PRELIMINARY REPORT OF 041209

ATTENTION: This report is automatically generated no comments are provided on data analysis

last update on Thu Dec 9 14:29:41 GMT 2004

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1 - Introduction

This report is based on the analysis of wave mode level-1 cross spectra (ASA_WVS_1P), global monitoring products (ASA_GM1_1P), which are the available few hours after the acquisition, on the browse (BP) products and
on the Module Stepping (MS) product.

2 - Summary

2.1 - Instrument Unavailability

No unavailabilities during the reported period.

2.2 - Auxiliary files

Summary of the auxiliary files used from 2004-12-08 00:00:00 to 2004-12-09 14:29:41

PDHS-K					
AUXILIARY FILE	**WVS**	**GM1**	**IMM**	**APM**	**WSM**
ASA_CON_AXVIEC20041027_165251_20021017_130000_20051231_000000	40	34	4	3	0
ASA_INS_AXVIEC20040521_160843_20030211_000000_20041231_000000	40	34	4	3	0
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	40	34	4	3	0
ASA_XCH_AXVIEC20031209_112947_20020301_000000_20041231_000000	40	34	4	3	0

PDHS-E					
AUXILIARY FILE	**WVS**	**GM1**	**IMM**	**APM**	**WSM**
ASA_CON_AXVIEC20041027_165251_20021017_130000_20051231_000000	33	27	0	0	0
ASA_INS_AXVIEC20040521_160843_20030211_000000_20041231_000000	33	27	0	0	0
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	33	27	0	0	0
ASA_XCH_AXVIEC20031209_112947_20020301_000000_20041231_000000	33	27	0	0	0

2.3 - Browse Visual Inspection

No anomalies observed on available browse products

2.4 - Data Analysis

-Stable wave internal calibration pulses gain and phase.
-Stable raw data statistics.
-Nominal Doppler behavior.

3 - Module Stepping Mode

The MS mode provides an internal health check on an individual module basis.
The purpose of this mode is to identify to identify any malfunctionning modules and to identify modules for which calibration offsets are to be applied.
No anomalies observed on available MS products:

Polarisation	Start Time
V	20041207 042859
H	20041208 071834

MSM in V/V polarisation

Pre-launch Reference	DDS-B (2003-06-12) reference
☒	☒

MSM in H/H polarisation

Pre-launch Reference	DDS-B (2003-06-12) reference

4 - Internal calibration Results

No anomalies observed.

4.1 - Daily statistics

4.1.1 - Evolution for WVS

Evolution of cal pulses for WVS

4.1.2 - Evolution for GM1

Evolution of cal pulses for GM1

4.2 - Cyclic statistics

4.2.1 - Evolution for WVS

Evolution of cal pulses for WVS

P1a Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)

P1 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-3.471832	0.029988	-0.040143
7	P1	-3.198538	0.041549	0.330177
11	P1	-4.624657	0.045543	-0.082692
15	P1	-5.660857	0.033039	-0.029318
19	P1	-3.626860	0.005261	-0.053630
22	P1	-4.580325	0.016064	0.000361
26	P1	-4.916364	0.016082	-0.031057
30	P1	-7.091179	0.014420	-0.041674
3	P1	-15.977052	0.117024	0.065346
7	P1	-14.980865	0.636786	-1.994683
11	P1	-20.682070	0.482714	0.037307
15	P1	-11.624923	0.089113	0.128701
19	P1	-14.109505	0.030375	-0.089157
22	P1	-16.171108	0.437218	0.070512
26	P1	-17.797302	0.254412	-0.007184
30	P1	-17.927185	0.295329	0.066131

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.371222	0.086568	0.006356
7	P2	-22.611906	0.139569	0.002901
11	P2	-15.001245	0.130965	0.134910
15	P2	-7.168710	0.108688	-0.022968
19	P2	-9.719911	0.132073	0.013230
22	P2	-17.216484	0.100326	0.049936

26	P2	-16.518496	0.106677	-0.007155
30	P2	-19.017593	0.082829	0.102440

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.207190	0.006949	-0.013306
7	P3	-8.207200	0.006949	-0.013240
11	P3	-8.207206	0.006950	-0.013215
15	P3	-8.207209	0.006950	-0.013210
19	P3	-8.207211	0.006950	-0.013207
22	P3	-8.207210	0.006950	-0.013212
26	P3	-8.207211	0.006949	-0.013217
30	P3	-8.207080	0.006948	-0.013219

4.2.2 - Evolution for GM1

Evolution of cal pulses for GM1

P1a Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)

P1 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-2.835816	0.110575	-0.154573
7	P1	-2.981208	0.064881	-0.103675
11	P1	-3.925843	0.048896	-0.098496
15	P1	-3.507643	0.078167	-0.110320
19	P1	-3.596694	0.012637	-0.022355
22	P1	-5.602119	0.068301	0.011647
26	P1	-6.484827	0.022821	-0.053746
30	P1	-6.282214	0.042014	-0.063037
3	P1	-10.619074	0.058769	-0.067773
7	P1	-10.104170	0.153427	0.006234

11	P1	-12.373115	0.199193	0.043703
15	P1	-11.717234	0.104998	0.059160
19	P1	-15.626818	0.051042	-0.031240
22	P1	-24.097195	2.196789	-0.287268
26	P1	-15.139060	0.414219	0.039891
30	P1	-20.235186	1.010758	0.135649

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-18.053732	0.039073	0.002115
7	P2	-22.665850	0.028834	0.044836
11	P2	-10.795370	0.034641	0.144617
15	P2	-5.063264	0.025987	-0.024460
19	P2	-6.970459	0.034257	-0.028292
22	P2	-7.338154	0.028198	0.035681
26	P2	-23.958218	0.019727	-0.036649
30	P2	-22.074697	0.018622	0.057122

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.043830	0.003145	-0.002213
7	P3	-8.043867	0.003149	-0.002492
11	P3	-8.043947	0.003142	-0.002321
15	P3	-8.043739	0.003152	-0.002261
19	P3	-8.043874	0.003148	-0.002390
22	P3	-8.043876	0.003140	-0.002111
26	P3	-8.043905	0.003134	-0.002366
30	P3	-8.043810	0.003140	-0.002446

4.3 - cal pulses monitoring (all rows)

4.3.1 - Evolution for WVS

4.3.2 - Evolution for GM1

5 - RAW data statistics

No anomalies observed.

5.1 - Input mean I/Q

channel	stat	DSS-B
MEAN I	mean	0.000438960
	stdev	2.42073e-07
MEAN Q	mean	0.000499115
	stdev	2.55047e-07

5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.125111
	stdev	0.000990476
STDEV Q	mean	0.125344
	stdev	0.000999037

5.3 - Gain imbalance I/Q

6 - Doppler Analysis

Preliminary report.The data is not yet controled

6.1 - Unbiased Doppler Error for WVS

Evolution of unbiased Doppler error (Real - Expected)

