REPORT OF 031124

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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 unavailabilies 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 foe which calibration offsets are to be applied.
No anomalies observed on available MS products:

Polarisation	Start Time
V	20031123 185409
H	20031123 185249

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

row	stat	AveP1	AveP2	AveP3
3	mean			
	stdev			

24	mean			
	stdev			

4.2 - Cyclic statistics

row	stat	AveP1	AveP2	AveP3
3	mean	-3.77410	-22.5546	-8.15699
	stdev	0.00611424	0.0664426	0.00320009
24	mean	-5.24803	-21.2446	-8.15699
	stdev	0.543289	0.0602883	0.00320009

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	0.000322576
	stdev	1.09035e-05
MEAN Q	mean	0.000151252
	stdev	1.08872e-05

5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.112698
	stdev	0.00154663

STDEV Q	mean	0.112948
	stdev	0.00156335

5.3 - Gain imbalance I/Q

6 - Wave Doppler Analysis

No anomalies observed Doppler evolution.
Doppler analysis performed over the last 35 days

6.1 - Unbiased Doppler Error

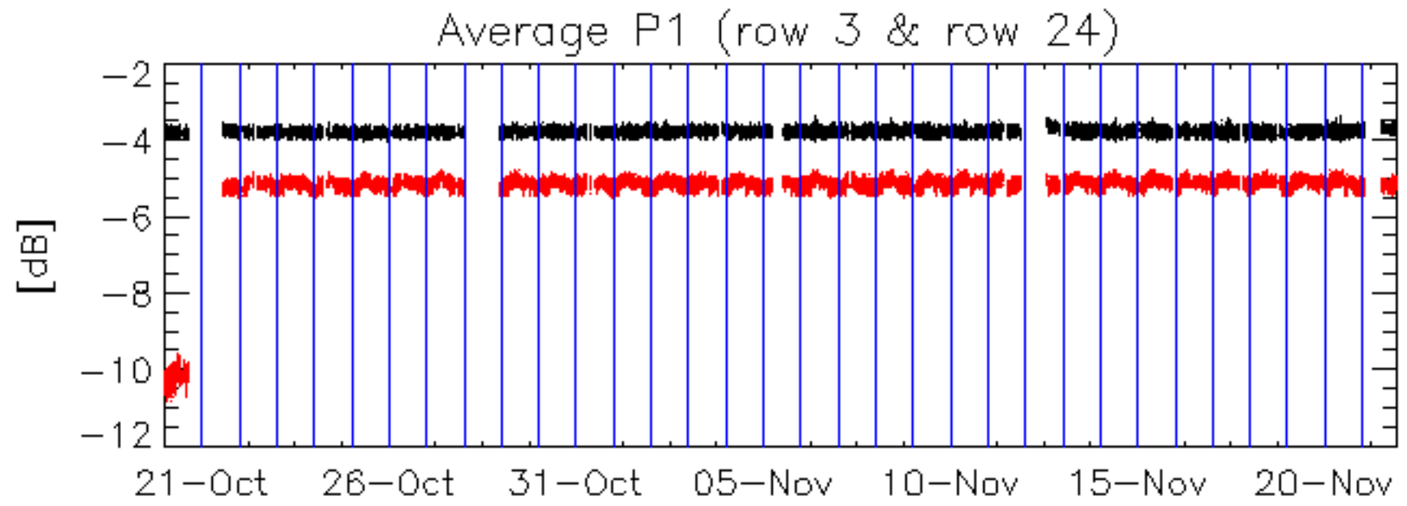
Evolution of unbiased Doppler error (Real - Expected)
Acsending
Descending

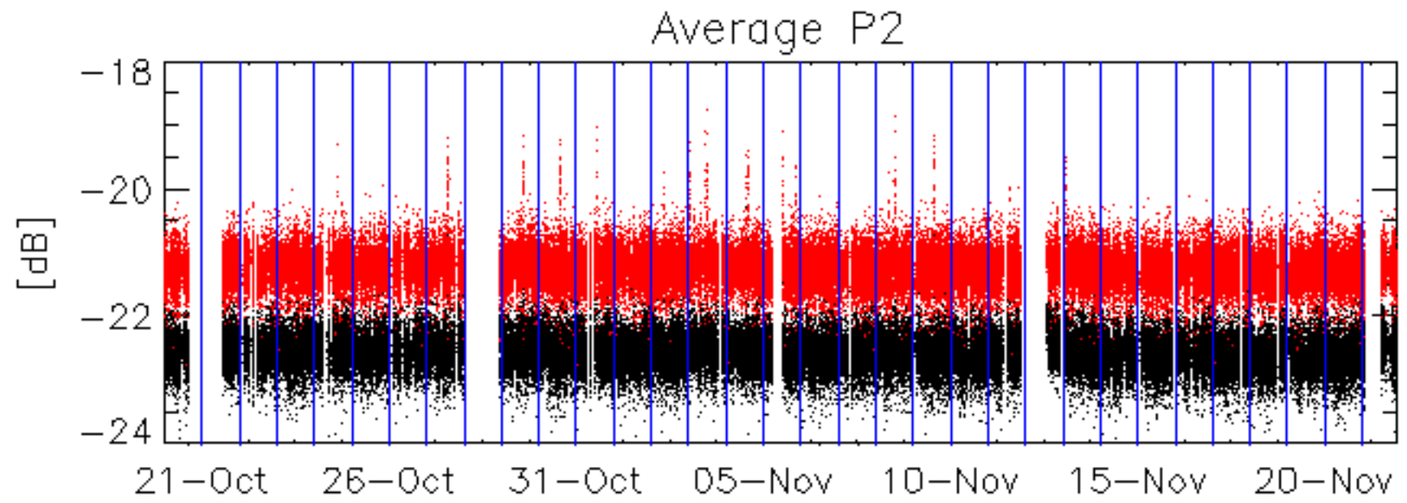
6.2 - Absolute Doppler

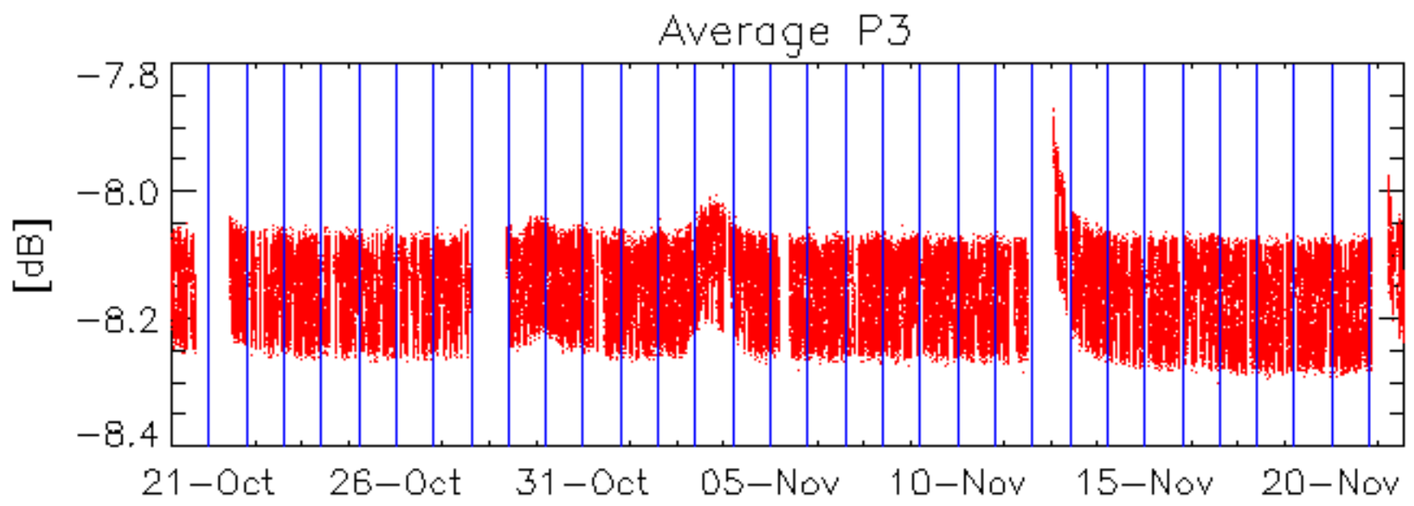
Evolution of Absolute Doppler
Acsending
Descending

6.3 - Doppler evolution versus ANX

Evolution Doppler error versus ANX



Average P1 (row 3 & row 24)
[dB]
−2
−4
−6
−8
−10
−12
21−Oct
26−Oct
31−Oct
05−Nov
10−Nov
15−Nov
20−Nov


Average P2
[dB]
−18
−20
−22
−24
21−Oct
26−Oct
31−Oct
05−Nov
10−Nov
15−Nov
20−Nov

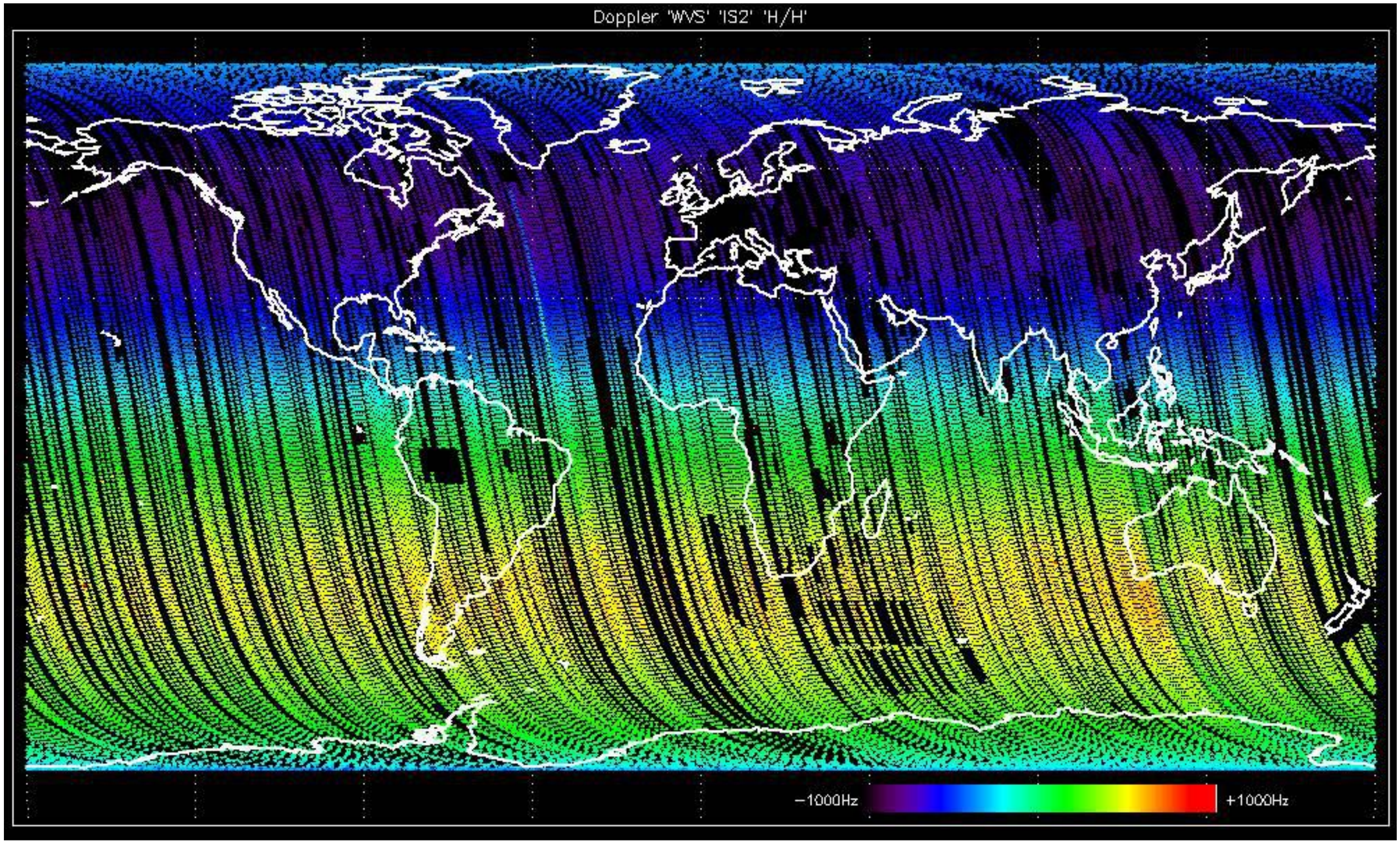

Average P3
[dB]
−7.8
−8.0
−8.2
−8.4
21−Oct
26−Oct
31−Oct
05−Nov
10−Nov
15−Nov
20−Nov

