REPORT OF 040109

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

Preliminary report.The data is not yet controled

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	20040108 194526
H	20040108 194406

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	-3.69211	-22.5095	-8.15236
	stdev	0.00669367	0.0794089	0.00363976
24	mean	-5.06379	-21.1295	-8.15236
	stdev	0.0127222	0.0674016	0.00363976

4.2 - Cyclic statistics

row	stat	AveP1	AveP2	AveP3
3	mean	-3.74384	-22.5391	-8.14406
	stdev	0.0855688	0.0714886	0.00510779
24	mean	-5.20755	-21.1712	-8.14406
	stdev	0.552207	0.0641002	0.00510779

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	0.000433888
	stdev	3.00941e-07
MEAN Q	mean	0.000302471
	stdev	3.68645e-07

5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.115873
	stdev	0.00140583
STDEV Q	mean	0.116121
	stdev	0.00142019

☒

5.3 - Gain imbalance I/Q

☒

6 - Wave Doppler Analysis

Preliminary report.The data is not yet controled

6.1 - Unbiased Doppler Error

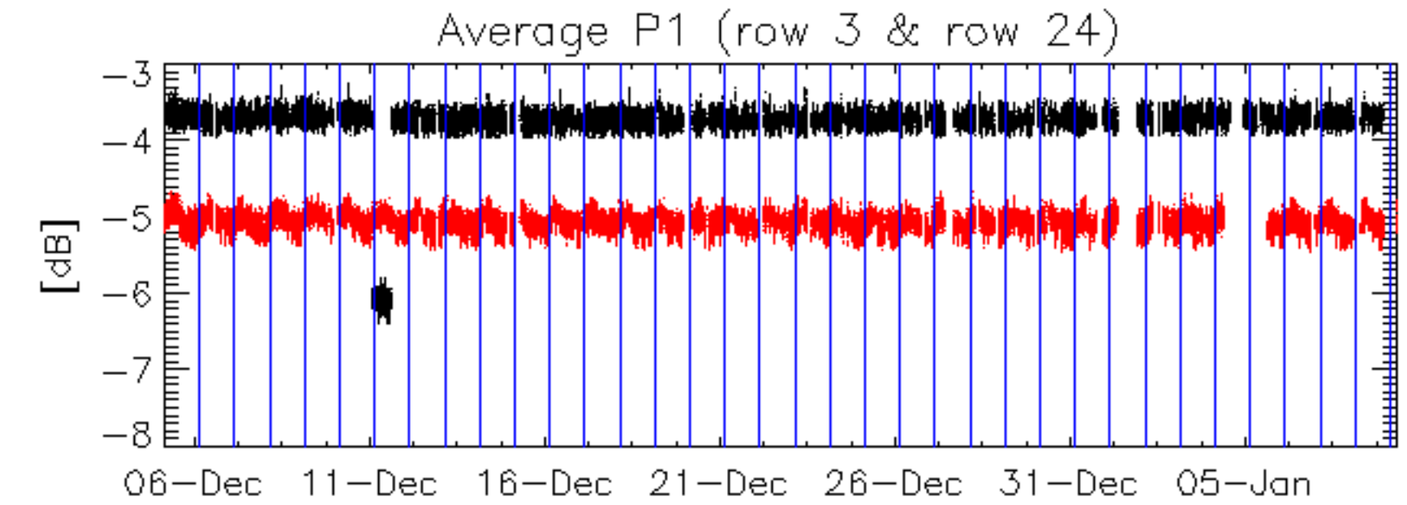
Evolution of unbiased Doppler error (Real - Expected)
Acsending
Descending

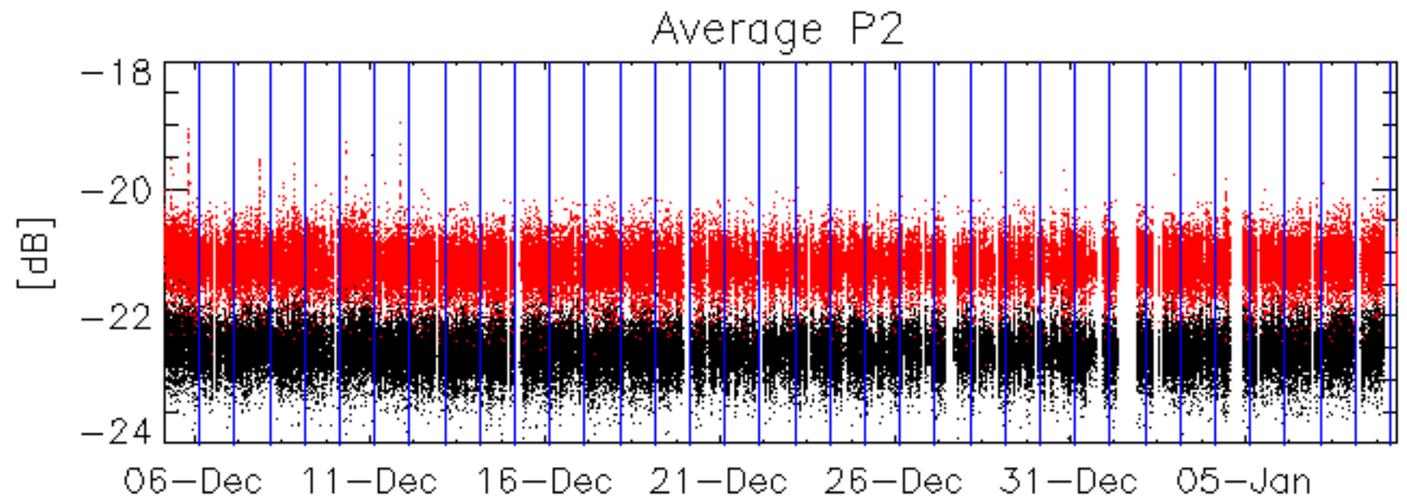
6.2 - Absolute Doppler

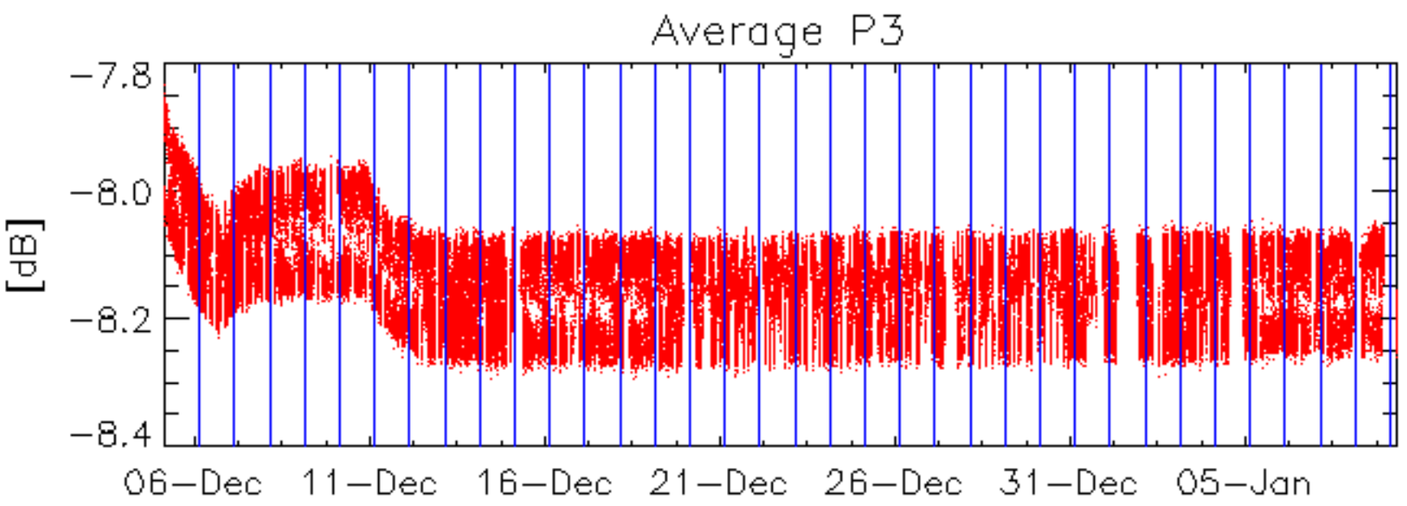
Evolution of Absolute Doppler
Acsending
Descending