Acsending
Descending

6.2 - Absolute Doppler for WVS

Evolution of Absolute Doppler
Acsending
Descending

6.3 - Doppler evolution versus ANX for WVS

Evolution Doppler error versus ANX

6.4 - Unbiased Doppler Error for GM1

Evolution of unbiased Doppler error (Real - Expected)
Acsending
Descending

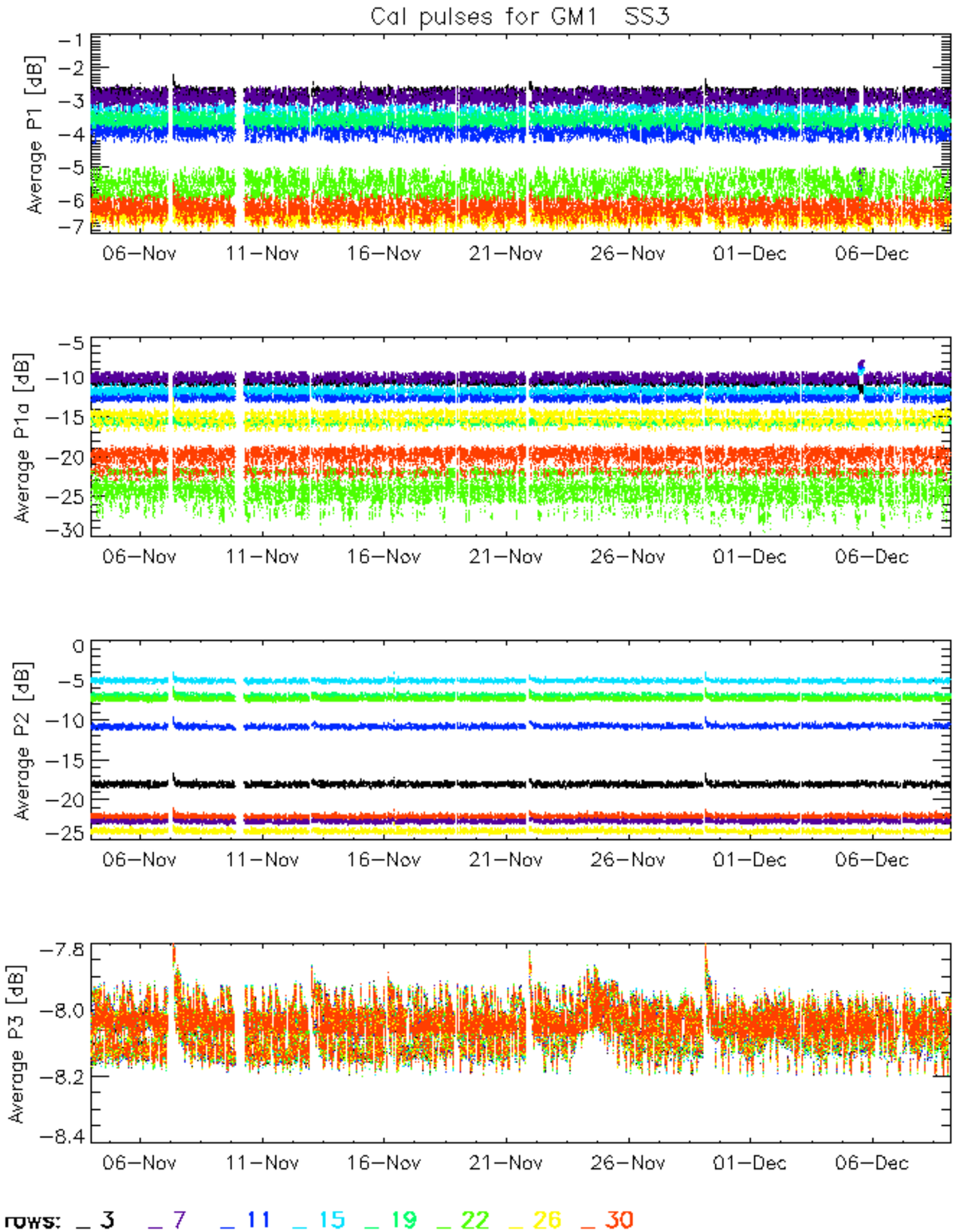
6.5 - Absolute Doppler for GM1

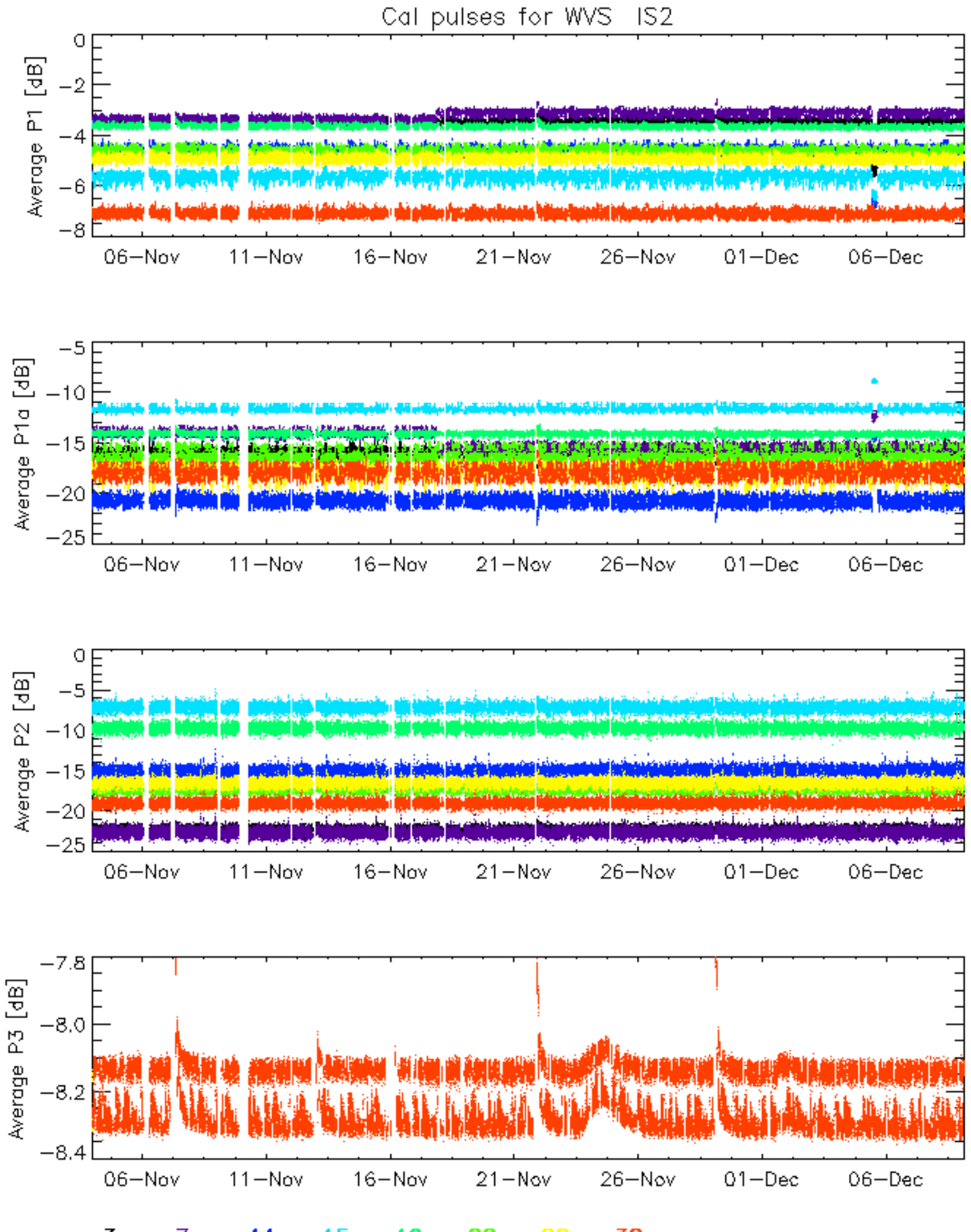
Evolution of Absolute Doppler
Acsending

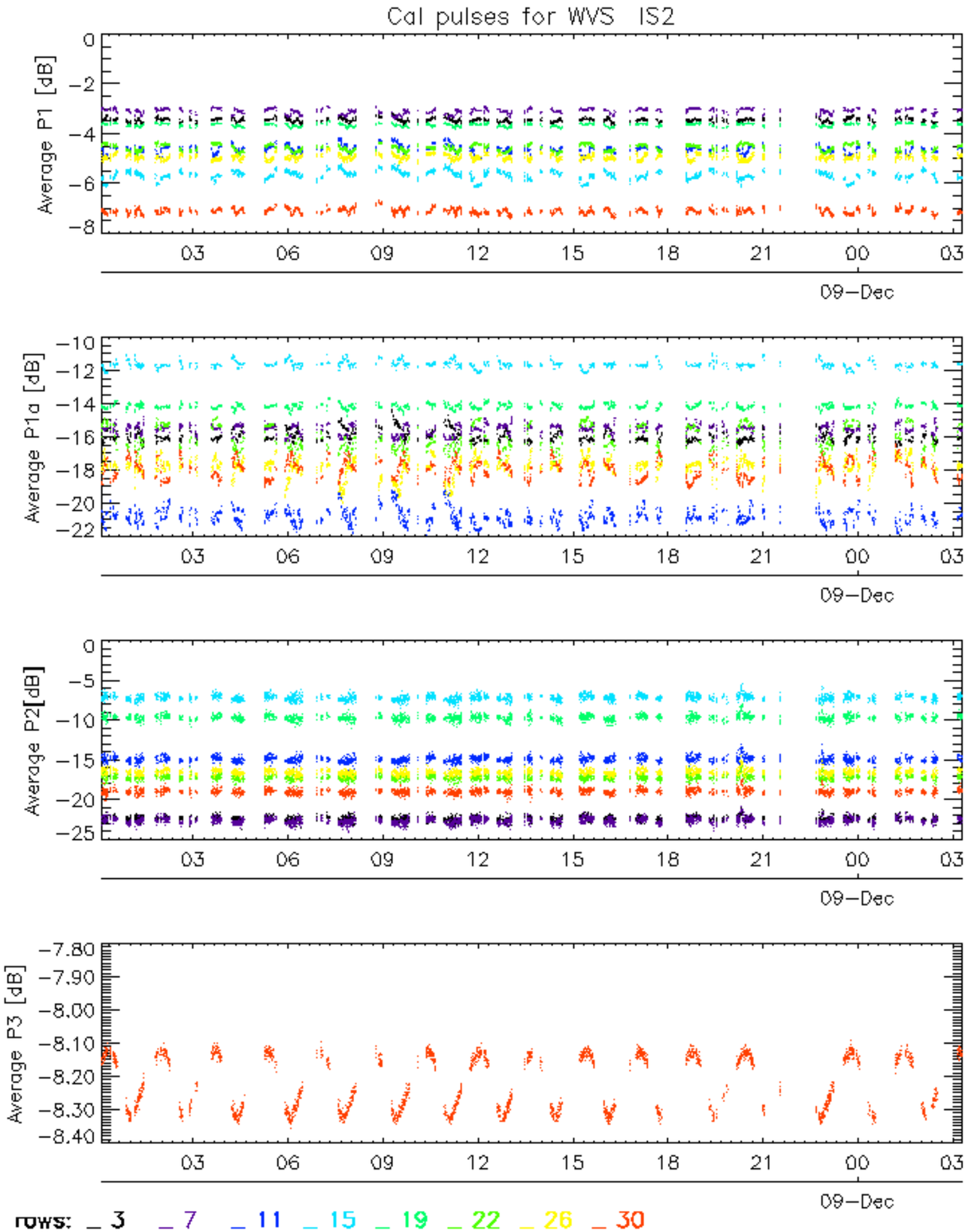
Descending

6.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX


Cal pulses for GM1 SS3
Average P1 [dB]
−1
−2
−3
−4
−5
−6
−7
06−Nov
11−Nov
16−Nov
21−Nov
26−Nov
01−Dec
06−Dec
Average P1a [dB]
−5
−10
−15
−20
−25
−30
Average P2 [dB]
0
−5
−10
−15
−20
−25
Average P3 [dB]
−7.8
−8.0
−8.2
−8.4
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30


