PRELIMINARY REPORT OF 040416

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

last update on Fri Apr 16 12:40:01 GMT 2004

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    - Browse Visual Inspection
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1 - Introduction

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

2 - Summary

2.1 - Instrument Unavailability

No unavailabilities during the reported period.

2.2 - Browse Visual Inspection

No anomalies observed on available browse products.

2.3 - 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.
The MS products analysis shows a failure in TX module 30 tile B2, since 12-APR-2004.
Investigations are on going.

- ASA_MS__0PNPDK20040415_200410_000000152026_00042_11118_0074.N1
- ASA_MS__0PNPDK20040415_200530_000000152026_00042_11118_0075.N1

Polarisation	Start Time
V	20040415 200530
H	20040415 200410

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

4.2 - Cyclic statistics

4.3 - cal pulses monitoring (all rows)

5 - RAW data statistics

No anomalies observed.

5.1 - Input mean I/Q

channel	stat	DSS-B
MEAN I	mean	0.000476632
	stdev	2.38120e-07
MEAN Q	mean	0.000482490
	stdev	2.69359e-07

5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.127629
	stdev	0.00118623
STDEV Q	mean	0.127882
	stdev	0.00119985

5.3 - Gain imbalance I/Q

6 - Doppler Analysis

Analysis performed over the last 35 days.
The difference from the reference trend is due to the OCM (manoeuvre) occured on 14-APR-2004.

6.1 - Unbiased Doppler Error

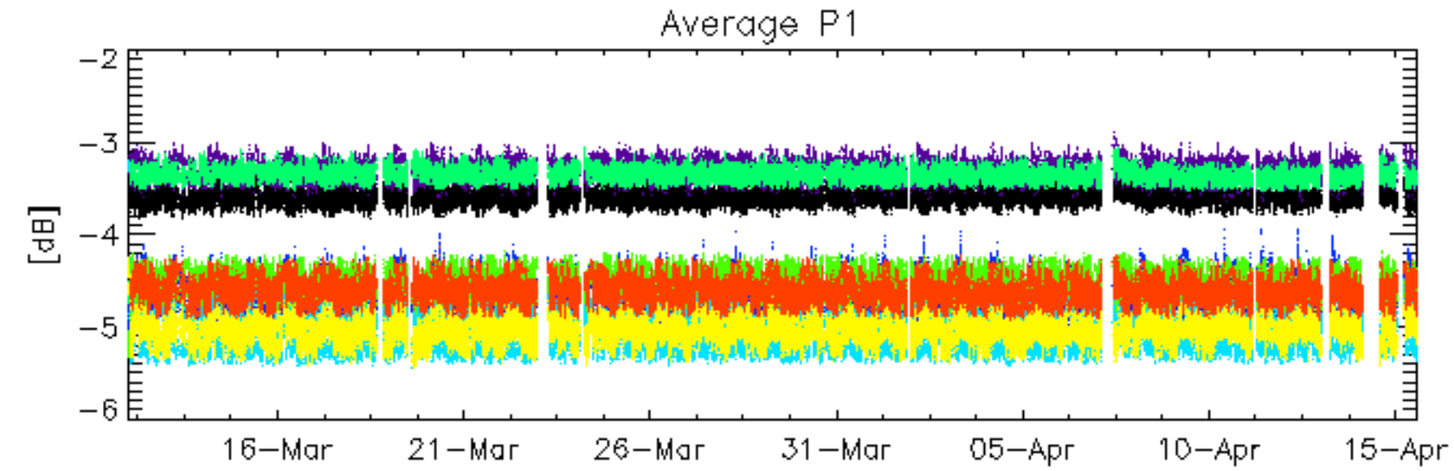
Evolution of unbiased Doppler error (Real - Expected)
Acsending
Descending

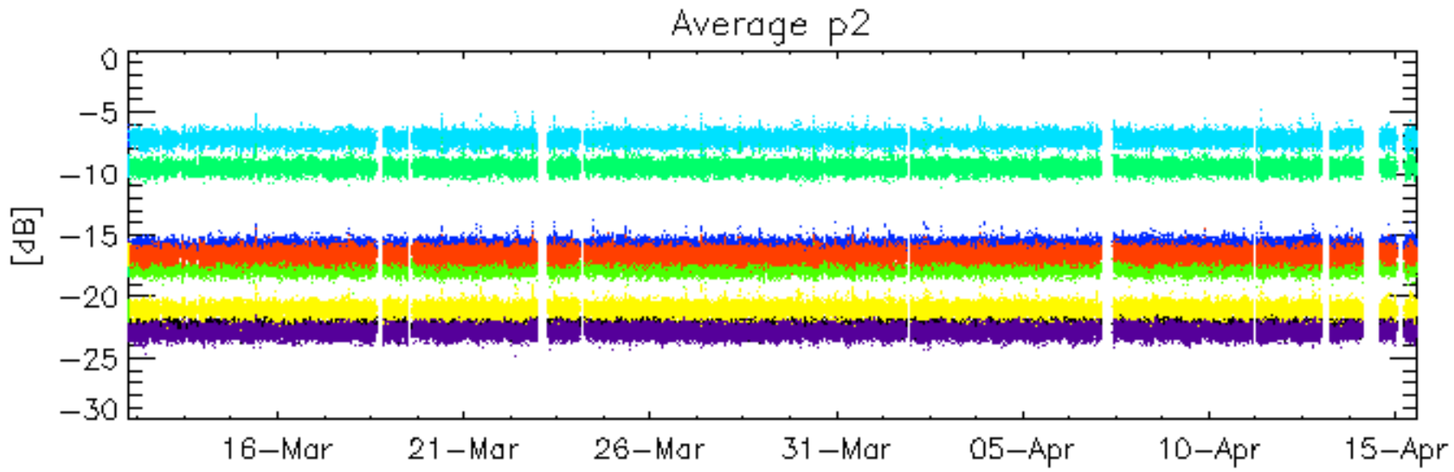
6.2 - Absolute Doppler

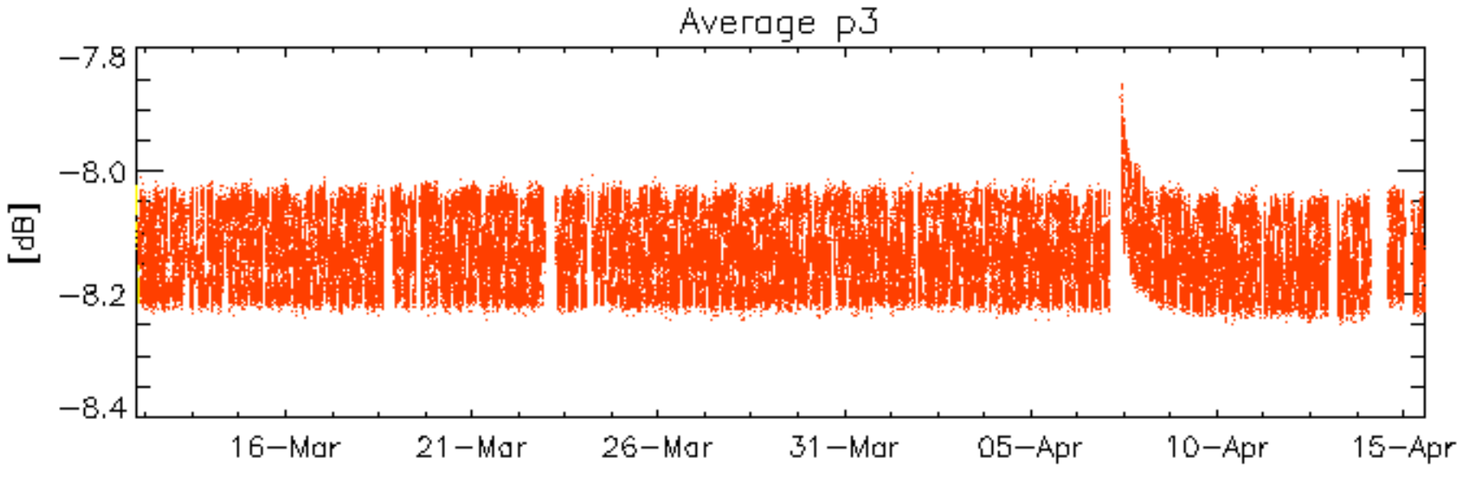
Evolution of Absolute Doppler
Acsending
Descending

6.3 - Doppler evolution versus ANX

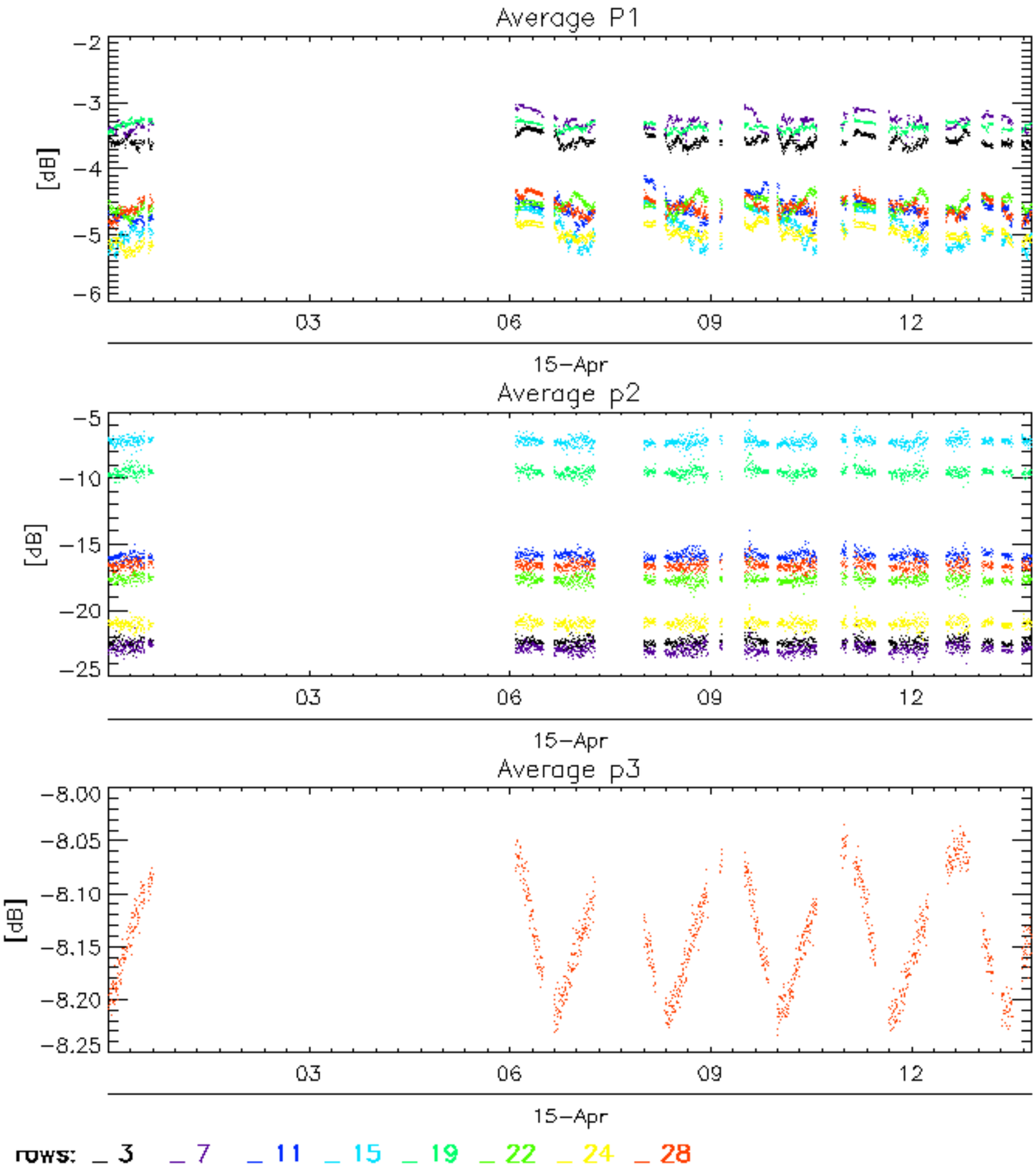
Evolution Doppler error versus ANX
Evolution Doppler error versus ANX





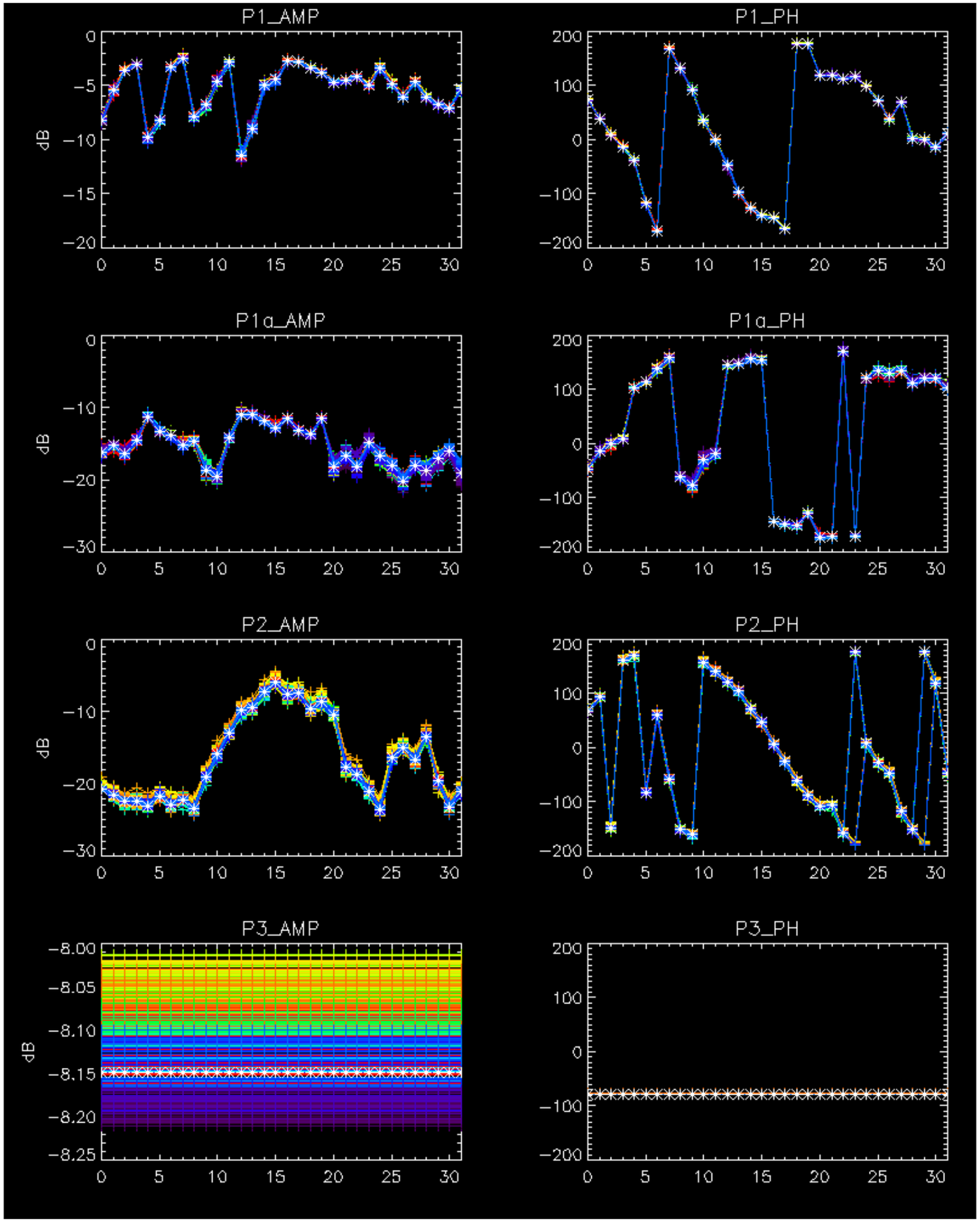


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 24 _ 28


Average P1
[dB]
−2
−3
−4
−5
−6
03
06
09
12
15−Apr
Average p2
[dB]
−5
−10
−15
−20
−25
03
06
09
12
15−Apr
Average p3
[dB]
−8.00
−8.05
−8.10
−8.15
−8.20
−8.25
03
06
09
12
15−Apr
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 24 _ 28

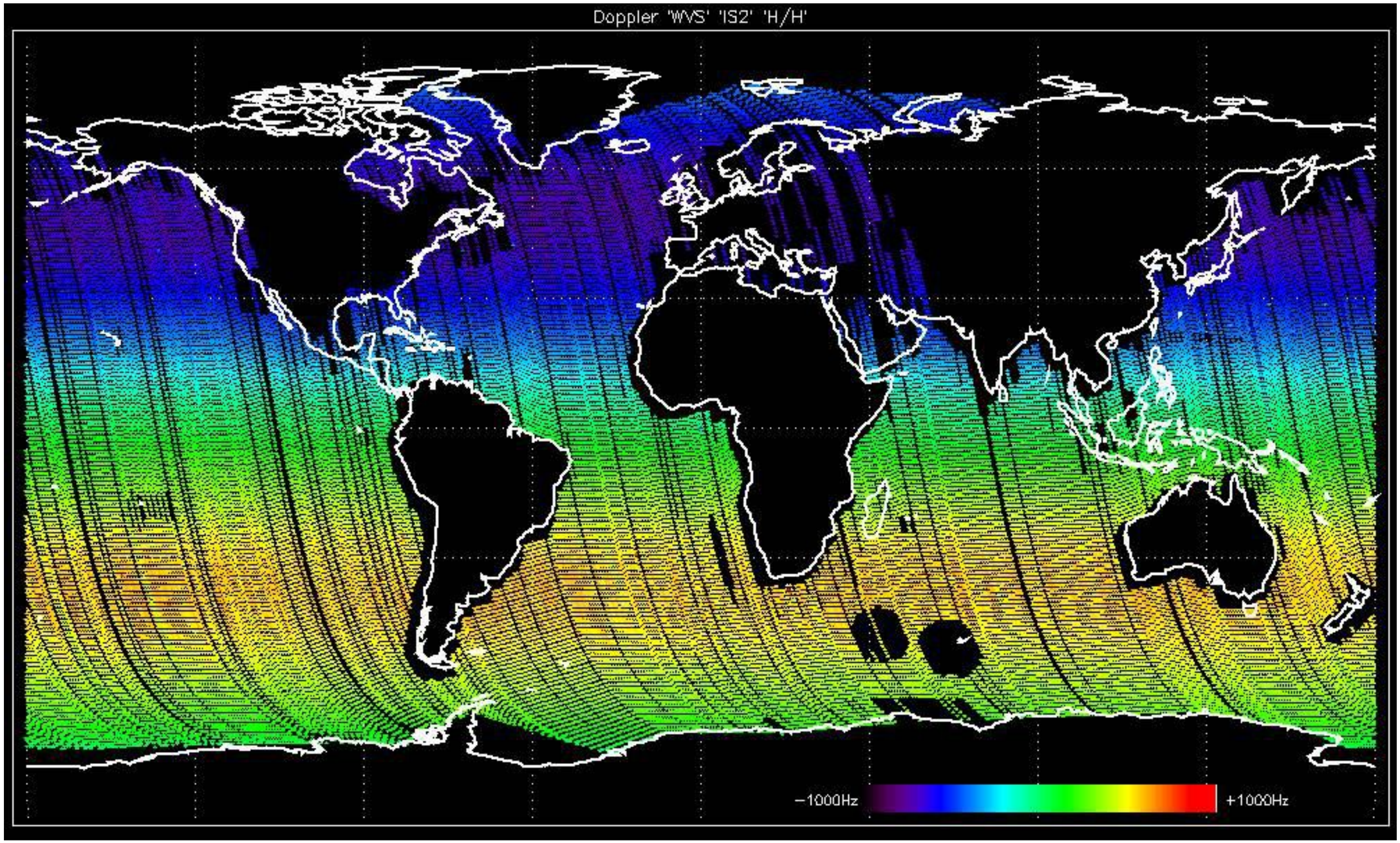
No anomalies observed on available browse products.