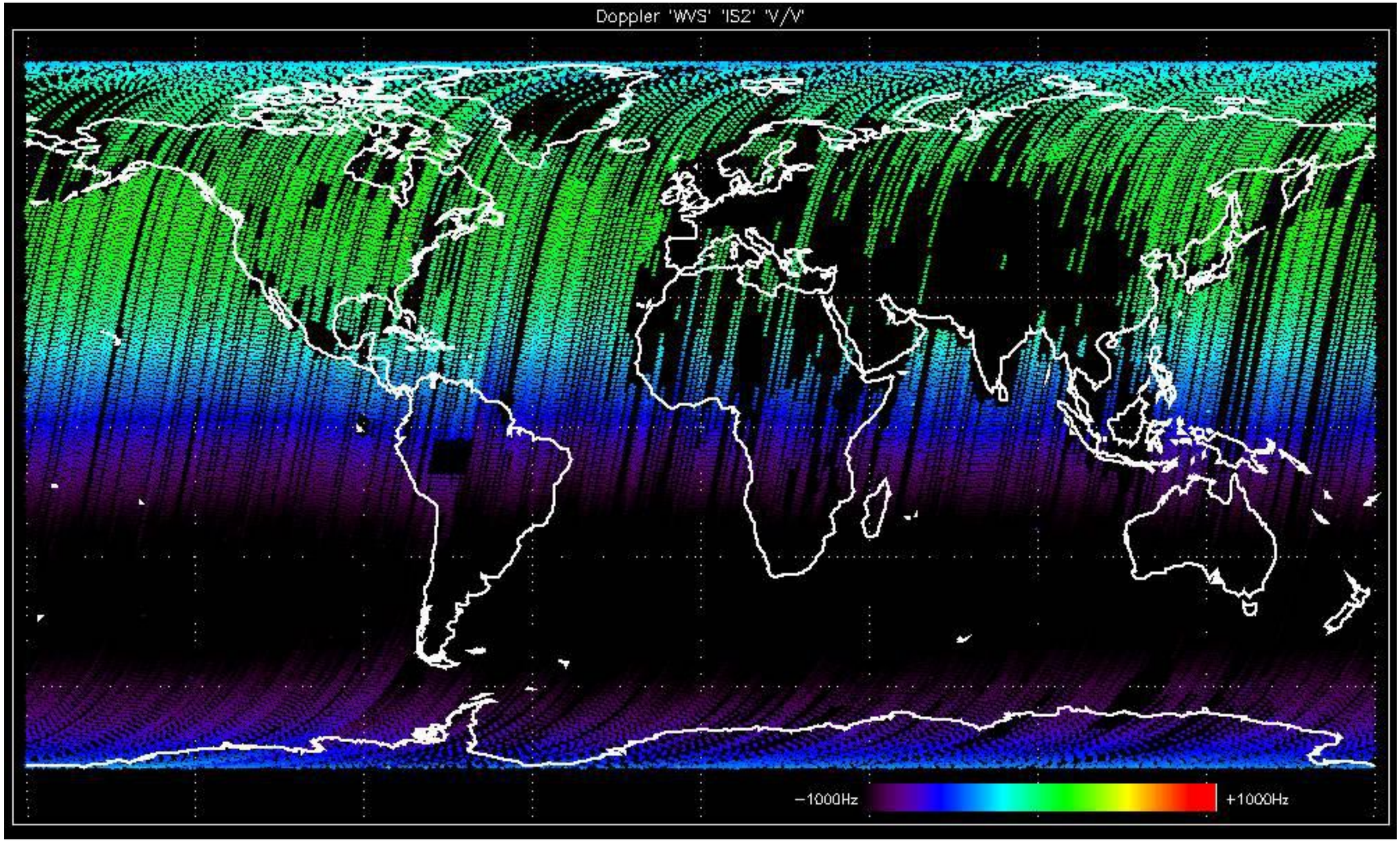
No anomalies observed on available browse products

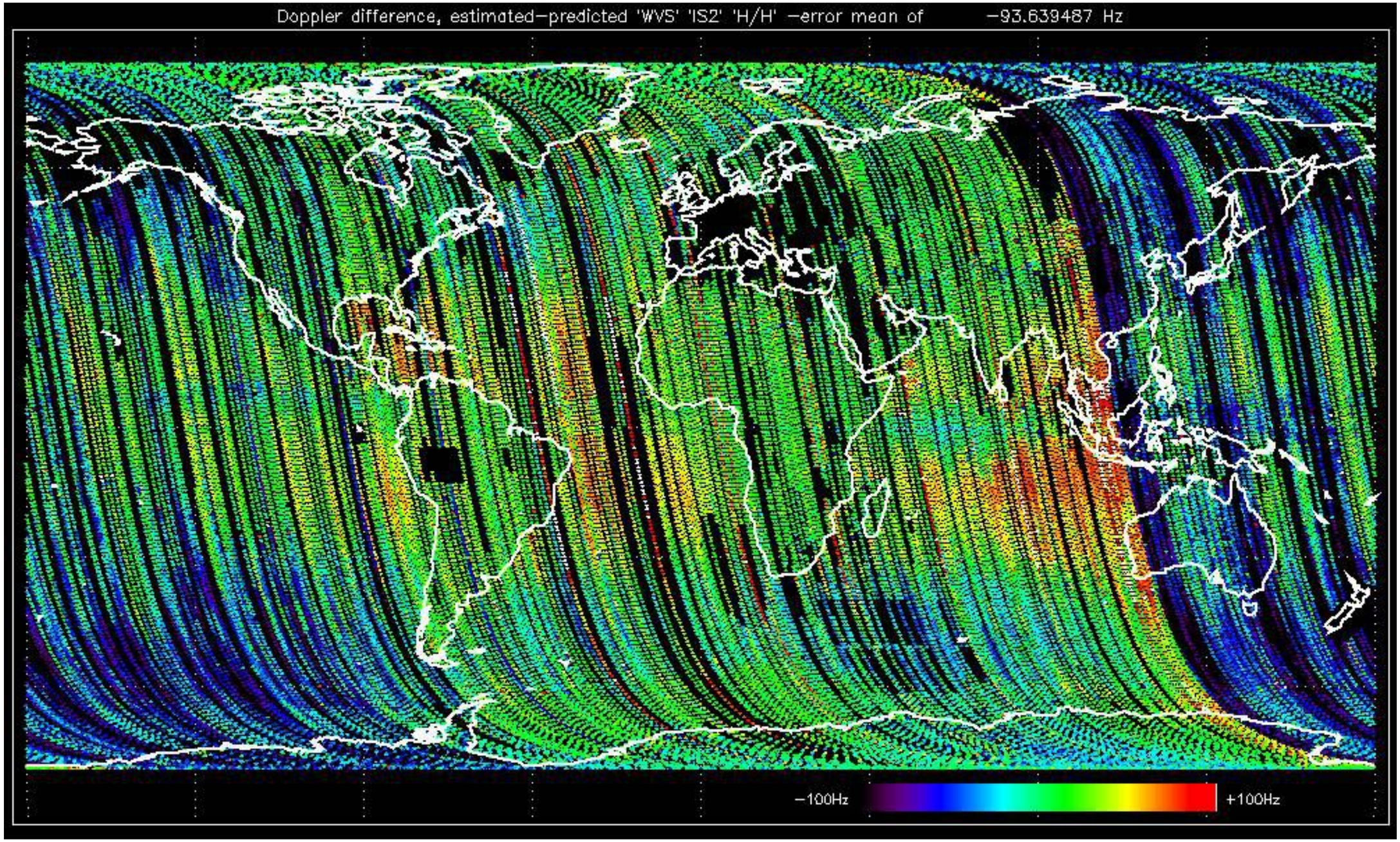
No anomalies observed.

