# TEST REPORT

Report Number: 3163324ATL-005

October 31, 2008

**Product Designation: Halo Chest Strap Transmitter**

Standard: FCC 15.249 - Operation within the bands 902-928 MHz, 2400-2483.5 MHz, 5725-5875 MHZ, and 24.0-24.25 GHz.


Tested by:
Intertek Testing Services NA Inc.
1950 Evergreen Blvd., Suite 100
Duluth, GA 30096

Client:
Halo Monitoring Inc
515 Sparkman Drive
Huntsville, AL 35816
Contact: Chris Otto
Phone: 256.489.0115
Fax: 866.275.1904


Tests performed by:

Jeremy O. Pickens
EMC Department Manager

Report reviewed by:

David J. Schramm
Assistant Chief Engineer-EMC

## 1.0 Introduction and Conclusion

The tests indicated in section 2.0 were performed on the product constructed as described in section 3.0. The remaining test sections are the verbatum text from the actual data sheets used during the investigation. These test sections include the test name, the specified test Method, a list of the actual Test Equipment Used, documentation Photos, Results and raw Data. No additions, deviations, or exclusions have been made from the standard(s) unless specifically noted.

Based on the results of our investigation, we have concluded the product tested complies with the requirements of the standard(s) indicated. The results obtained in this test report pertain only to the item(s) tested.

## 2.0 Test Summary

| Section | Test Full Name | Test Date | Result |
|---|---|---|---|
| 4.0 | System setup including cable interconnection details, support equipment and simplified block diagram. (System Setup) | | |
| 5.0 | Overview of EUT (Low Power Transmitters) (FCC 15C - EUT Overview) | | |
| 6.0 | Conducted emissions on AC power lines (Conducted Emissions) | 10/28/2008 | PASS |
| 7.0 | Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD) | 10/01/2008 | PASS |
| NA | 15.249(b): Requirements for fixed, point-to-point operation (FCC 15C - 15.249(b)) was waived due to not applicable | | |

## 3.0 Description of Equipment Under Test

| Equipment Under Test | | | |
|---|---|---|---|
| Description | Manufacturer | Model Number | Serial Number |
| Wearable Transmitter | Halo Monitoring, Inc. | Halo Chest Strap Transmitter | NA |
| Power Supply | APS | KSAB0500100W1US | NA |
| Power Supply | CUI | EPS050100 | NA |

| | |
|---|---|
| EUT receive date: | September 29, 2008 |
| EUT receive condition: | Good |

Description of EUT provided by Client:
The Wearable Monitoring Device is a Proactive Medical Vital signs monitor system with transmitter and base modem that requires no active input that must be initiated by the wearer. The device is a 24/7 active device with no "sleep" mode. The monitor/transmitter device is in constant communication with the wireless base modem installed in the patient's home.

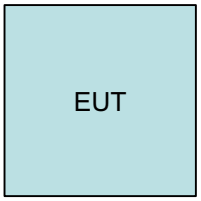
Description of EUT exercising:
The device was configured to transmit continuously.

## 4.0 System setup including cable interconnection details, support equipment and simplified block diagram. (System Setup)

**Method:**

Record the details of EUTcabling, document the support equipment, and show the interconnections in a block diagram.

**Drawing:**




Setup Diagram

## 4.0 System setup including cable interconnection details, support equipment and simplified block diagram. (System Setup)

**Data:**

| EUT Cabling | | | | | | |
|---|---|---|---|---|---|---|
| | | | | | Connection | |
| ID | Description | Length | Shielding | Ferrites | From | To |
| None | | | | | | |

| Support Equipment | | | |
|---|---|---|---|
| Description | Manufacturer | Model Number | Serial Number |
| None | | | |

## 5.0 Overview of EUT (Low Power Transmitters) (FCC 15C - EUT Overview)

**Method:**

Complete the overview spreadsheet.

Related Submittal(s) Grants: This report is for use with an application for certification of a low power transmitter. One transmitter is included in the application.