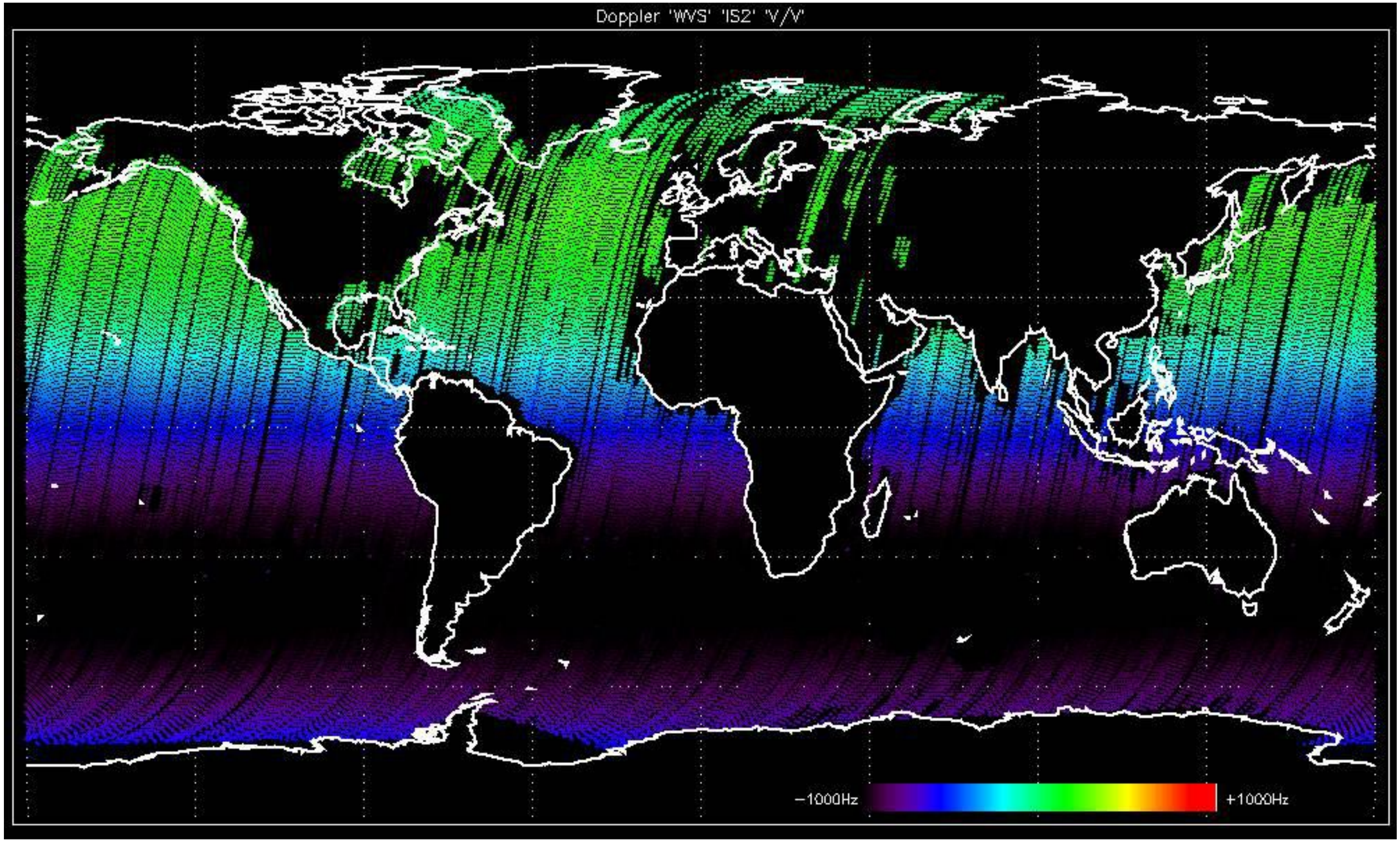
No anomalies observed.

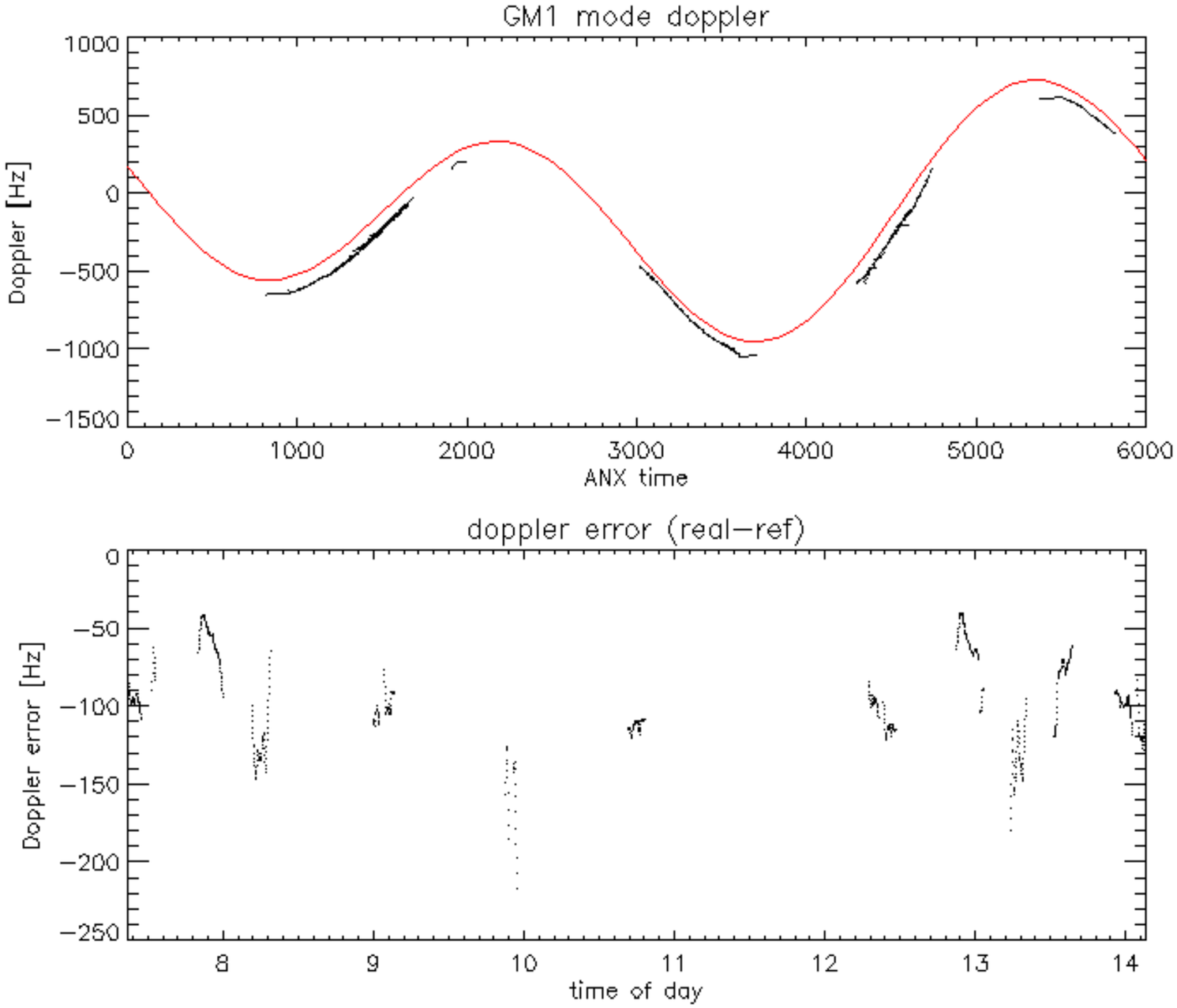

P1_AMP
P1_PH
P1a_AMP
P1a_PH
P2_AMP
P2_PH
P3_AMP
P3_PH
dB

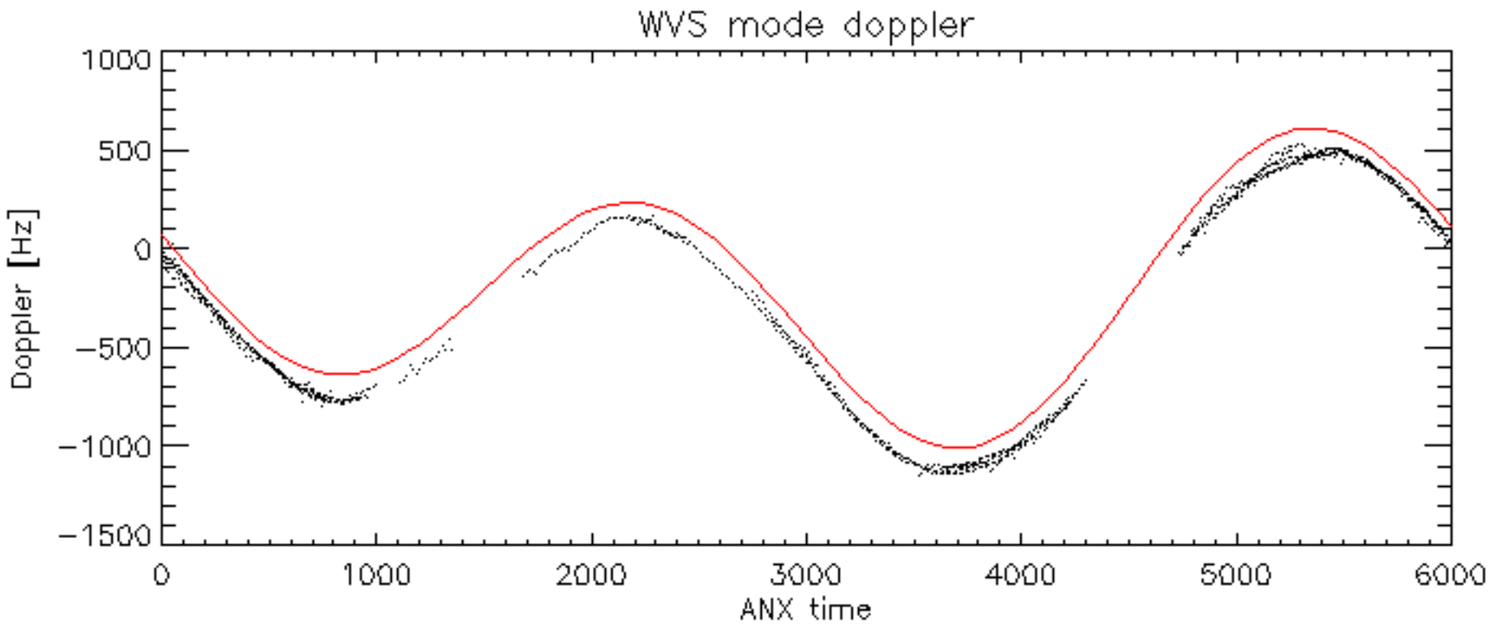
-Stable wave internal calibration pulses gain and phase.
-Stable raw data statistics.
-Nominal Doppler behavior.

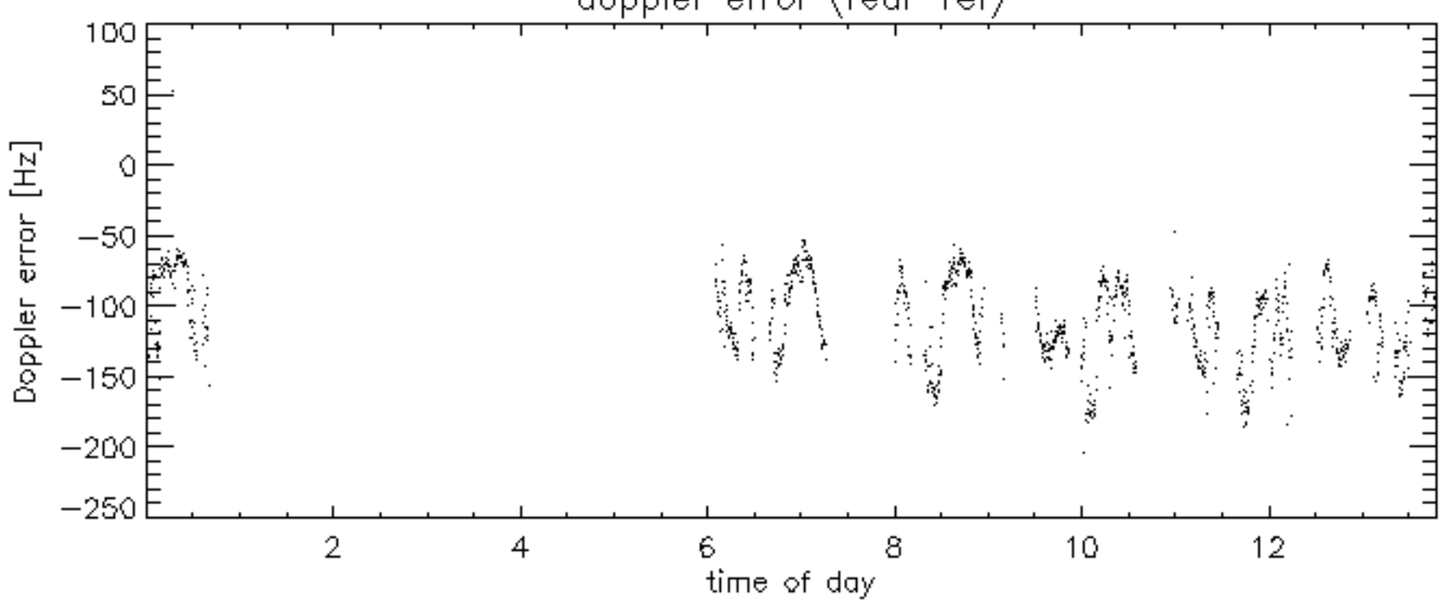
Analysis performed over the last 35 days.
The difference from the reference trend is due to the OCM (manoeuvre) occured on 14-APR-2004.