Cal pulses for WVS IS2
Average P1 [dB]
0
−2
−4
−6
−8
06−Nov
11−Nov
16−Nov
21−Nov
26−Nov
01−Dec
06−Dec
Average P1a [dB]
−5
−10
−15
−20
−25
Average P2 [dB]
Average P3 [dB]
−7.8
−8.0
−8.2
−8.4
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30


Cal pulses for WVS IS2
Average P1 [dB]
0
−2
−4
−6
−8
03
06
09
12
15
18
21
00
03
09−Dec
Average P1a [dB]
−10
−12
−14
−16
−18
−20
−22
03
06
09
12
15
18
21
00
03
09−Dec
Average P2[dB]
0
−5
−10
−15
−20
−25
03
06
09
12
15
18
21
00
03
09−Dec
Average P3 [dB]
−7.80
−7.90
−8.00
−8.10
−8.20
−8.30
−8.40
03
06
09
12
15
18
21
00
03
09−Dec
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

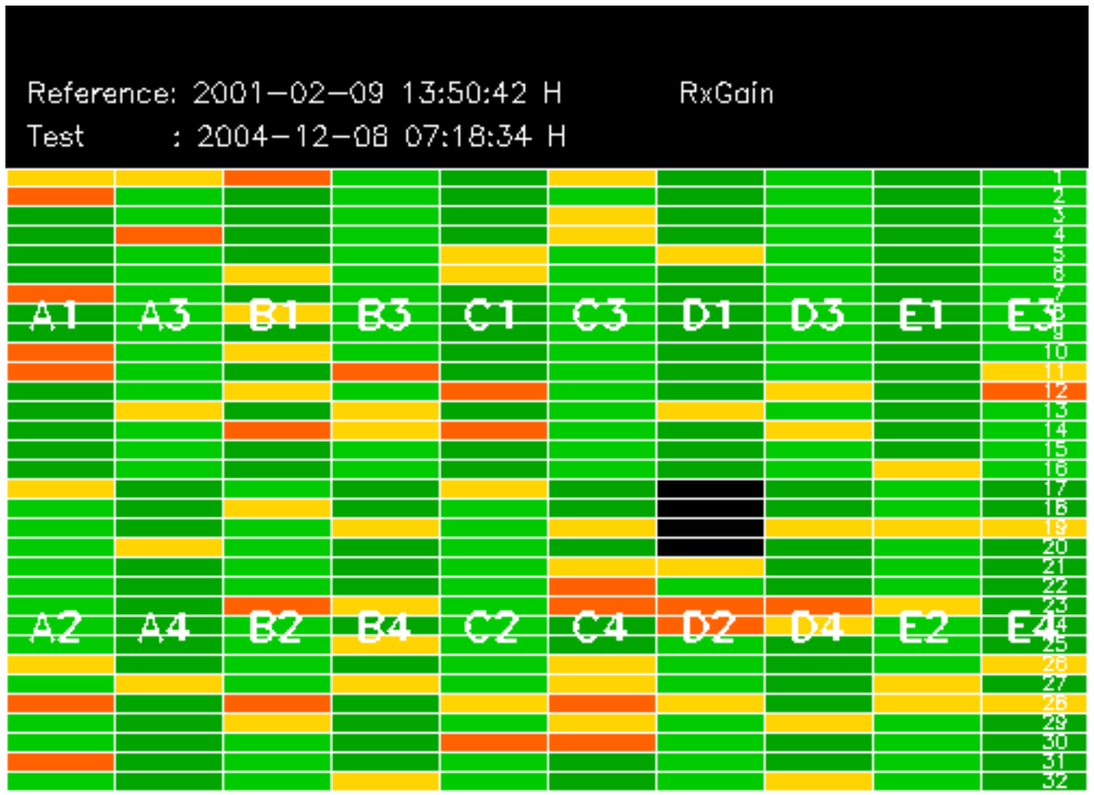
No anomalies observed on available browse products

No anomalies observed.

Preliminary report.The data is not yet controled

The MS mode provides an internal health check on an individual module basis.
The purpose of this mode is to identify to identify any malfunctionning modules and
to identify modules for which calibration offsets are to be applied.
No anomalies observed on available MS products:

No anomalies observed.


Reference: 2001-02-09 13:50:42 H
RxGain
Test : 2004-12-08 07:18:34 H
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4
1
2
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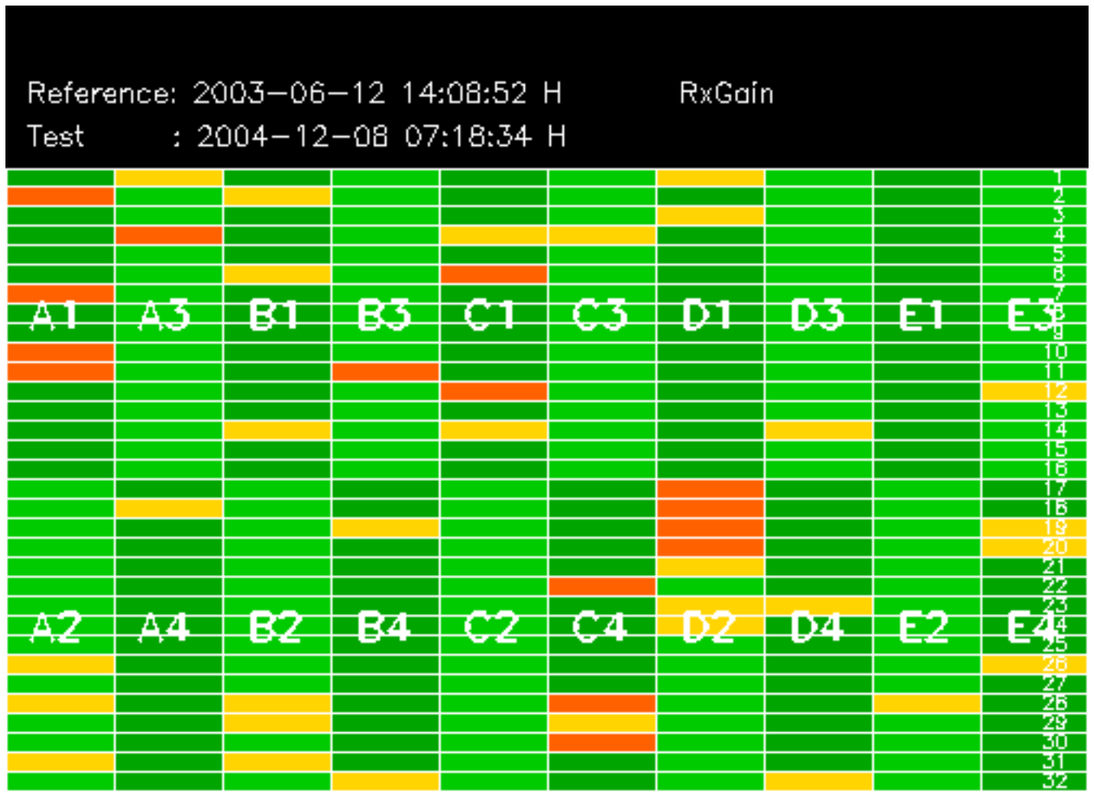
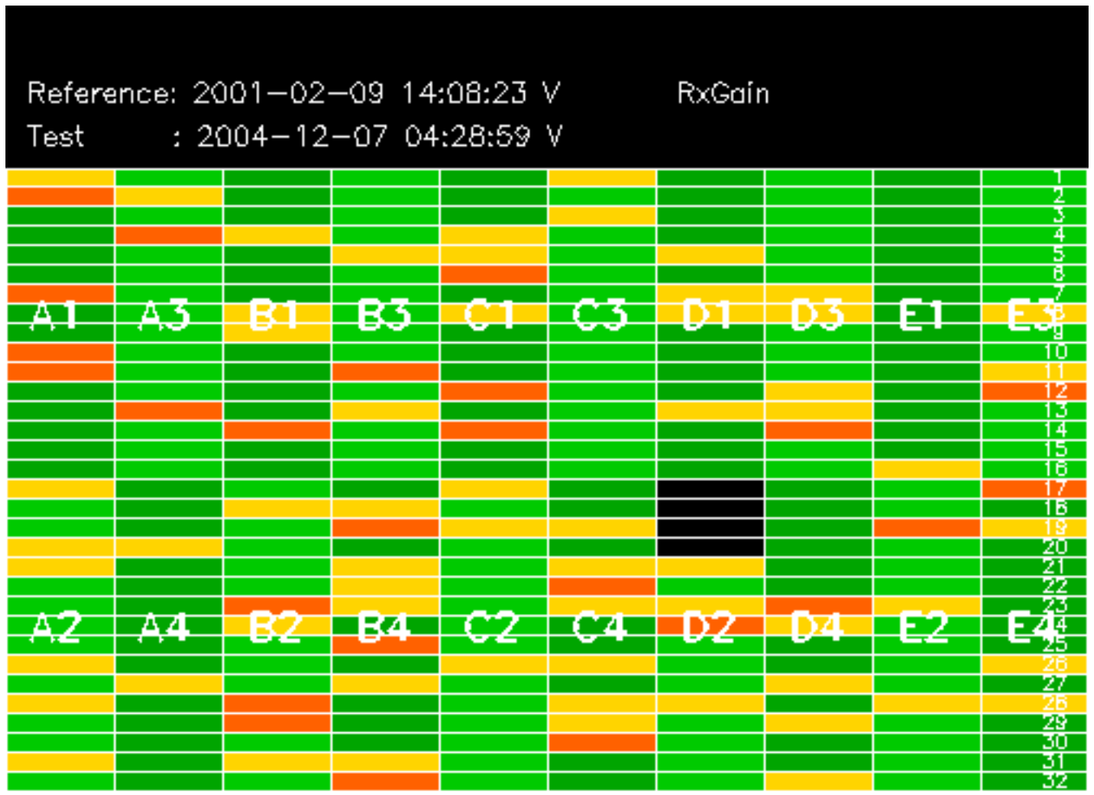