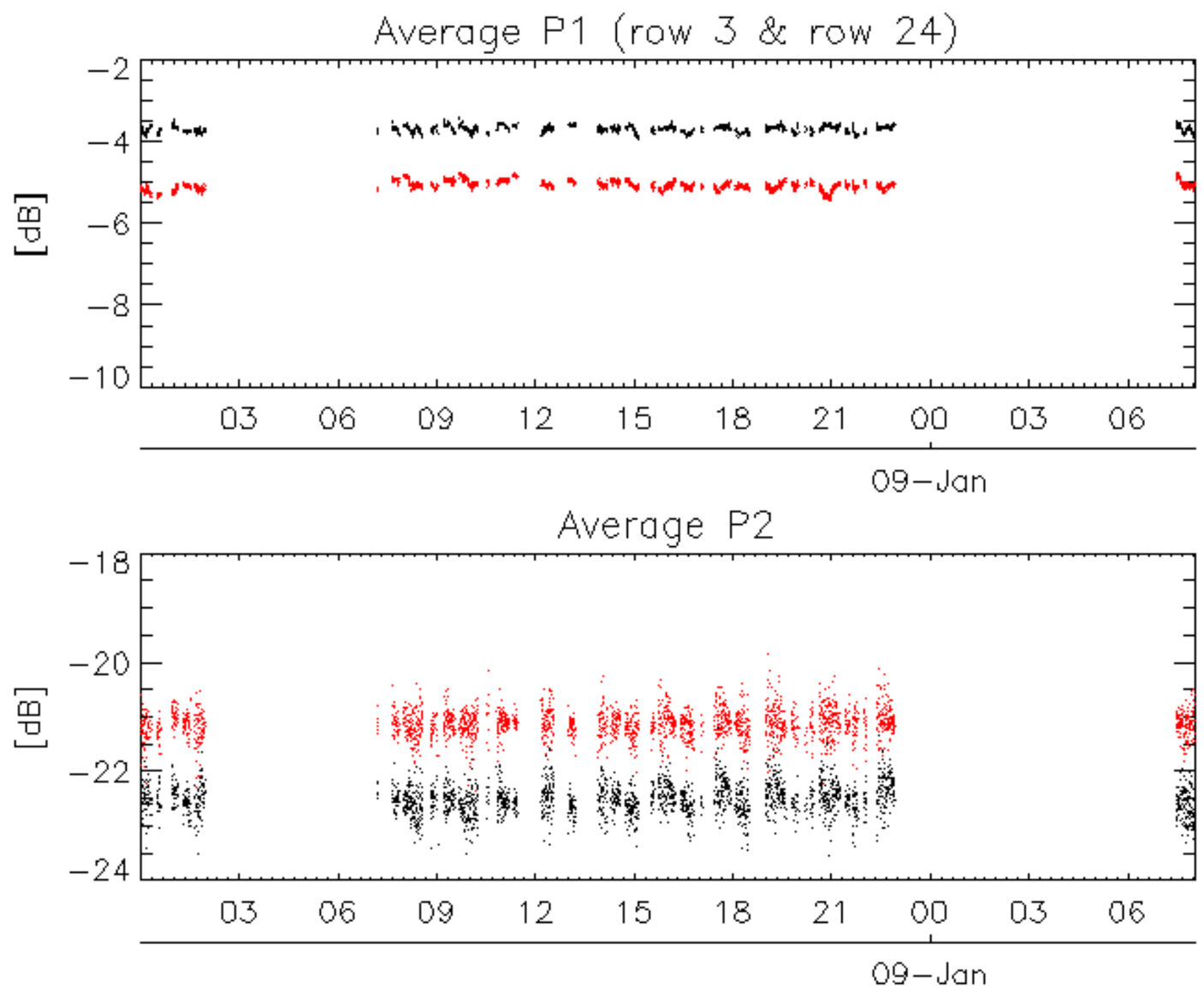
6.3 - Doppler evolution versus ANX

Evolution Doppler error versus ANX
☒

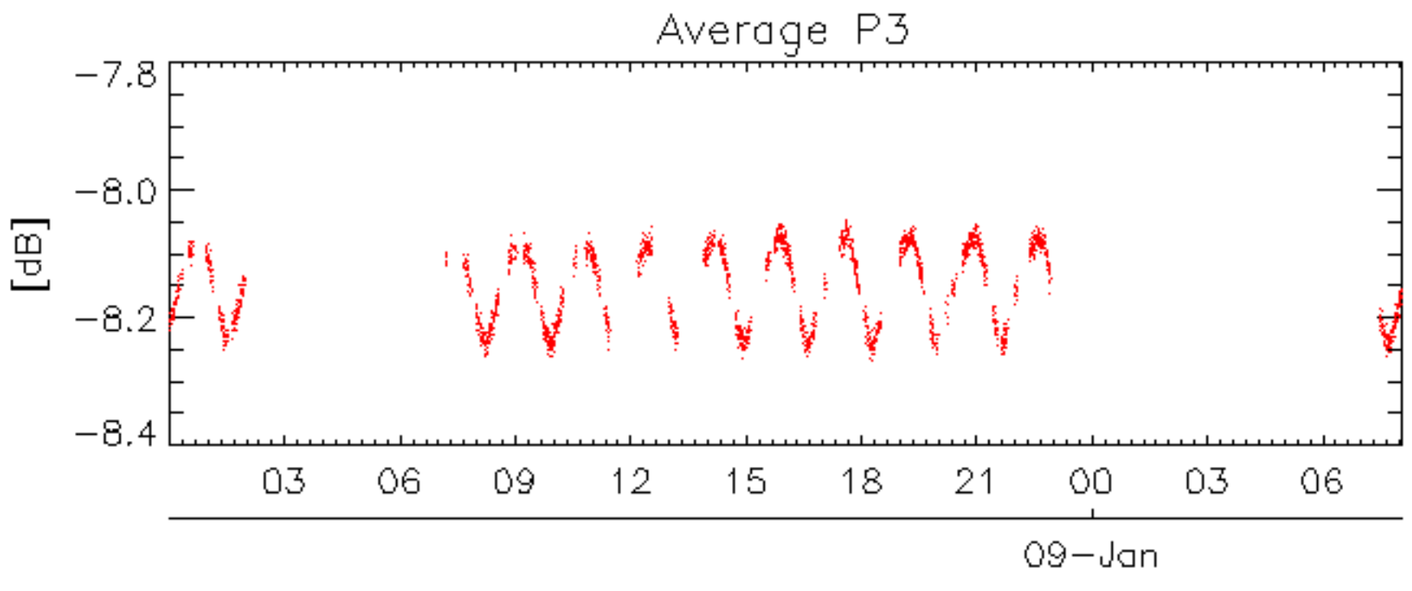

Average P1 (row 3 & row 24)
[dB]
−3
−4
−5
−6
−7
−8
06−Dec
11−Dec
16−Dec
21−Dec
26−Dec
31−Dec
05−Jan


Average P2
[dB]
−18
−20
−22
−24
06−Dec
11−Dec
16−Dec
21−Dec
26−Dec
31−Dec
05−Jan


Average P3
[dB]
−7.8
−8.0
−8.2
−8.4
06−Dec
11−Dec
16−Dec
21−Dec
26−Dec
31−Dec
05−Jan

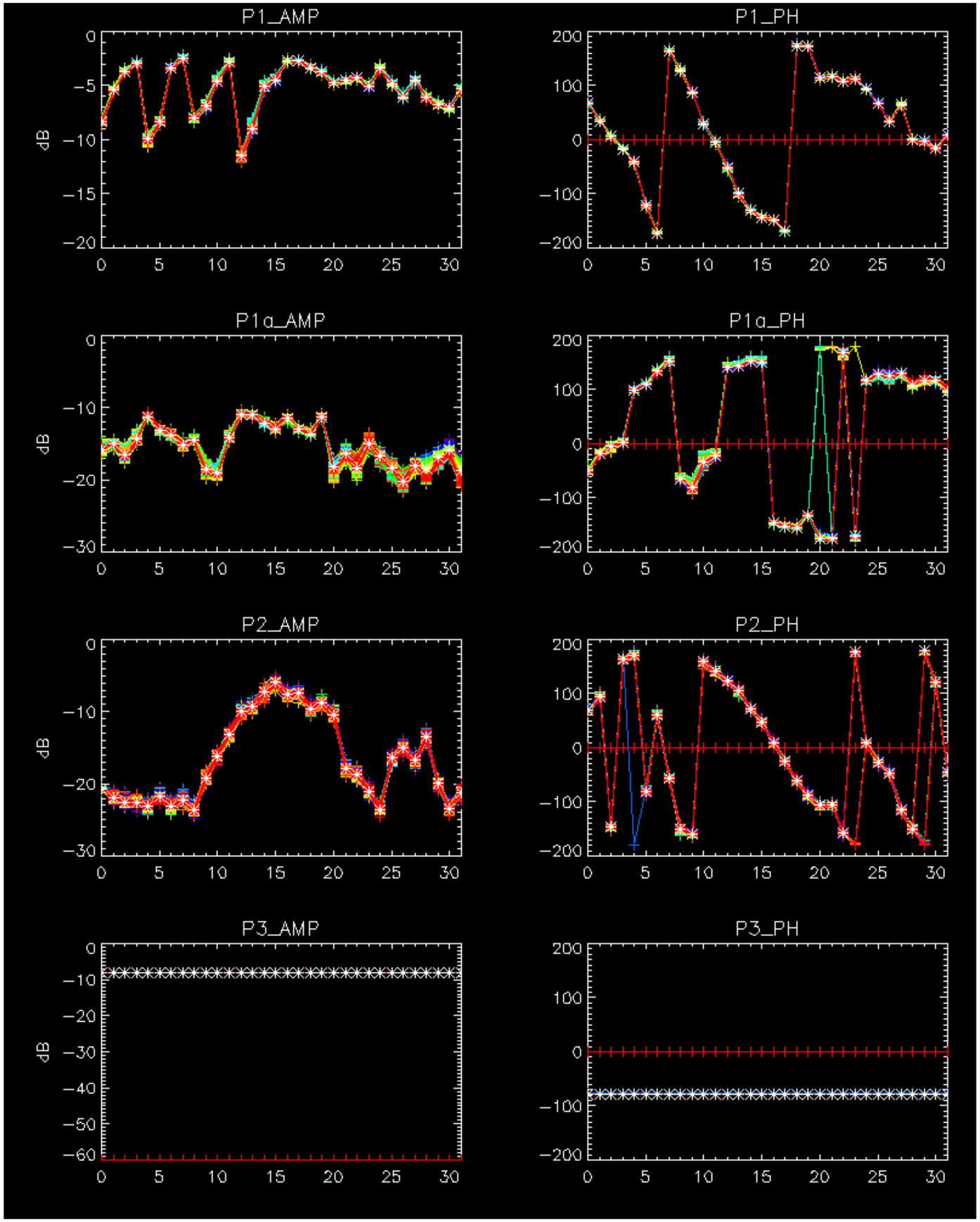

Average P1 (row 3 & row 24)
[dB]
−2
−4
−6
−8
−10
03
06
09
12
15
18
21
00
03
06
09−Jan

Average P2
[dB]
−18
−20
−22
−24
03
06
09
12
15
18
21
00
03
06
09−Jan


Average P3
[dB]
−7.8
−8.0
−8.2
−8.4
03
06
09
12
15
18
21
00
03
06
09−Jan

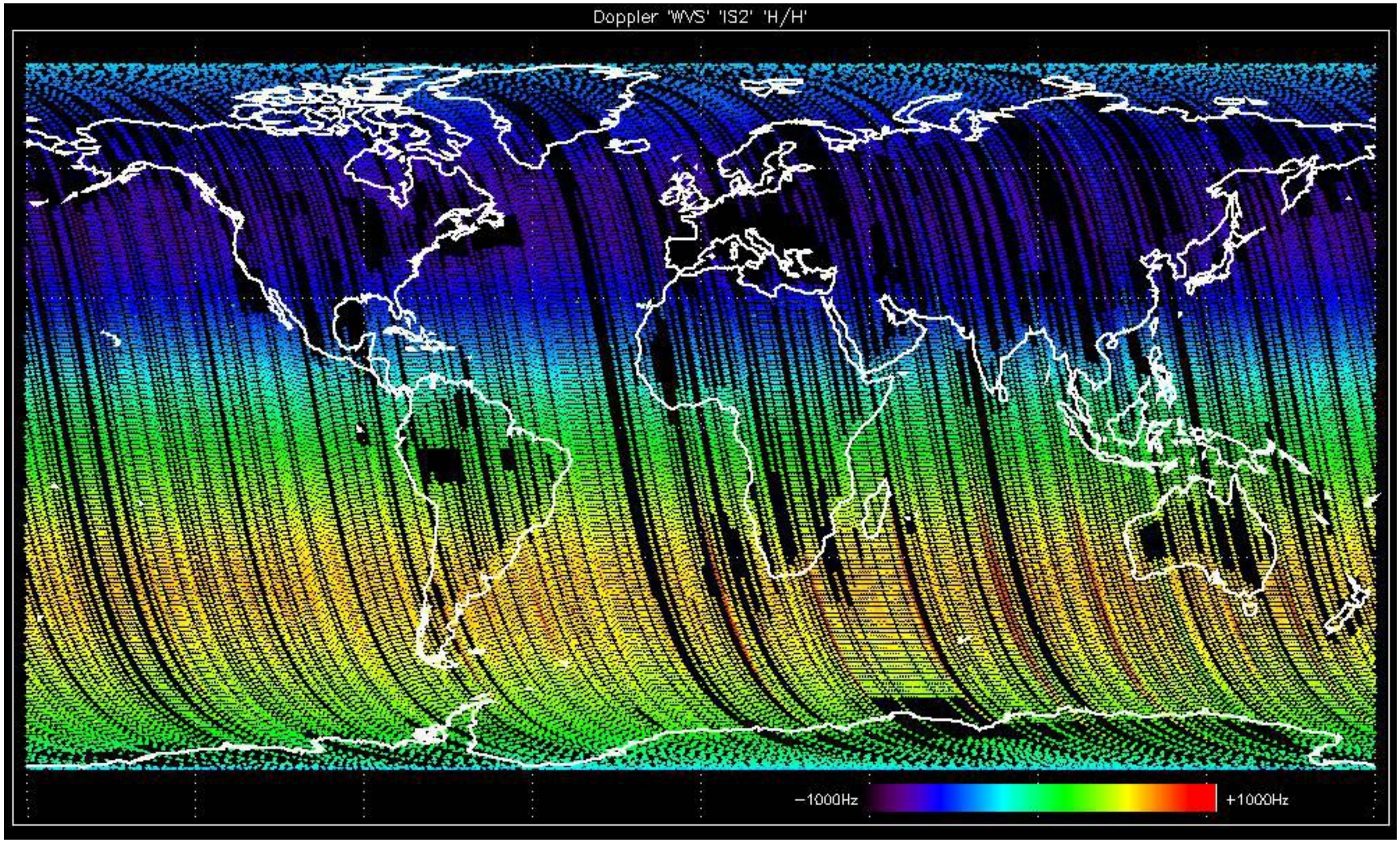
No anomalies observed on available browse products

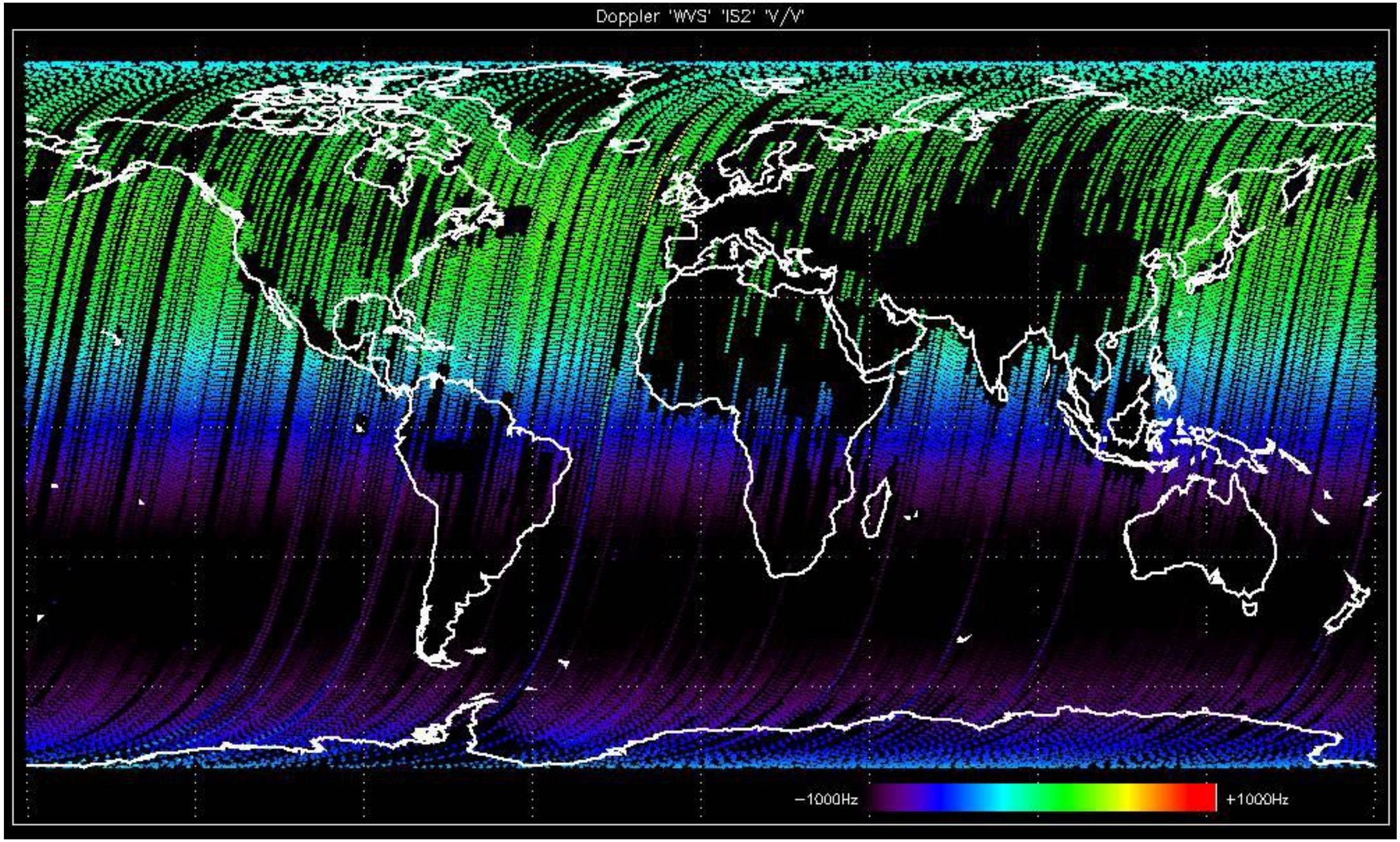
No anomalies observed.