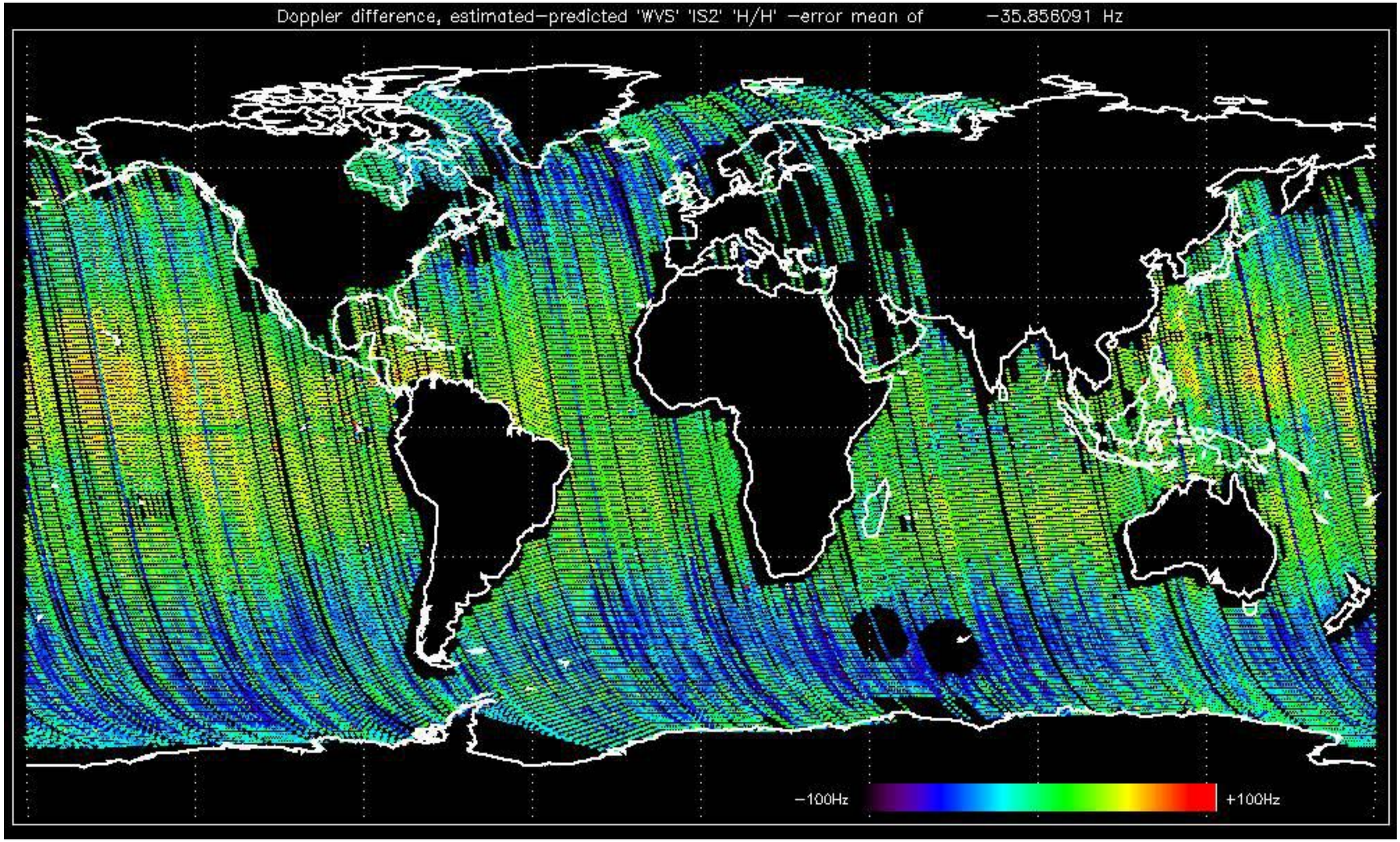

Doppler 'WVS' 'IS2' 'H/H'
−1000Hz
+1000Hz

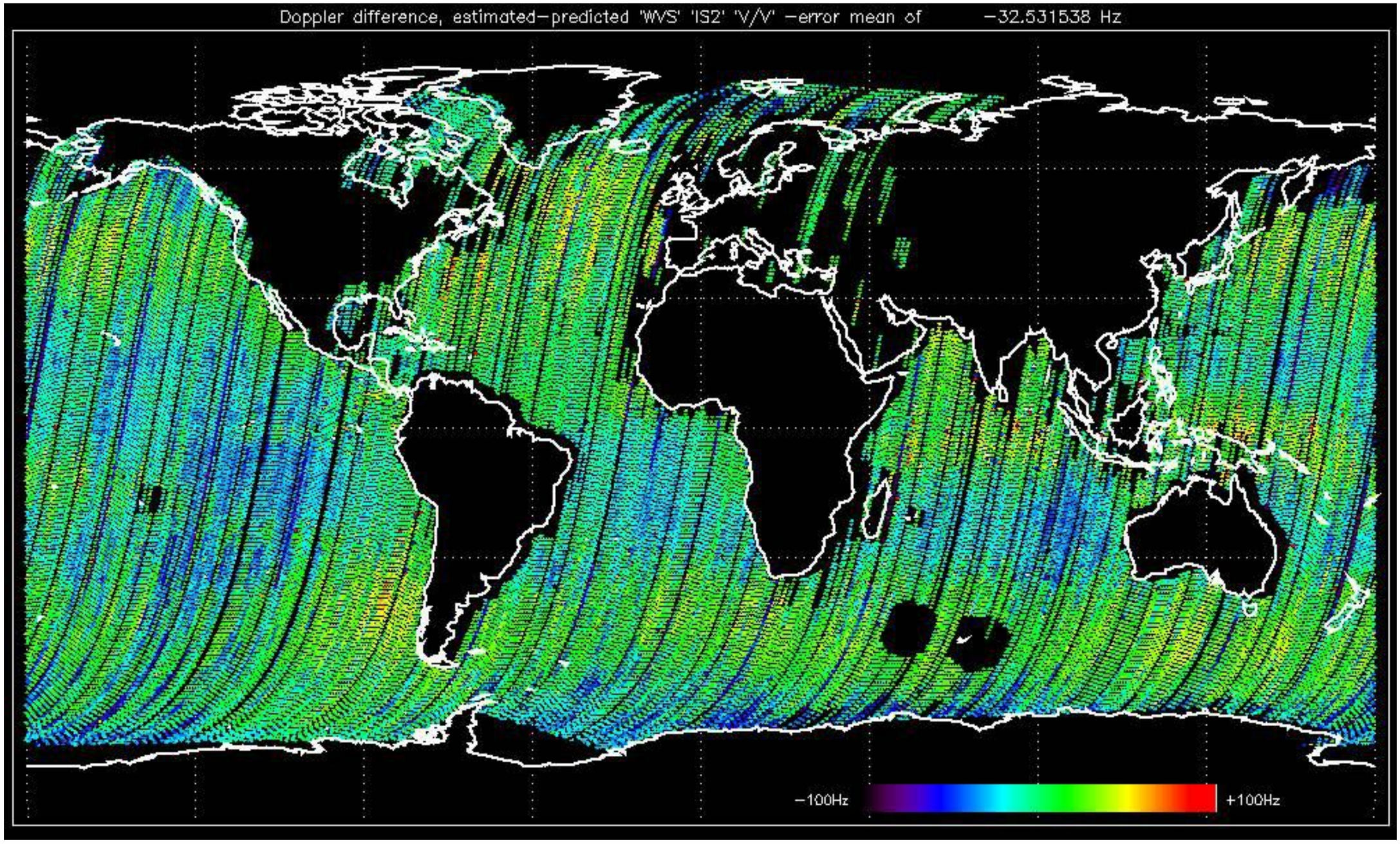

Doppler 'WVS' 'IS2' 'V/V'
−1000Hz
+1000Hz


GM1 mode doppler
Doppler [Hz]
1000
500
0
−500
−1000
−1500
0
1000
2000
3000
4000
5000
6000
ANX time
doppler error (real−ref)
Doppler error [Hz]
0
−50
−100
−150
−200
−250
8
9
10
11
12
13
14
time of day


WVS mode doppler
Doppler [Hz]
1000
500
0
−500
−1000
−1500
0
1000
2000
3000
4000
5000
6000
ANX time


doppler error (real−ref)
Doppler error [Hz]
100
50
0
−50
−100
−150
−200
−250
2
4
6
8
10
12
time of day


Doppler difference, estimated-predicted 'WVS' 'IS2' 'H/H' -error mean of -35.856091 Hz
-100Hz
+100Hz


Doppler difference, estimated−predicted 'WVS' 'IS2' 'V/V' −error mean of −32.531538 Hz
−100Hz
+100Hz

The MS mode provides an internal health check on an individual module basis.
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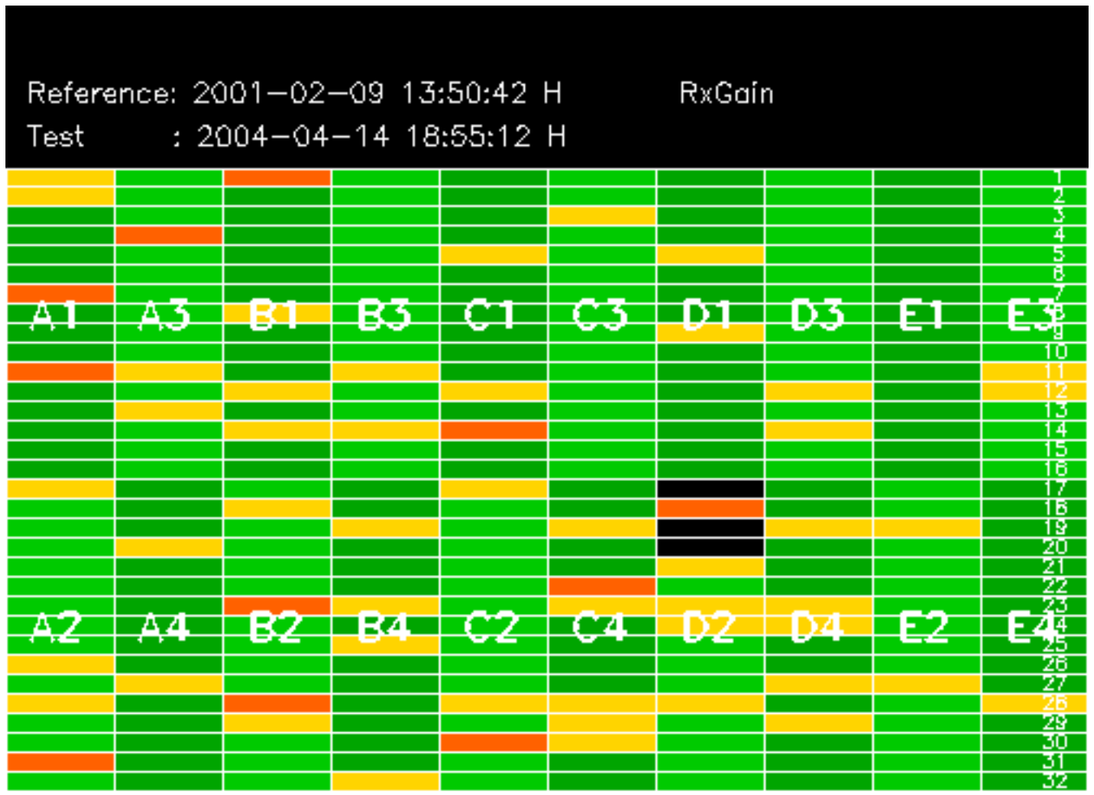
to identify modules for which calibration offsets are to be applied.
The MS products analysis shows a failure in TX module 30 tile B2, since 12-APR-2004.
Investigations are on going.

- ASA_MS__0PNPDK20040415_200410_000000152026_00042_11118_0074.N1
- ASA_MS__0PNPDK20040415_200530_000000152026_00042_11118_0075.N1

No anomalies observed.