Reference: 2003-06-12 14:08:52 H
Test : 2004-12-08 07:18:34 H
RxGain
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4


Reference: 2001-02-09 14:08:23 V
Test : 2004-12-07 04:28:59 V
RxGain
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4
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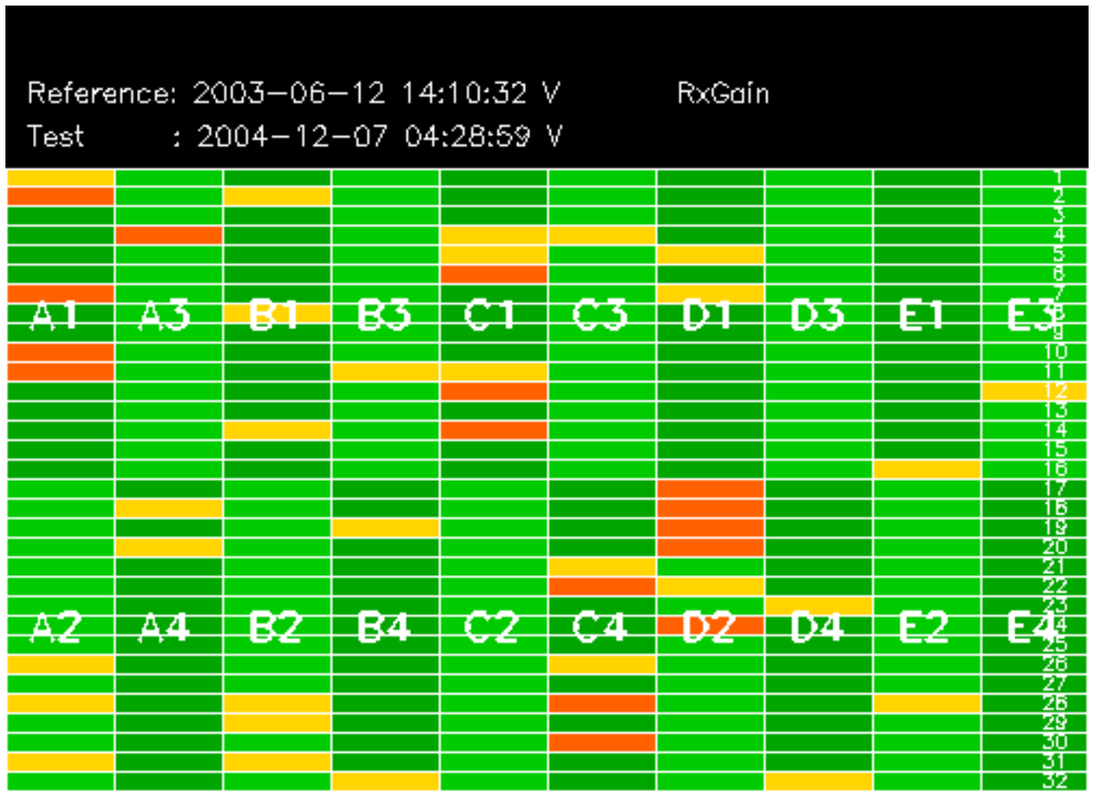
Reference: 2003-06-12 14:10:32 V
Test : 2004-12-07 04:28:59 V
RxGain
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4
1
2
3
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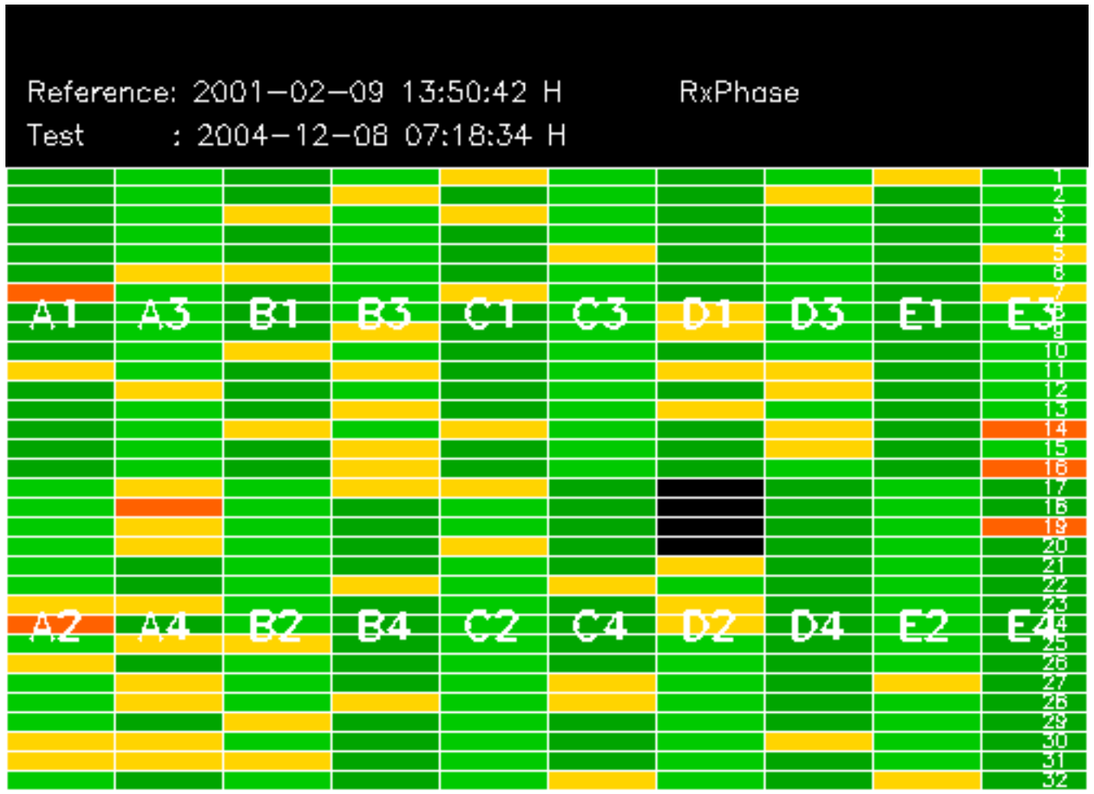