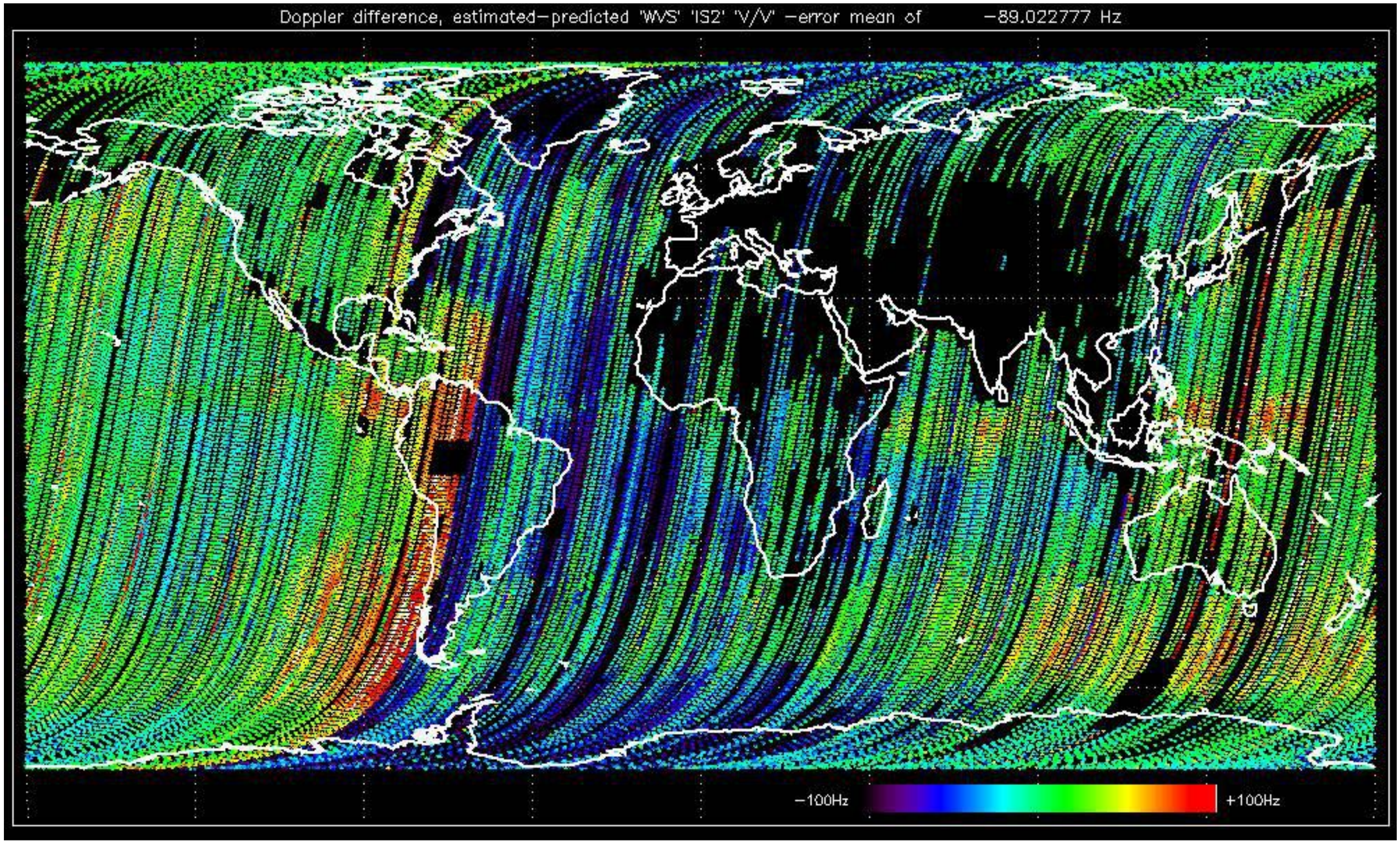
-Stable wave internal calibration pulses gain and phase.
-Stable raw data statistics.
-Nominal Doppler behavior.

No anomalies observed Doppler evolution.
Doppler analysis performed over the last 35 days


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

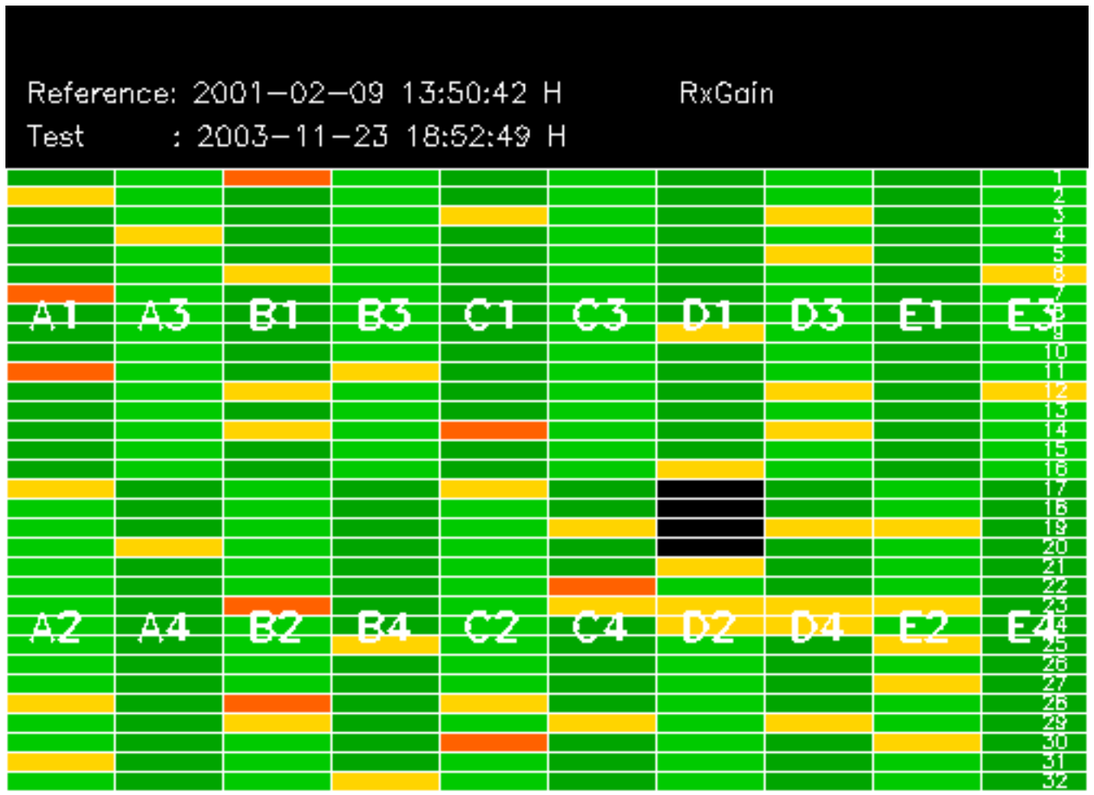

Doppler 'WVS' 'IS2' 'V/V'
−1000Hz
+1000Hz

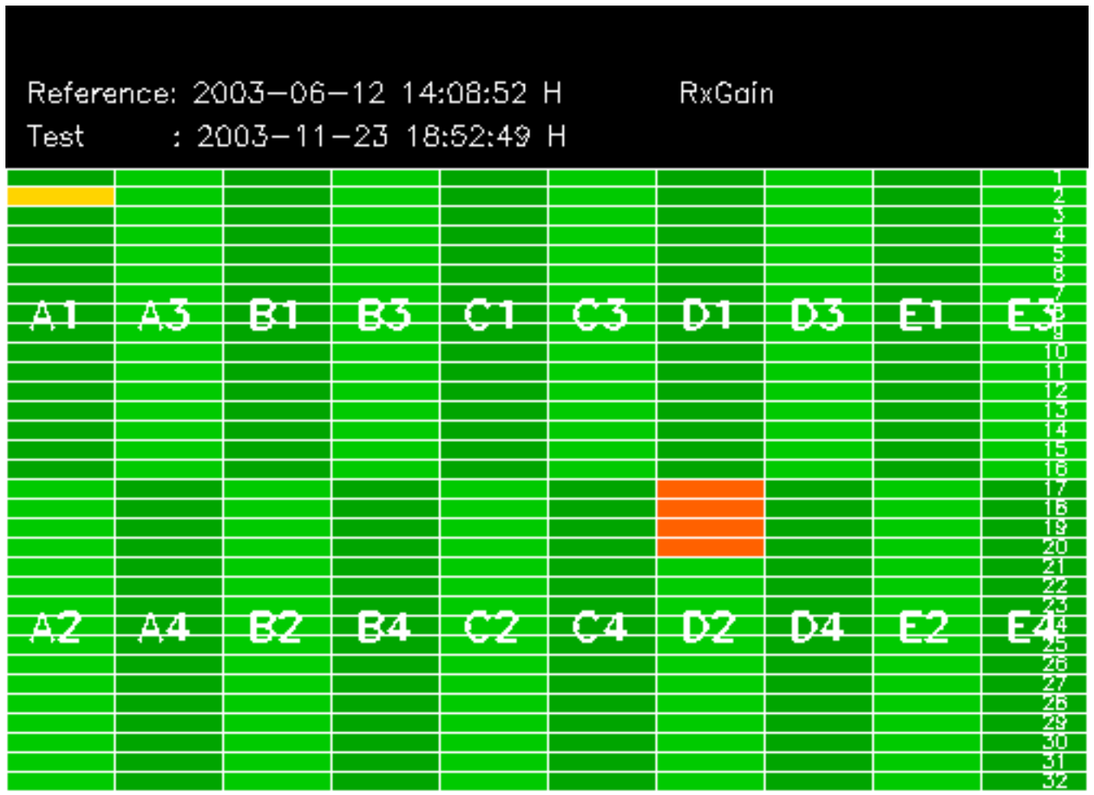

Doppler difference, estimated−predicted 'WVS' 'IS2' 'H/H' −error mean of −93.639487 Hz
−100Hz
+100Hz


Doppler difference, estimated−predicted 'WVS' 'IS2' 'V/V' −error mean of −89.022777 Hz
−100Hz
+100Hz