Reference: 2001-02-09 13:50:42 H
Test : 2004-04-14 18:55:12 H
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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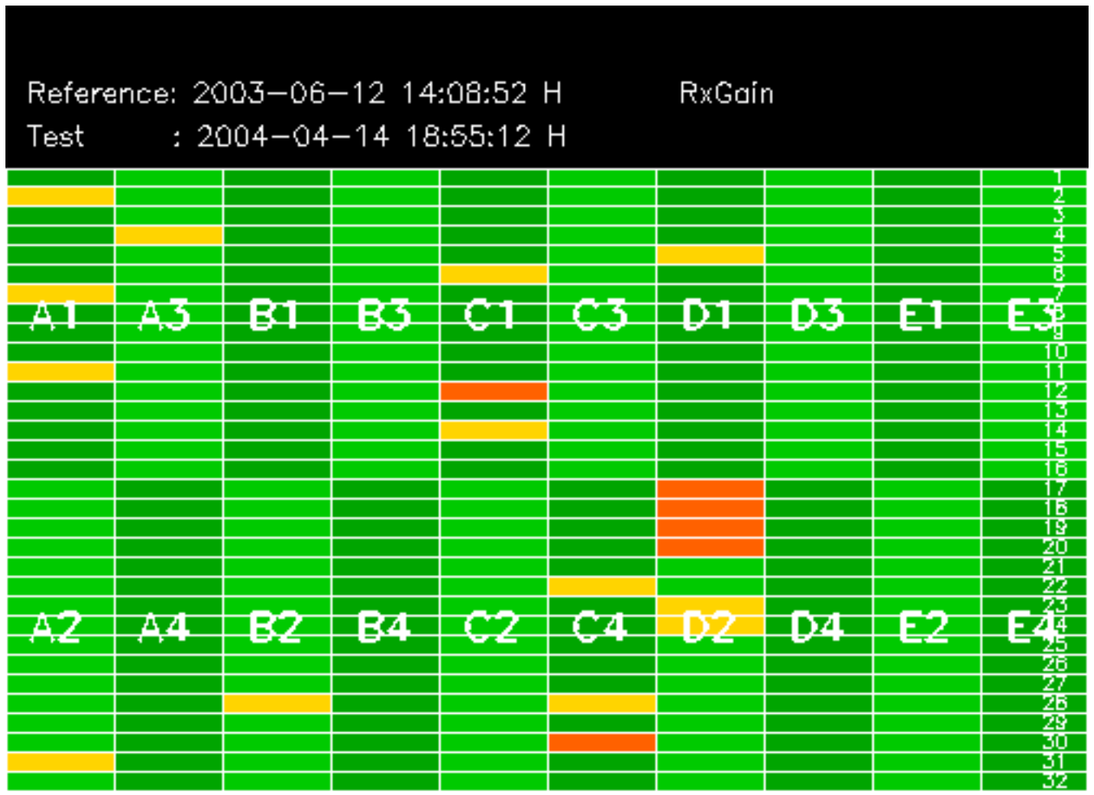
Reference: 2003-06-12 14:08:52 H
Test : 2004-04-14 18:55:12 H
RxGain
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
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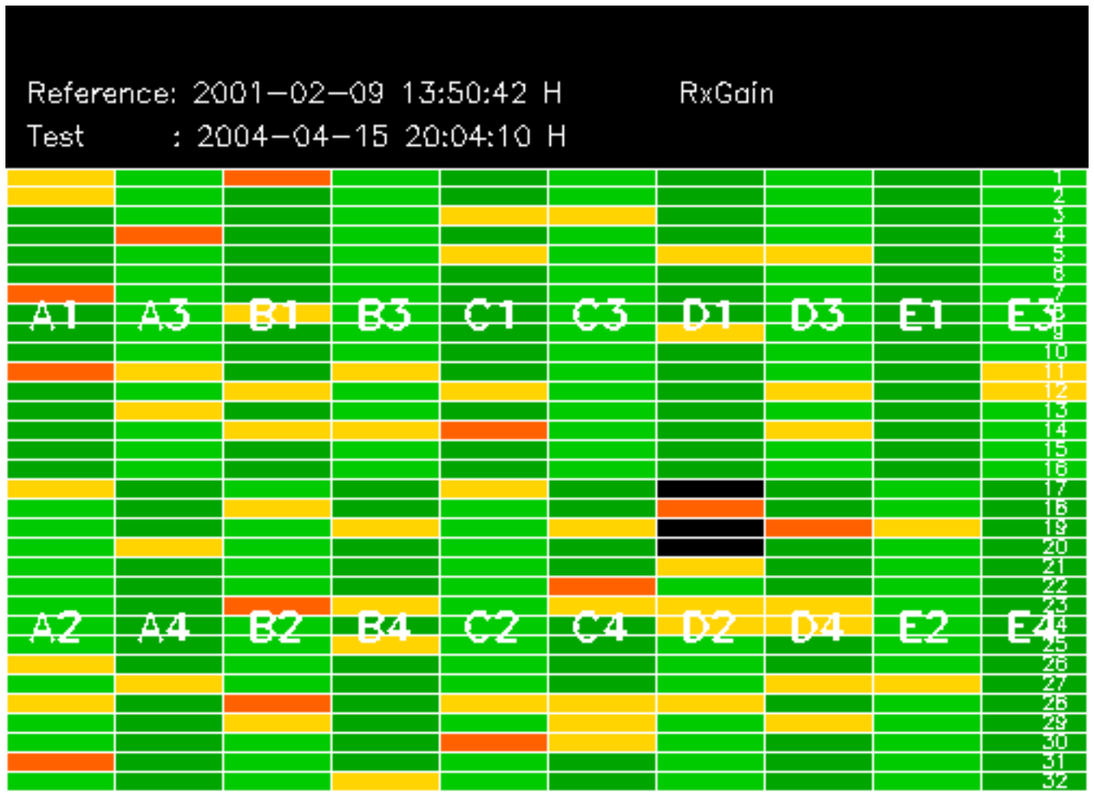
Reference: 2001-02-09 13:50:42 H
Test : 2004-04-15 20:04:10 H
RxGain
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
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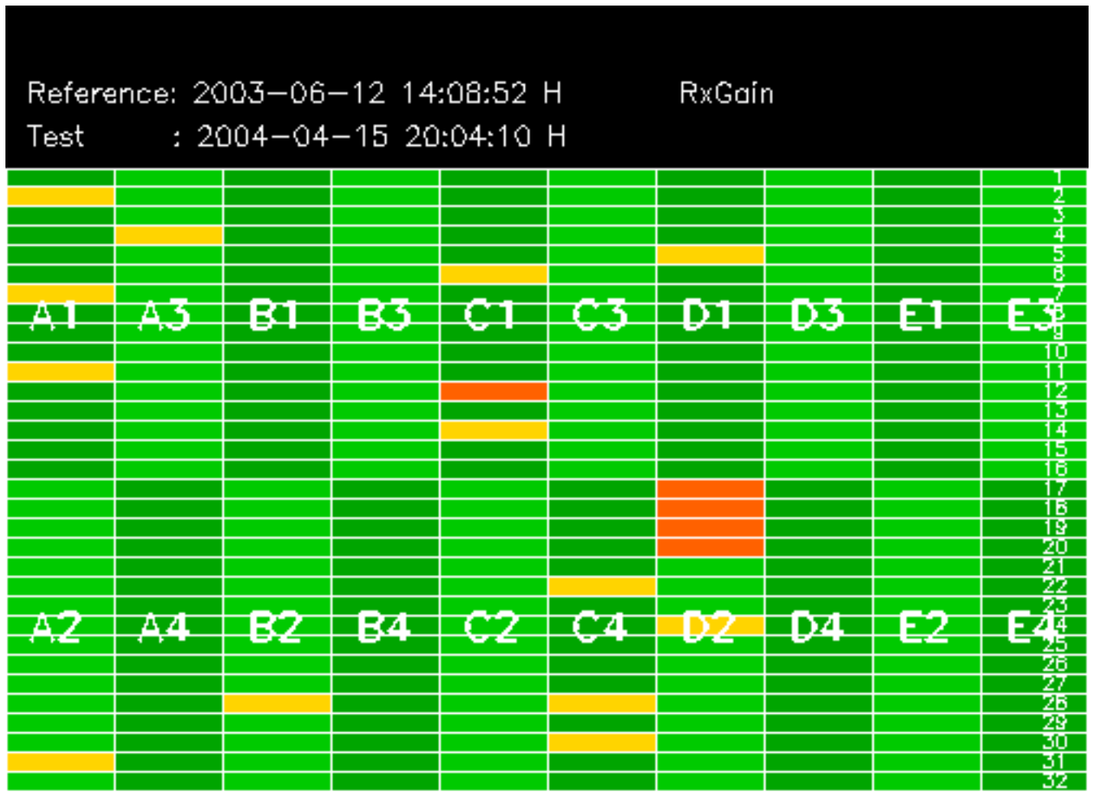
Reference: 2003-06-12 14:08:52 H
Test : 2004-04-15 20:04:10 H
RxGain
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
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C2
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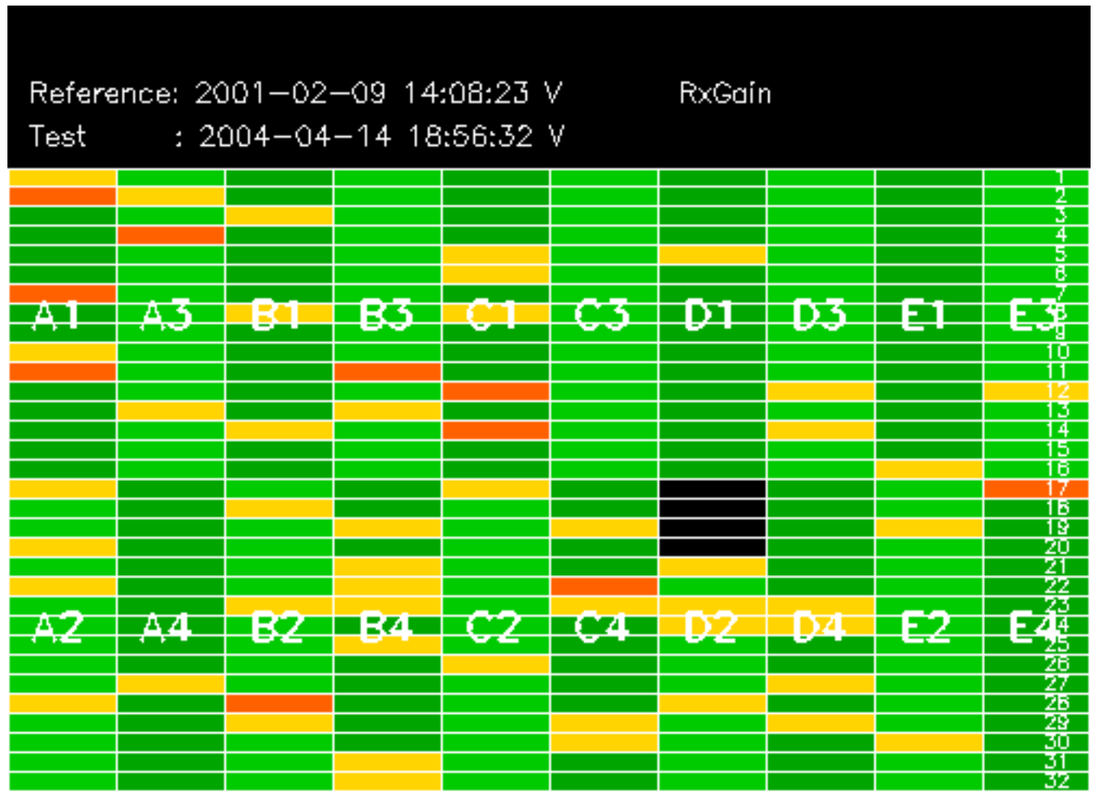
Reference: 2001-02-09 14:08:23 V
Test : 2004-04-14 18:56:32 V
RxGain
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
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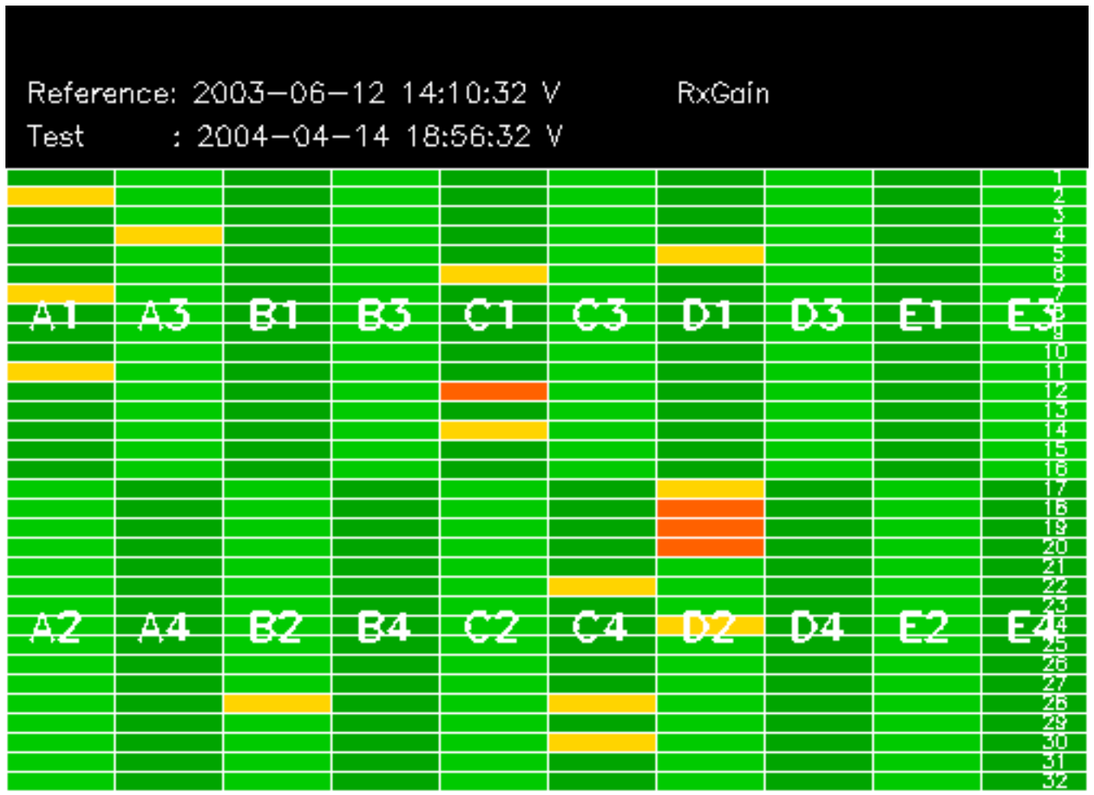
Reference: 2003-06-12 14:10:32 V
Test : 2004-04-14 18:56:32 V
RxGain
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4
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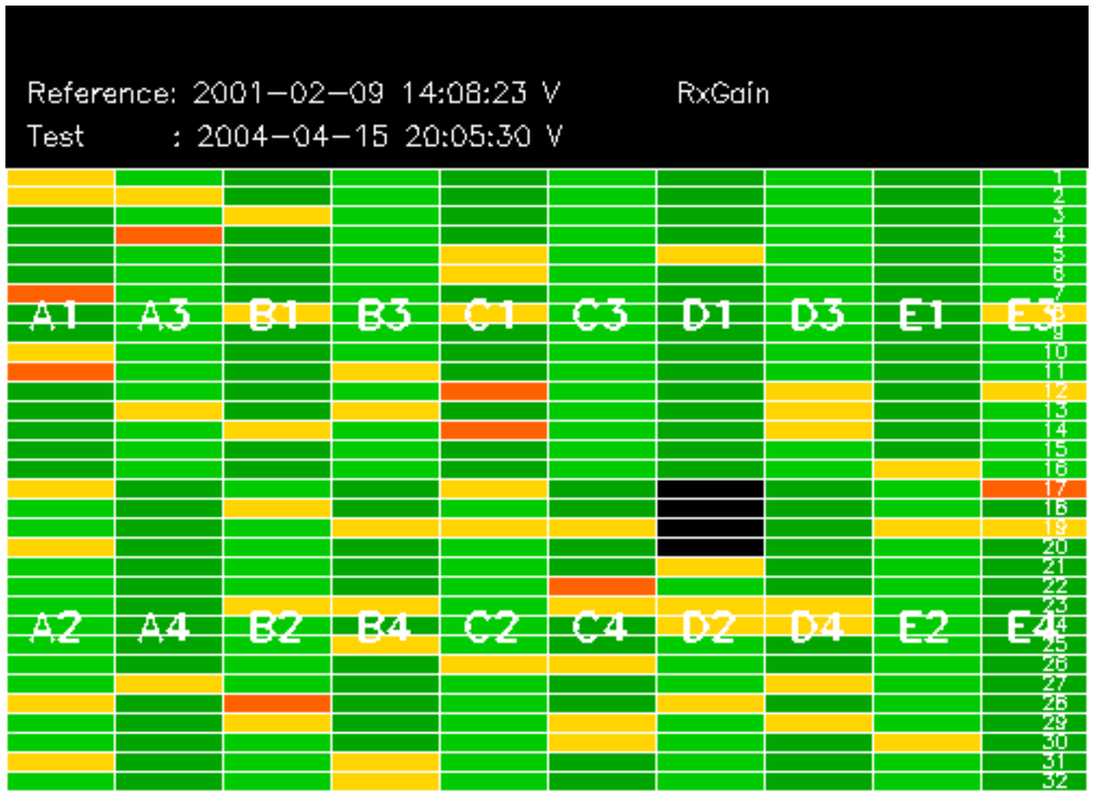
Reference: 2001-02-09 14:08:23 V
Test : 2004-04-15 20:05:30 V
RxGain
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4
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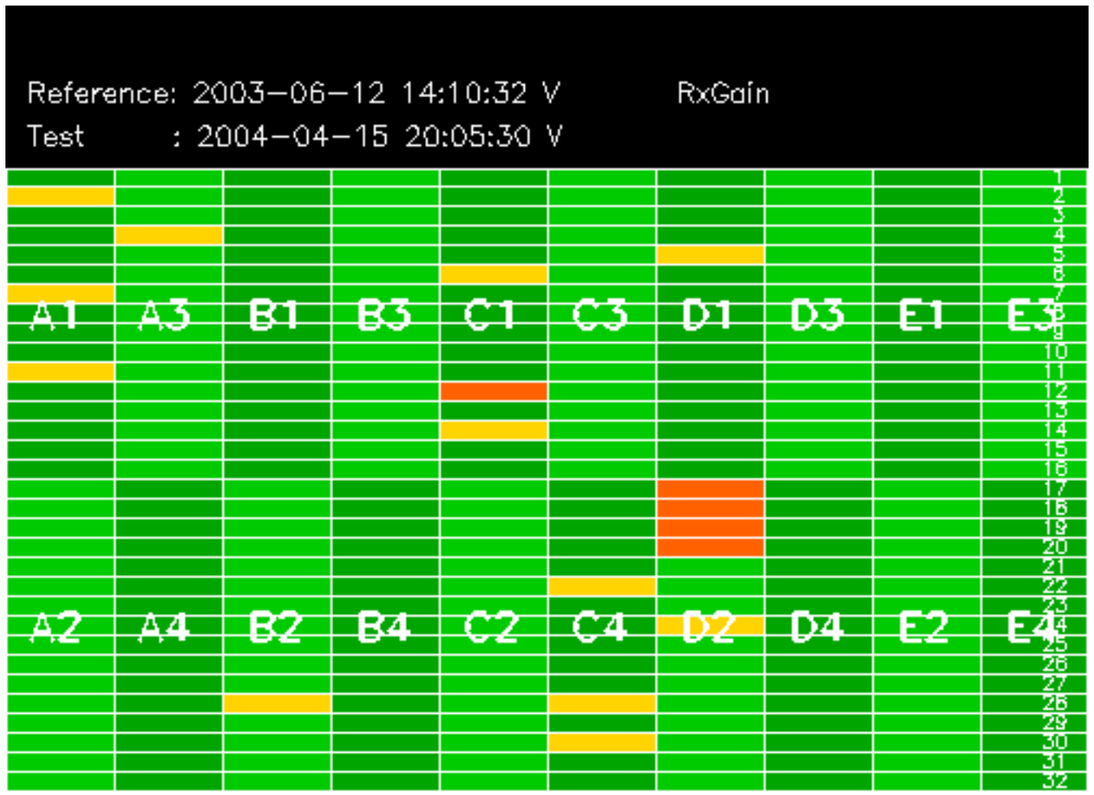
Reference: 2003-06-12 14:10:32 V
Test : 2004-04-15 20:05:30 V
RxGain
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
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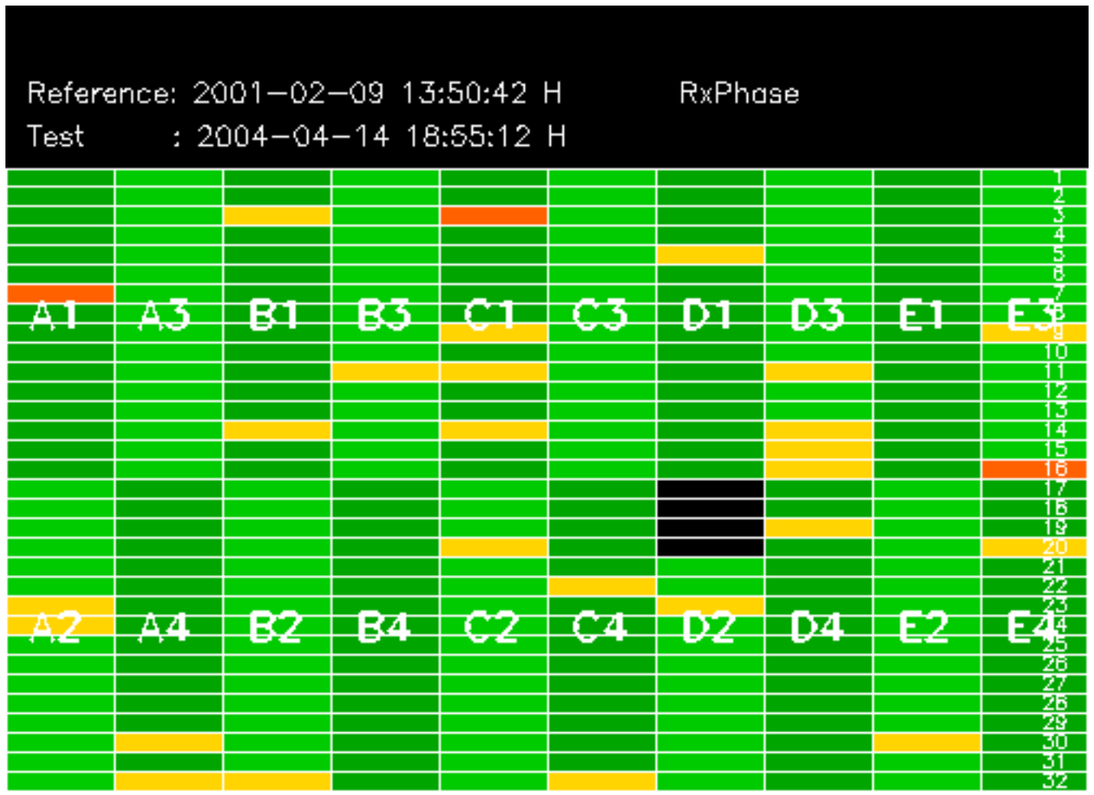
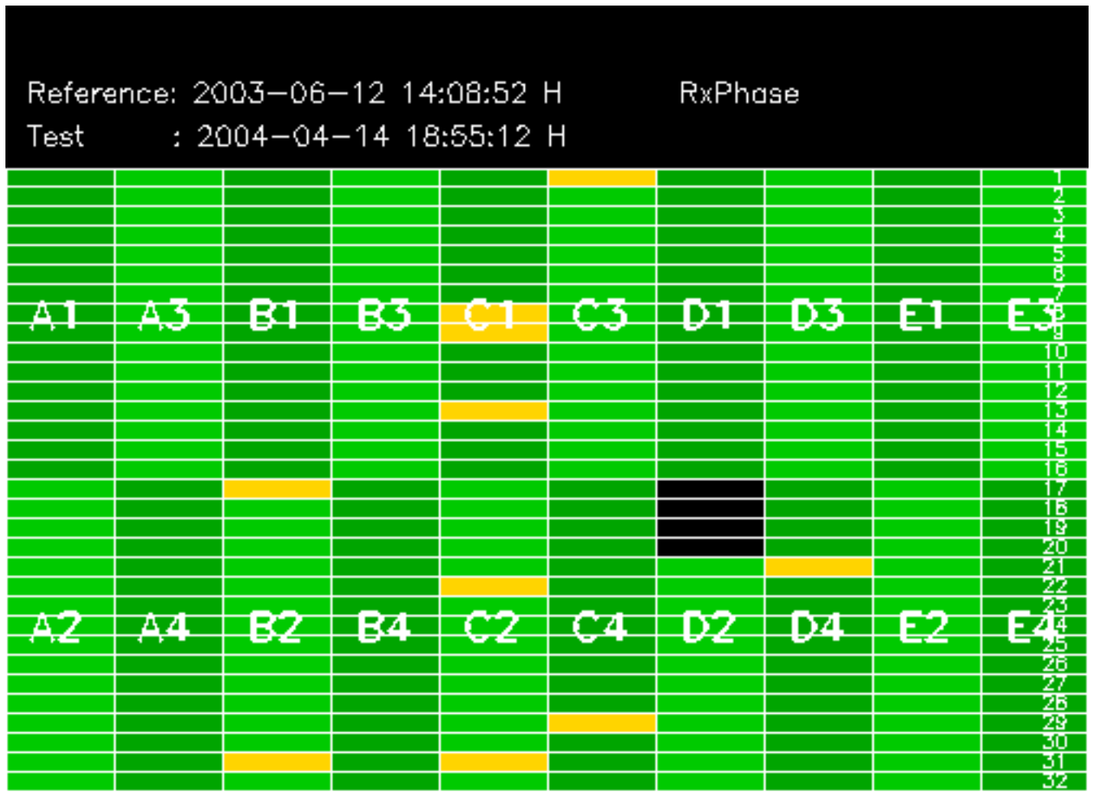

Reference: 2001-02-09 13:50:42 H
RxPhase
Test : 2004-04-14 18:55:12 H
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4


Reference: 2003-06-12 14:08:52 H
Test : 2004-04-14 18:55:12 H
RxPhase
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
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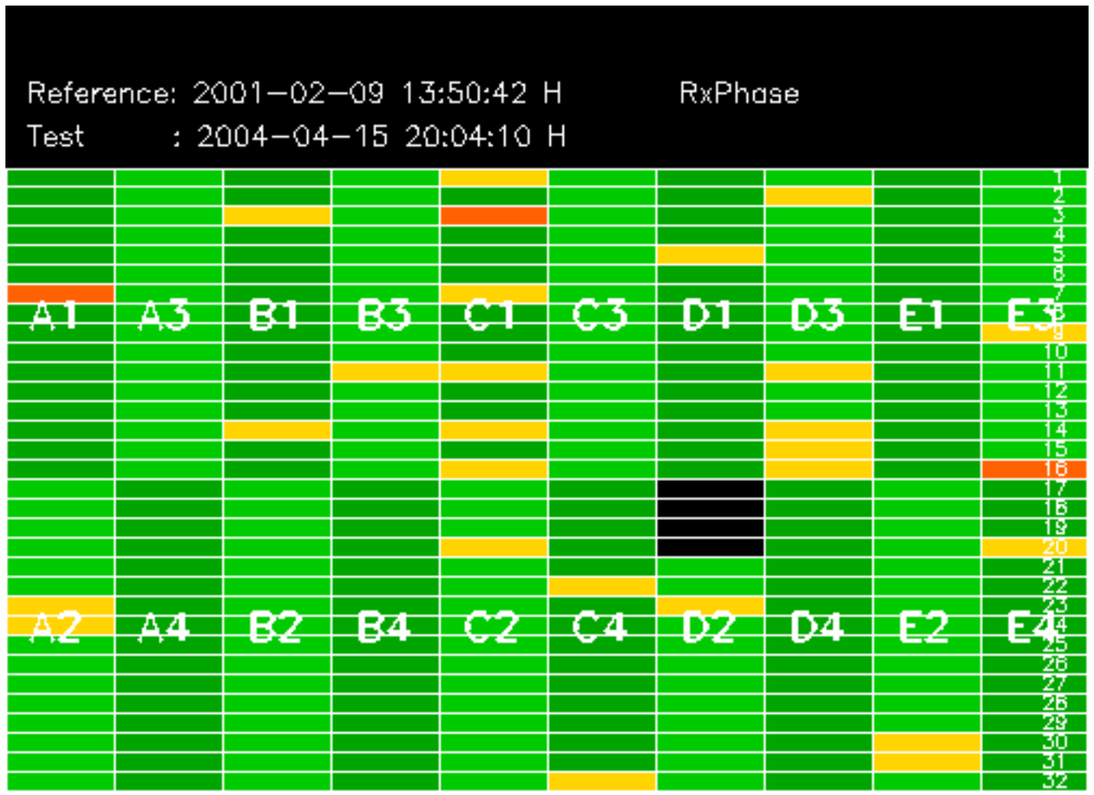
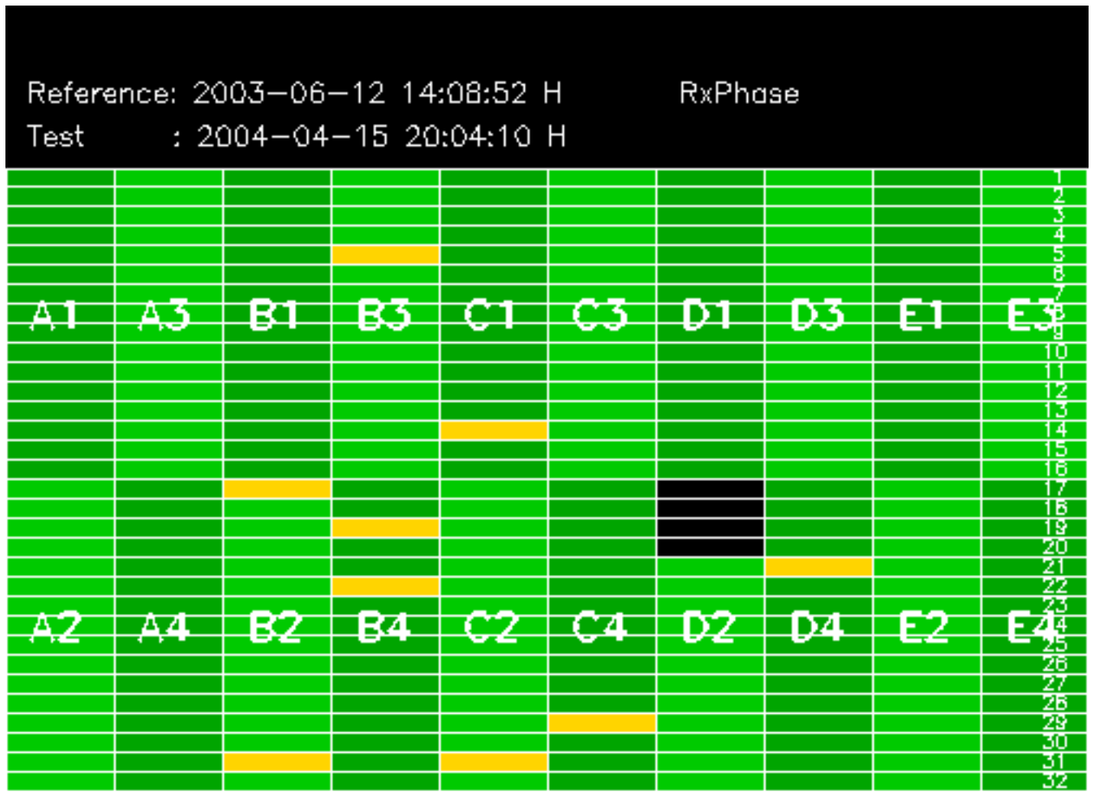