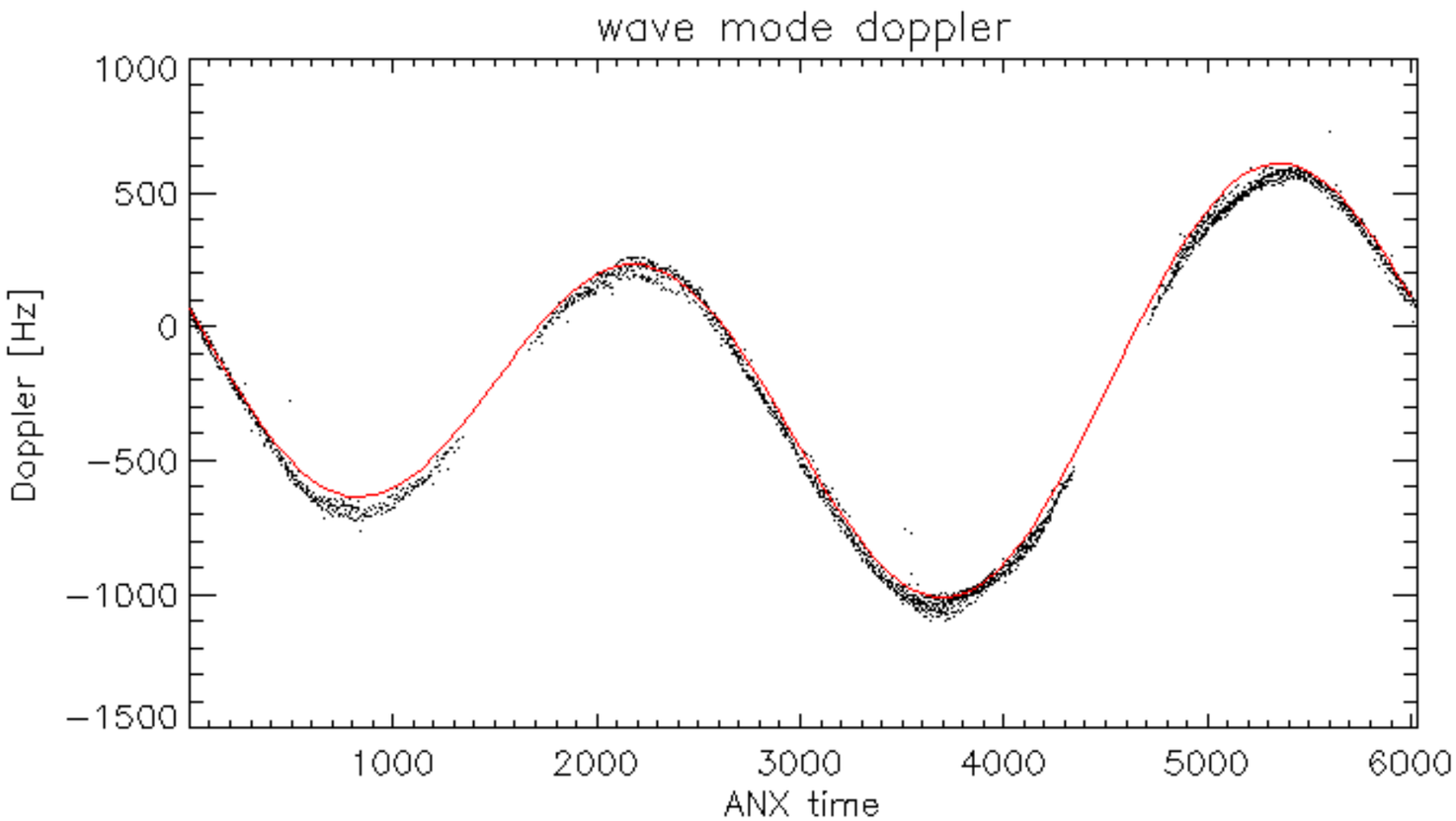

P1_AMP
P1_PH
P1a_AMP
P1a_PH
P2_AMP
P2_PH
P3_AMP
P3_PH
dB

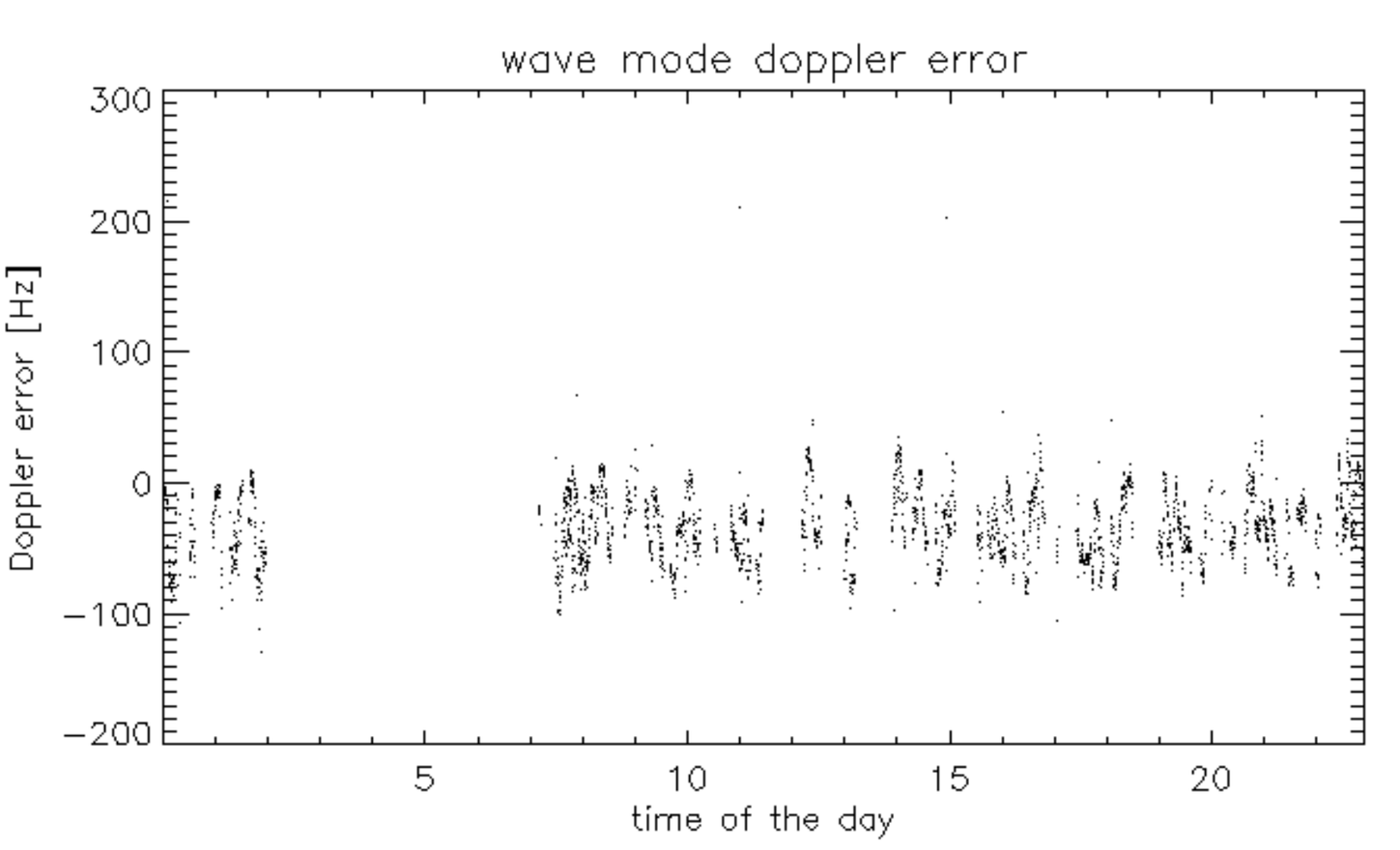
Preliminary report.The data is not yet controled

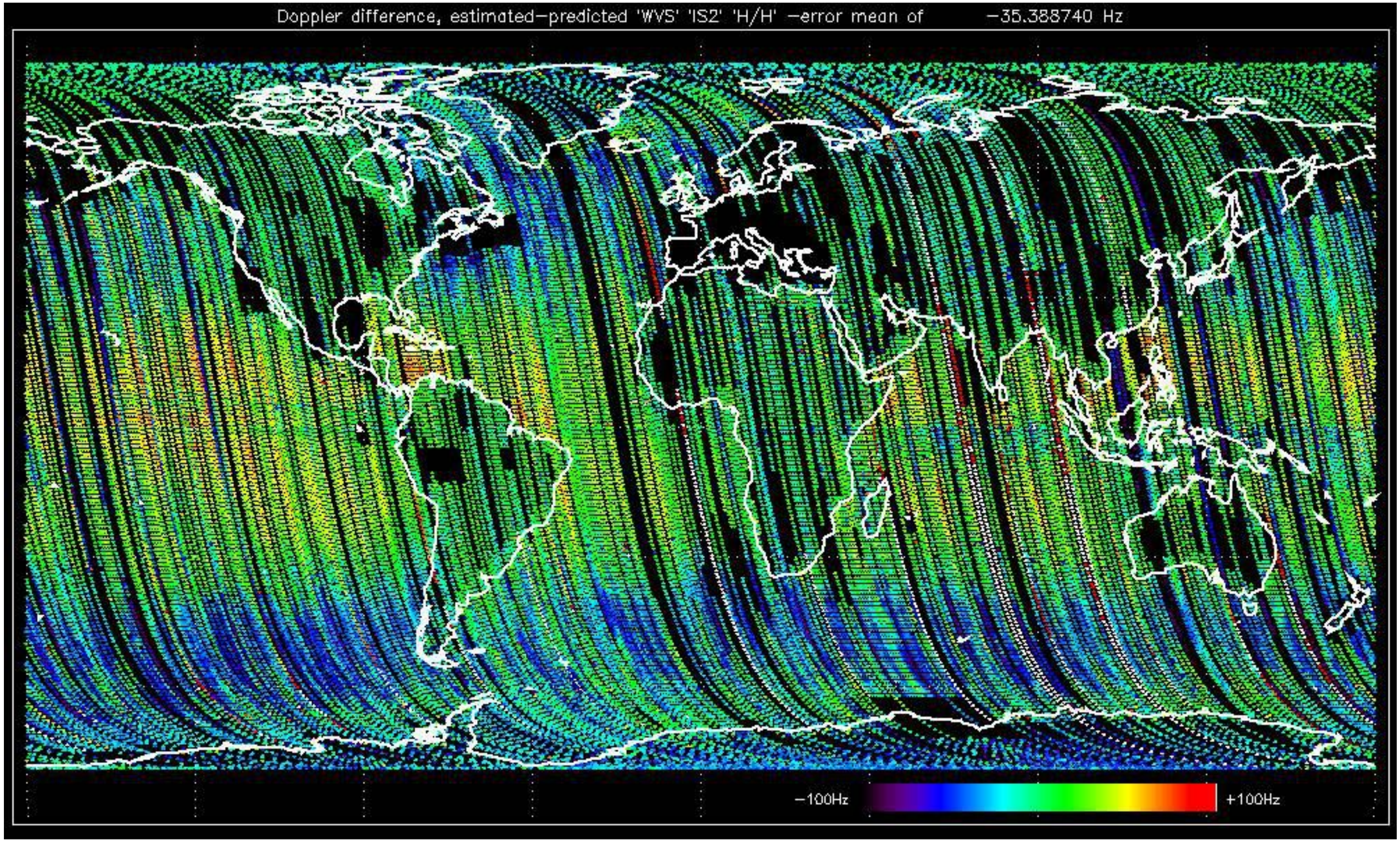
Preliminary report.The data is not yet controled