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 foe 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 : 2003-11-23 18:52:49 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 : 2003-11-23 18:52:49 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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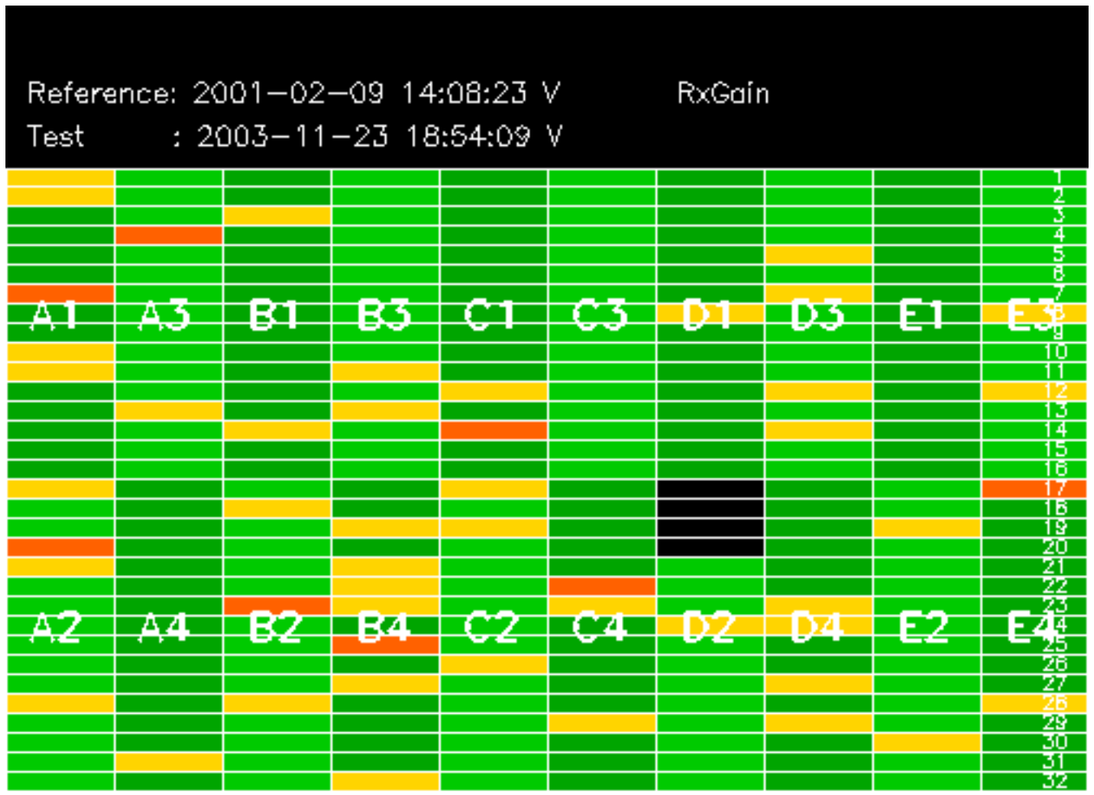
Reference: 2001-02-09 14:08:23 V
Test : 2003-11-23 18:54:09 V
RxGain
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4
1
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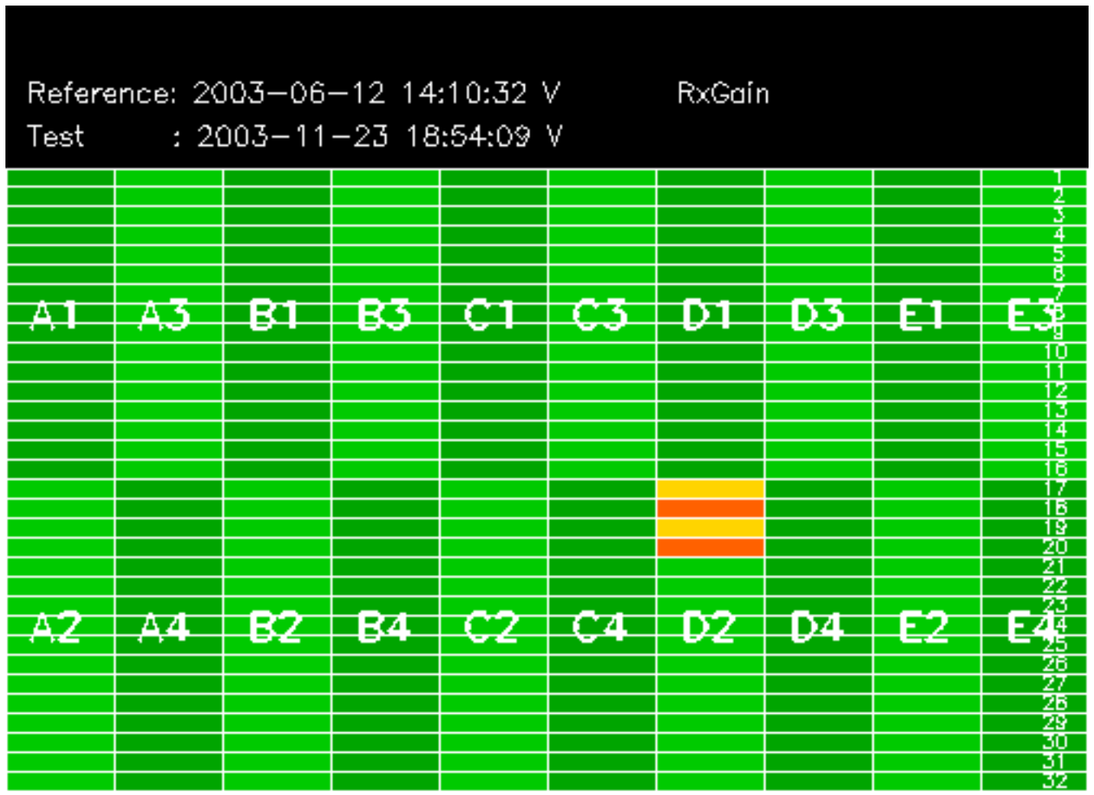
Reference: 2003-06-12 14:10:32 V
Test : 2003-11-23 18:54:09 V
RxGain
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4
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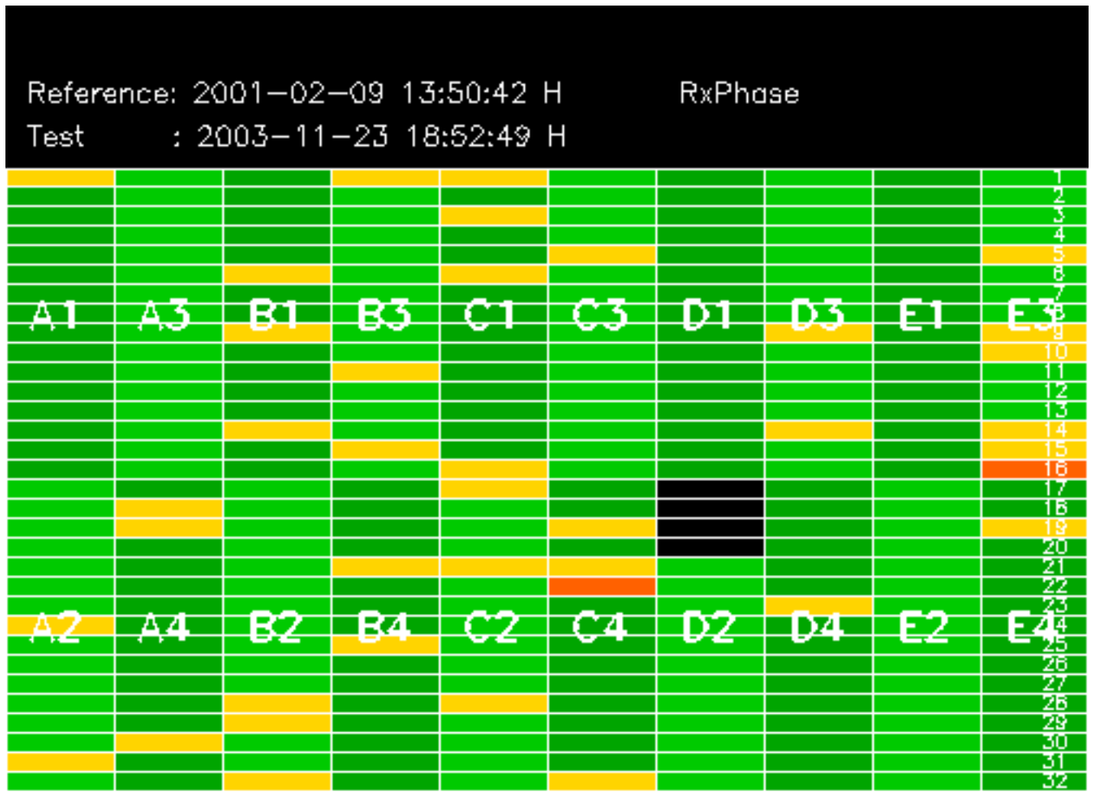
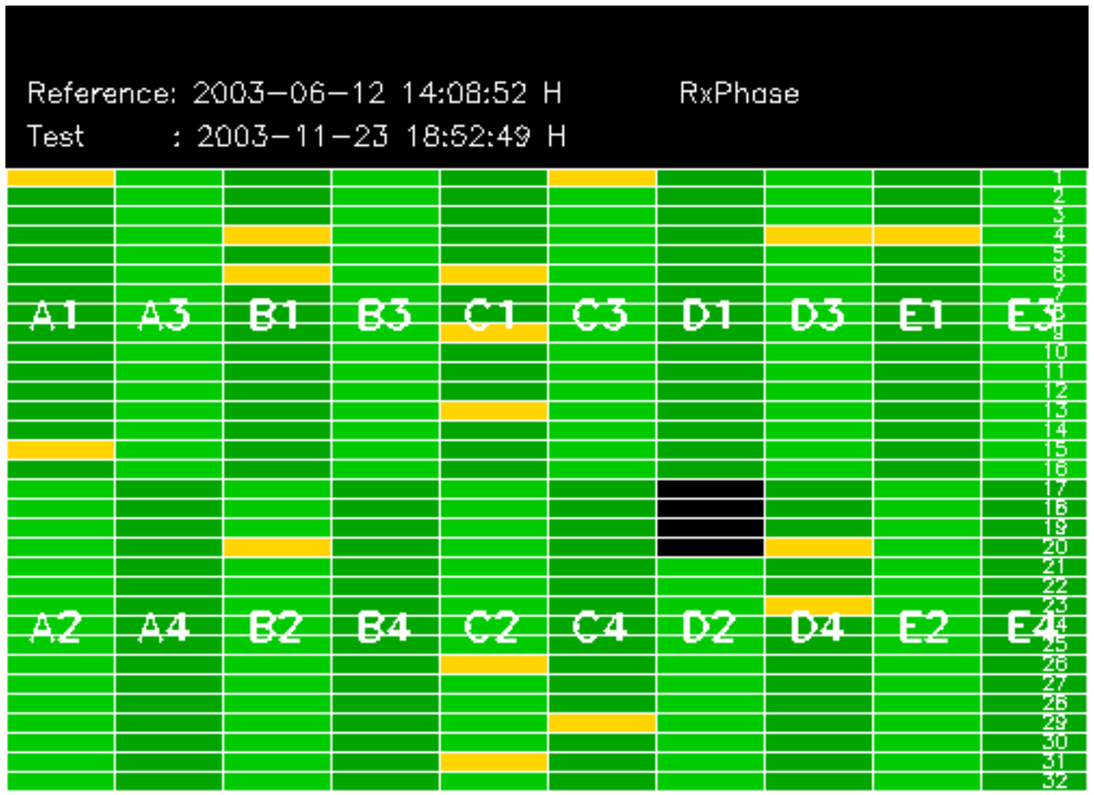
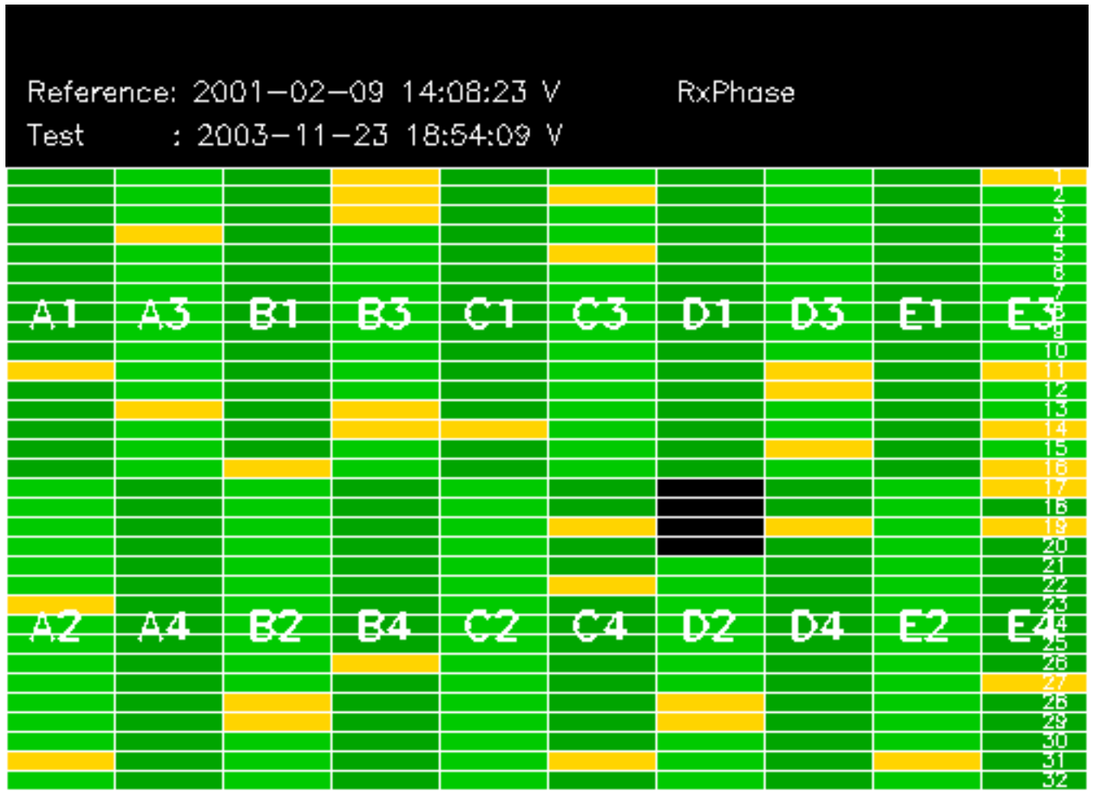