**Data:**

| | |
|---|---|
| Applicant | Halo Monitoring, Inc. |
| | 515 Sparkman Drive |
| | Huntsville, AL 35816 |
| Trade Name & Model No. | Halo Chest Strap Transmitter |
| FCC Identifier | WS91002 |
| Use of product | Transmit physiological parameters to a gateway that maintains a web gui. |
| Transmitter activation | ☐ Manual and automatically deactivate within 5 seconds of being released |
| | ☑ Periodic transmissions |
| Frequency Range (MHz) | 2400-2483.5 |
| Antenna Type (15.203) | Fixed PCB |
| Manufacturer name & address | Halo Monitoring, Inc. |
| | 515 Sparkman Drive |
| | Huntsville, AL 35816 |

| | |
|---|---|
| Related Submittals and Grants: | This report is for use with an application for certification of a low power transmitter. One transmitter is included in the application. |
| Additions, deviations and exclusions from standards | None |

## 6.0 Conducted emissions on AC power lines (Conducted Emissions)

### Method:

Equipment setup for conducted disturbance tests shall follow the guidelines of ANSI C63.4:2003.

Measurements in the frequency range of 150kHz to 30 MHz shall be performed with a quasi-peak or average detector instrument that meets the requirements of Section One of CISPR 16. An AMN shall be used to provide a defined impedance at high frequencies across the power feed at the point of measurement of terminal voltage and also to provide isolation of the circuit under test from the ambient noise on the power lines. An AMN defined in CISPR 16 shall be used.

In the frequency range of 150 kHz to 30 MHz, a resolution/video bandwidth of 9kHz/30kHz or greater shall be used.

The EUT shall be located so that the distance between the boundary of the EUT and the closest surface of the AMN is 0.8m.

If a flexible mains cord is provided by the manufacturer that is in excess of 1m, the excess cable shall be folded back and forth as far as possible to form a bundle not exceeding 0.4m in length.

The EUT shall be arranged and connected with cables terminated in accordance with the product specification.

Conducted disturbance shall be measured between each current carrying conductor and the reference ground. Each measured values shall be reported.

If EUT is intended for tabletop use, the EUT shall be placed on a table whose top is 0.8m above the ground plane. A vertical, metal reference plane is be placed 0.4m from the EUT. The vertical metal reference-plane is at least 2m by 2m. The EUT shall be kept at least 0.8m from any other metal surface or other ground plane not being part of the EUT. The table shall be constructed of non-conductive materials. Its dimensions are at least 1m by 1.5m, but may be extended for larger EUT.

If EUT is floor standing, the floor standing EUT shall be placed on a horizontal metal ground plane and isolated from the ground plane by up to 12 mm of insulating material. The metal ground plane shall extend at least 0.5m beyond the boundaries of the EUT and had minimum dimensions of 2m by 2m.

TEST SITE
The test site for conducted emissions is located at 1950 Evergreen Blvd, Suite 100, Duluth, Georgia 30096.

MEASUREMENT UNCERTAINTY
Compliance of the product is based on the measured value. However, the measurement uncertainty is included for informational purposes. The values given are the measurement uncertainty values with an expanded uncertainty of k=2.
150 kHz to 30 MHz: +/- 2.8 dB