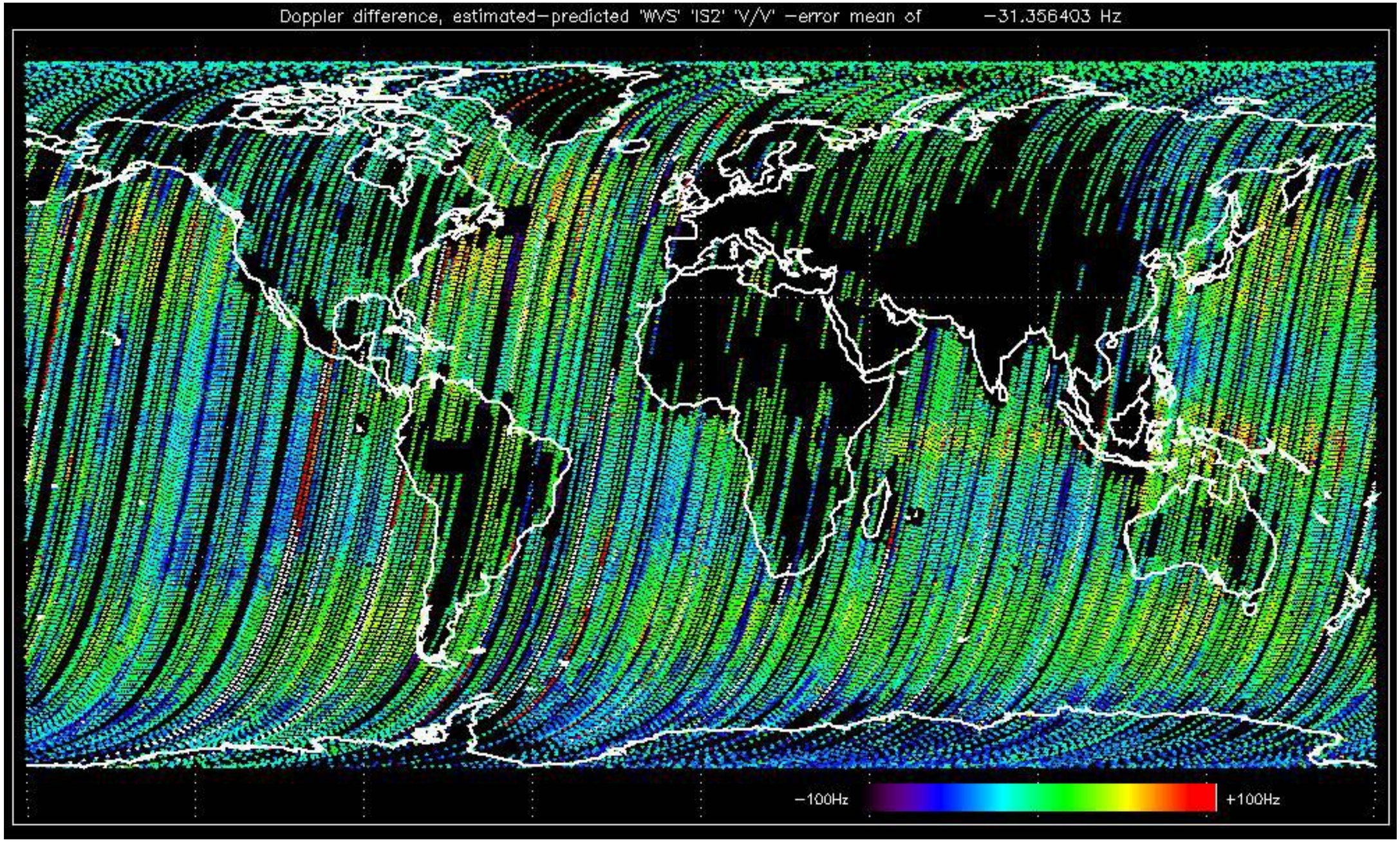

Doppler 'WVS' 'IS2' 'H/H'
−1000Hz
+1000Hz


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


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

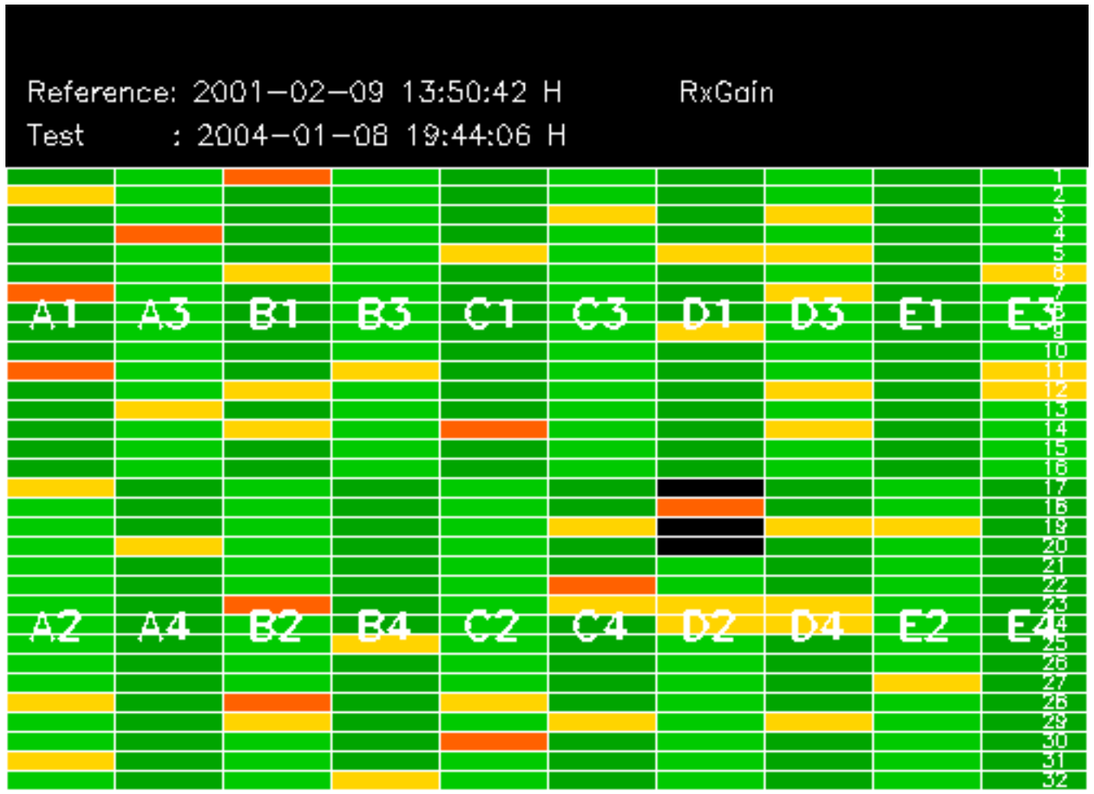

wave mode doppler error
Doppler error [Hz]
300
200
100
0
−100
−200
5
10
15
20
time of the day

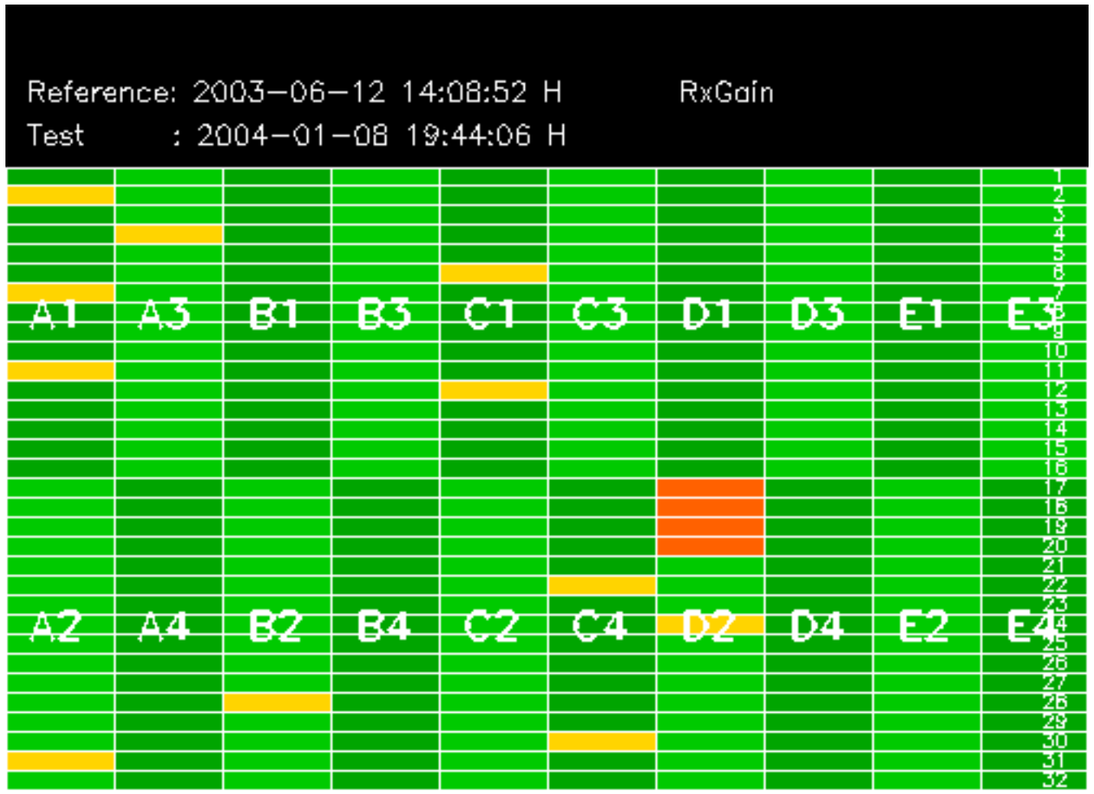

Doppler difference, estimated−predicted 'WVS' 'IS2' 'H/H' −error mean of −35.388740 Hz
−100Hz
+100Hz