Reference: 2001-02-09 13:50:42 H
RxPhase
Test : 2003-11-23 18:52:49 H
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4


Reference: 2003-06-12 14:08:52 H
Test : 2003-11-23 18:52:49 H
RxPhase
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 : 2003-11-23 18:54:09 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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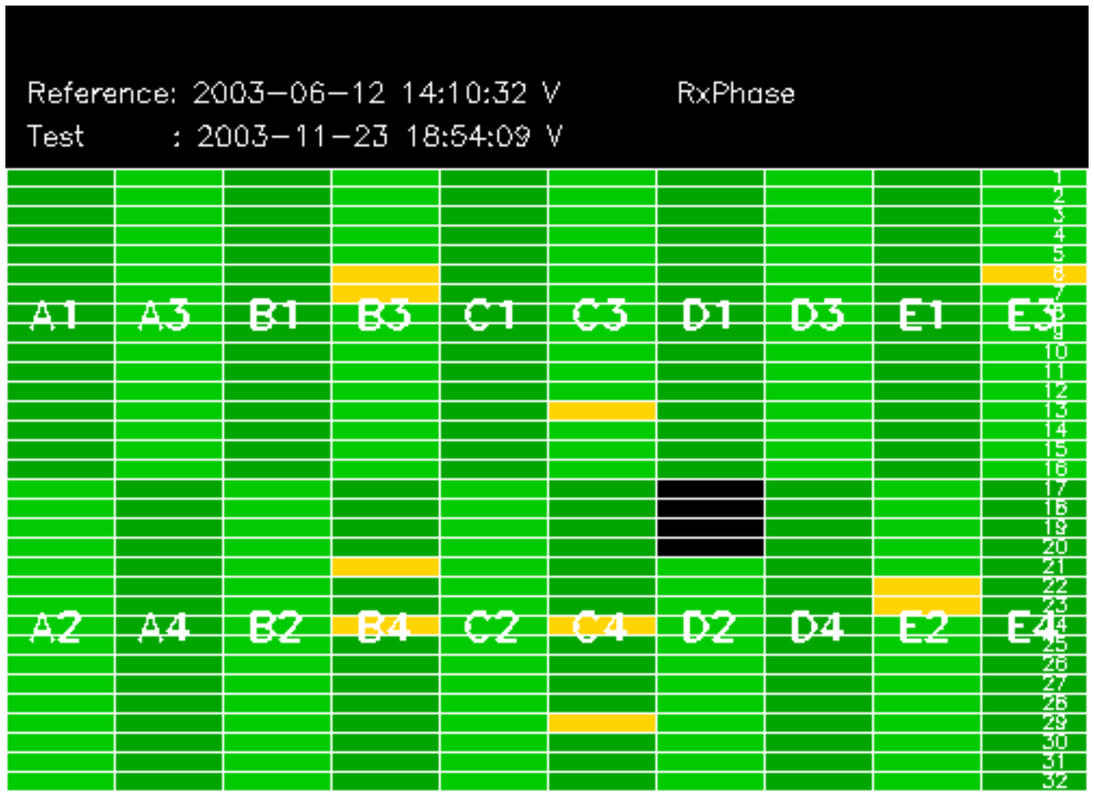
Reference: 2003-06-12 14:10:32 V
Test : 2003-11-23 18:54:09 V
RxPhase
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4
1
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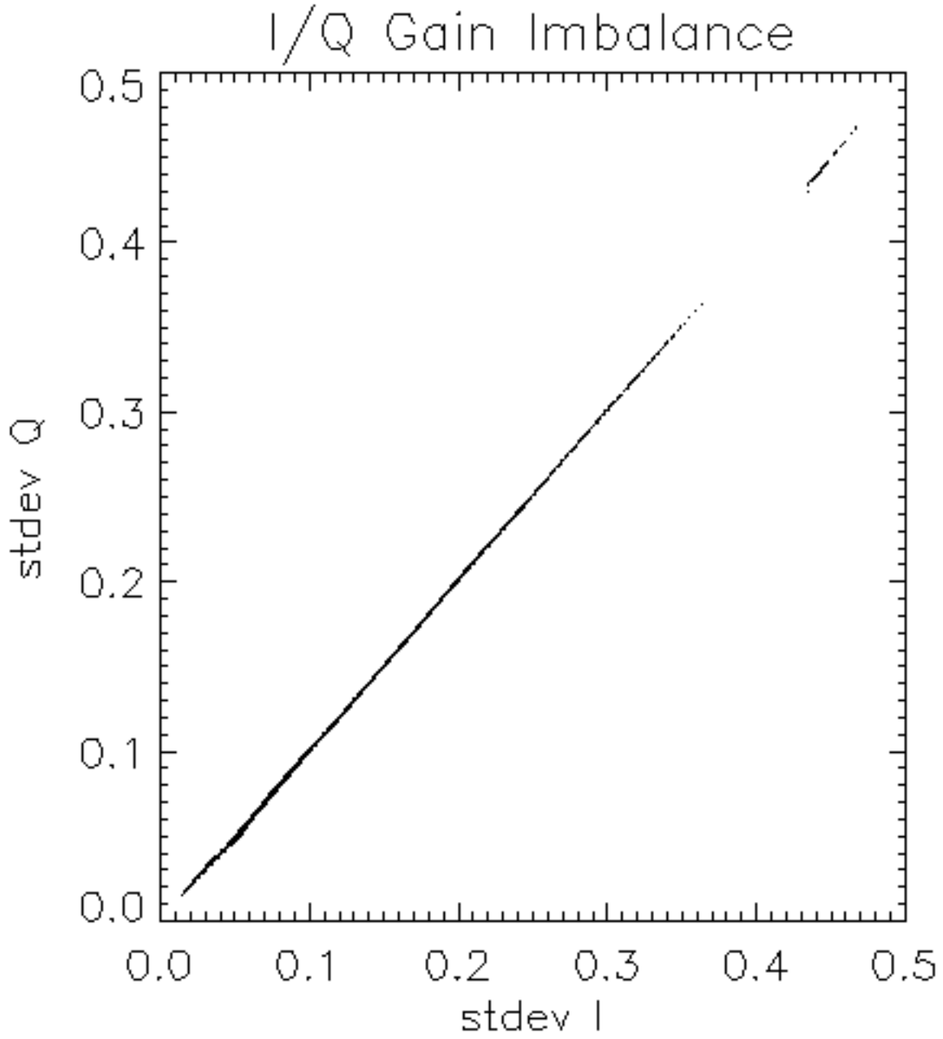
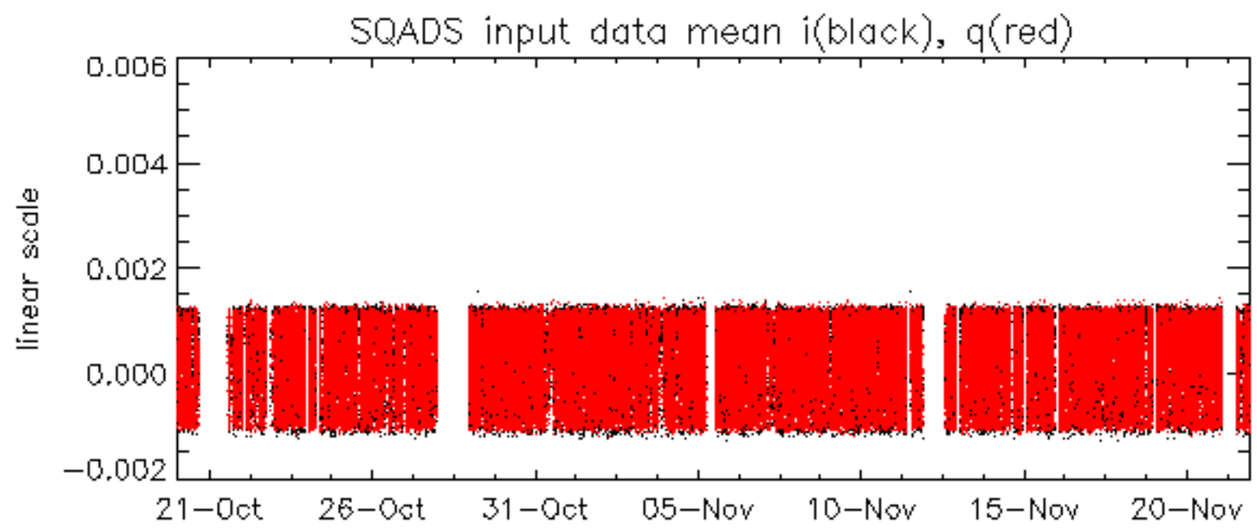
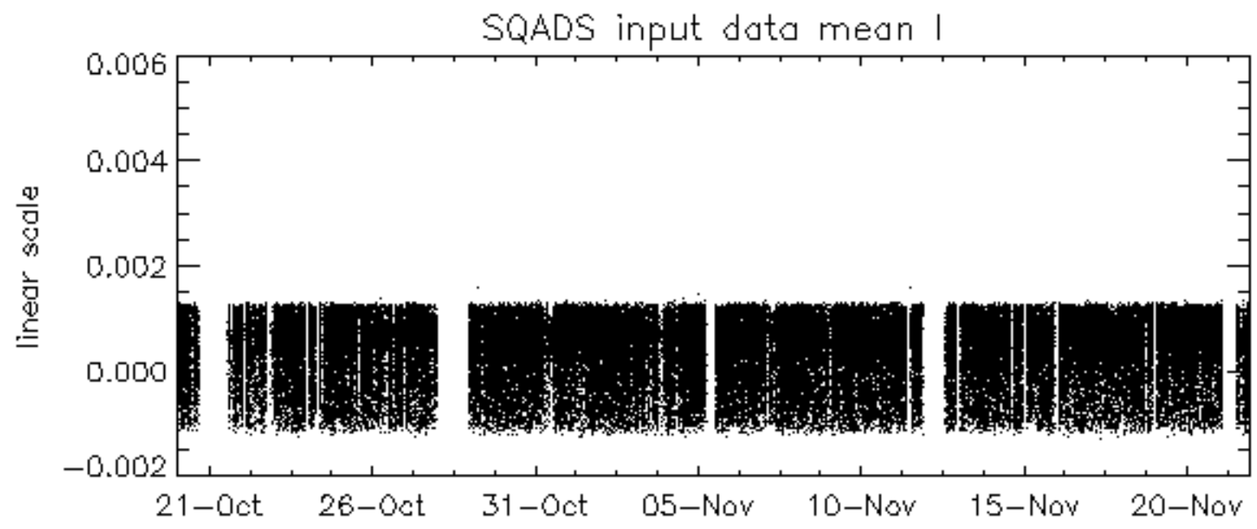
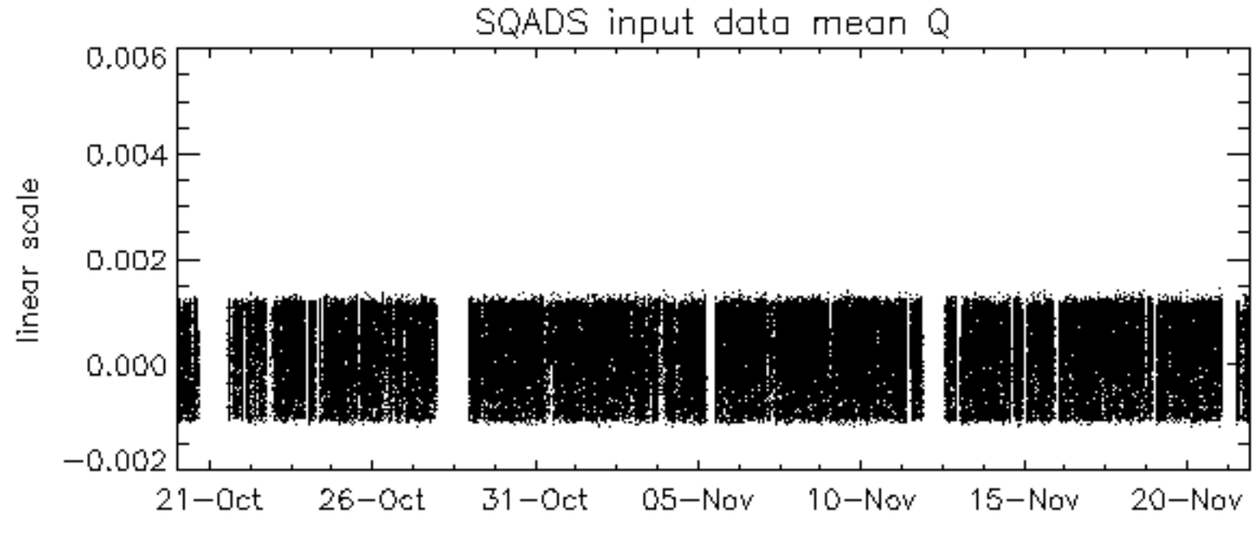
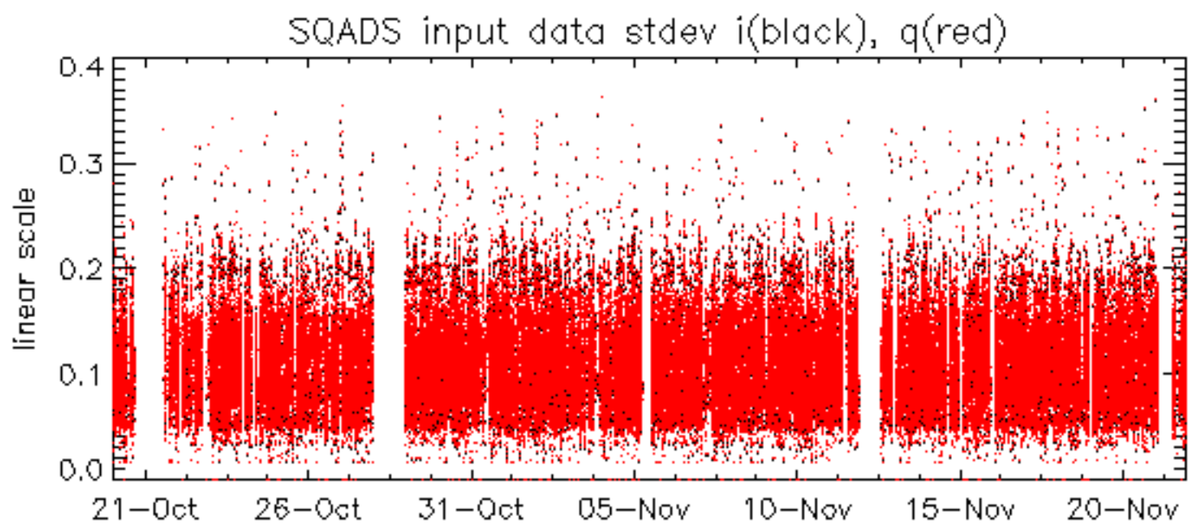
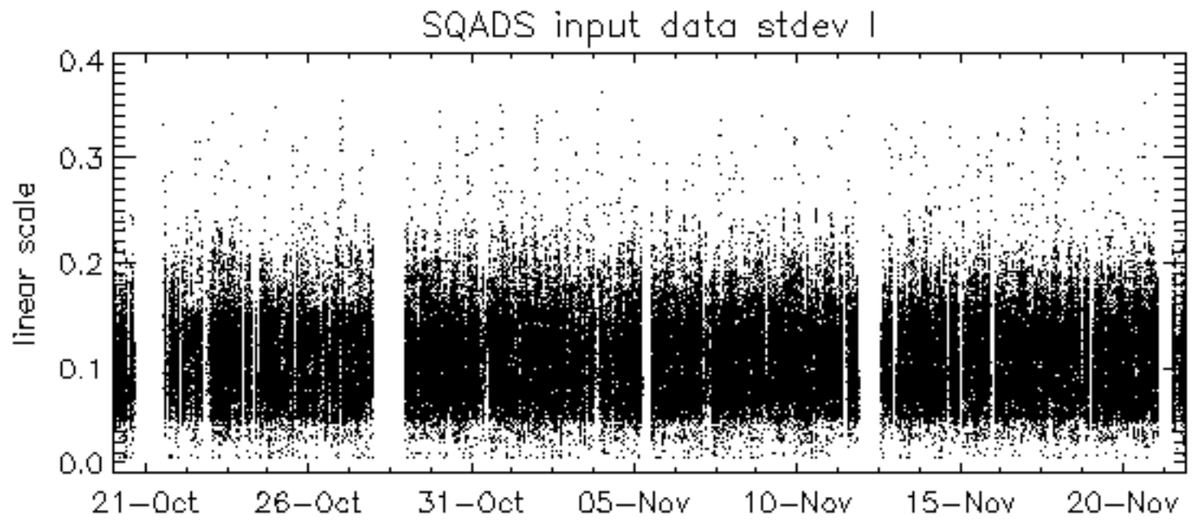