Reference: 2001-02-09 13:50:42 H
Test : 2004-12-08 07:18:34 H
RxPhase
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4
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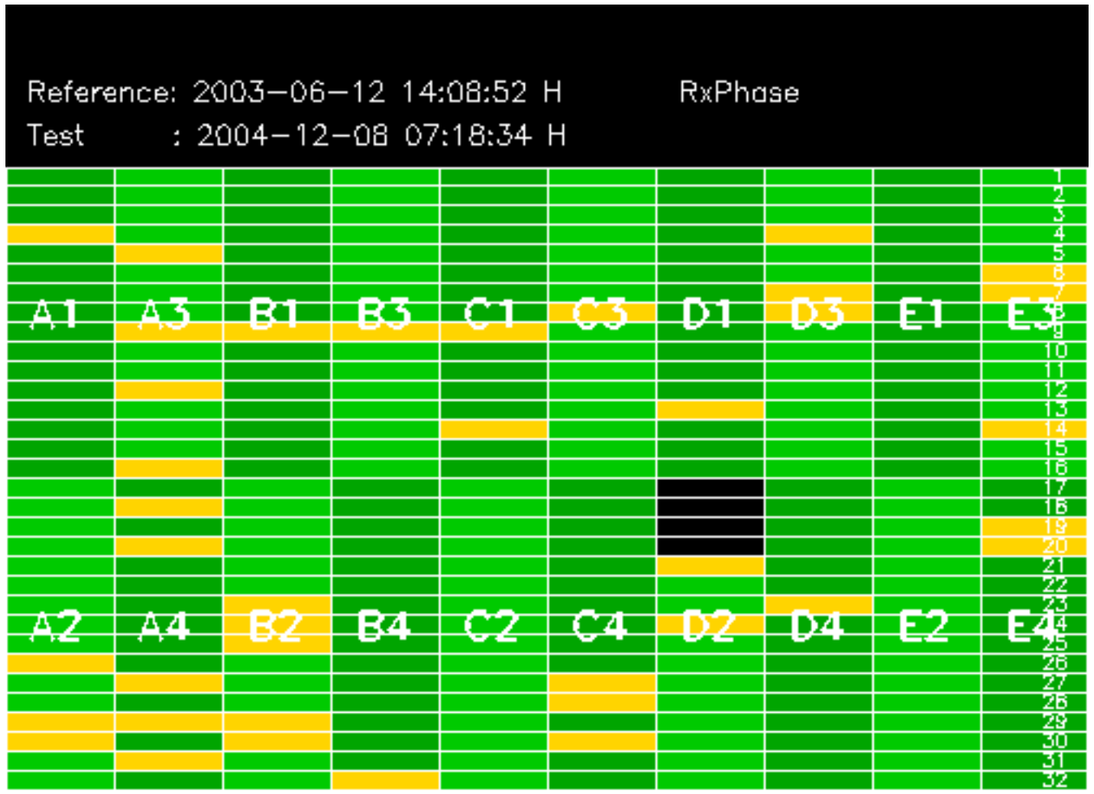
Reference: 2003-06-12 14:08:52 H
Test : 2004-12-08 07:18:34 H
RxPhase
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4
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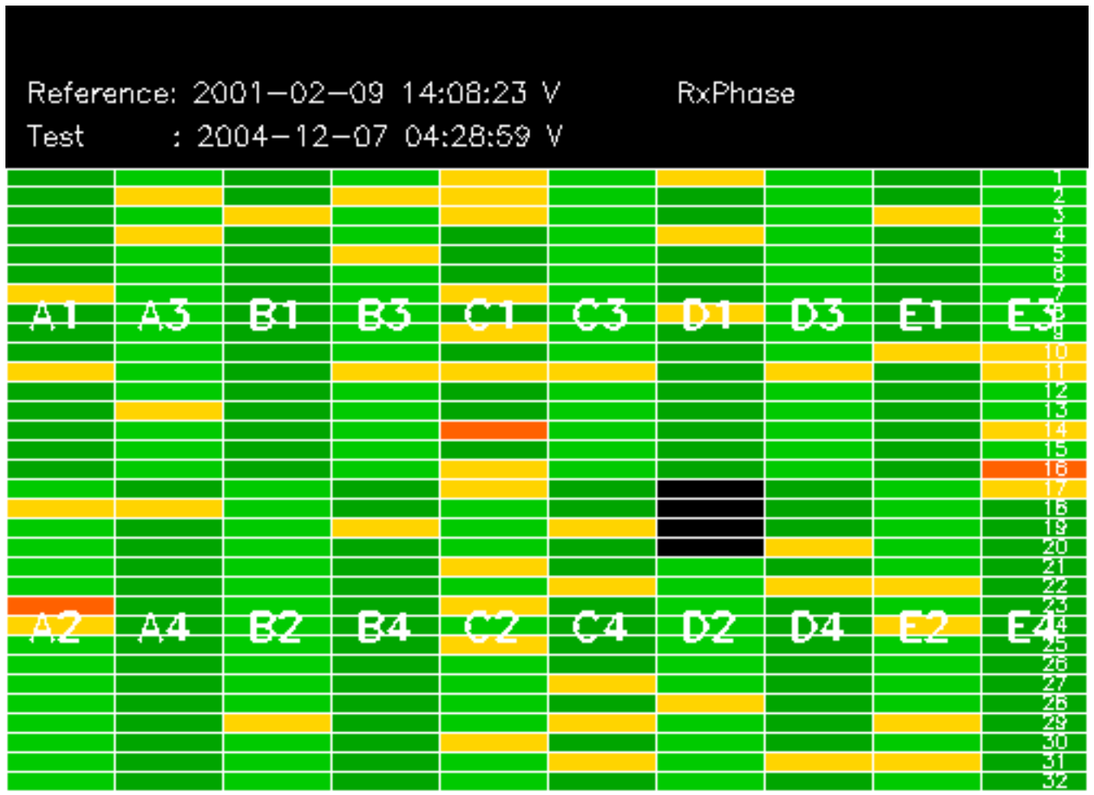
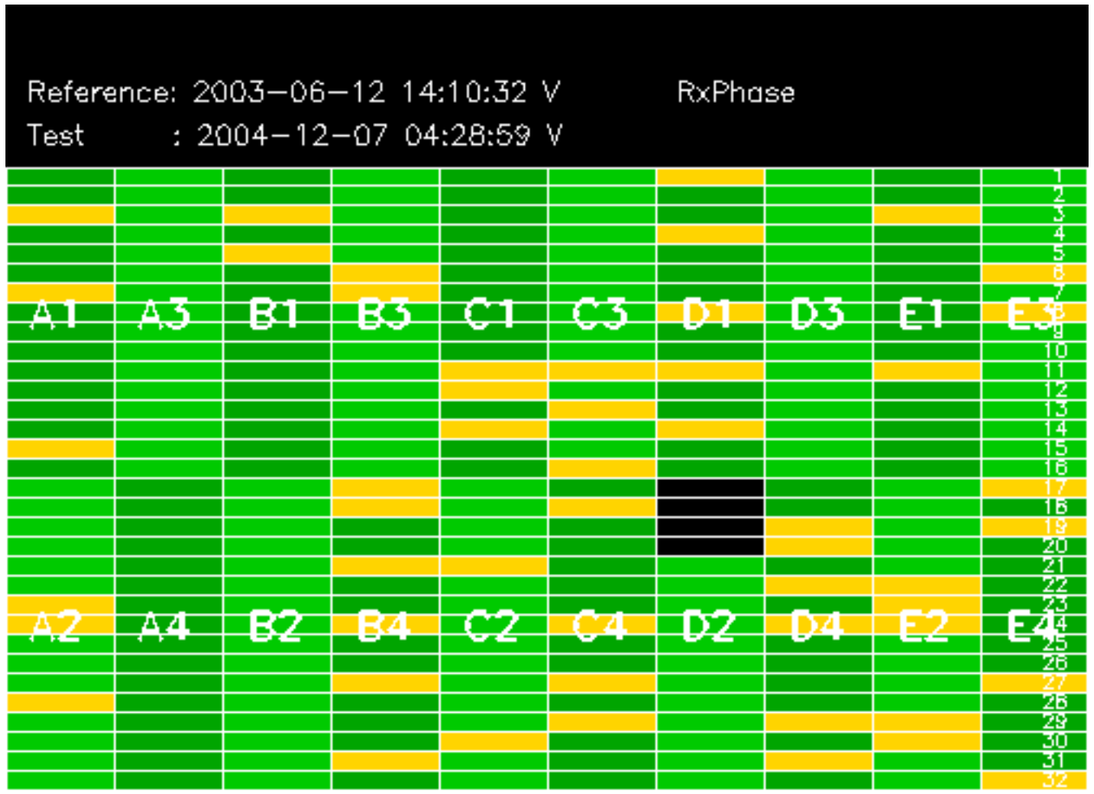
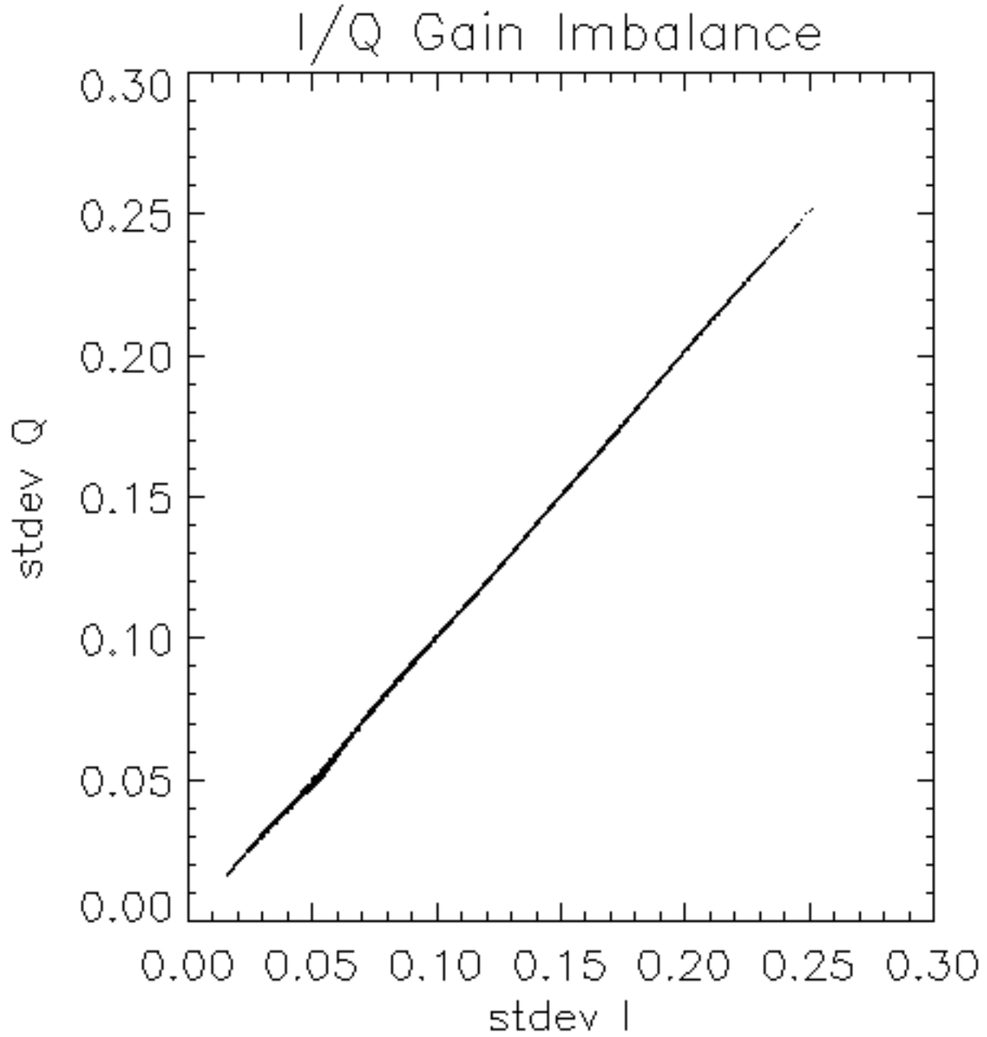
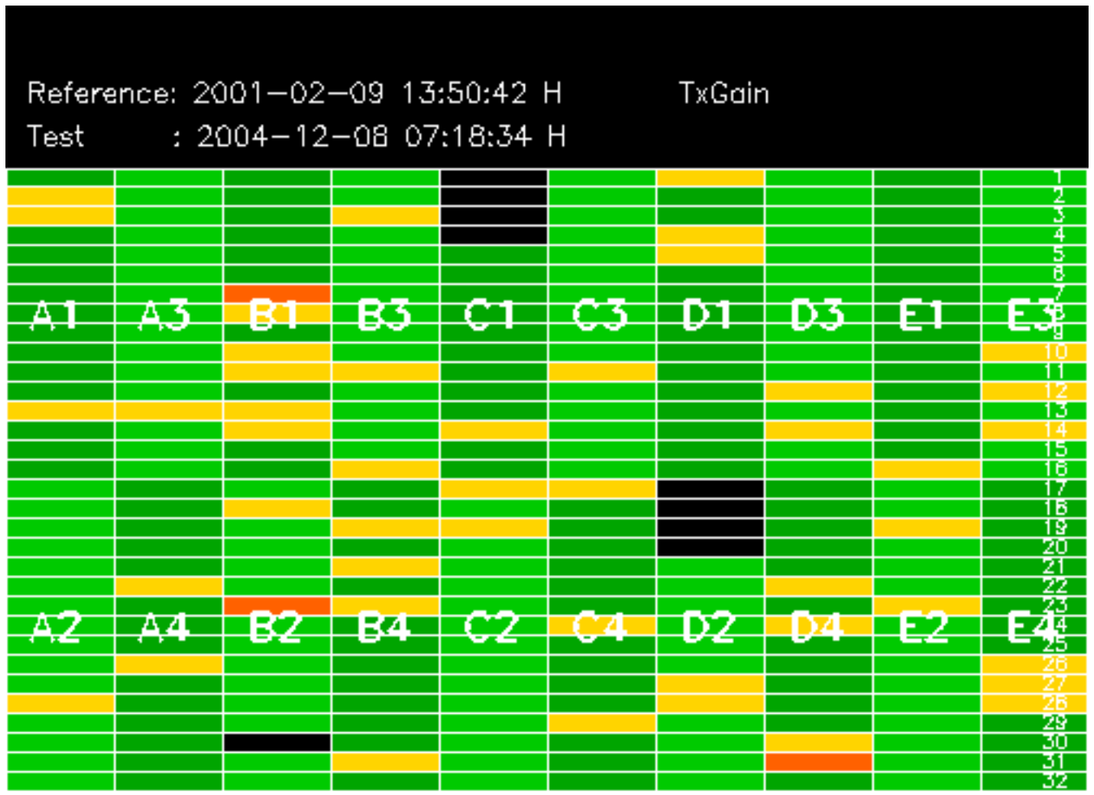