Reference: 2001-02-09 13:50:42 H
RxPhase
Test : 2004-04-15 20:04:10 H
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4


Reference: 2003-06-12 14:08:52 H
Test : 2004-04-15 20:04:10 H
RxPhase
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
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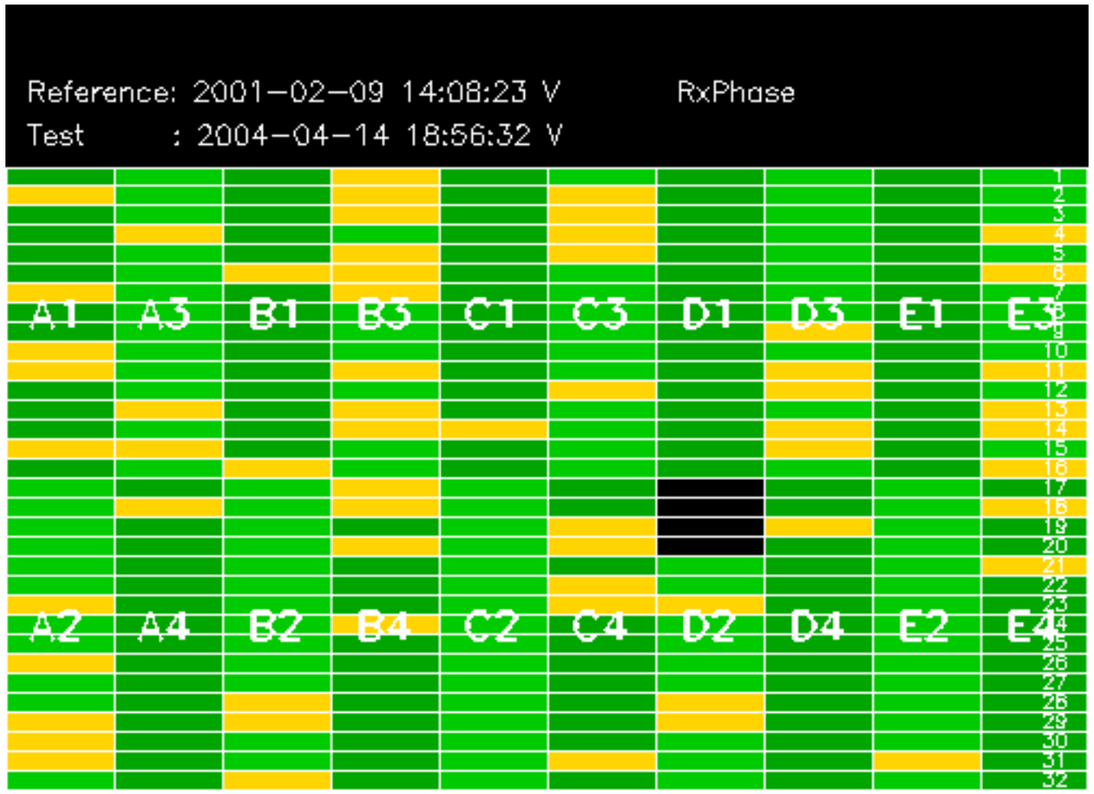
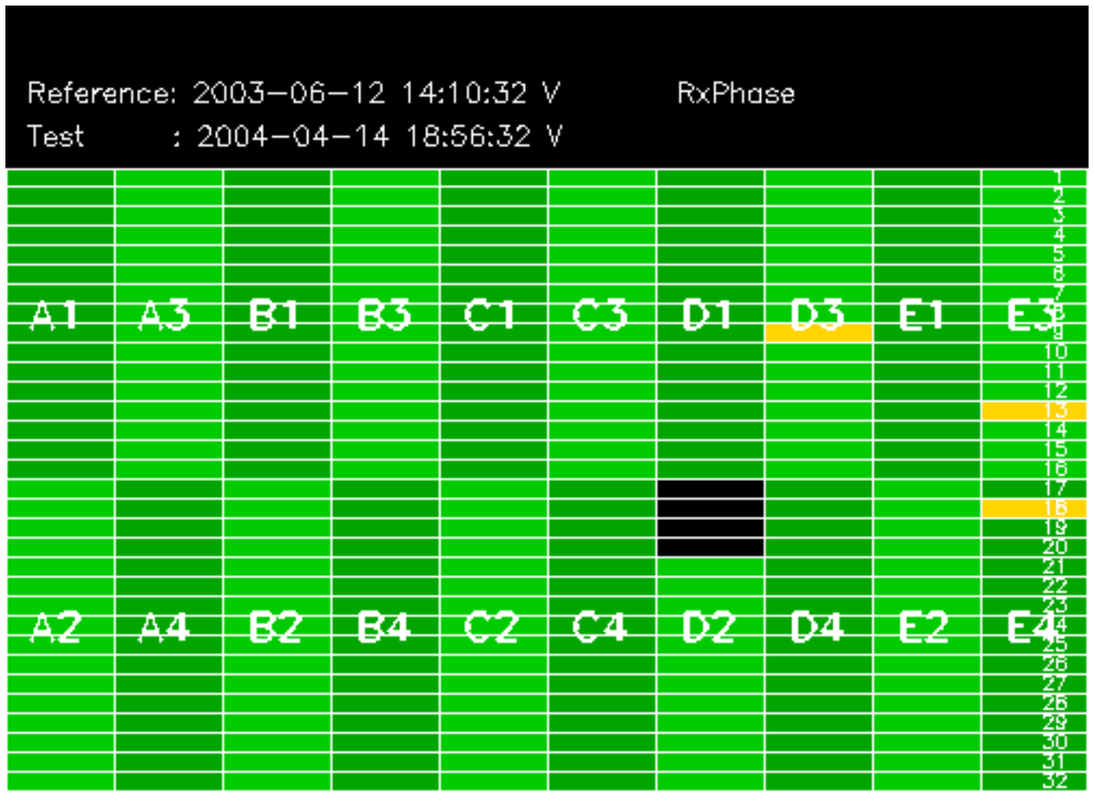

Reference: 2001-02-09 14:08:23 V
Test : 2004-04-14 18:56:32 V
RxPhase
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4


Reference: 2003-06-12 14:10:32 V
Test : 2004-04-14 18:56:32 V
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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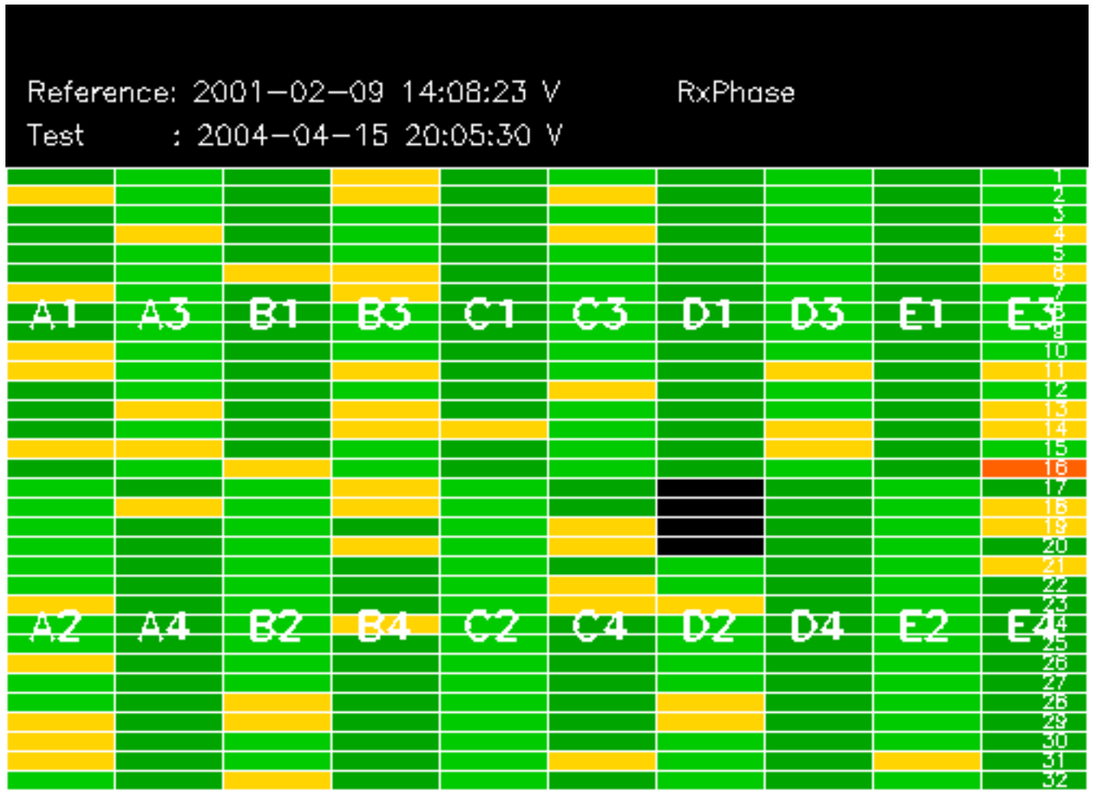
Reference: 2001-02-09 14:08:23 V
Test : 2004-04-15 20:05:30 V
RxPhase
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4
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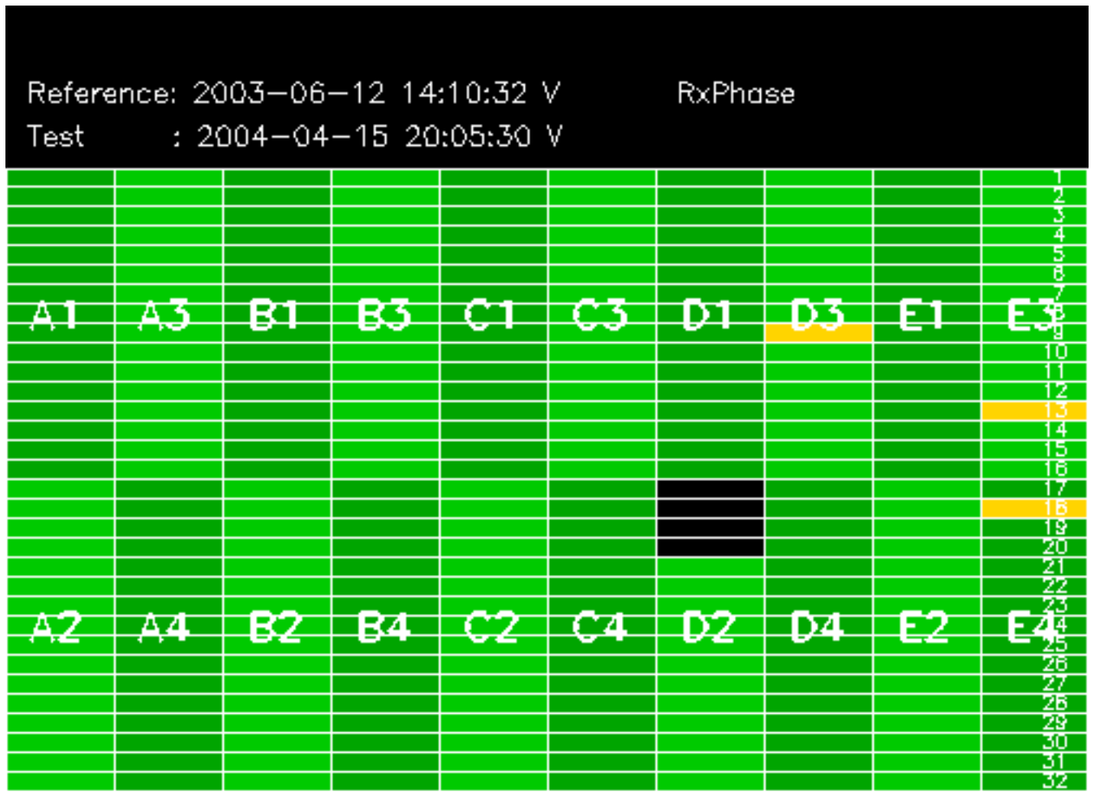
Reference: 2003-06-12 14:10:32 V
Test : 2004-04-15 20:05:30 V
RxPhase
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4
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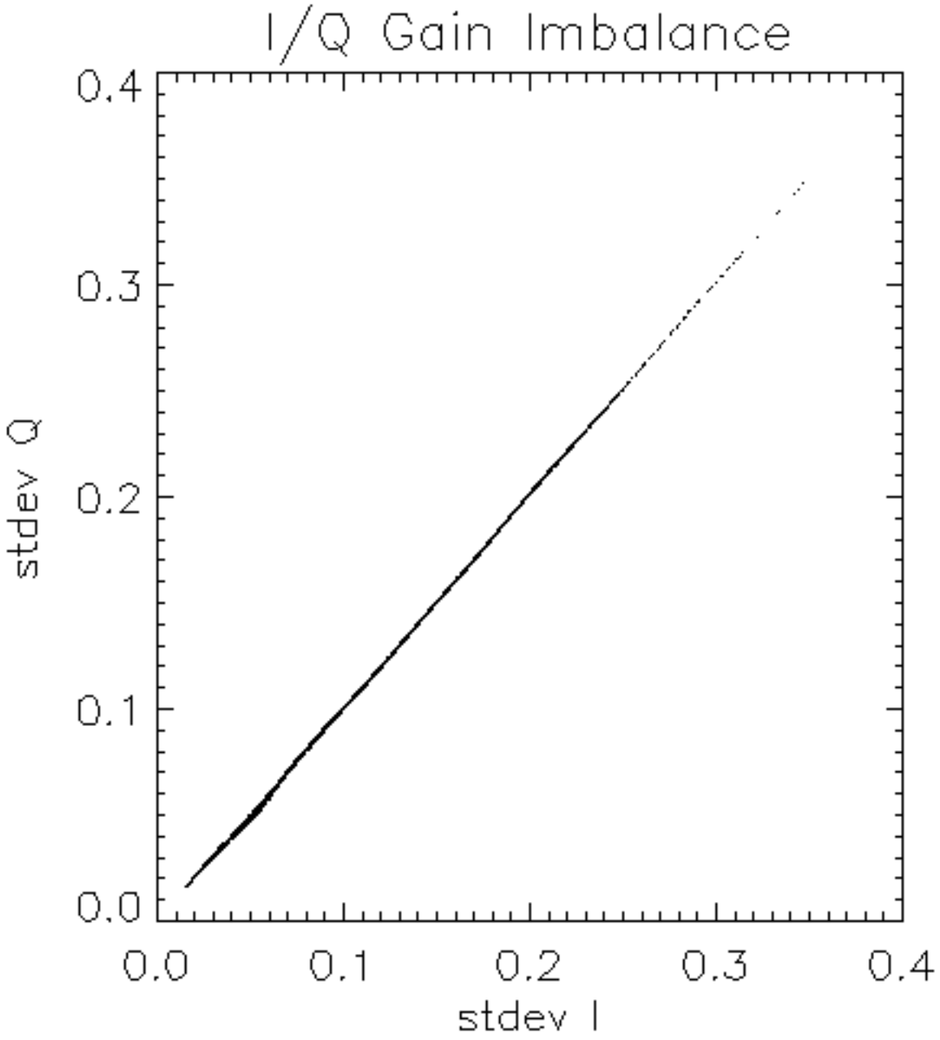
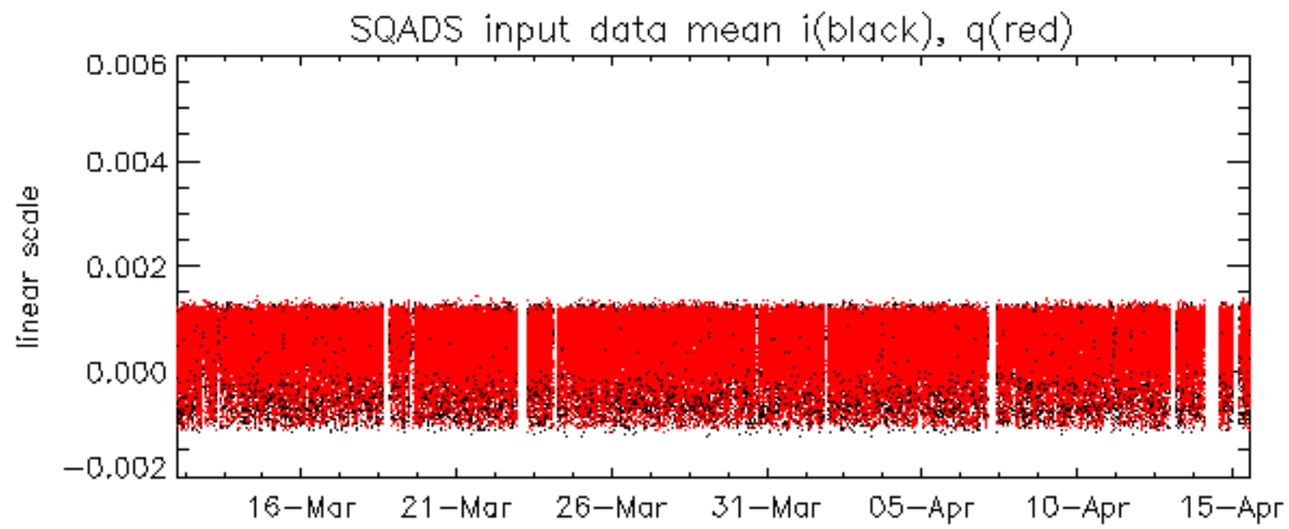
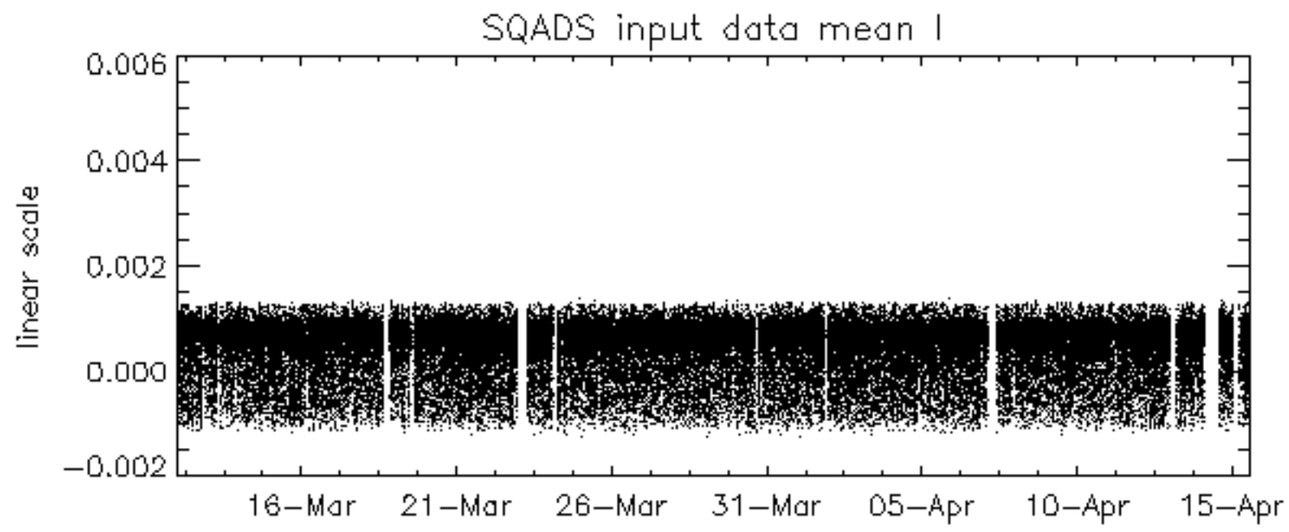
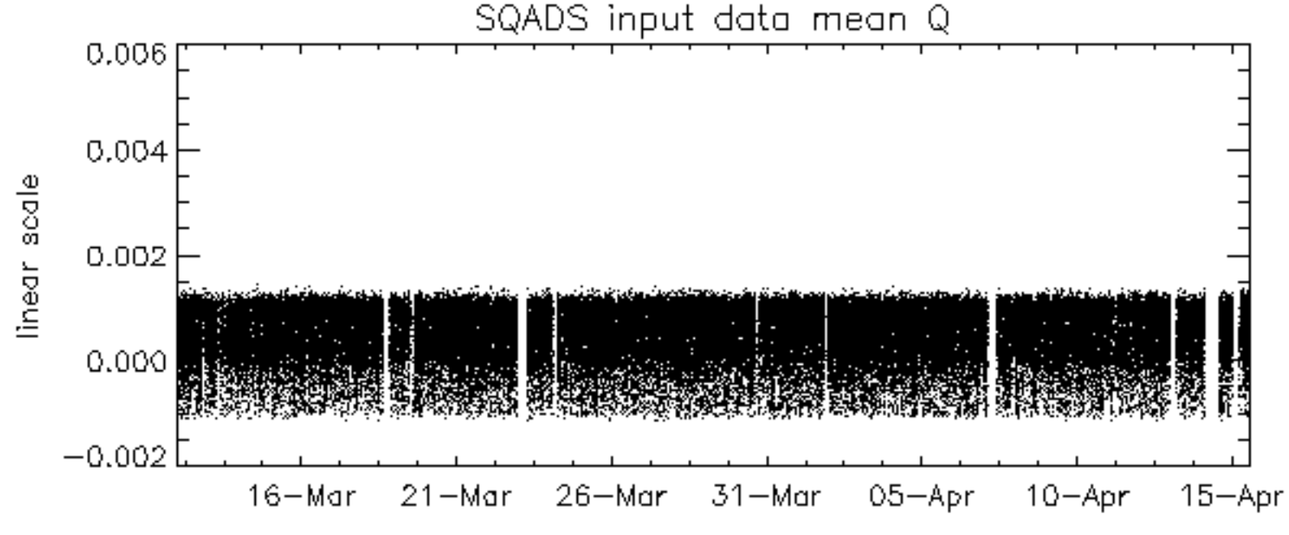
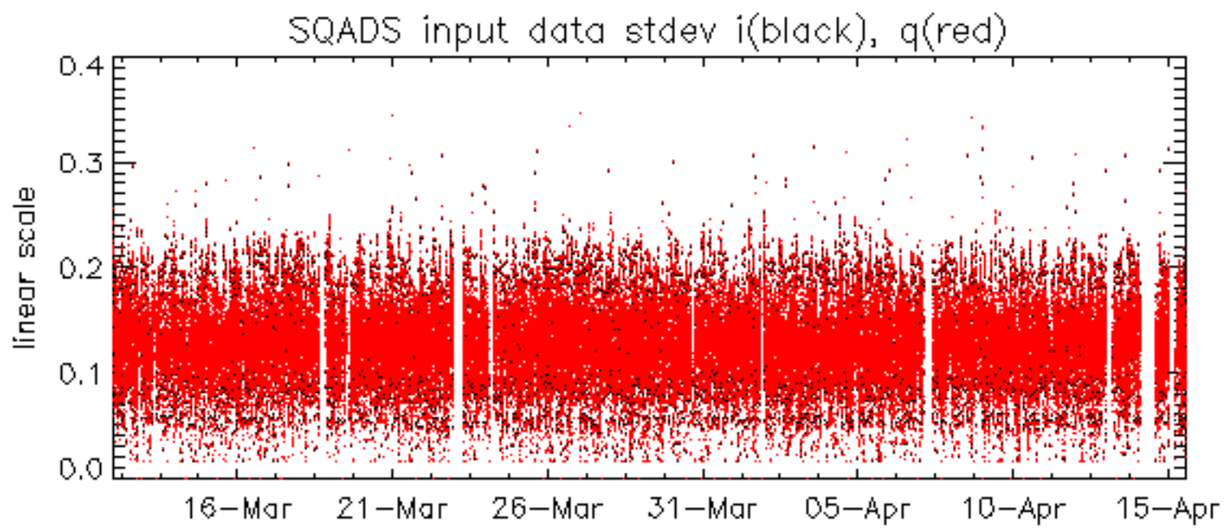
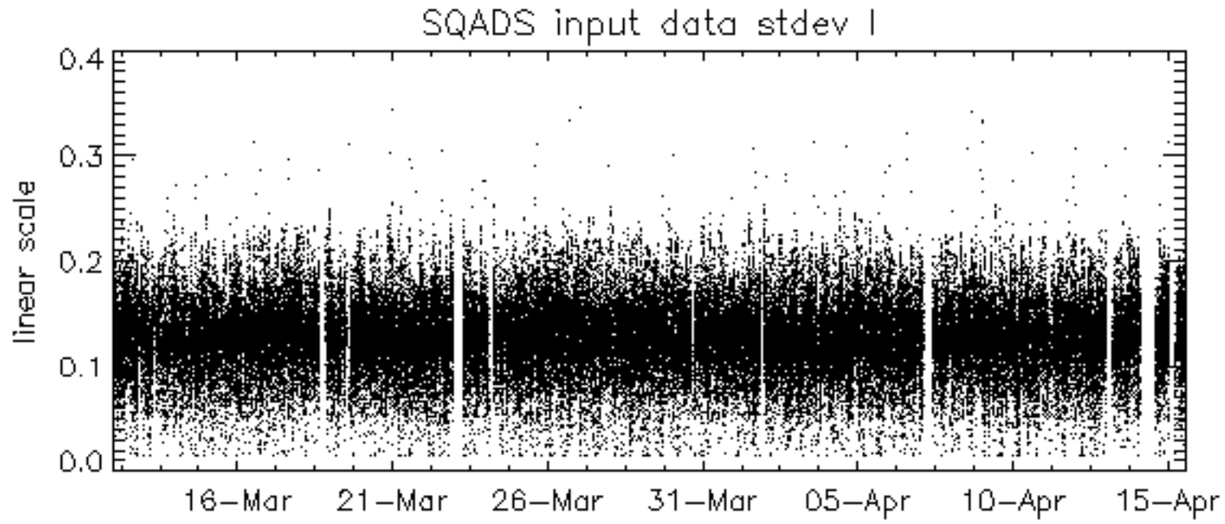