I/Q Gain Imbalance
stdev Q
stdev I
0.0
0.1
0.2
0.3
0.4
0.5

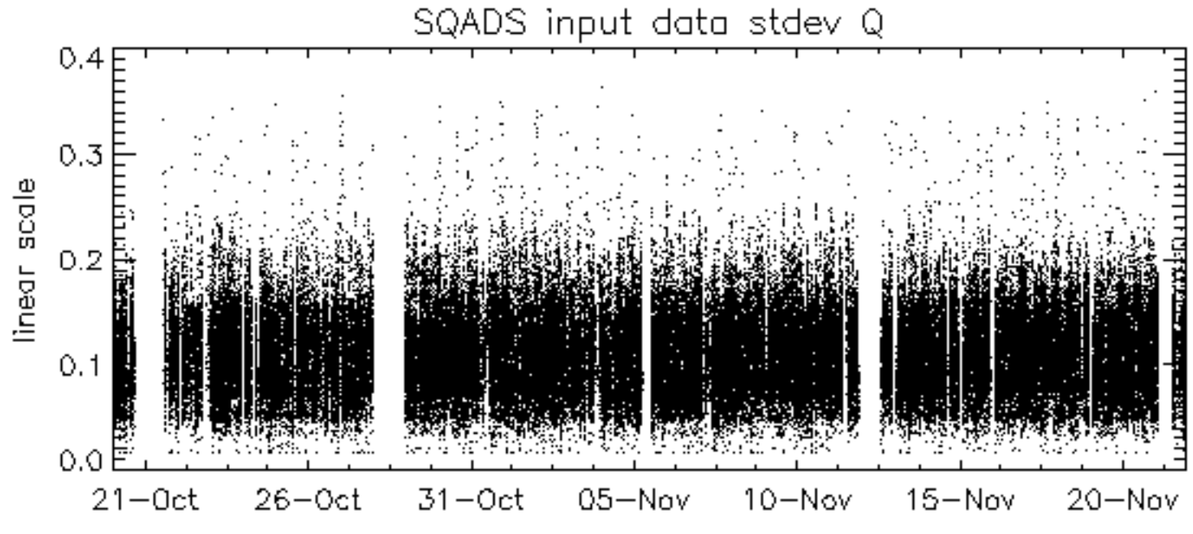

SQADS input data mean i(black), q(red)
linear scale
0.006
0.004
0.002
0.000
−0.002
21−Oct
26−Oct
31−Oct
05−Nov
10−Nov
15−Nov
20−Nov

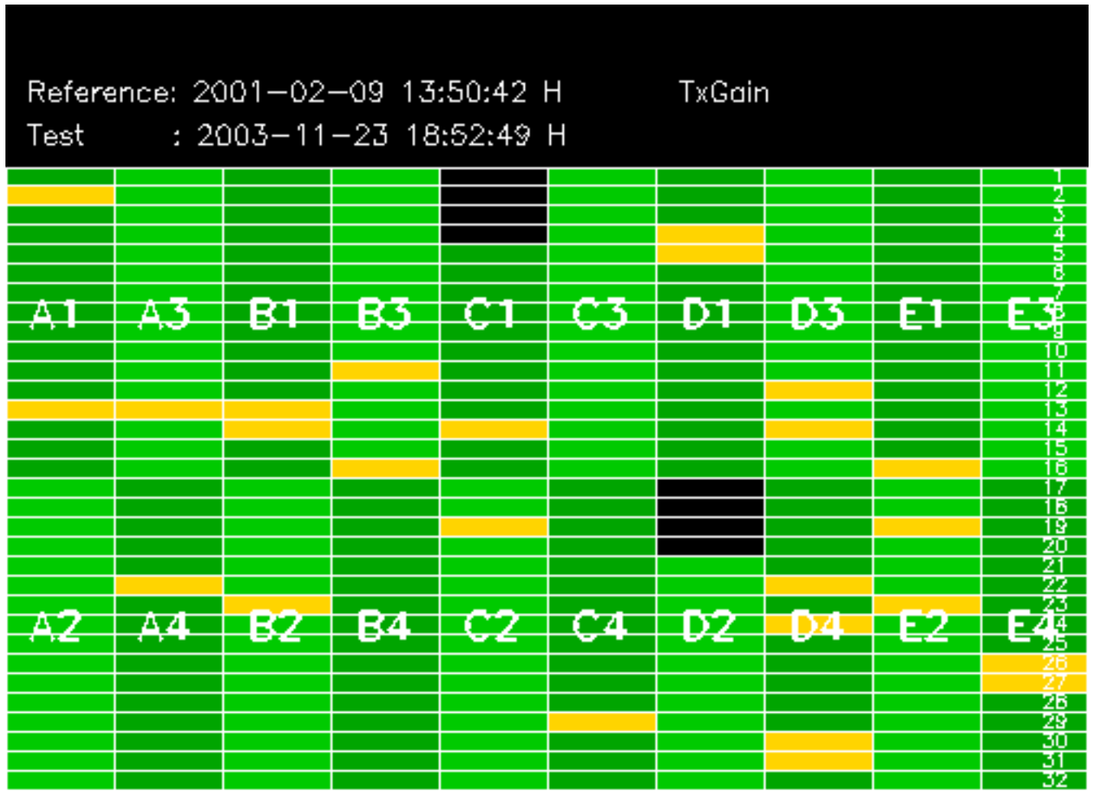

SQADS input data mean I
linear scale
0.006
0.004
0.002
0.000
−0.002
21−Oct
26−Oct
31−Oct
05−Nov
10−Nov
15−Nov
20−Nov