Reference: 2001-02-09 14:08:23 V
Test : 2004-12-07 04:28:59 V
RxPhase
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4


Reference: 2003-06-12 14:10:32 V
Test : 2004-12-07 04:28:59 V
RxPhase
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4


I/Q Gain Imbalance
0.30
0.25
0.20
0.15
0.10
0.05
0.00
stdev Q
0.00 0.05 0.10 0.15 0.20 0.25 0.30
stdev I


Reference: 2001-02-09 13:50:42 H
Test : 2004-12-08 07:18:34 H
TxGain
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4
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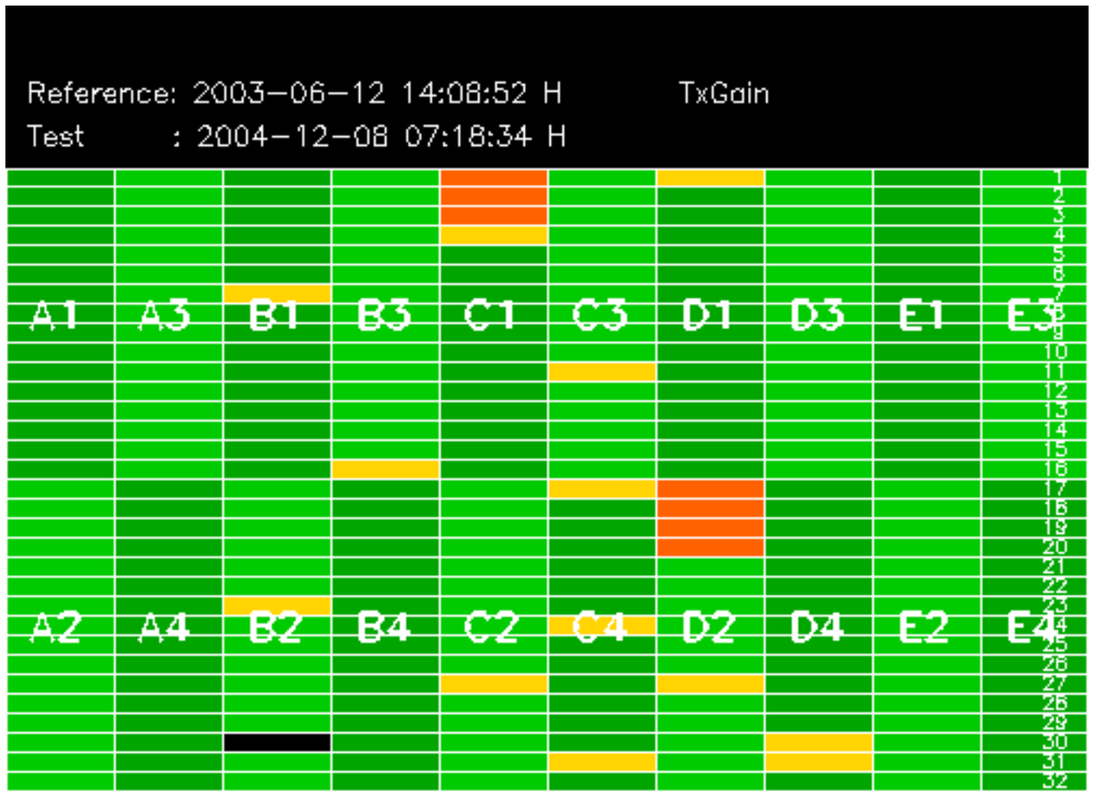
Reference: 2003-06-12 14:08:52 H
Test : 2004-12-08 07:18:34 H
TxGain
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4
1
2
3
4
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6
7
8
9
10
11
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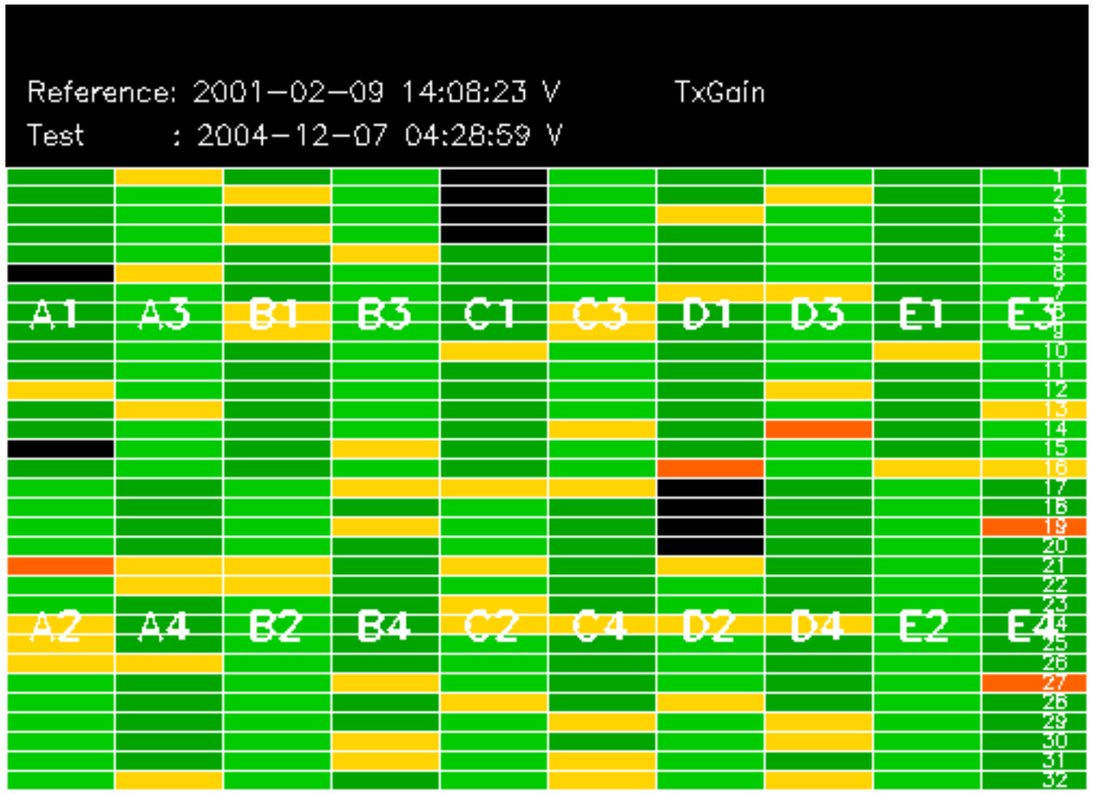
32


