U/L	352/0	352/0	352/0	352/0	352/0	
A	0	0	0	0	0	
p	3890	296	1703	3109	3109	
A:p	0:0	0:0	0:0	0:0	0:0	
A:p	0:0	0:0	0:0	0:0	0:0	
A	1000	1000	1000	1000	1000	
p	1000	1000	1000	1000	1000	
A	W00UL	W01UL	W02UL	W03UL	W03UL	
p	W00UR	W01UR	W02UR	W03UR	W03UR	

	86151.11	86209.70	86268.30	86326.89	All
Group delay (usec)(sbd)	7.25247689623E+03	7.25247863172E+03	7.25320812827E+03	7.25320812827E+03	7.25320812827E+03
Sband delay (usec)	7.25247863172E+03	7.25320812408E+03	1.4954652E-06	1.4954652E-06	1.4954652E-06
Phase delay (usec)	7.25320812408E+03	-8.24988038633E-01	-2.1080571E+03	-2.1080571E+03	-2.1080571E+03
Delay rate (us/s)	-8.24988038633E-01	2866.1	2.64253789891E-06	2.64253789891E-06	2.64253789891E-06
Total phase (deg)		2866.1	2805.2	2805.2	2805.2

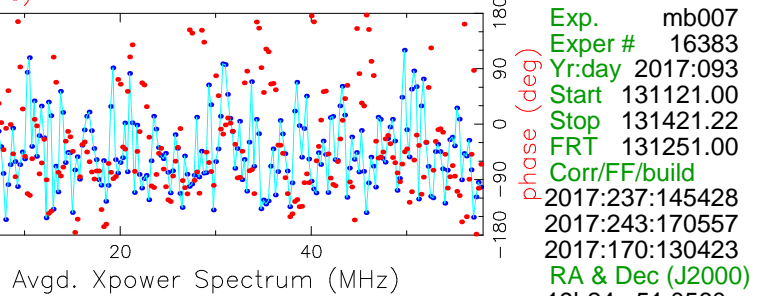
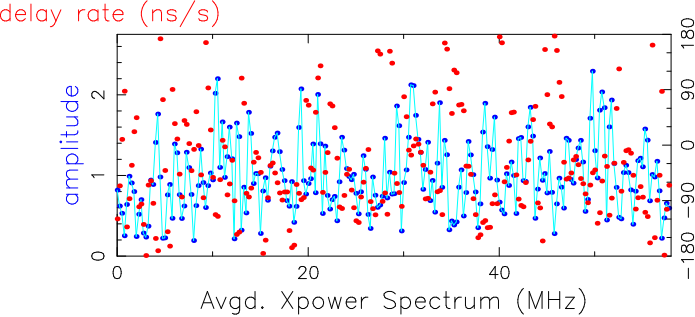
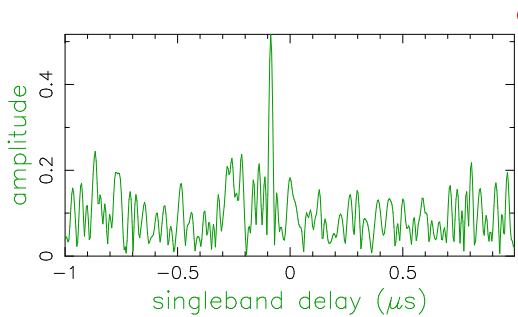
	86151.11	86209.70	86268.30	86326.89	All
Validity	0	0	0	0	0
pcal θ					

Group delay (usec)(sbd) 7.25247689623E+03 Apriori delay (usec) 7.25320812827E+03 Resid mbdelay (usec) 2.63462E-03 +/- 2.3E-04  
 Sband delay (usec) 7.25247863172E+03 Apriori clock (usec) -2.1080571E+03 Resid sbdelay (usec) -7.29497E-01 +/- 9.1E-04  
 Phase delay (usec) 7.25320812408E+03 Apriori clockrate (us/s) 1.4954652E-06 Resid phdelay (usec) -4.18736E-06 +/- 3.5E-07  
 Delay rate (us/s) -8.24988038633E-01 Apriori rate (us/s) -8.24982959947E-01 Resid rate (us/s) -5.07869E-06 +/- 3.4E-09  
 Total phase (deg) 2866.1 Apriori accel (us/s/s) 2.64253789891E-06 Resid phase (deg) 2805.2 +/- 11.0

ph/seg (deg) 66.4 36.5 Search (1024X16) 0.407 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 113.9 63.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 36.1 11.0 Inc. seg. avg. 0.688 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.009 0.009  
 amp/frq (%) 49.5 19.2 Inc. frq. avg. 0.479 Sample rate(MSamp/s): 116 Data rate(Mb/s): 928 nlags: 232 t\_cohere infinite dr window (ns/s) -0.011 0.011  
 A: az 250.7 el 62.2 pa 84.2 p: az 170.3 el 25.8 pa -8.9 u,v (fr/asec) 5401.688 -7457.114 simultaneous interpolator  
 Control file: cf\_1234 Input file: /Exps/mb007/gmva\_58\_merged\_pc1/1234/No0082/Ap..zrmony Output file: /Exps/mb007/gmva\_58\_merged\_pc1/1234/No0082/Ap.W.39.zrmony