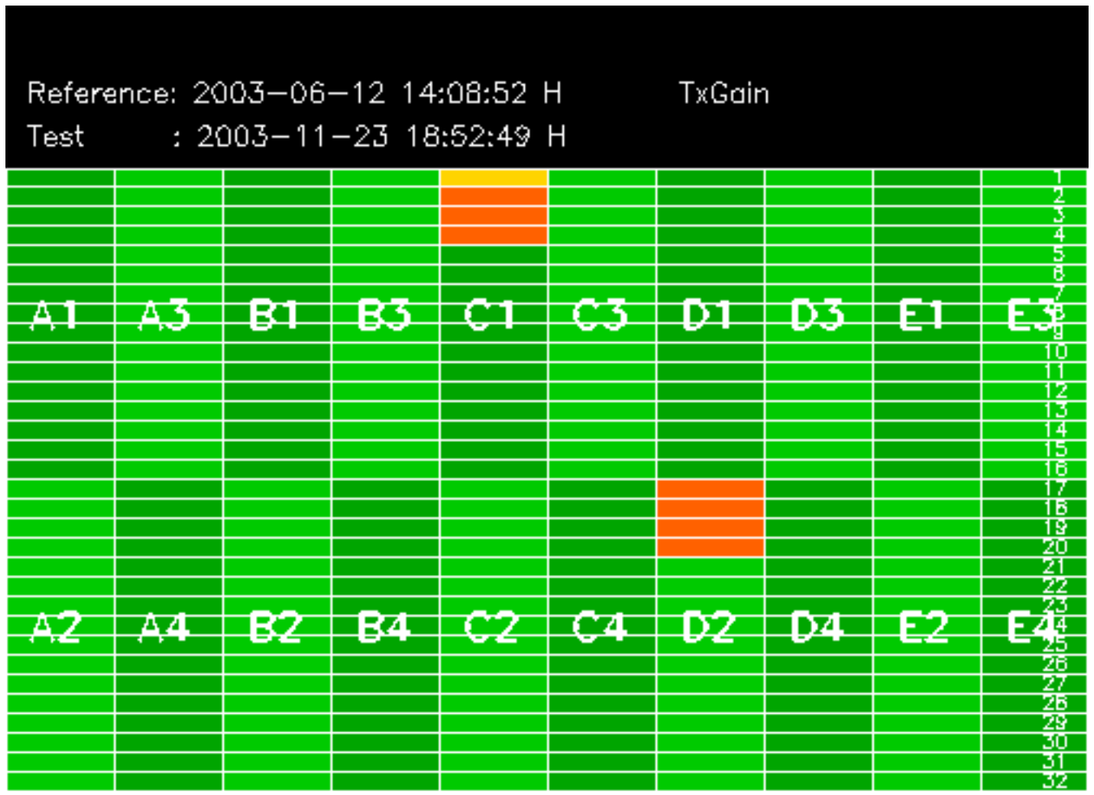

SQADS input data mean Q
linear scale
0.006
0.004
0.002
0.000
−0.002
21−Oct
26−Oct
31−Oct
05−Nov
10−Nov
15−Nov
20−Nov


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


SQADS input data stdev I
linear scale
0.4
0.3
0.2
0.1
0.0
21−Oct
26−Oct
31−Oct
05−Nov
10−Nov
15−Nov
20−Nov


SQADS input data stdev Q
linear scale
0.4
0.3
0.2
0.1
0.0
21−Oct
26−Oct
31−Oct
05−Nov
10−Nov
15−Nov
20−Nov


Reference: 2001-02-09 13:50:42 H
Test : 2003-11-23 18:52:49 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 : 2003-11-23 18:52:49 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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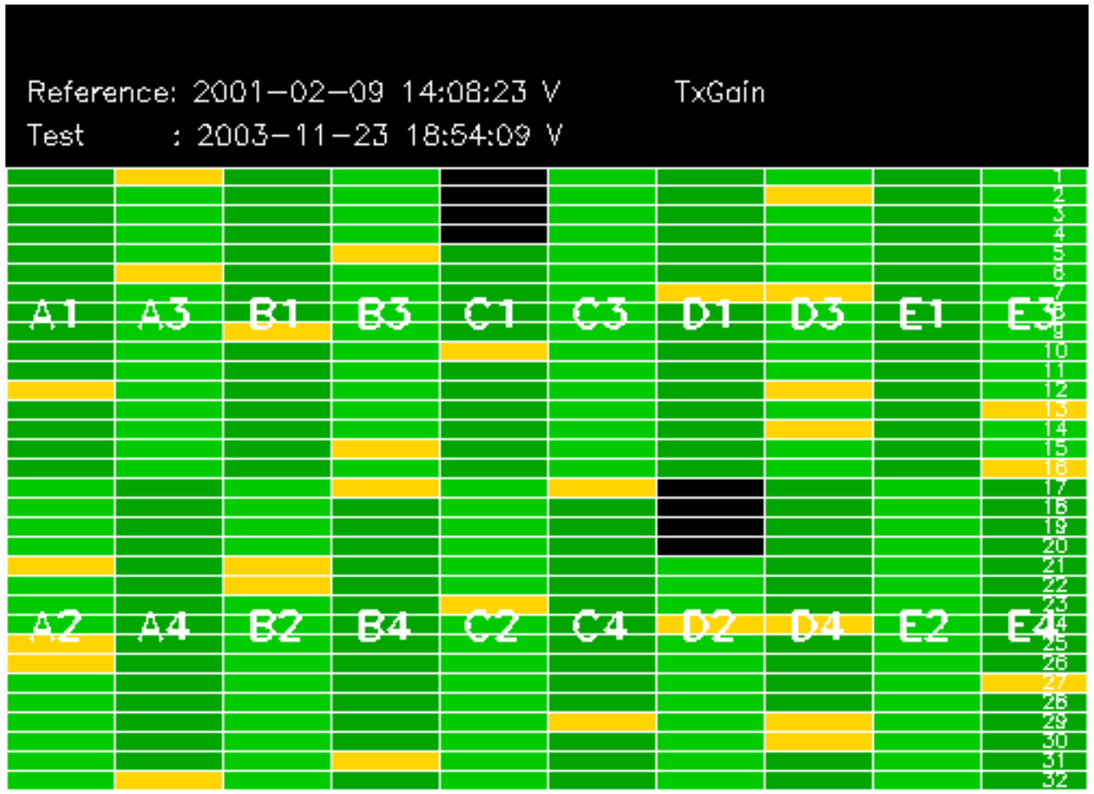
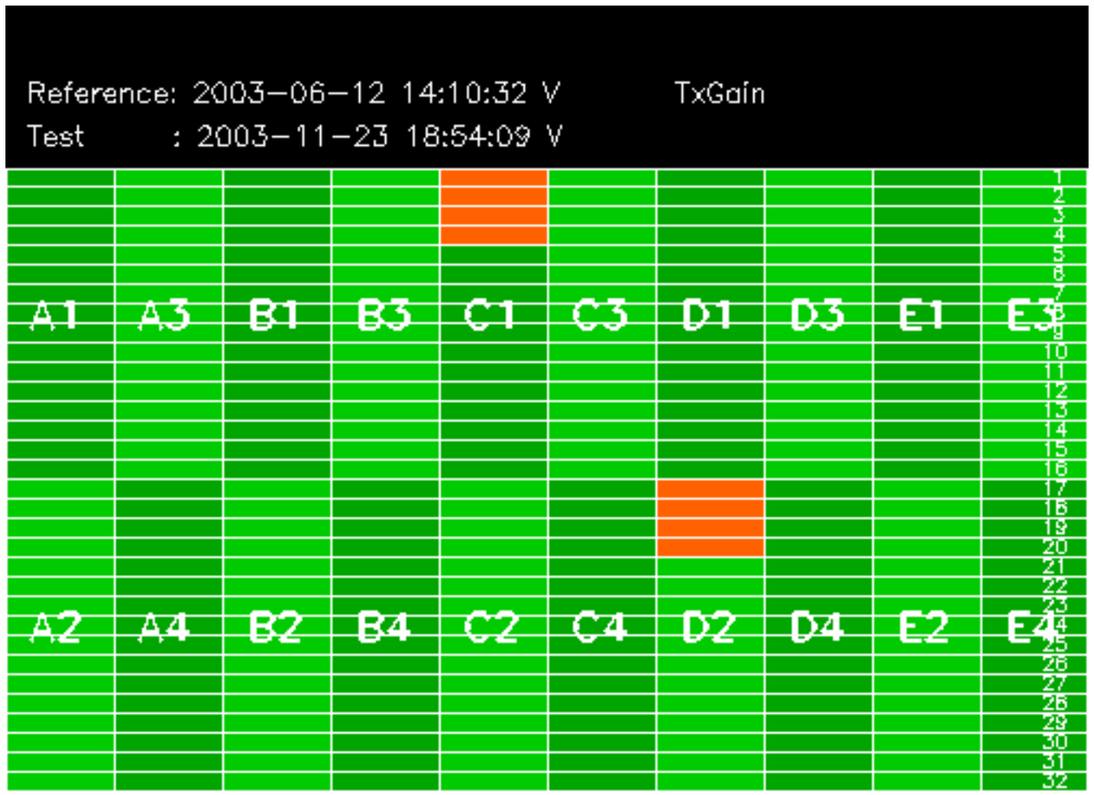

Reference: 2001-02-09 14:08:23 V
Test : 2003-11-23 18:54:09 V
TxGain
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4