Doppler difference, estimated−predicted 'WVS' 'IS2' 'V/V' −error mean of −31.356403 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
Test : 2004-01-08 19:44:06 H
RxGain
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 : 2004-01-08 19:44:06 H
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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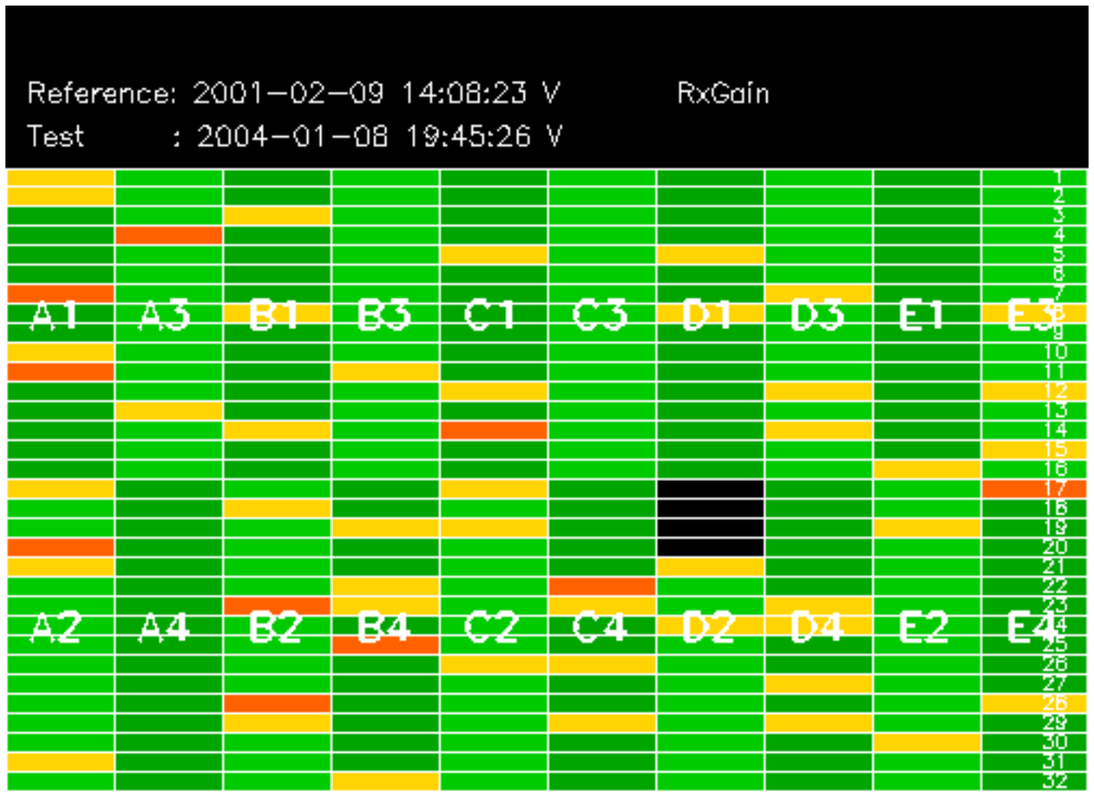
Reference: 2001-02-09 14:08:23 V
Test : 2004-01-08 19:45:26 V
RxGain
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4
1
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9
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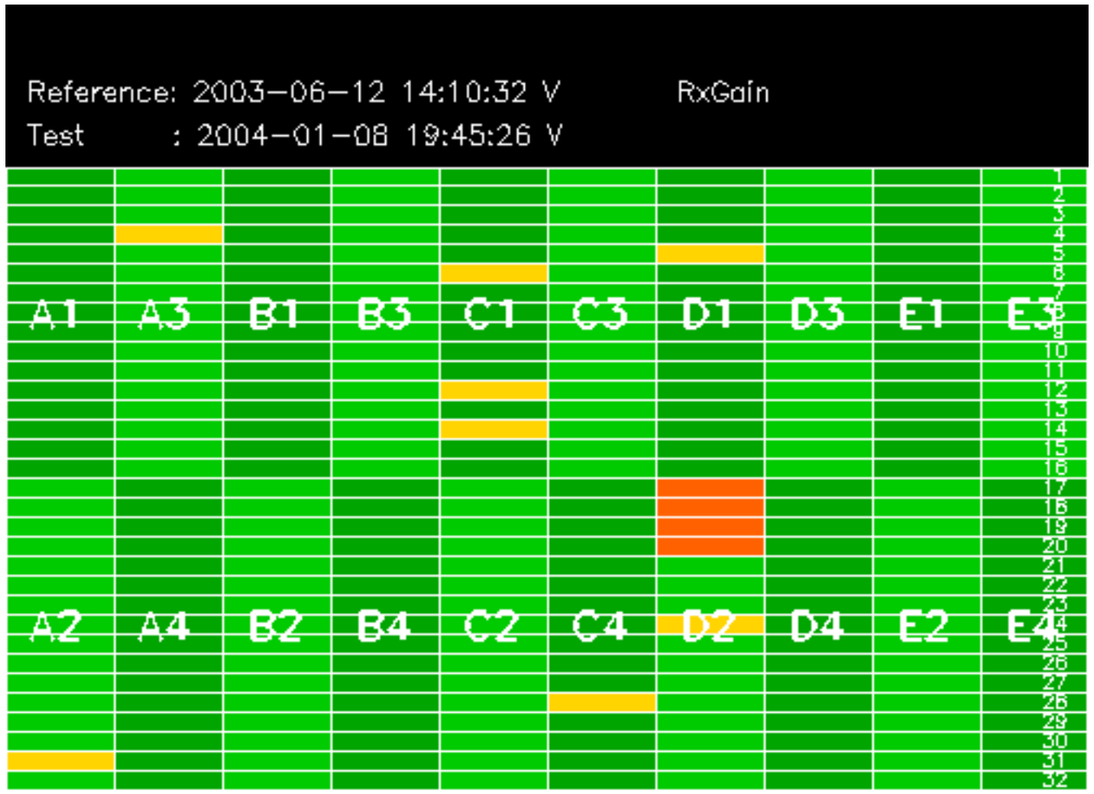
Reference: 2003-06-12 14:10:32 V
Test : 2004-01-08 19:45:26 V
RxGain
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4
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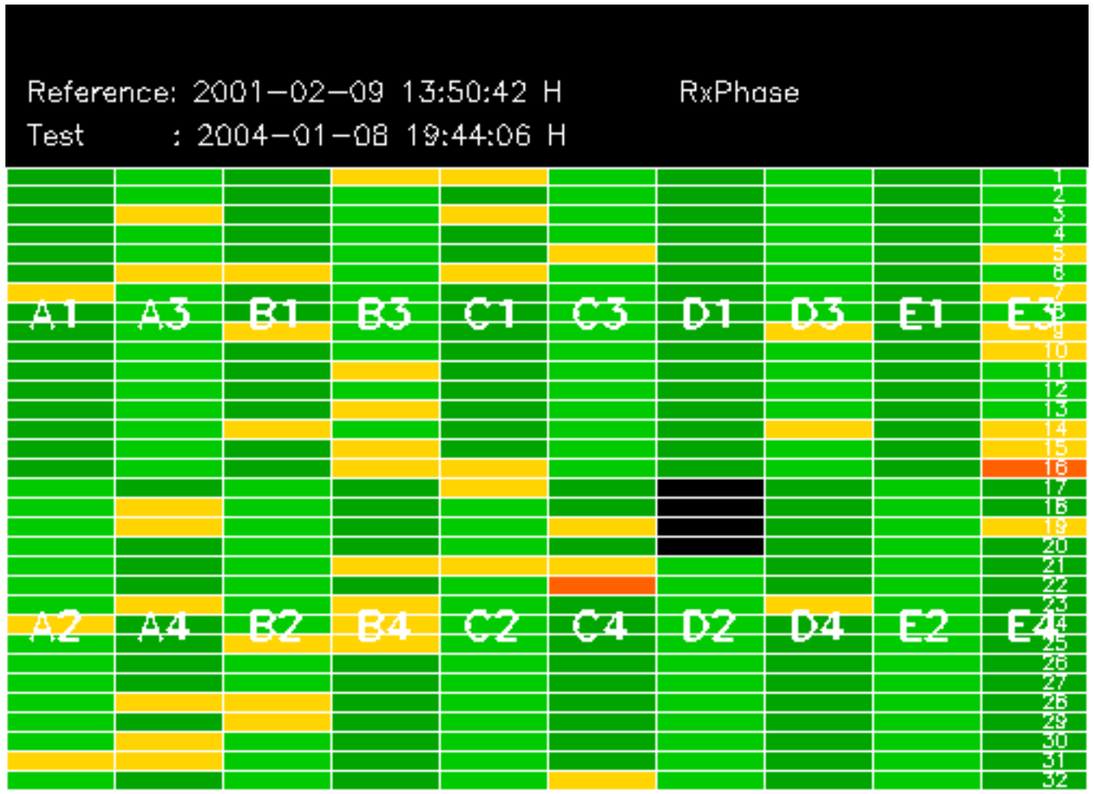
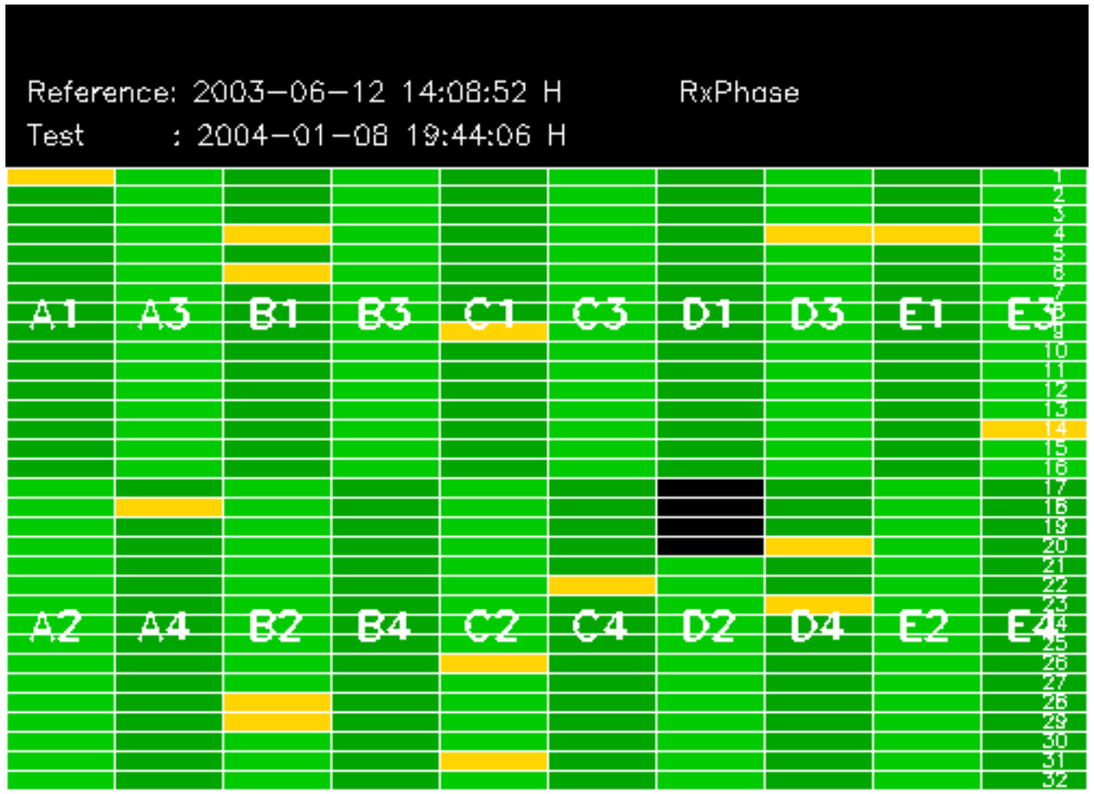

Reference: 2001-02-09 13:50:42 H
RxPhase
Test : 2004-01-08 19:44:06 H
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4


Reference: 2003-06-12 14:08:52 H
Test : 2004-01-08 19:44:06 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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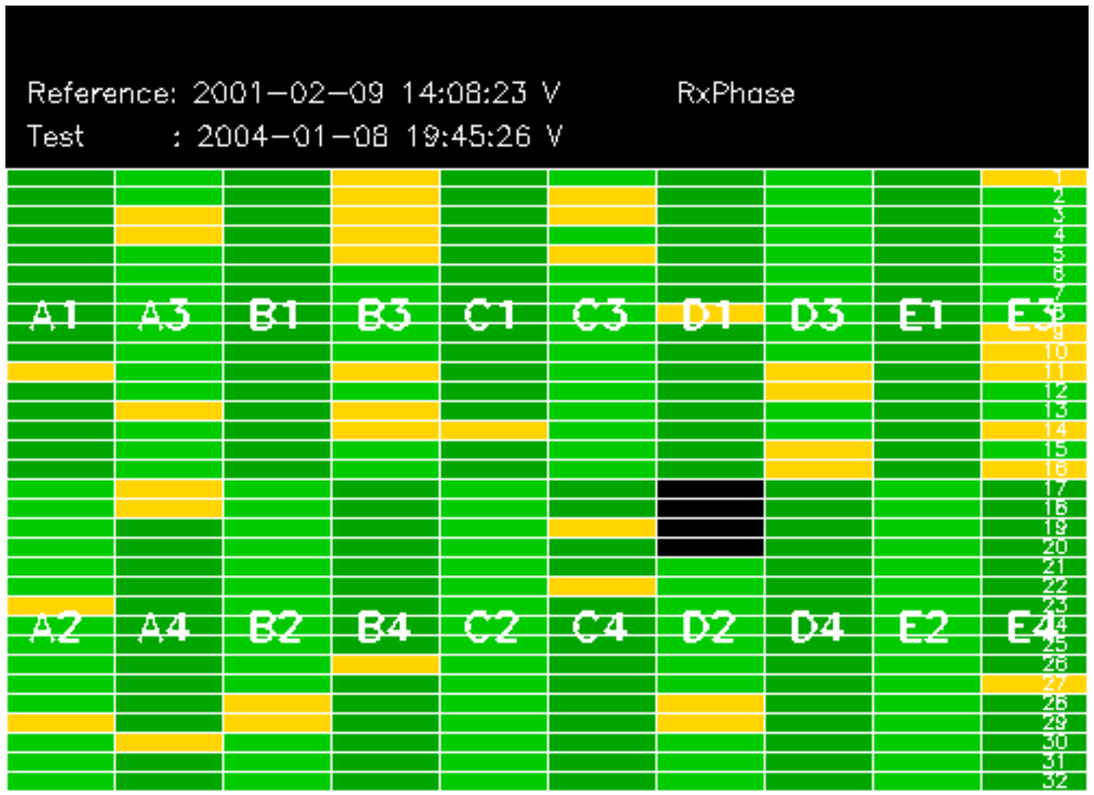
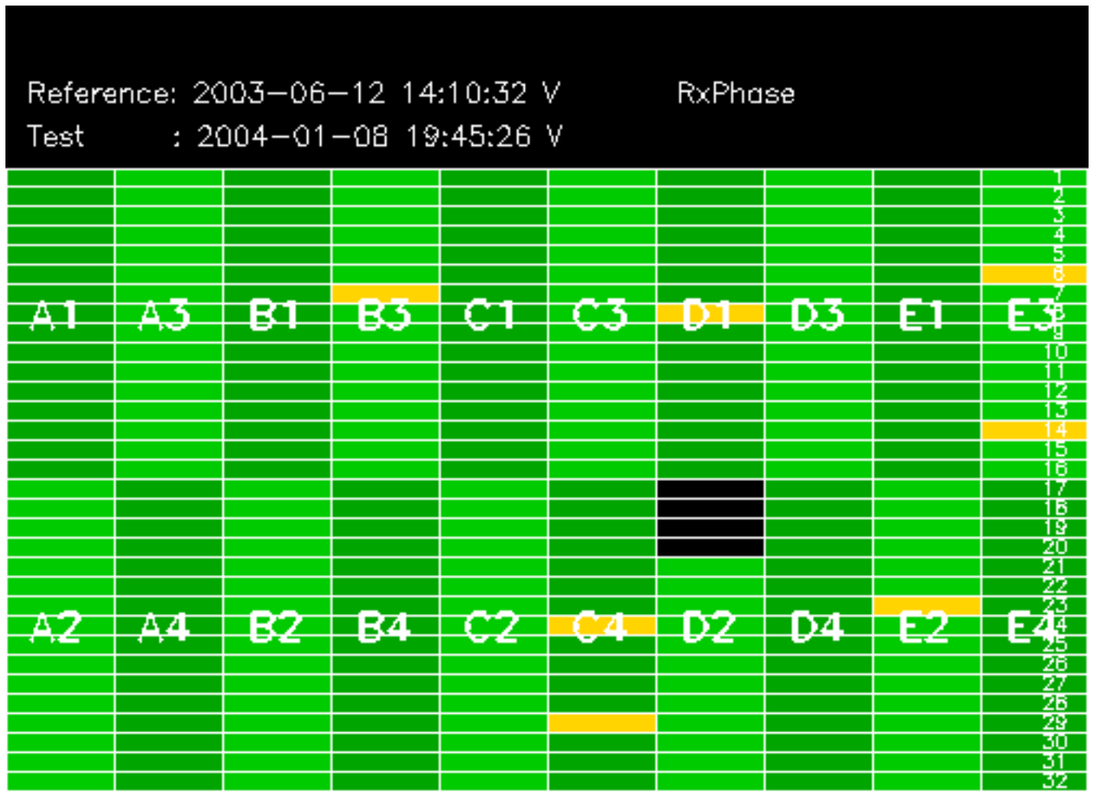