I/Q Gain Imbalance
0.4
0.3
0.2
0.1
0.0
stdev Q
0.0
0.1
0.2
0.3
0.4
stdev I

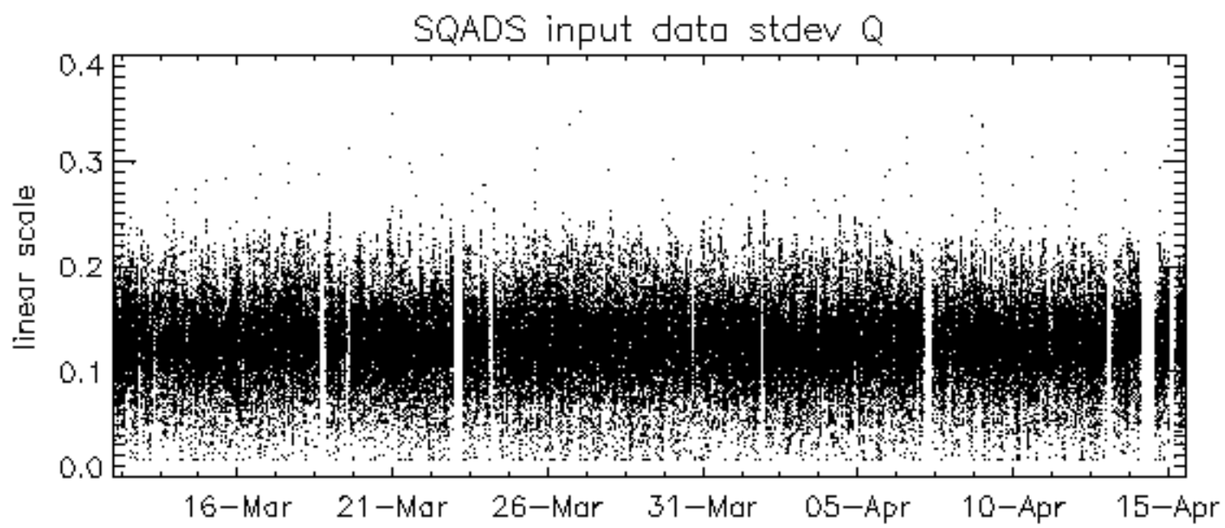

SQADS input data mean i(black), q(red)
linear scale
0.006
0.004
0.002
0.000
−0.002
16−Mar
21−Mar
26−Mar
31−Mar
05−Apr
10−Apr
15−Apr

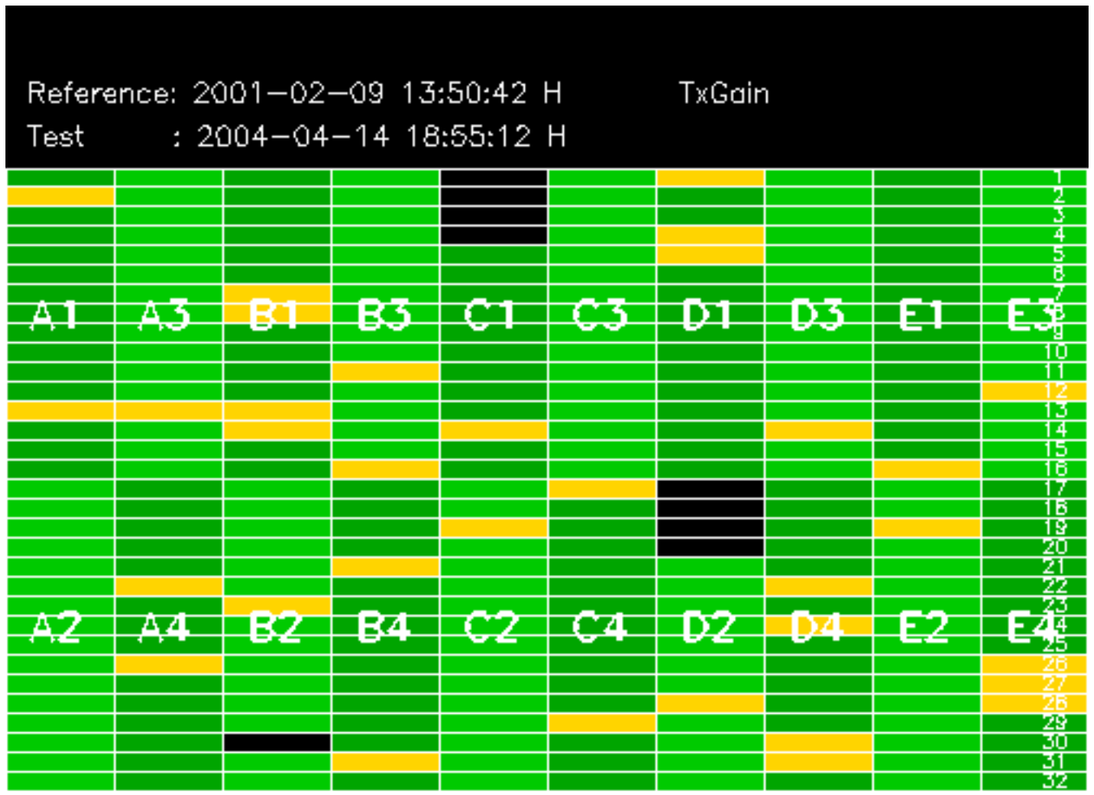

SQADS input data mean I
linear scale
0.006
0.004
0.002
0.000
−0.002
16−Mar
21−Mar
26−Mar
31−Mar
05−Apr
10−Apr
15−Apr

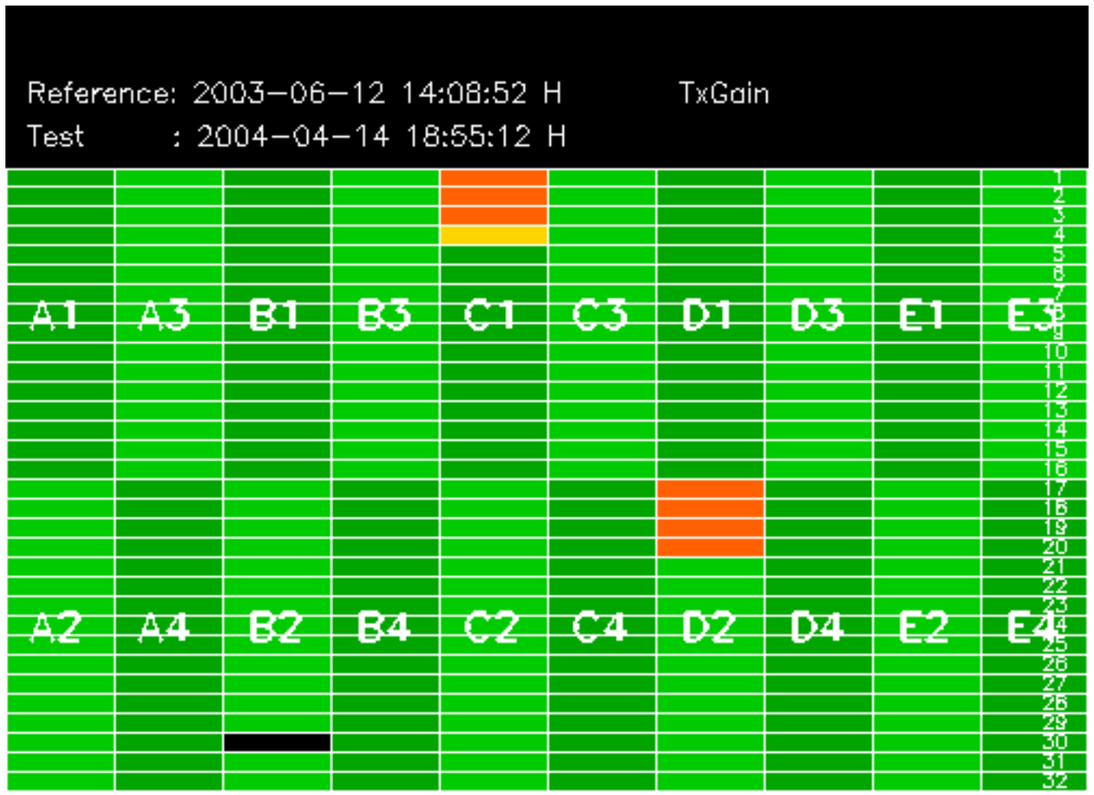

SQADS input data mean Q
linear scale
0.006
0.004
0.002
0.000
−0.002
16−Mar
21−Mar
26−Mar
31−Mar
05−Apr
10−Apr
15−Apr


SQADS input data stdev i(black), q(red)
linear scale
0.4
0.3
0.2
0.1
0.0
16−Mar
21−Mar
26−Mar
31−Mar
05−Apr
10−Apr
15−Apr


SQADS input data stdev I
linear scale
0.4
0.3
0.2
0.1
0.0
16−Mar
21−Mar
26−Mar
31−Mar
05−Apr
10−Apr
15−Apr


SQADS input data stdev Q
linear scale
0.4
0.3
0.2
0.1
0.0
16−Mar
21−Mar
26−Mar
31−Mar
05−Apr
10−Apr
15−Apr


Reference: 2001-02-09 13:50:42 H
Test : 2004-04-14 18:55:12 H
TxGain
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4