Reference: 2003-06-12 14:10:32 V
Test : 2003-11-23 18:54:09 V
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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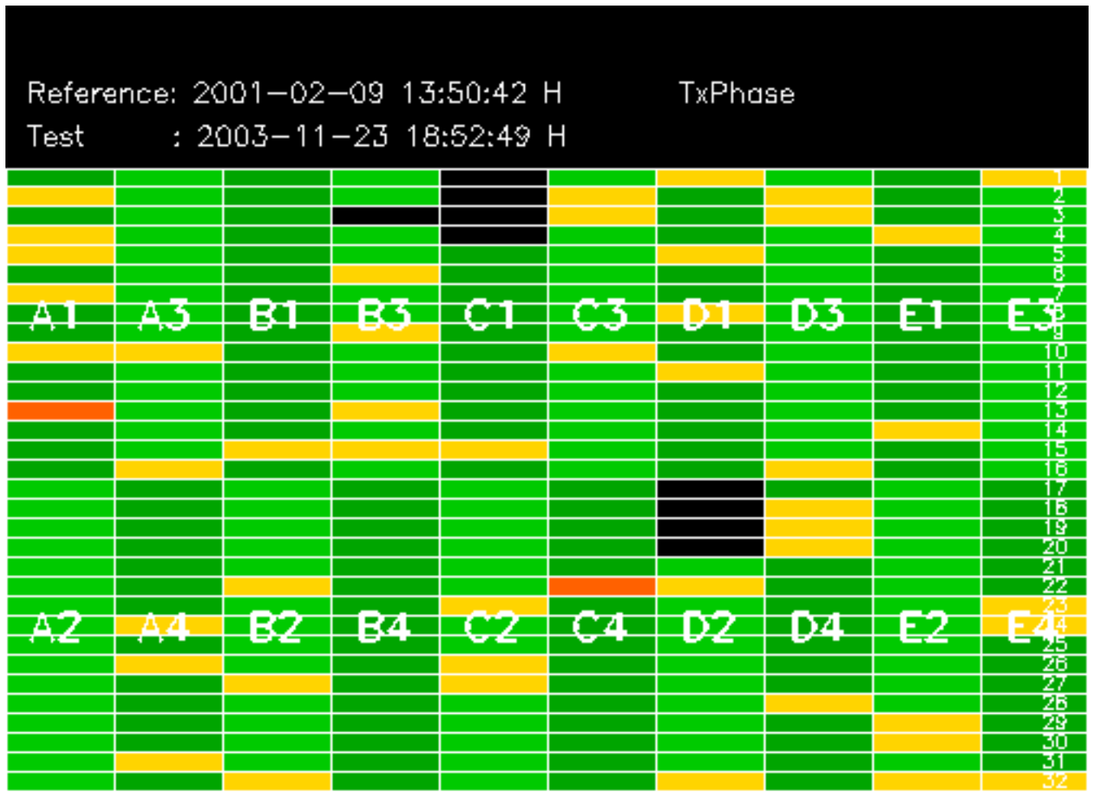
Reference: 2001-02-09 13:50:42 H
TxPhase
Test : 2003-11-23 18:52:49 H
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4
1
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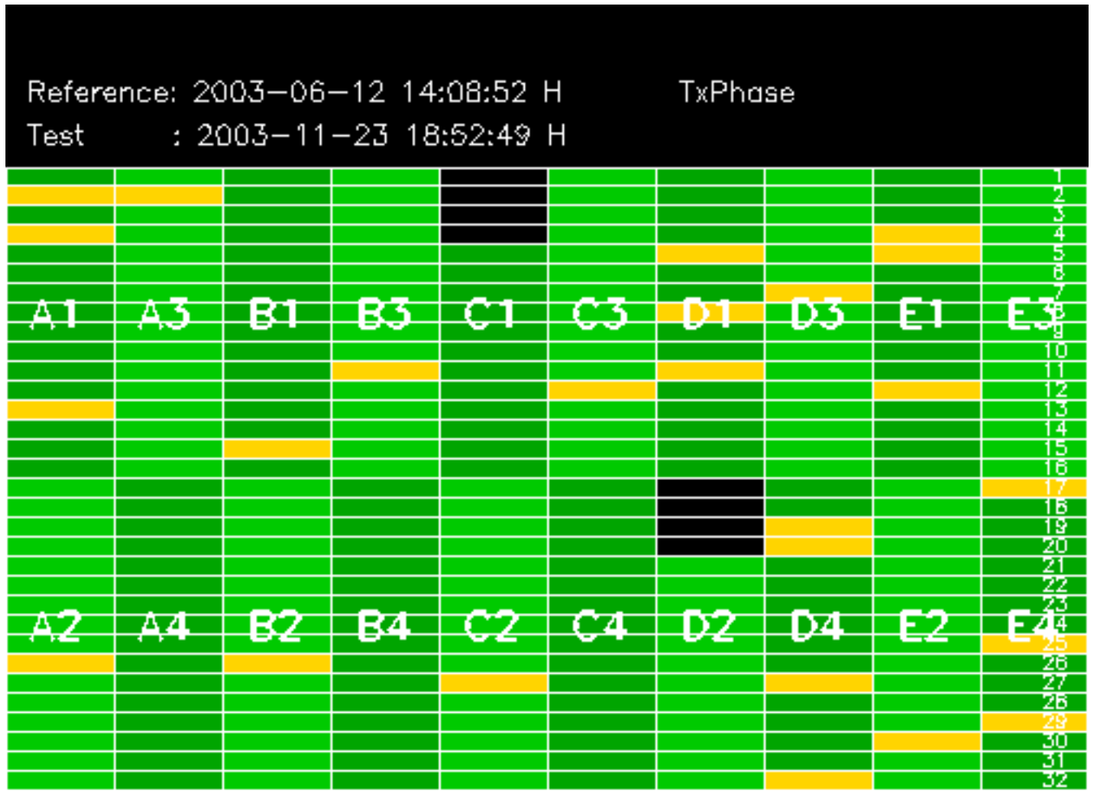
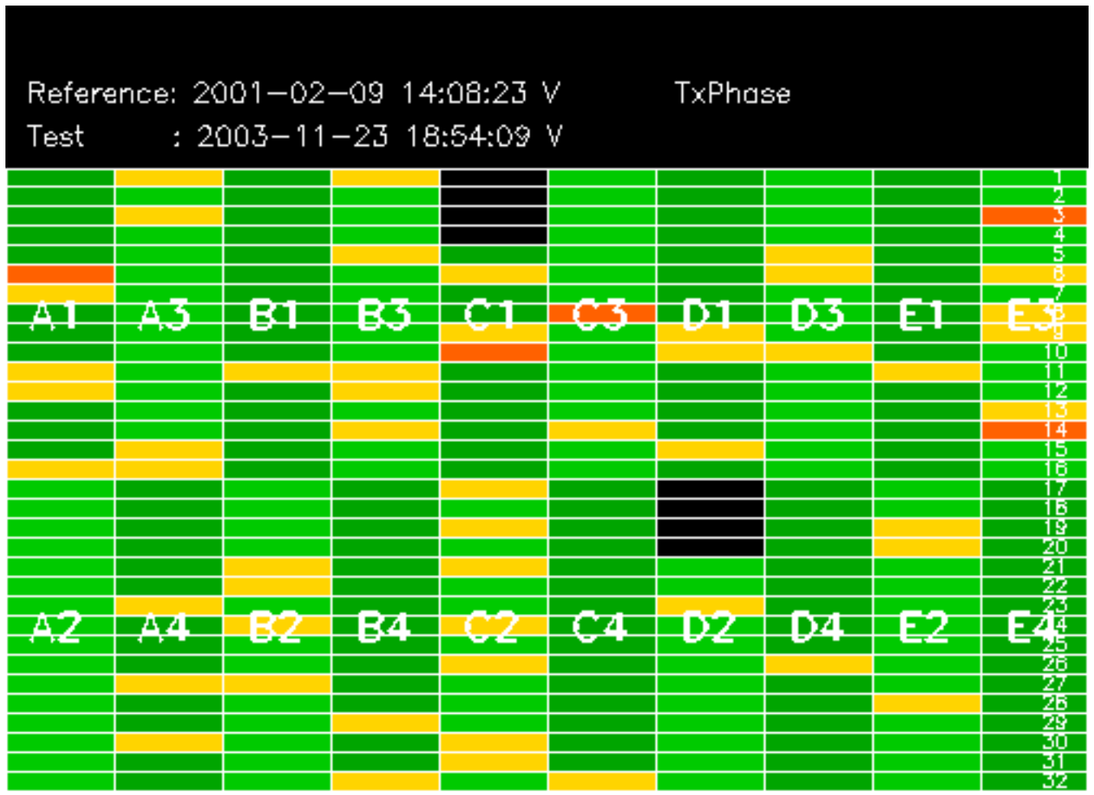
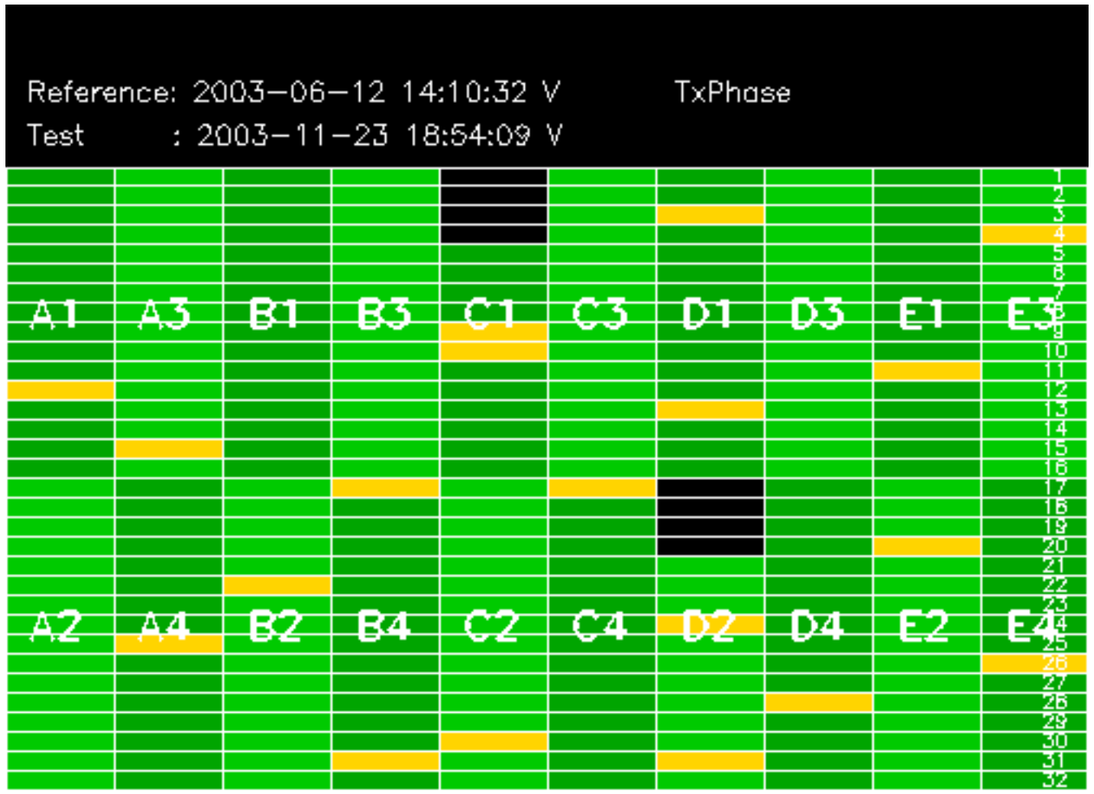

Reference: 2003-06-12 14:08:52 H
Test : 2003-11-23 18:52:49 H
TxPhase
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4


Reference: 2001-02-09 14:08:23 V
Test : 2003-11-23 18:54:09 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 : 2003-11-23 18:54:09 V
TxPhase
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4

No unavailabilies during the reported period.