Reference: 2001-02-09 14:08:23 V
Test : 2004-01-08 19:45:26 V
RxPhase
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4


Reference: 2003-06-12 14:10:32 V
Test : 2004-01-08 19:45:26 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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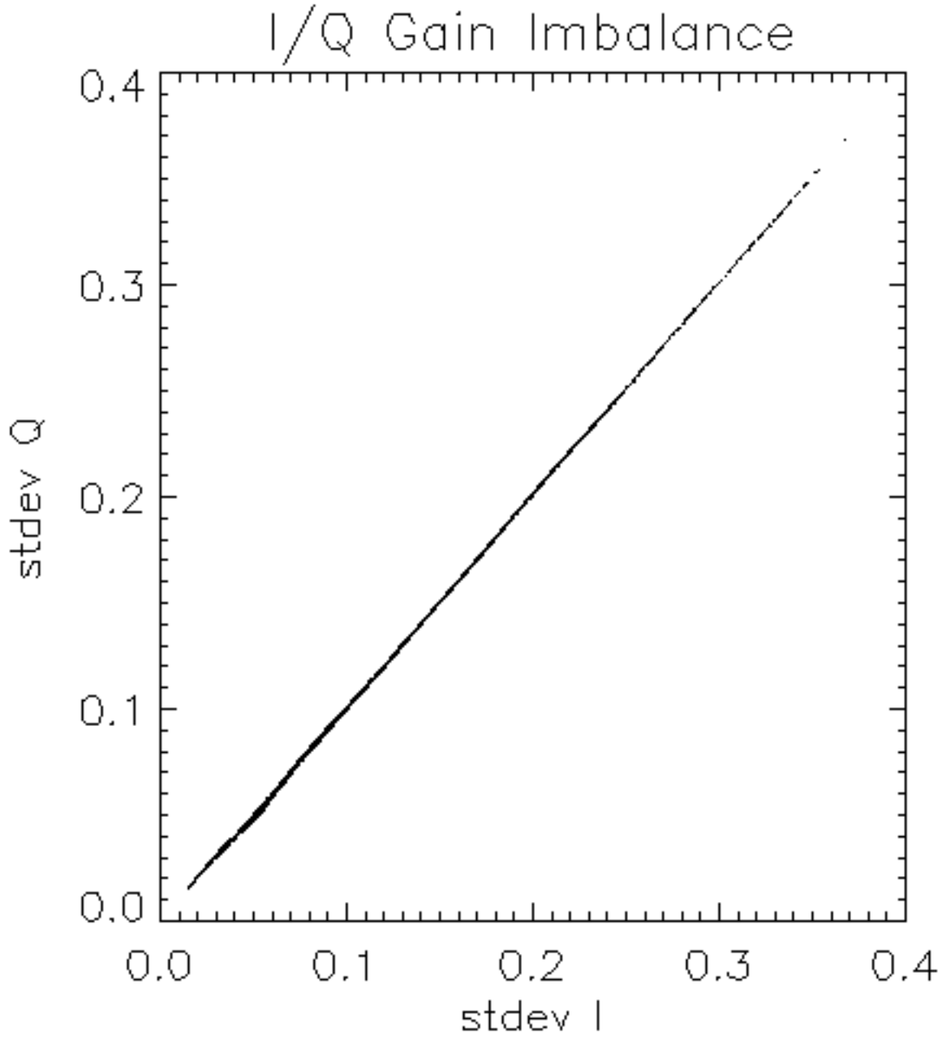
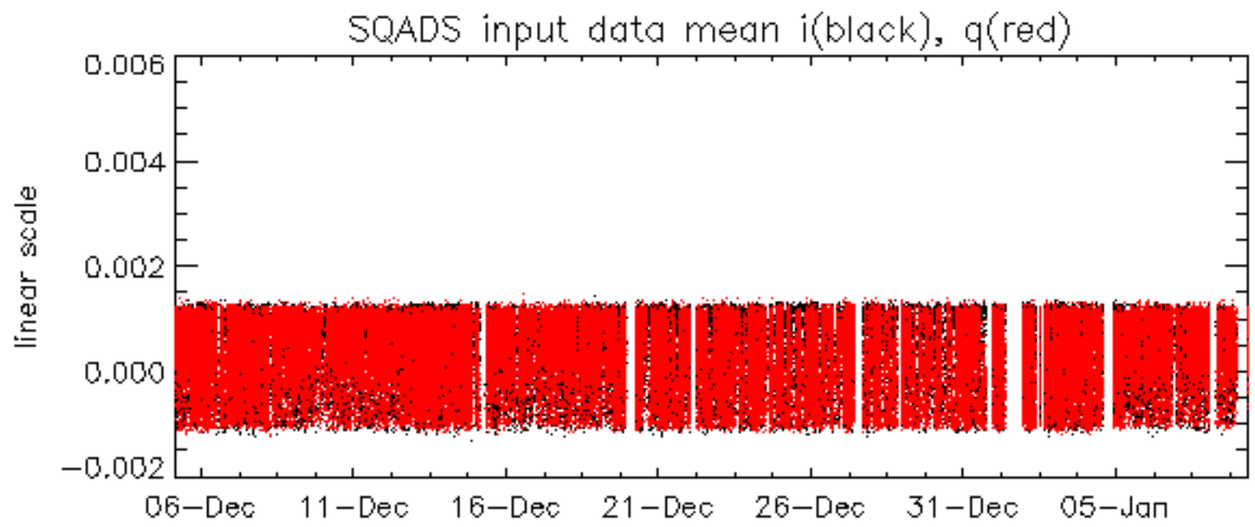
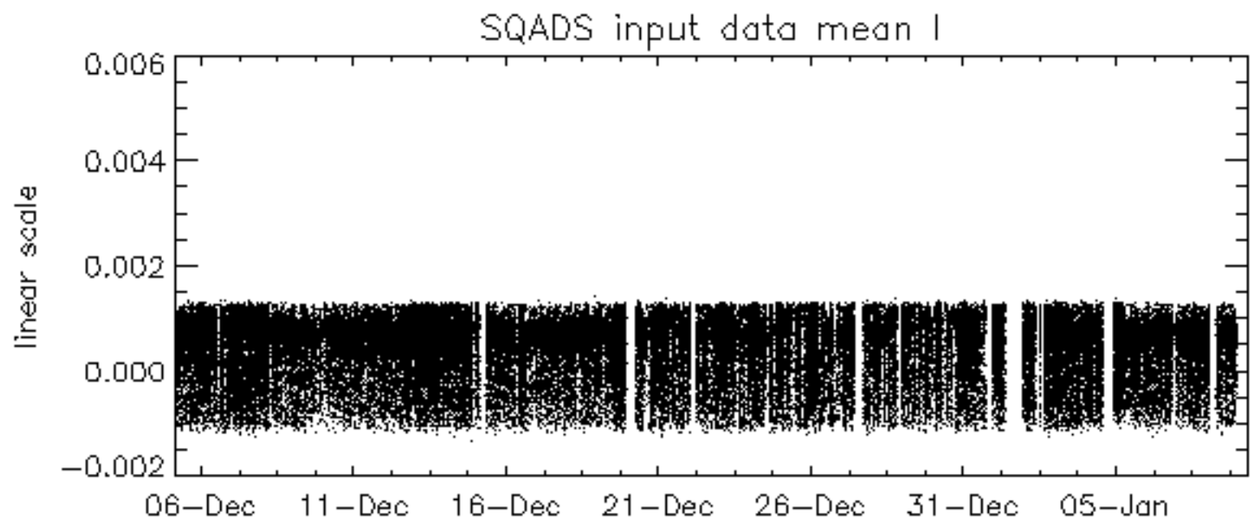
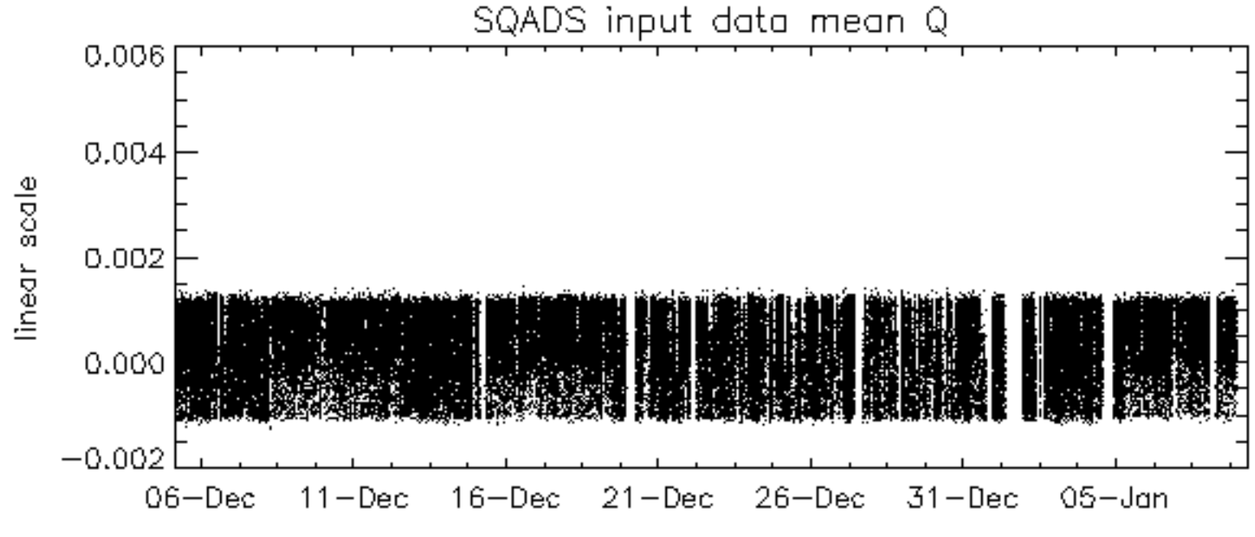
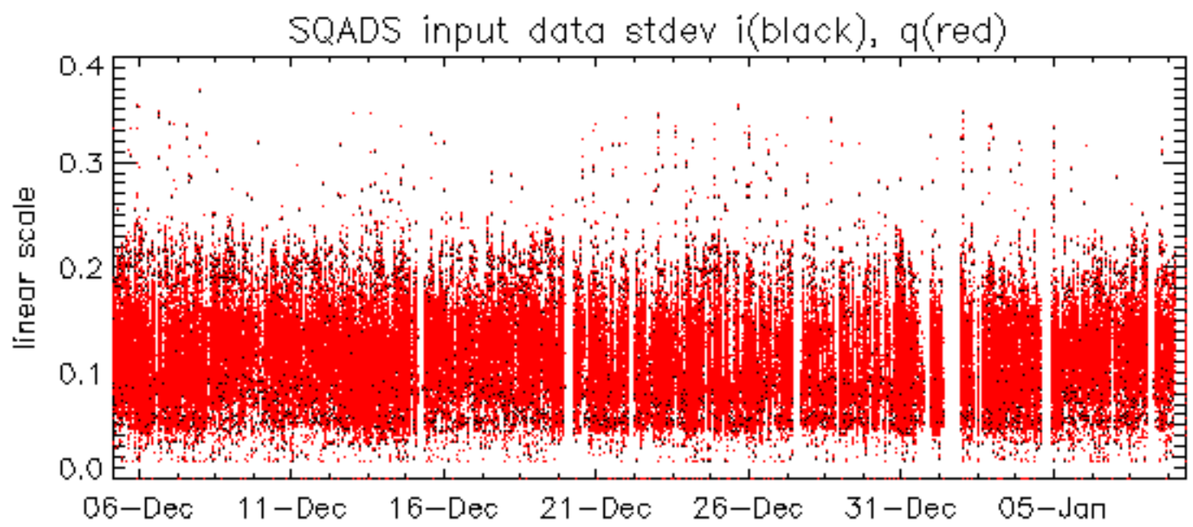
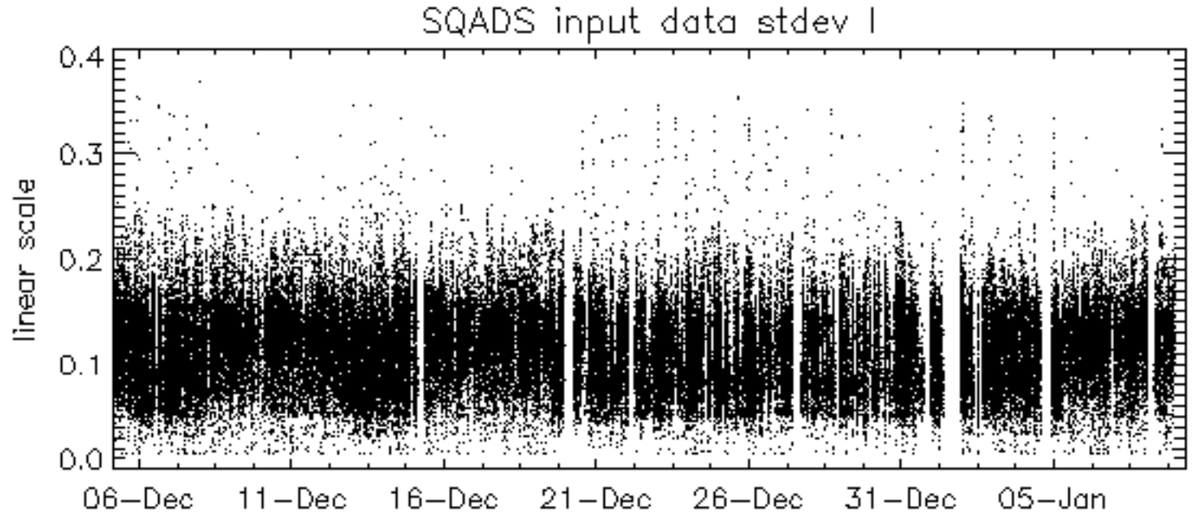