Reference: 2003-06-12 14:08:52 H
Test : 2004-04-14 18:55:12 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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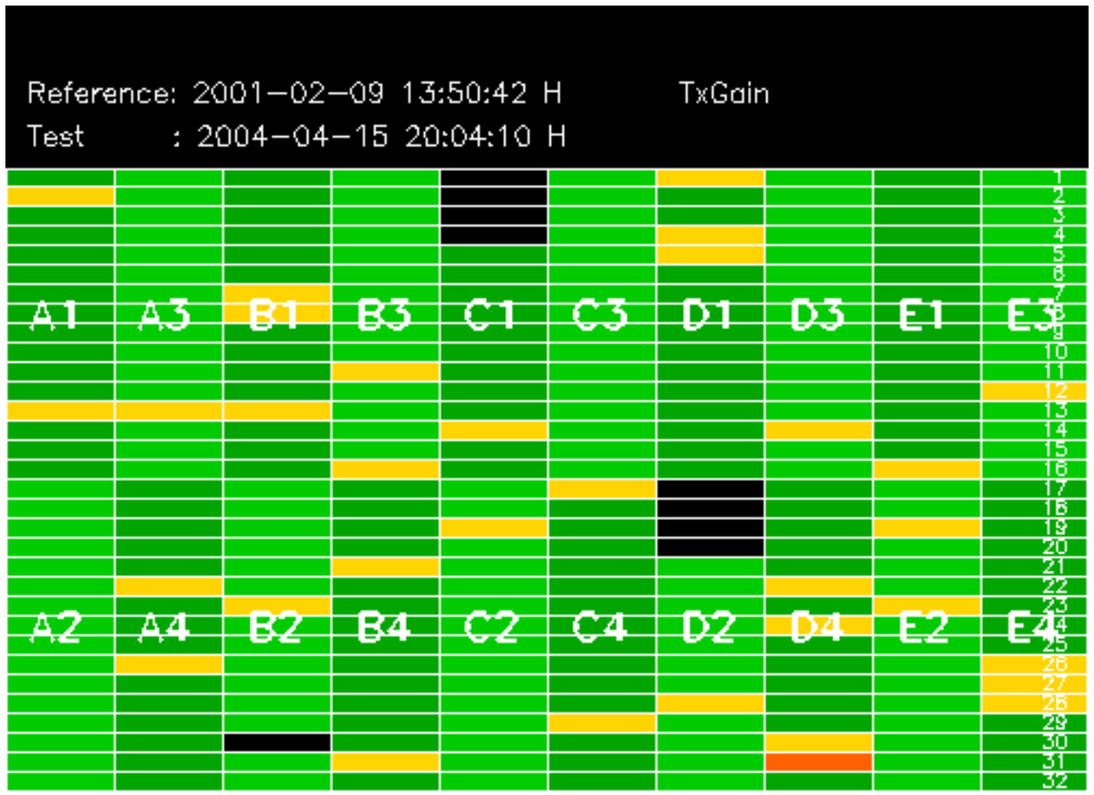
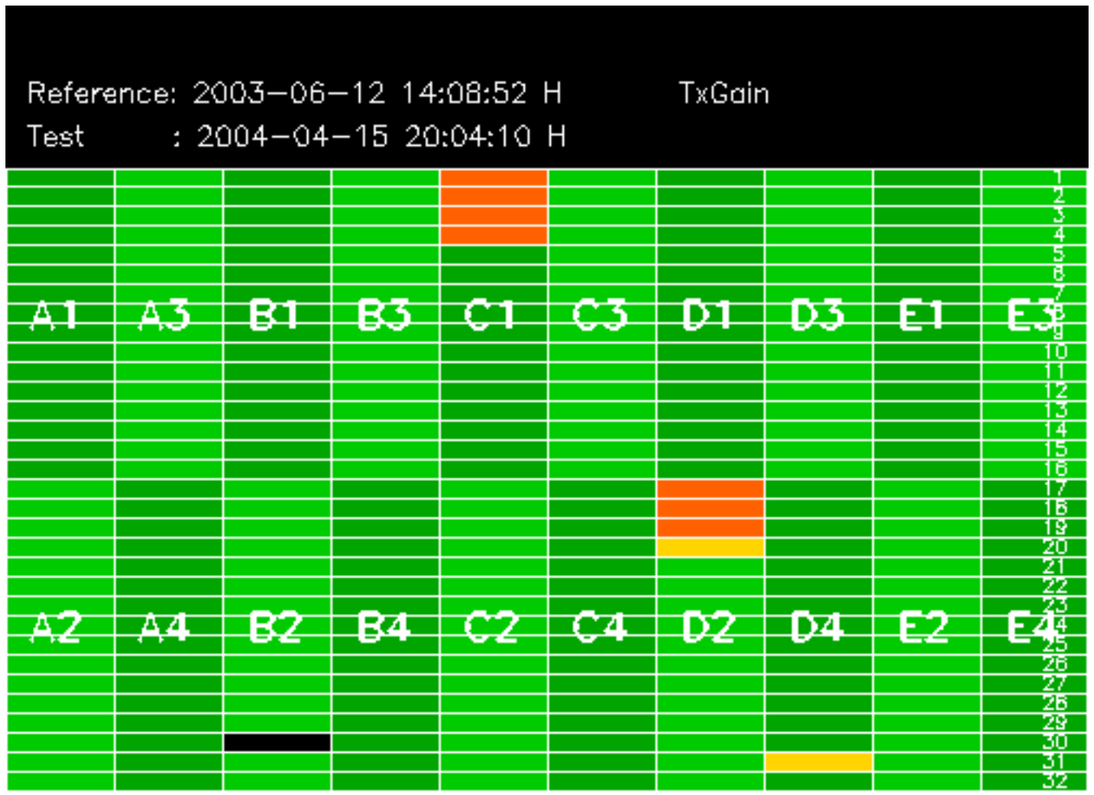

Reference: 2001-02-09 13:50:42 H
Test : 2004-04-15 20:04:10 H
TxGain
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4


Reference: 2003-06-12 14:08:52 H
Test : 2004-04-15 20:04:10 H
TxGain
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
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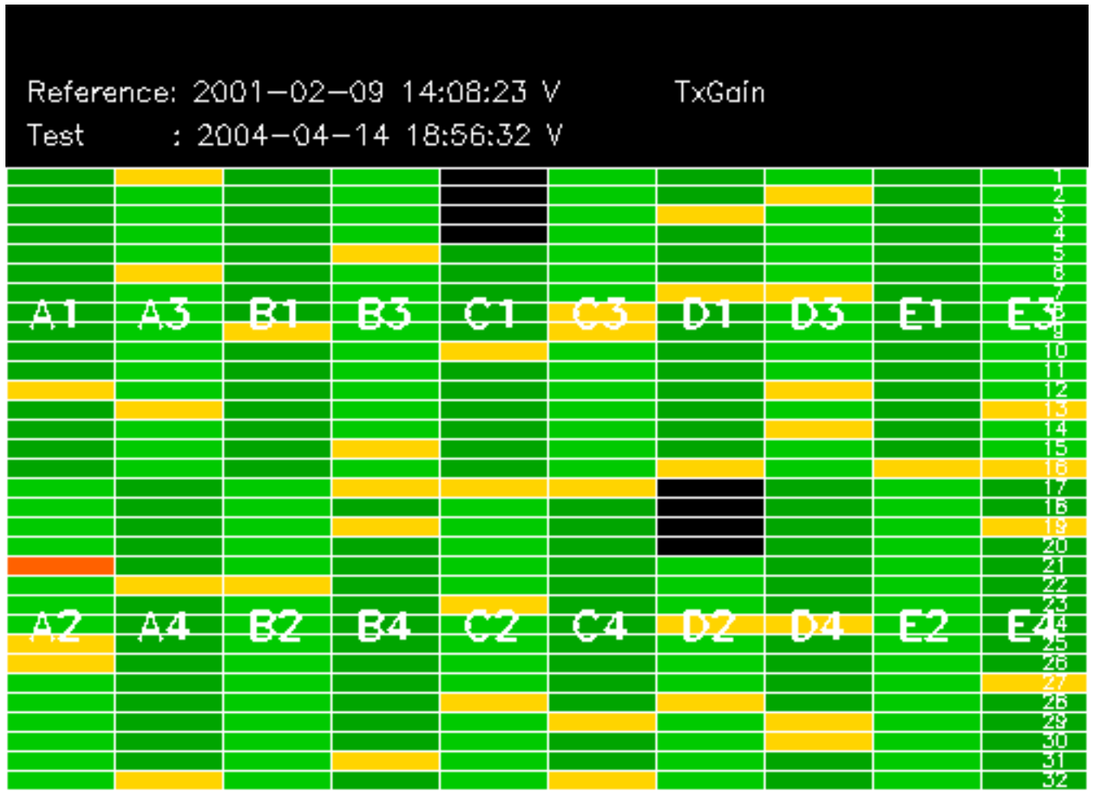
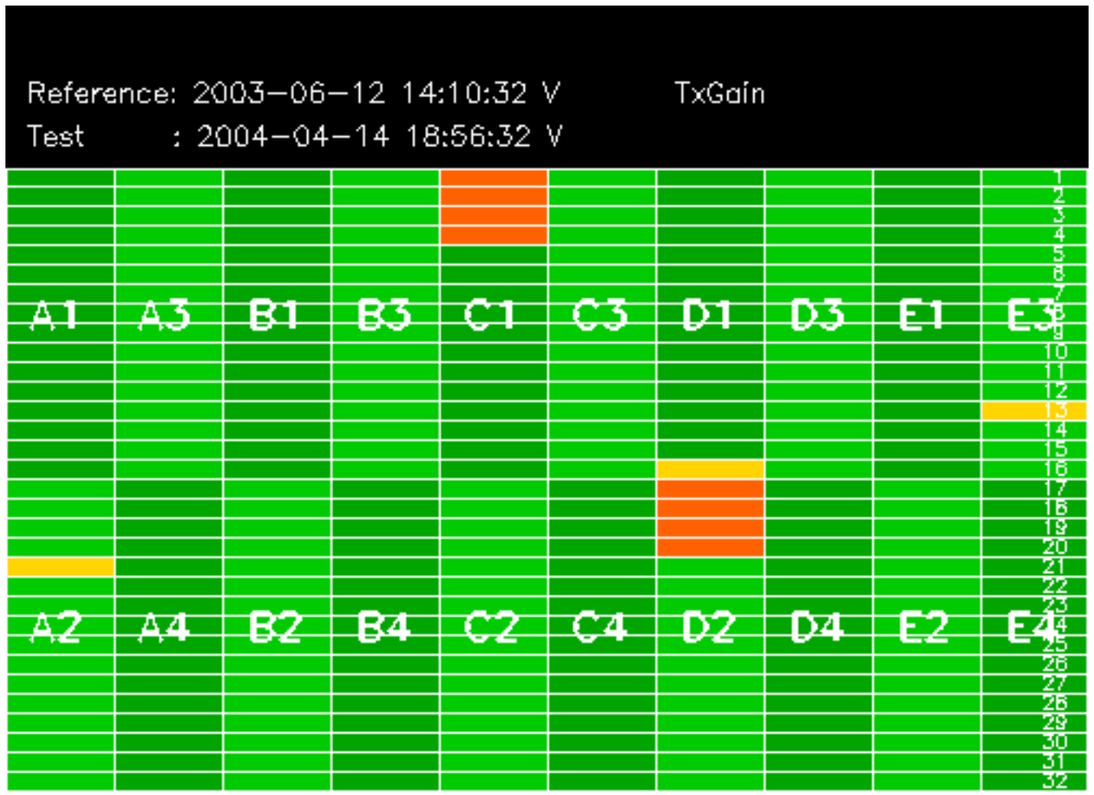

Reference: 2001-02-09 14:08:23 V
Test : 2004-04-14 18:56:32 V
TxGain
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4


Reference: 2003-06-12 14:10:32 V
Test : 2004-04-14 18:56:32 V
TxGain
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
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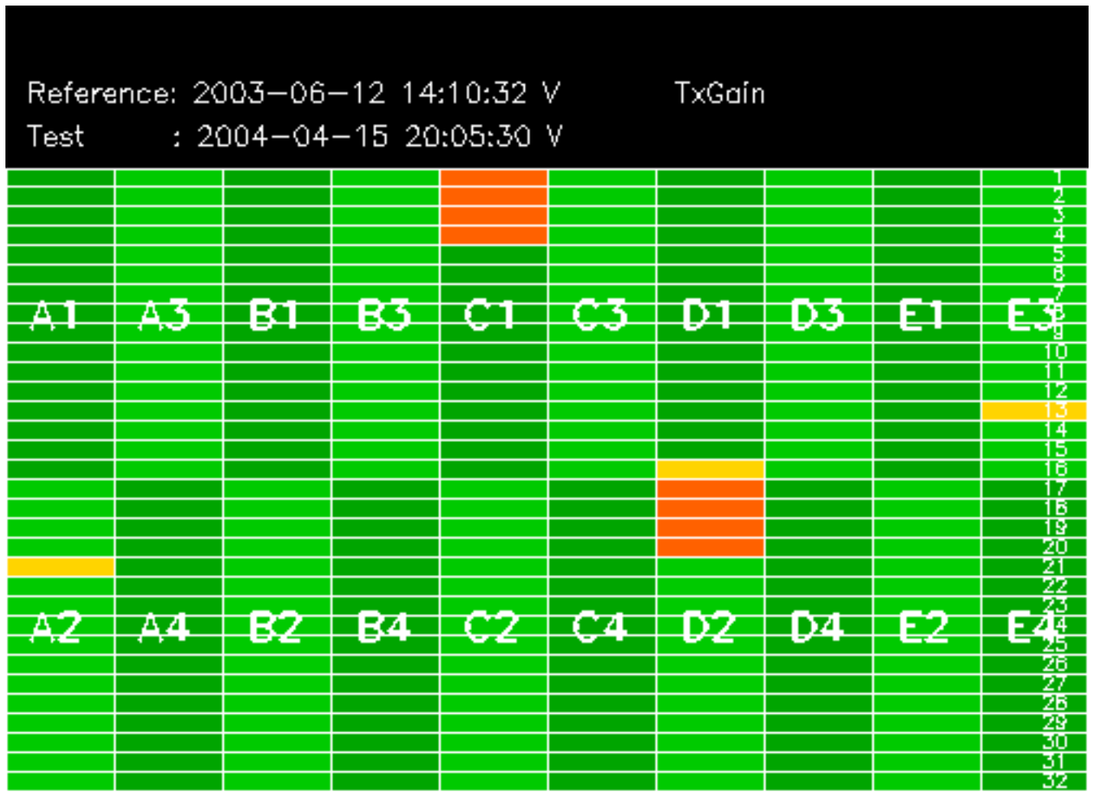
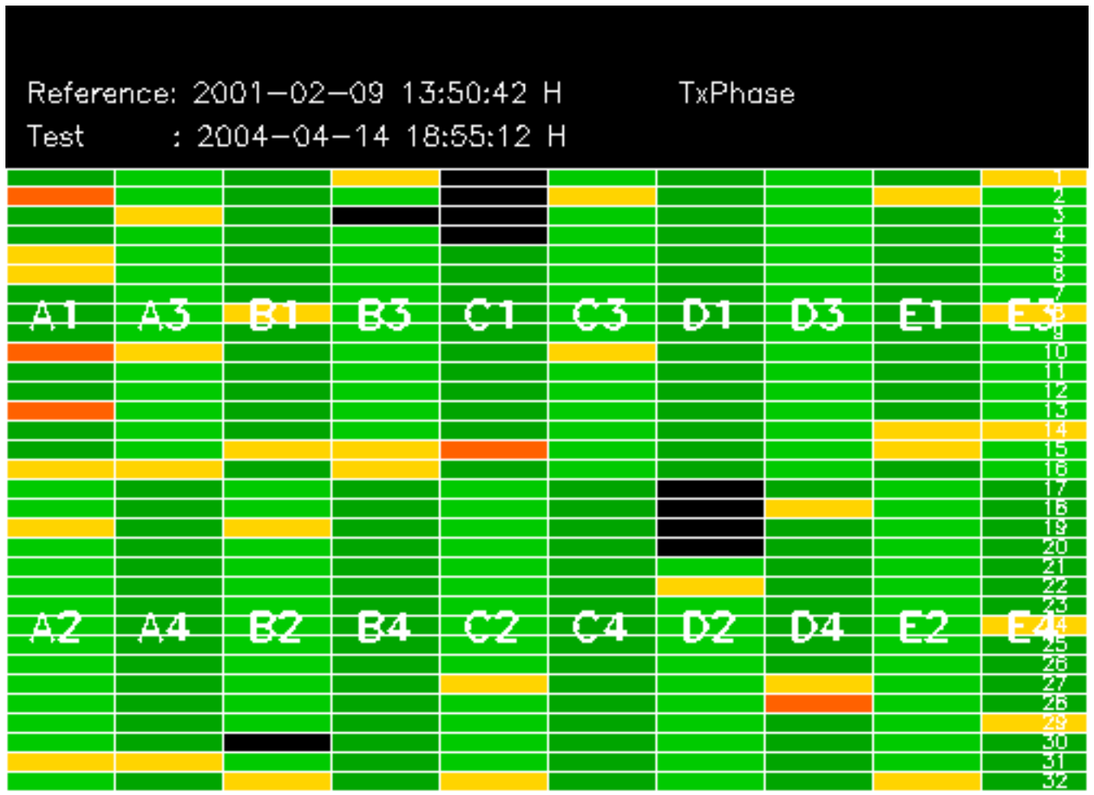
Reference: 2001-02-09 14:08:23 V
Test : 2004-04-15 20:05:30 V
TxGain
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4