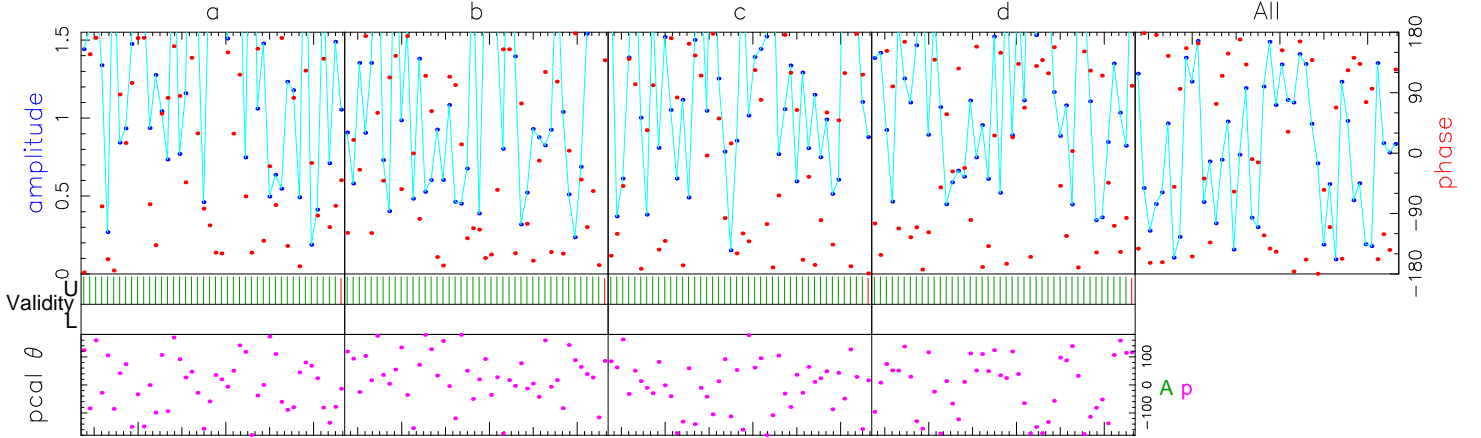


Fringe quality 9  
SNR 12.8  
Int time 179.817  
Amp 0.517  
Phase 520.0  
PFD 3.6e-29  
Delays (us)  
SBD -0.085828  
MBD -0.005498  
Fringe rate (Hz)  
-0.041380  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



Exp. mb007  
Exper # 16383  
Yr:day 2017:093  
Start 131121.00  
Stop 131421.22  
FRT 131251.00  
Corr/FF/build  
2017:237:145428  
2017:243:170557  
2017:170:130423  
RA & Dec (J2000)  
19h24m51.0560s  
-29°14'30.121"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	86151.11	86209.70	86268.30	86326.89	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
A	0	0	0	0		
p	3890	296	1703	3109		
A:p	0:0	0:0	0:0	0:0		
A:p	0:0	0:0	0:0	0:0		
A	1000	1000	1000	1000		
p	1000	1000	1000	1000		
A	W00UR	W01UR	W02UR	W03UR		
p	W00UL	W01UL	W02UL	W03UL		
					Chan ids	
					Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	7.25311729719E+03	Apriori delay (usec)	7.25320812827E+03	Resid mbdelay (usec)	-5.49775E-03	+/- 1.9E-04
Sband delay (usec)	7.25312230068E+03	Apriori clock (usec)	-2.1080571E+03	Resid sbdelay (usec)	-8.58276E-02	+/- 7.5E-04
Phase delay (usec)	7.25320813403E+03	Apriori clockrate (us/s)	1.4954652E-06	Resid phdelay (usec)	5.76342E-06	+/- 2.9E-07
Delay rate (us/s)	-8.24983440328E-01	Apriori rate (us/s)	-8.24982959947E-01	Resid rate (us/s)	-4.80381E-07	+/- 2.8E-09
Total phase (deg)	580.9	Apriori accel (us/s/s)	2.64253789891E-06	Resid phase (deg)	520.0	+/- 9.0

ph/seg (deg)	73.9	Theor.	29.8	Amplitude	0.517 +/- 0.041	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	98.8	Search (1024X16)	0.505	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	16.5	Inc. seg. avg.	0.693	Inc. frq. avg.	0.519	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.009 0.009
amp/frq (%)	17.8	Inc. frq. avg.	0.519			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	
						lags: 232	t_cohere	infinite	

A: az 250.7 el 62.2 pa 84.2 p: az 170.3 el 25.8 pa -8.9 u,v (fr/asec) 5401.688 -7457.114 simultaneous interpolator  
Control file: cf\_1234 Input file: /Exps/mb007/gmva\_58\_merged\_pc1/1234/No0082/Ap..zrmony Output file: /Exps/mb007/gmva\_58\_merged\_pc1/1234/No0082/Ap.W.40.zrmony