Reference: 2001-02-09 14:08:23 V
Test : 2004-12-07 04:28:59 V
TxGain
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4
1
2
3
4
5
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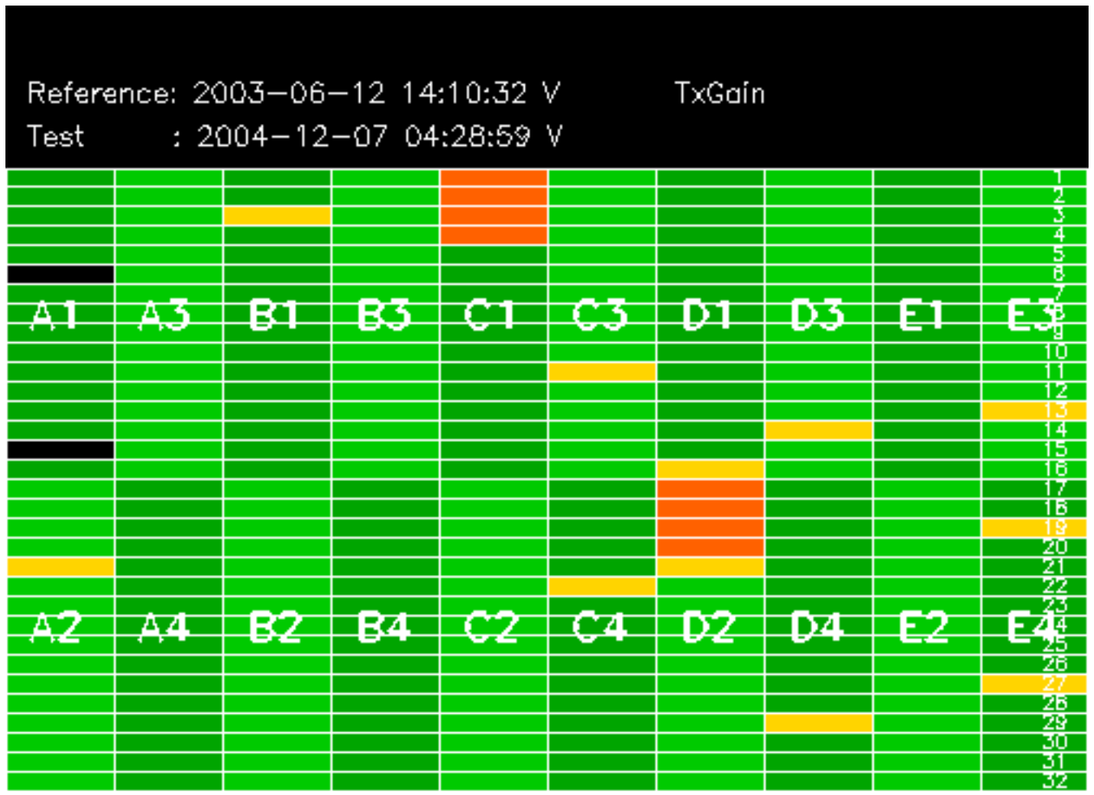
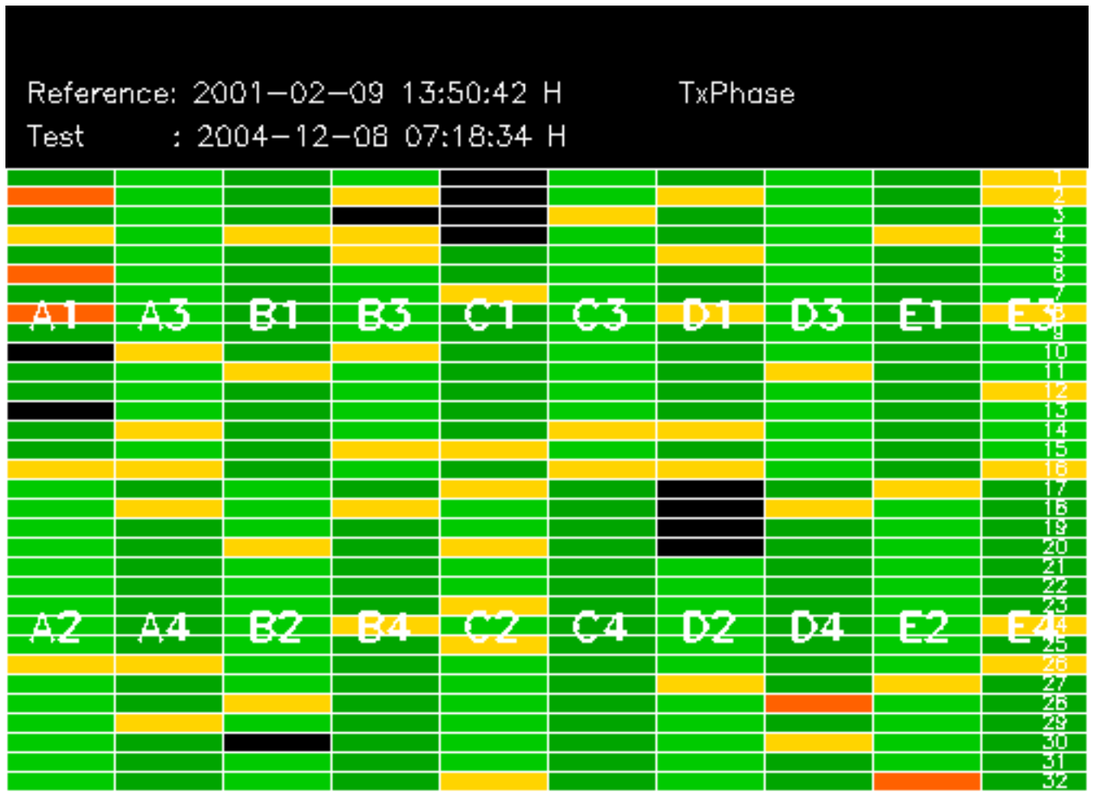

Reference: 2003-06-12 14:10:32 V
Test : 2004-12-07 04:28:59 V
TxGain
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4