Reference: 2003-06-12 14:10:32 V
Test : 2004-04-15 20:05:30 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 : 2004-04-14 18:55:12 H
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
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D4
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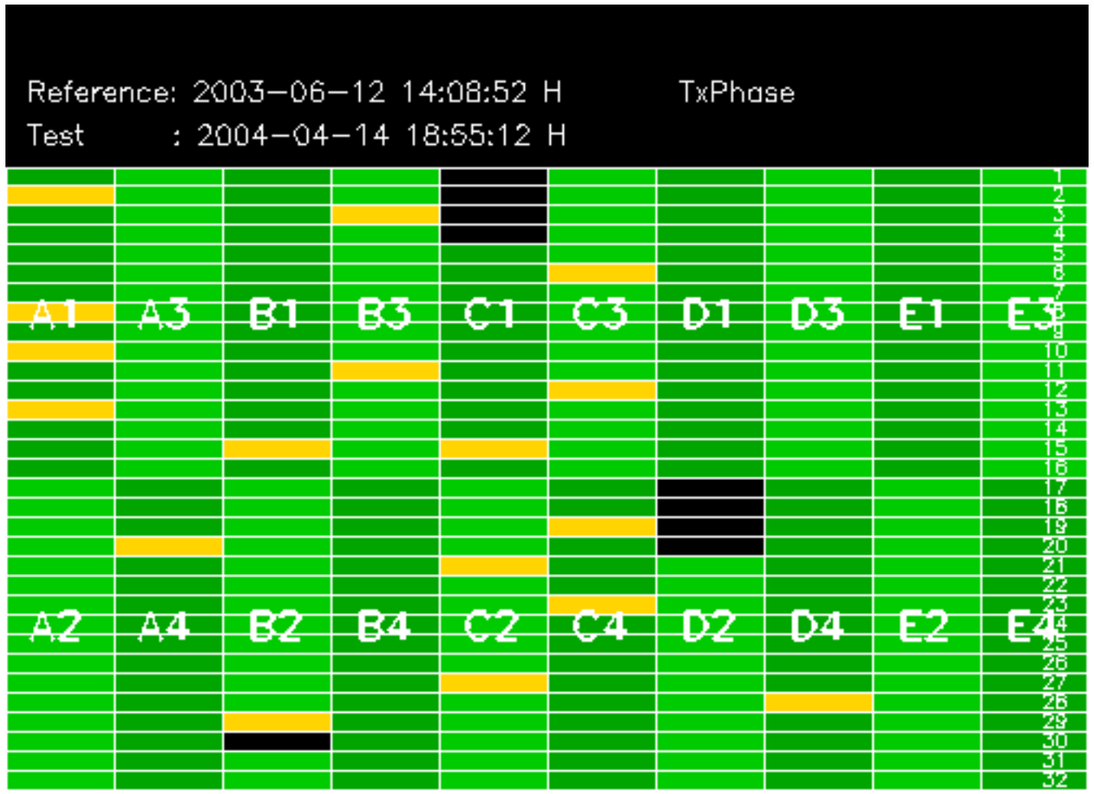
Reference: 2003-06-12 14:08:52 H
Test : 2004-04-14 18:55:12 H
TxPhase
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
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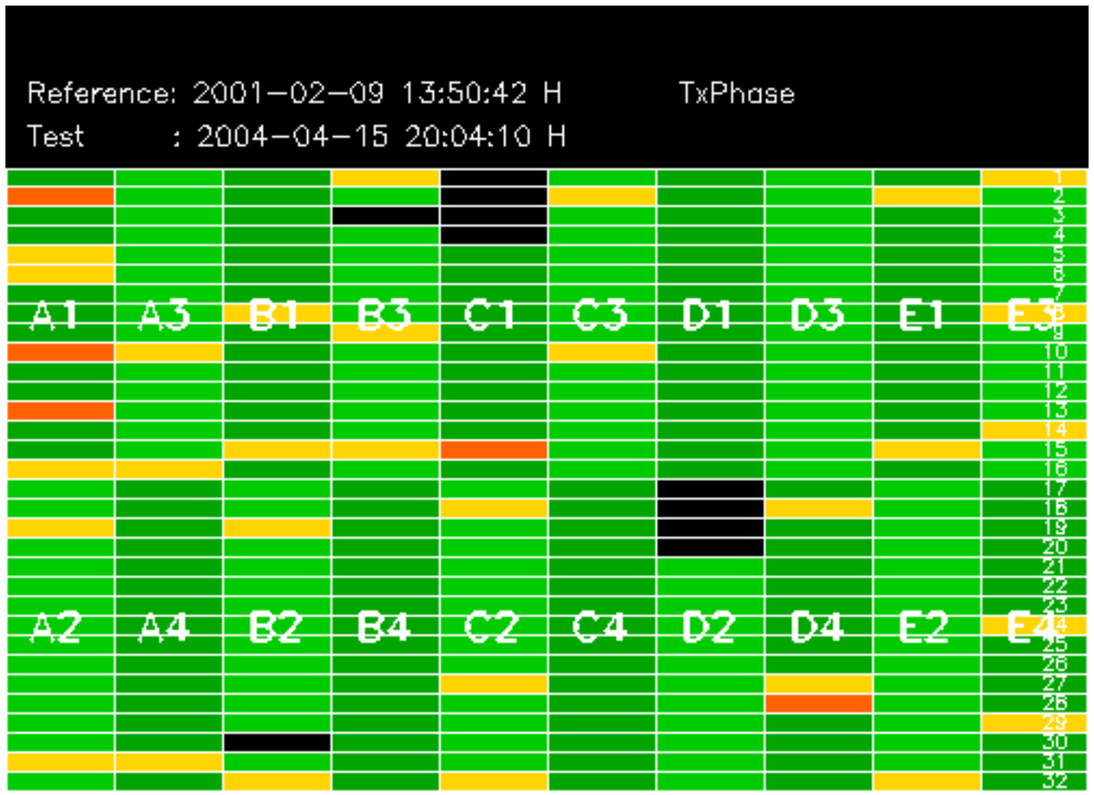
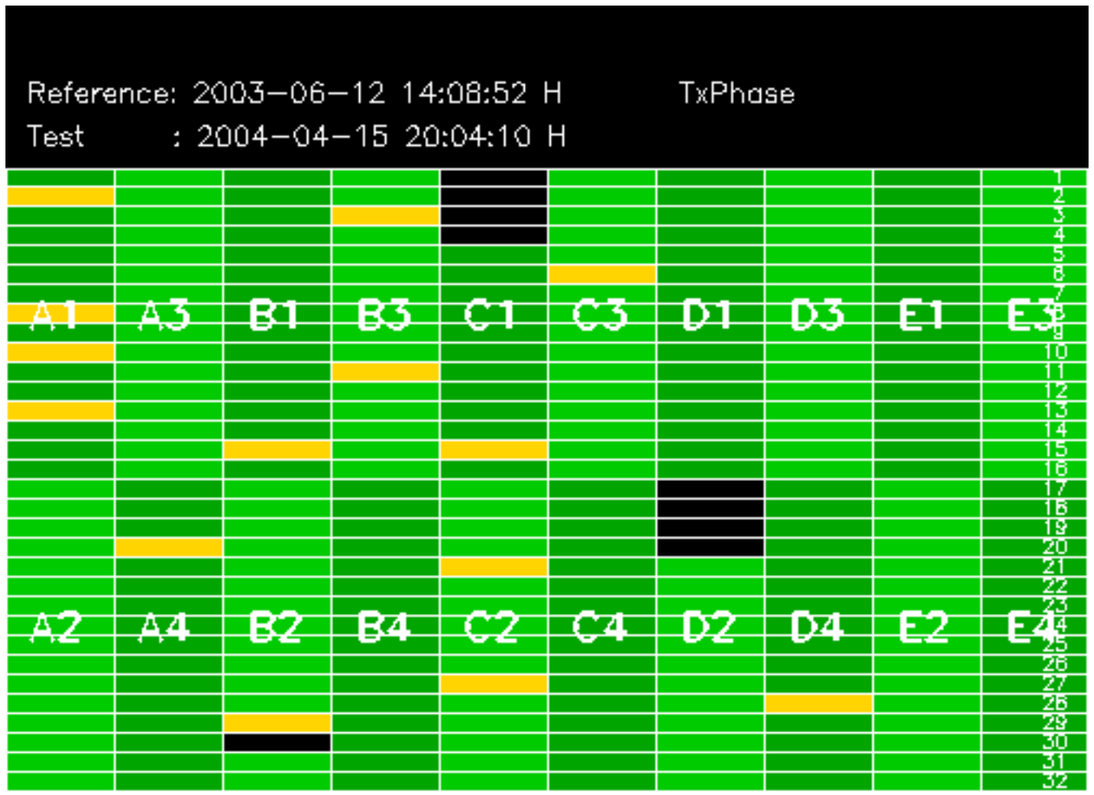

Reference: 2001-02-09 13:50:42 H
TxPhase
Test : 2004-04-15 20:04:10 H
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4


Reference: 2003-06-12 14:08:52 H
Test : 2004-04-15 20:04:10 H
TxPhase
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
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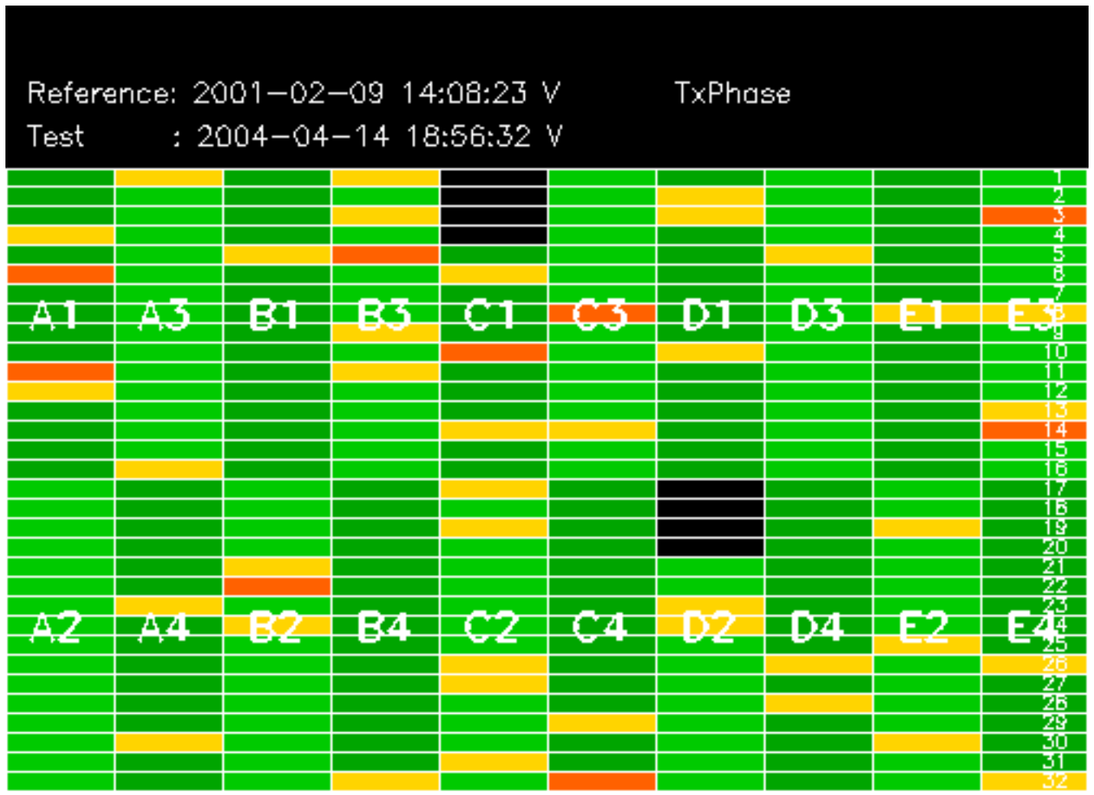
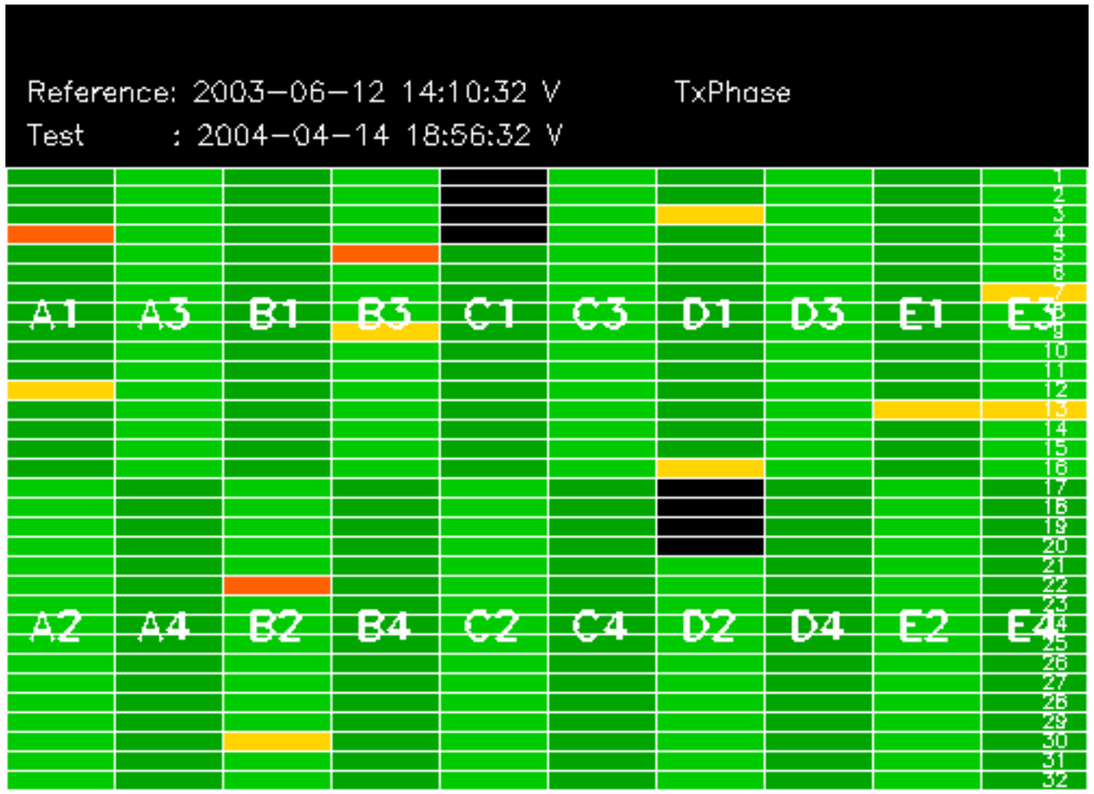

Reference: 2001-02-09 14:08:23 V
Test : 2004-04-14 18:56:32 V
TxPhase
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4


Reference: 2003-06-12 14:10:32 V
Test : 2004-04-14 18:56:32 V
TxPhase
A1
A3
B1
B3
C1
C3
D1
D3
E1
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A2
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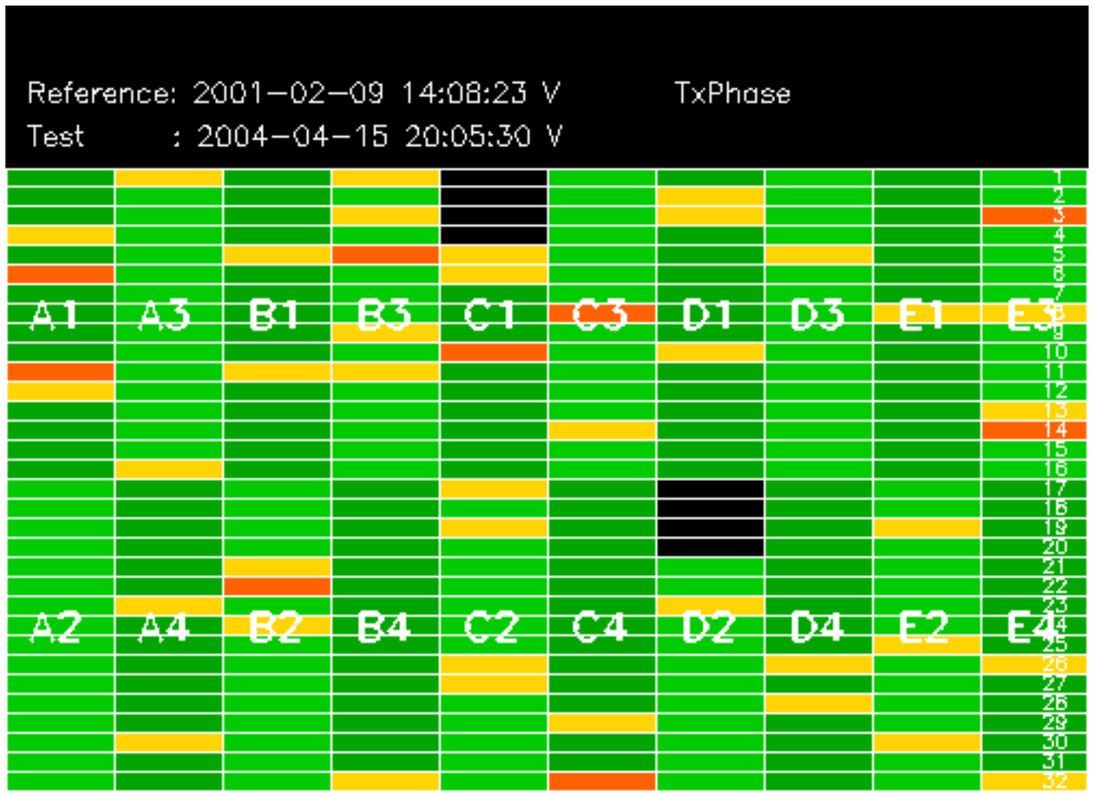
Reference: 2001-02-09 14:08:23 V
Test : 2004-04-15 20:05:30 V
TxPhase
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
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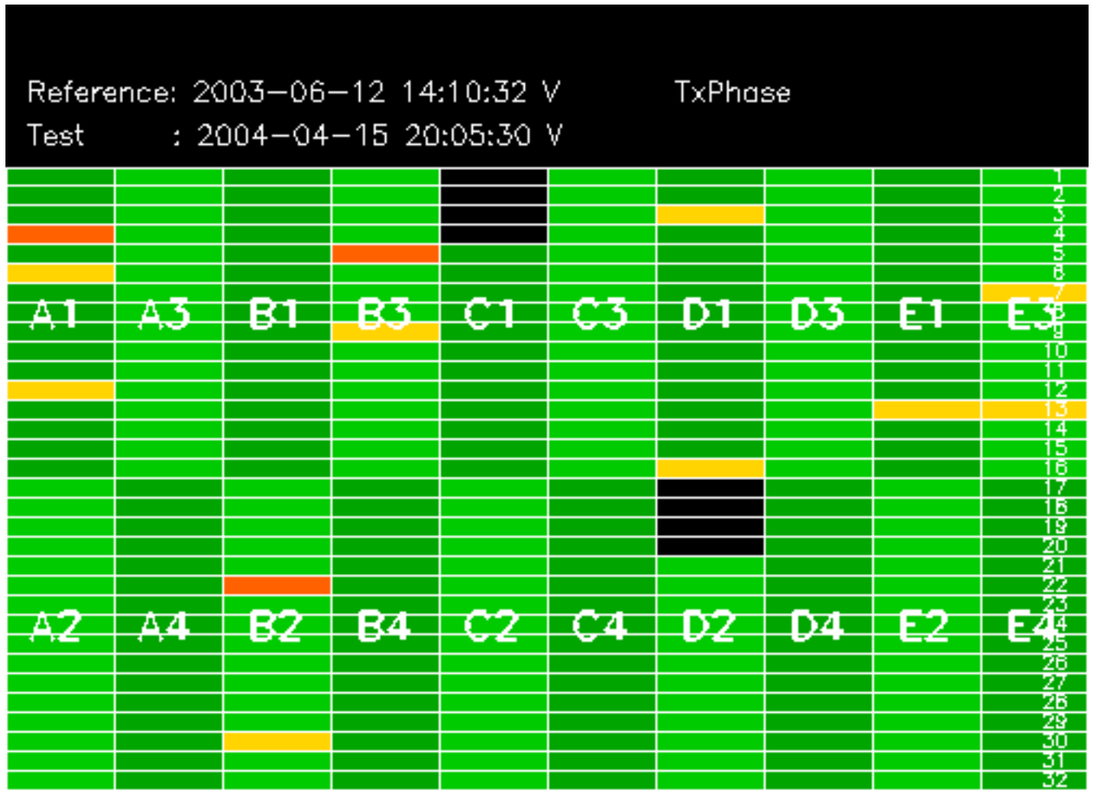
E2
E4


Reference: 2003-06-12 14:10:32 V
Test : 2004-04-15 20:05:30 V
TxPhase
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
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B4
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No unavailabilities during the reported period.