I/Q Gain Imbalance
0.4
0.3
0.2
0.1
0.0
stdev Q
0.0
0.1
0.2
0.3
0.4
stdev I

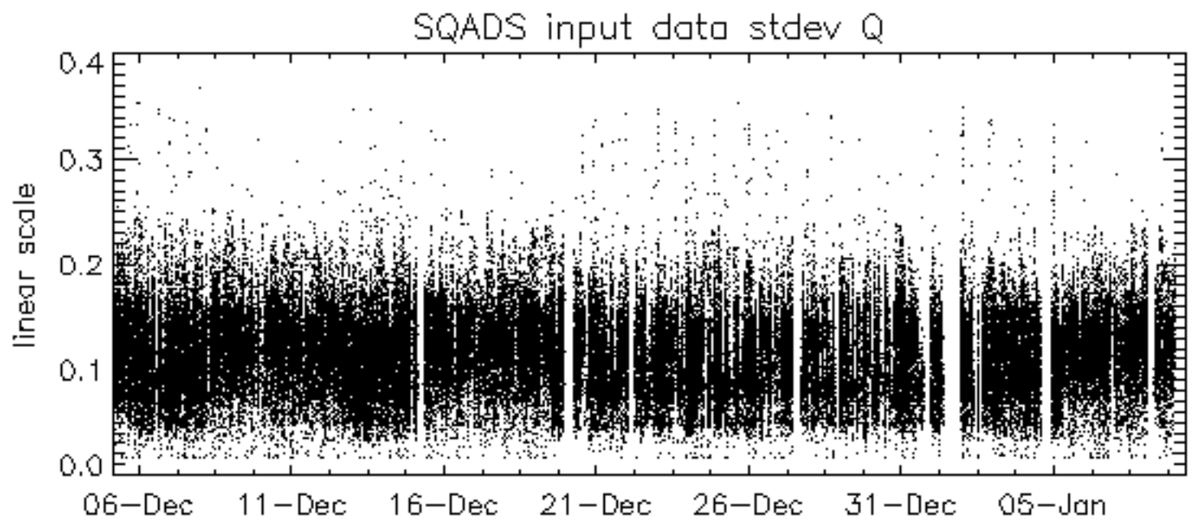

SQADS input data mean i(black), q(red)
linear scale
0.006
0.004
0.002
0.000
−0.002
06−Dec
11−Dec
16−Dec
21−Dec
26−Dec
31−Dec
05−Jan

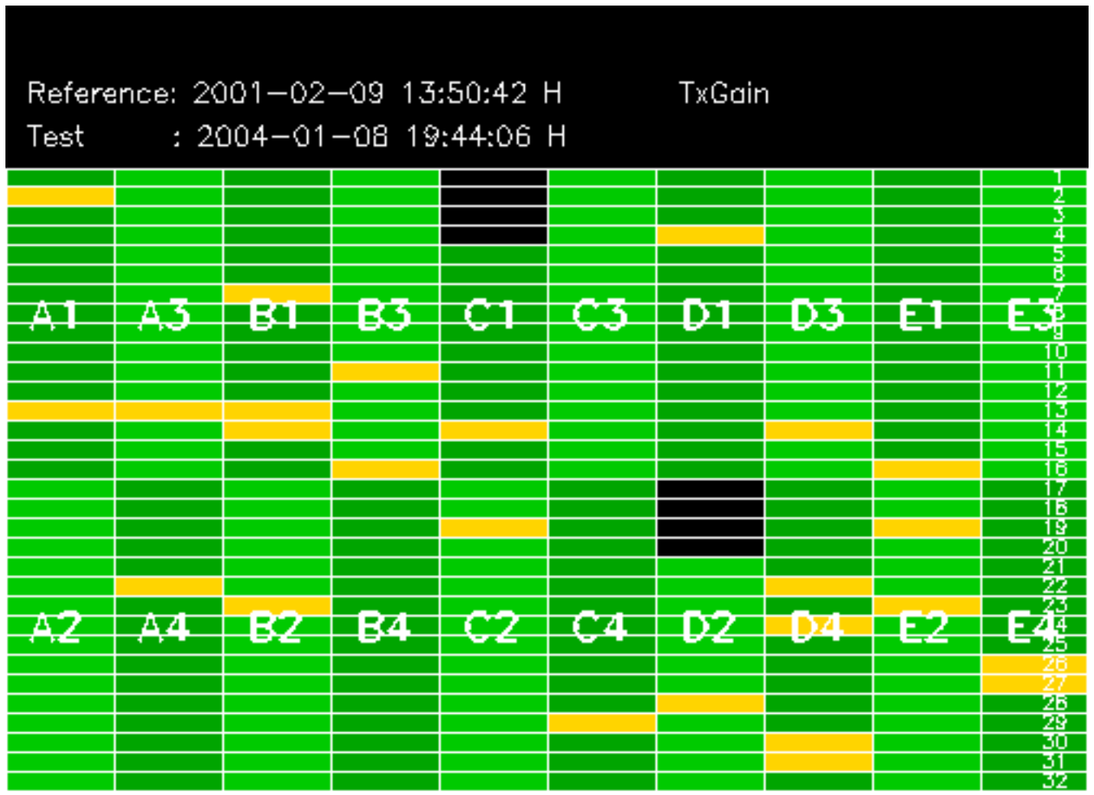

SQADS input data mean I
linear scale
0.006
0.004
0.002
0.000
−0.002
06−Dec
11−Dec
16−Dec
21−Dec
26−Dec
31−Dec
05−Jan

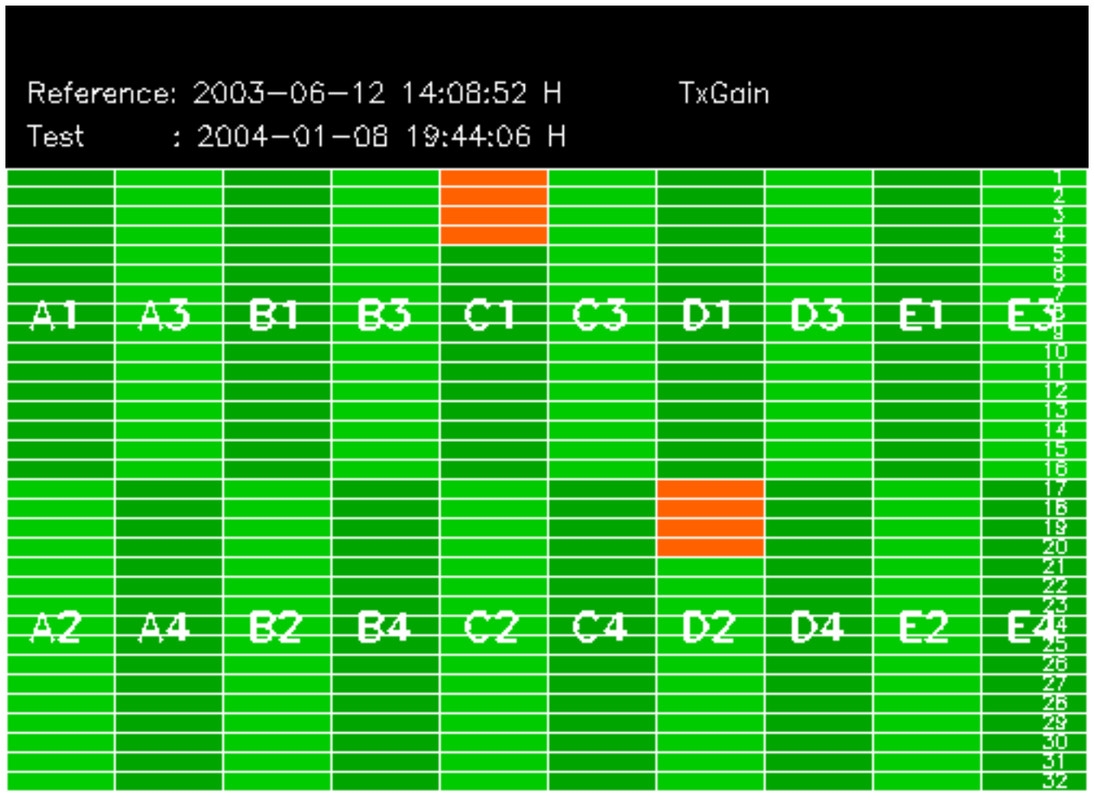

SQADS input data mean Q
linear scale
0.006
0.004
0.002
0.000
−0.002
06−Dec
11−Dec
16−Dec
21−Dec
26−Dec
31−Dec
05−Jan


SQADS input data stdev i(black), q(red)
linear scale
0.4
0.3
0.2
0.1
0.0
06−Dec
11−Dec
16−Dec
21−Dec
26−Dec
31−Dec
05−Jan


SQADS input data stdev I
linear scale
0.4
0.3
0.2
0.1
0.0
06−Dec
11−Dec
16−Dec
21−Dec
26−Dec
31−Dec
05−Jan


SQADS input data stdev Q
linear scale
0.4
0.3
0.2
0.1
0.0
06−Dec
11−Dec
16−Dec
21−Dec
26−Dec
31−Dec
05−Jan


Reference: 2001-02-09 13:50:42 H
Test : 2004-01-08 19:44:06 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 : 2004-01-08 19:44:06 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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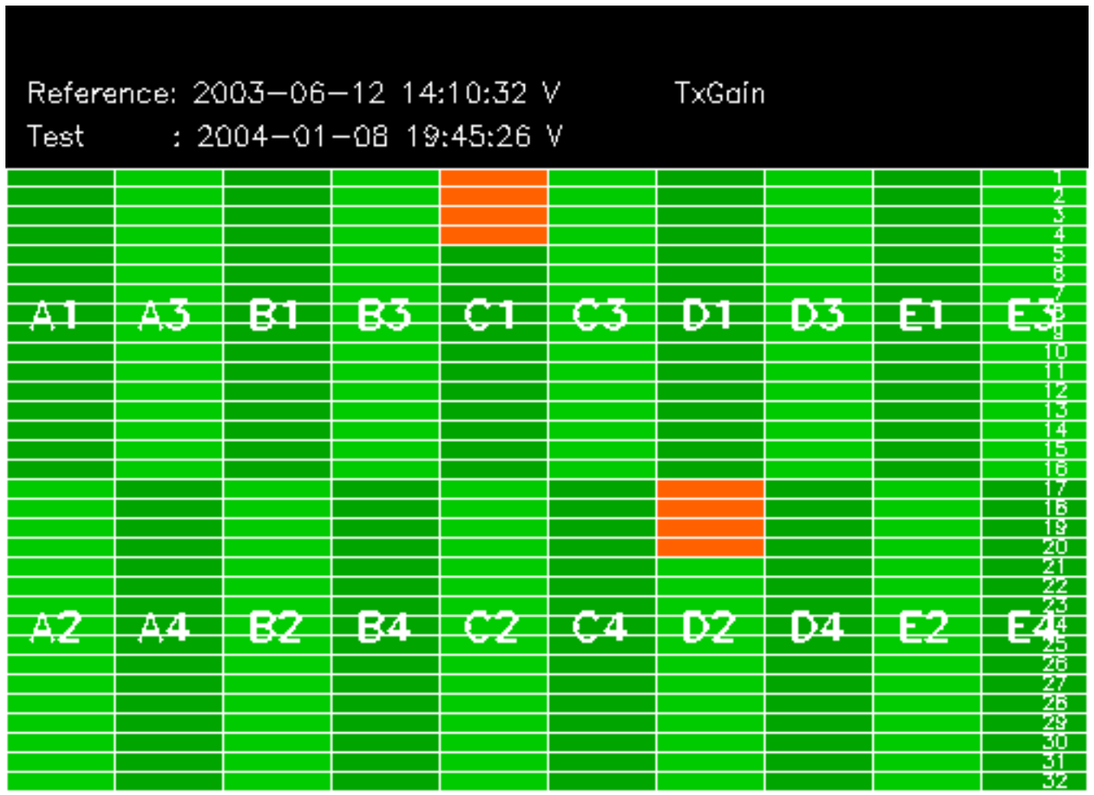
Reference: 2001-02-09 14:08:23 V
Test : 2004-01-08 19:45:26 V
TxGain
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4