Reference: 2001-02-09 13:50:42 H
TxPhase
Test : 2004-12-08 07:18:34 H
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4
1
2
3
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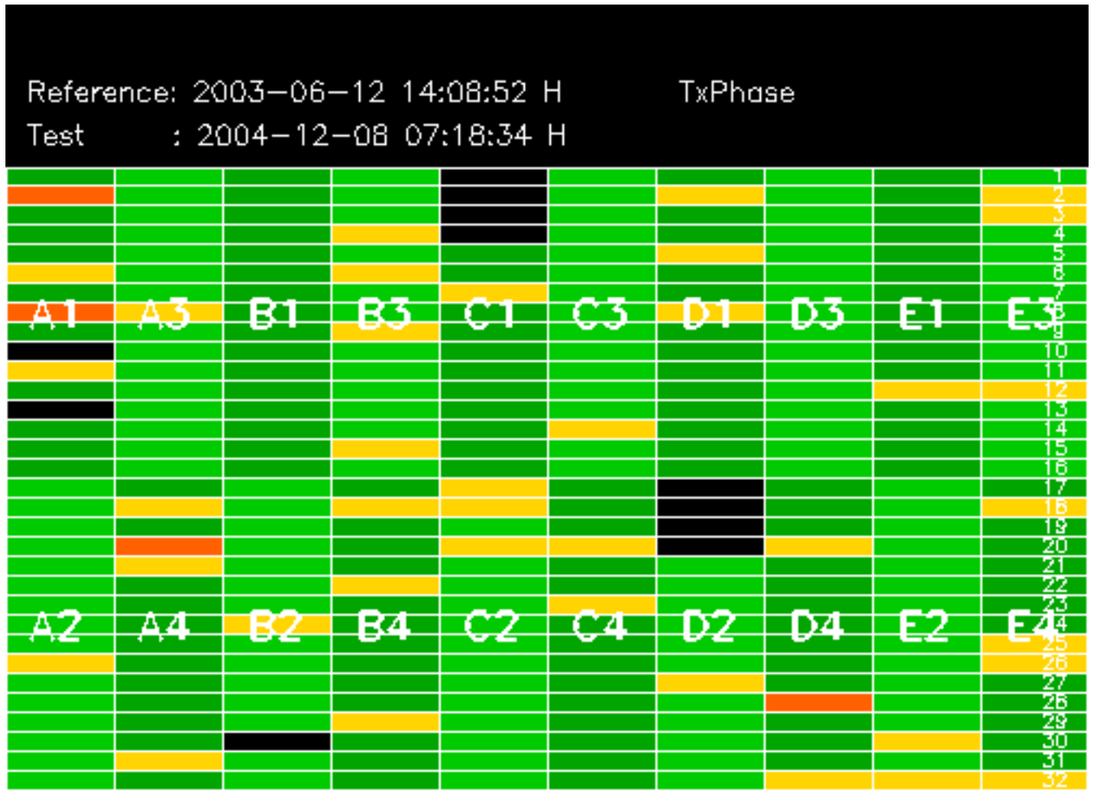
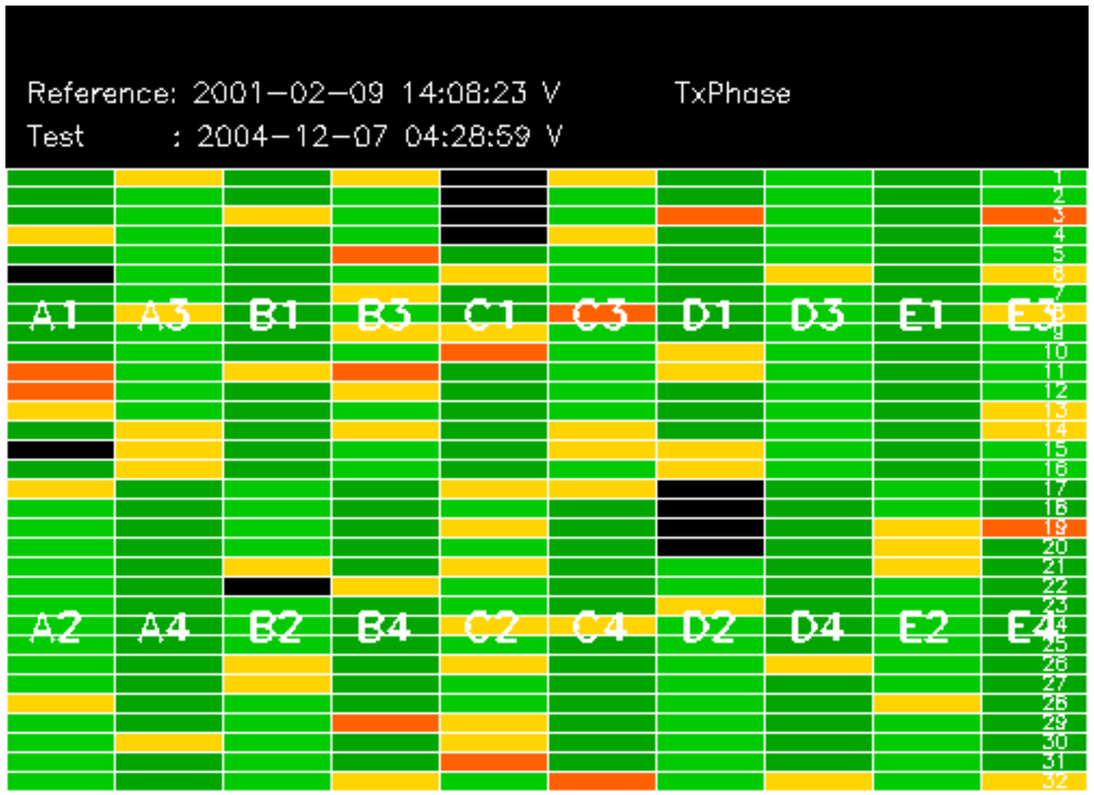
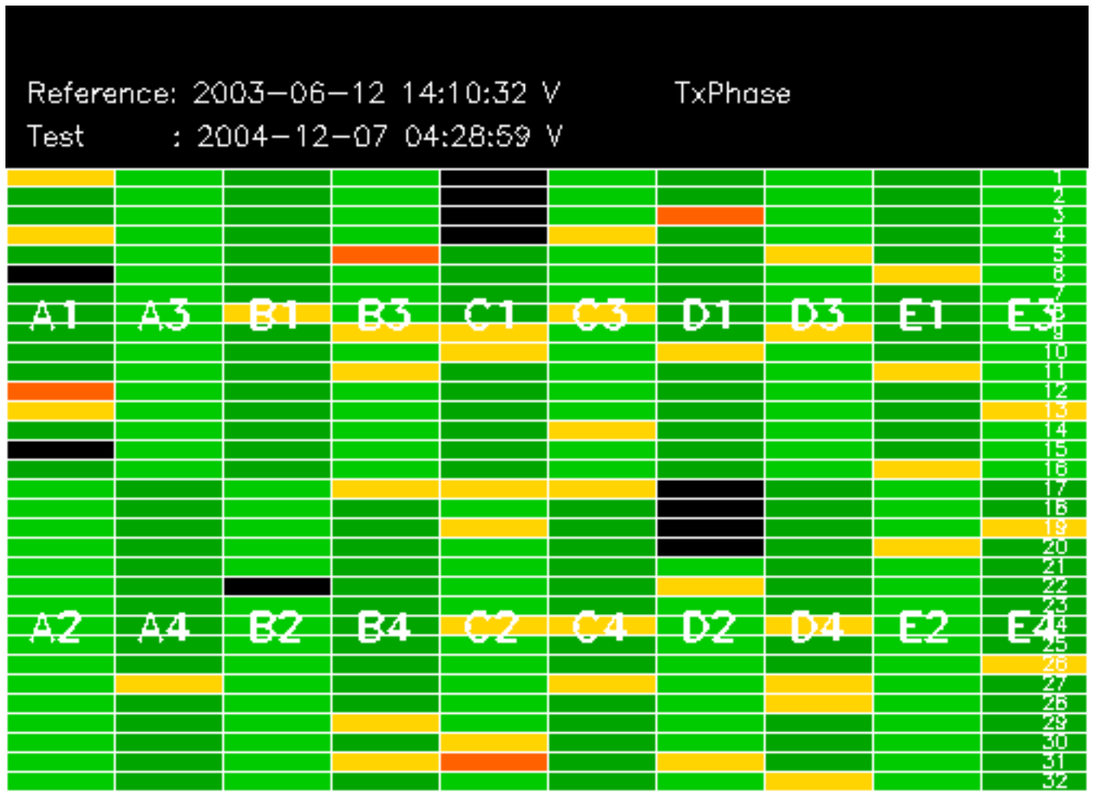
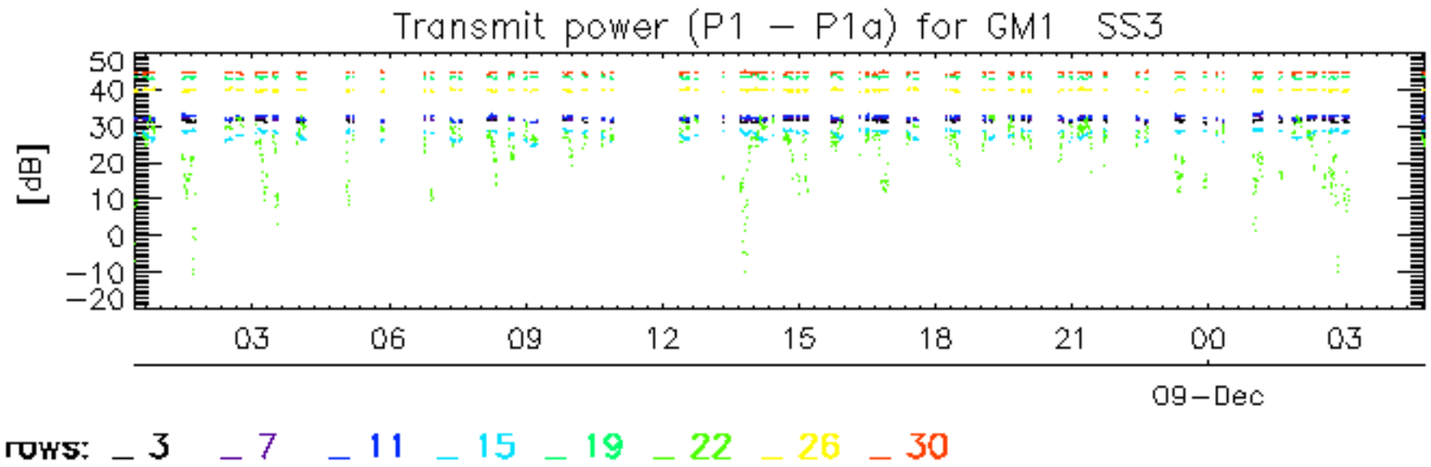
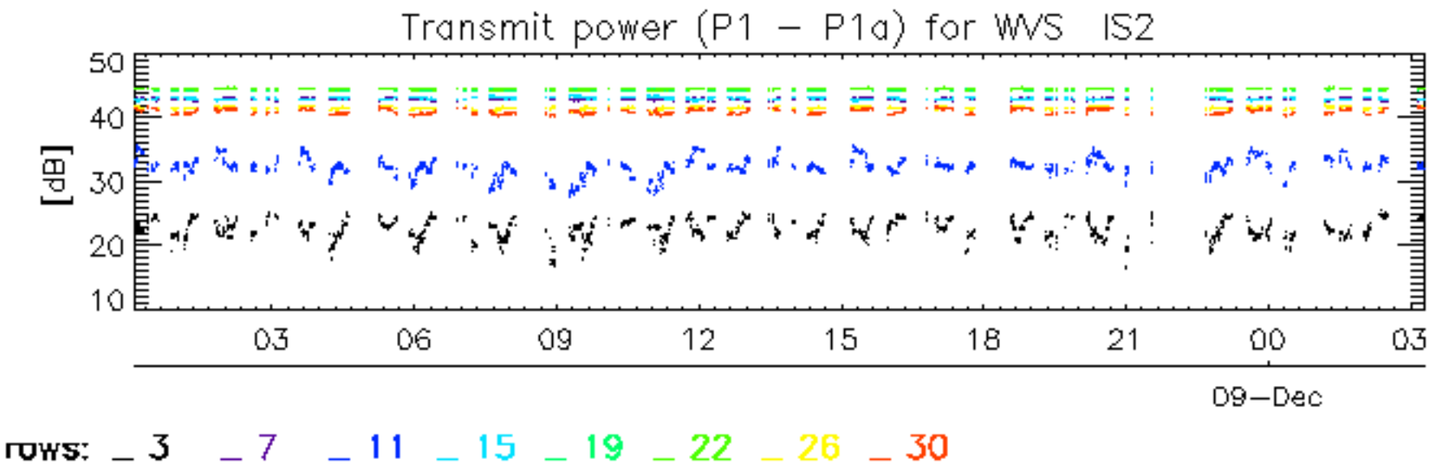

Reference: 2003-06-12 14:08:52 H
Test : 2004-12-08 07:18:34 H
TxPhase
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4


Reference: 2001-02-09 14:08:23 V
Test : 2004-12-07 04:28:59 V
TxPhase
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4


Reference: 2003-06-12 14:10:32 V
Test : 2004-12-07 04:28:59 V
TxPhase
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4


Transmit power (P1 – P1a) for GM1 SS3
[dB]
50
40
30
20
10
0
−10
−20
03
06
09
12
15
18
21
00
03
09−Dec
rows: 3
7
11
15
19
22
26
30


Transmit power (P1 – P1a) for WVS IS2
[dB]
50
40
30
20
10
03
06
09
12
15
18
21
00
03
09–Dec
rows: 3 7 11 15 19 22 26 30

No unavailabilities during the reported period.