Reference: 2003-06-12 14:10:32 V
Test : 2004-01-08 19:45:26 V
TxGain
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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3
4
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9
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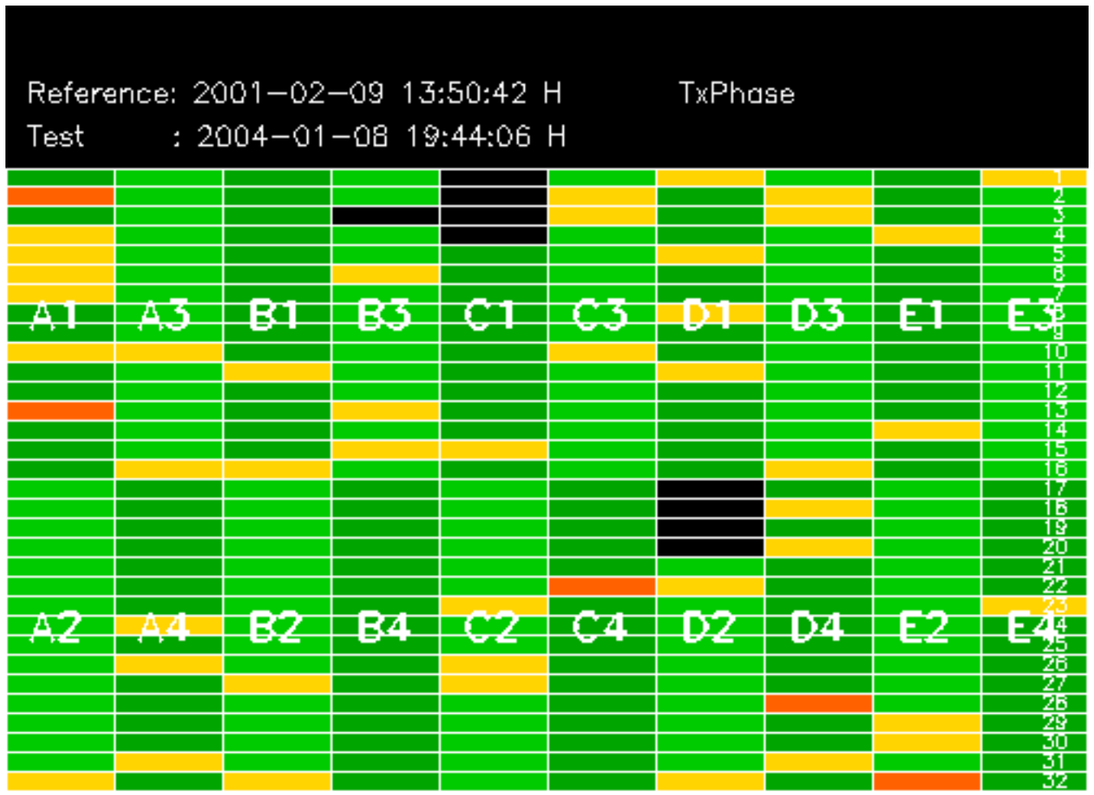
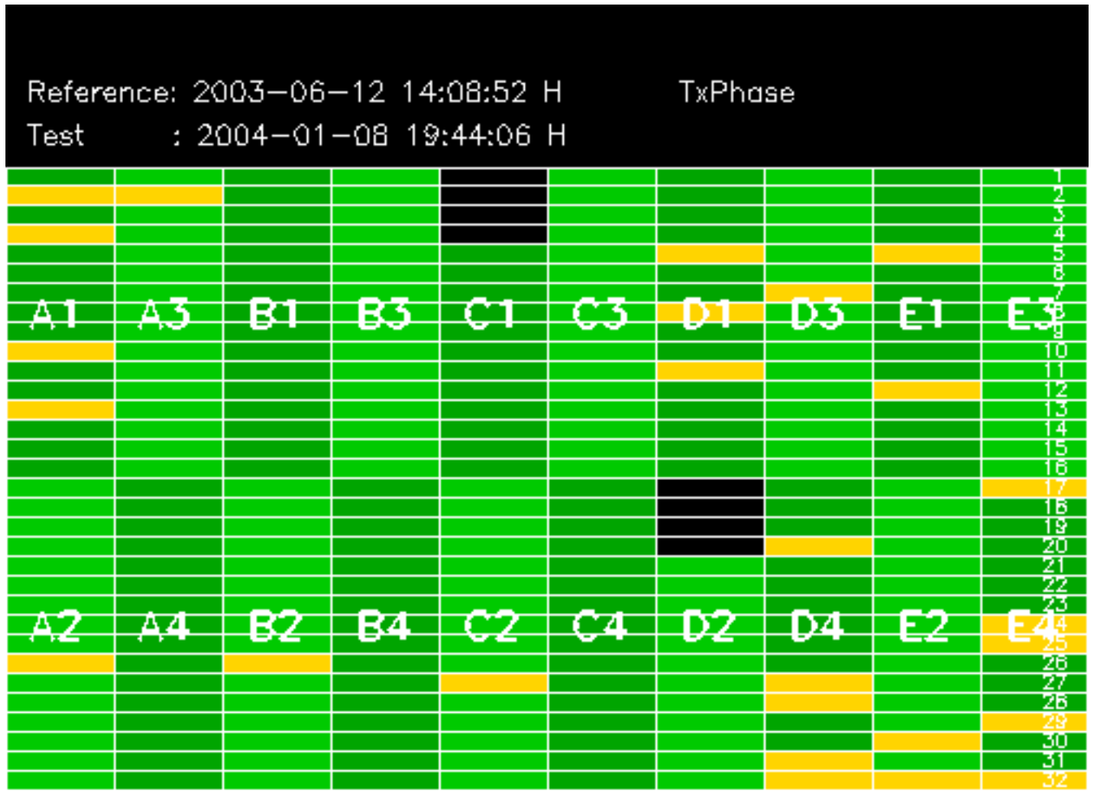

Reference: 2001-02-09 13:50:42 H
TxPhase
Test : 2004-01-08 19:44:06 H
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4


Reference: 2003-06-12 14:08:52 H
Test : 2004-01-08 19:44:06 H
TxPhase
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4
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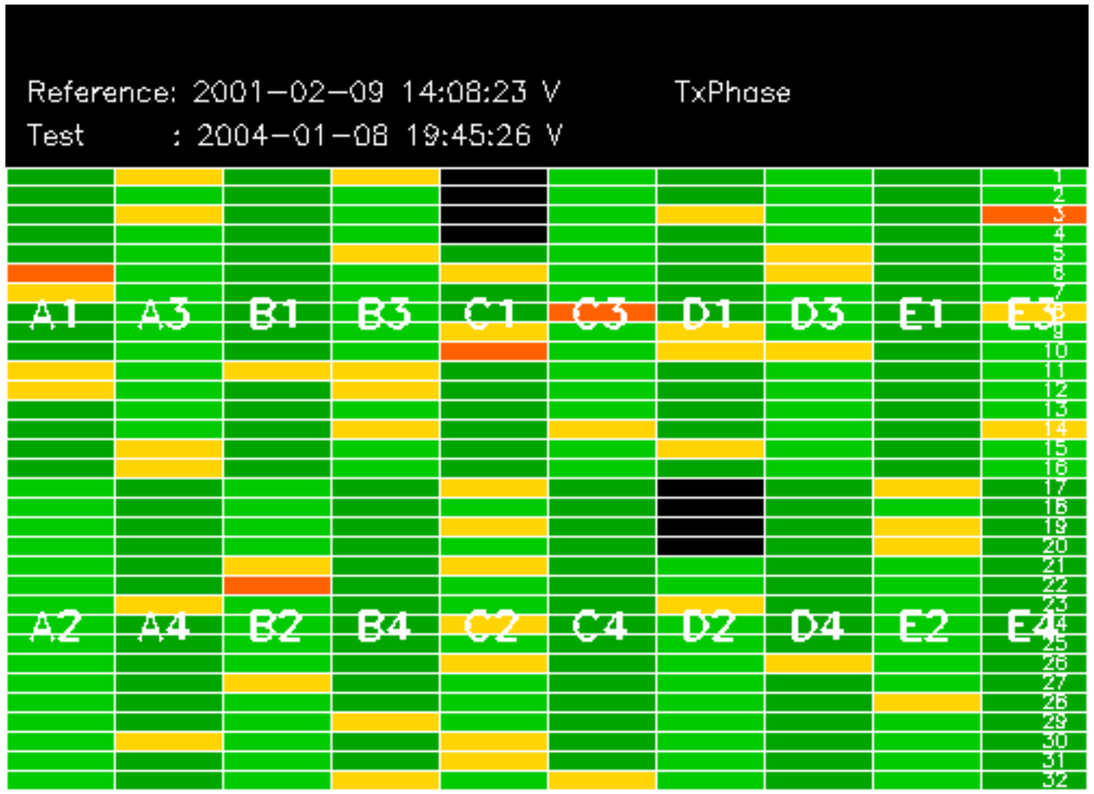
Reference: 2001-02-09 14:08:23 V
TxPhase
Test : 2004-01-08 19:45:26 V
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4
1
2
3
4
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9
10
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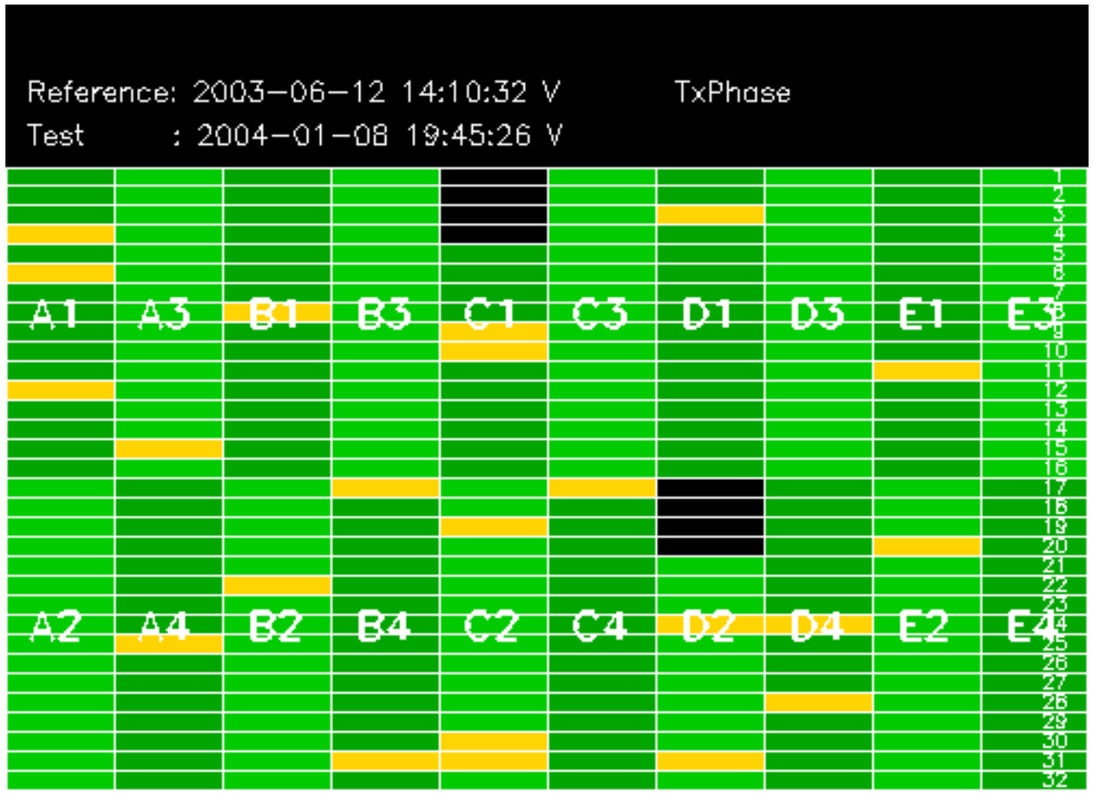
Reference: 2003-06-12 14:10:32 V
Test : 2004-01-08 19:45:26 V
TxPhase
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4
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No unavailabilies during the reported period.