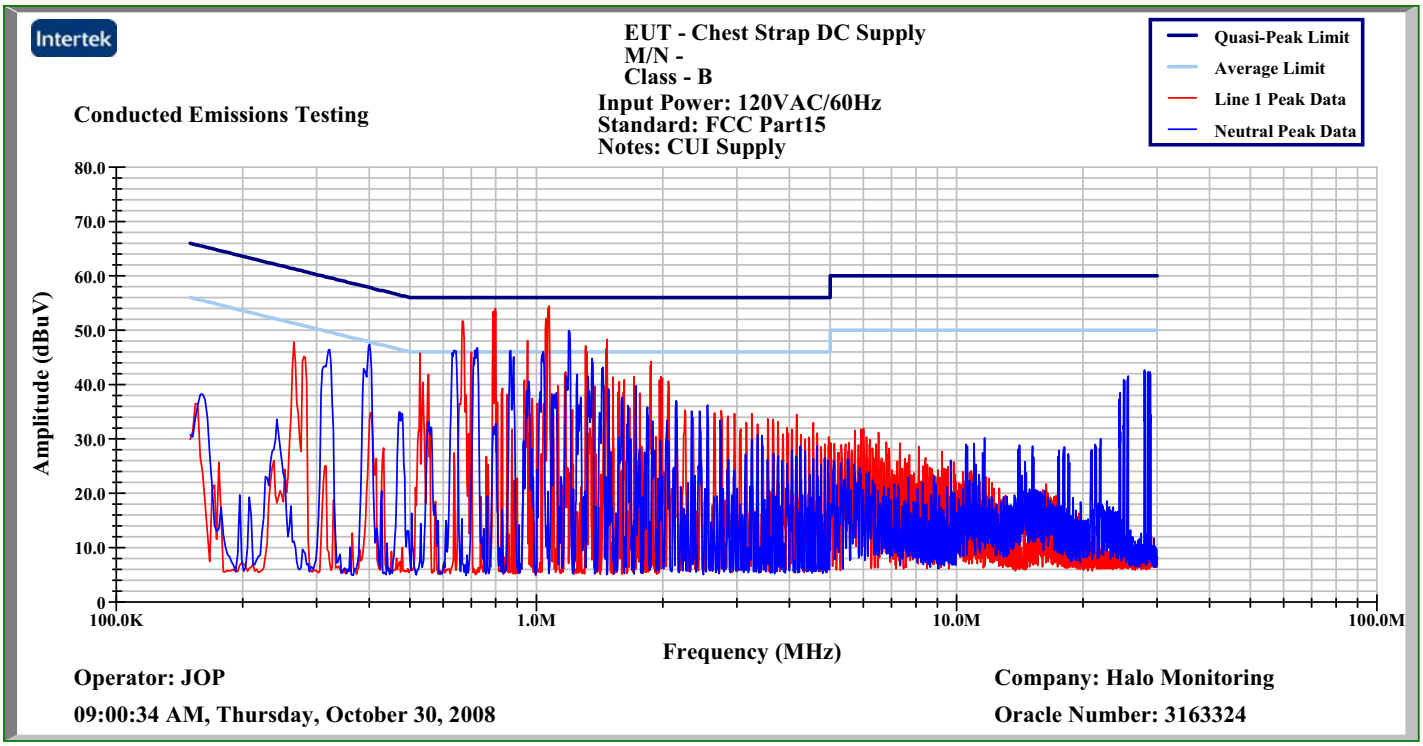
### Test Equipment Used:

| Description: | Manufacturer: | Model: | Asset Number: | Cal Date: | Cal Due: |
|---|---|---|---|---|---|
| Cable E202, 18 GHz, N, 3m | Megaphase | TM18 NKNK 118 | E202 | 01/16/2008 | 01/16/2009 |
| EMI Receiver | Hewlett Packard | 8546A | 213109 | 09/29/2008 | 09/29/2009 |
| EMI Receiver, Preselector section | Hewlett Packard | 85460A | 213108 | 09/29/2008 | 09/29/2009 |
| Excel spreadsheet for conducted emissions tests | Software | Excel - CE Worksh | SW002 | 11/21/2007 | 11/21/2008 |
| LISN | Solar Electronics | 8012-50-R-24-BNC | 213006 | 02/19/2008 | 02/19/2009 |
| Tile - software profile for radiated and conducted emissions testing. | Software | Tile - Emissions | SW006 | 11/21/2007 | 11/21/2008 |

### Results: The sample tested was found to Comply.

## 6.0 Conducted emissions on AC power lines (Conducted Emissions)

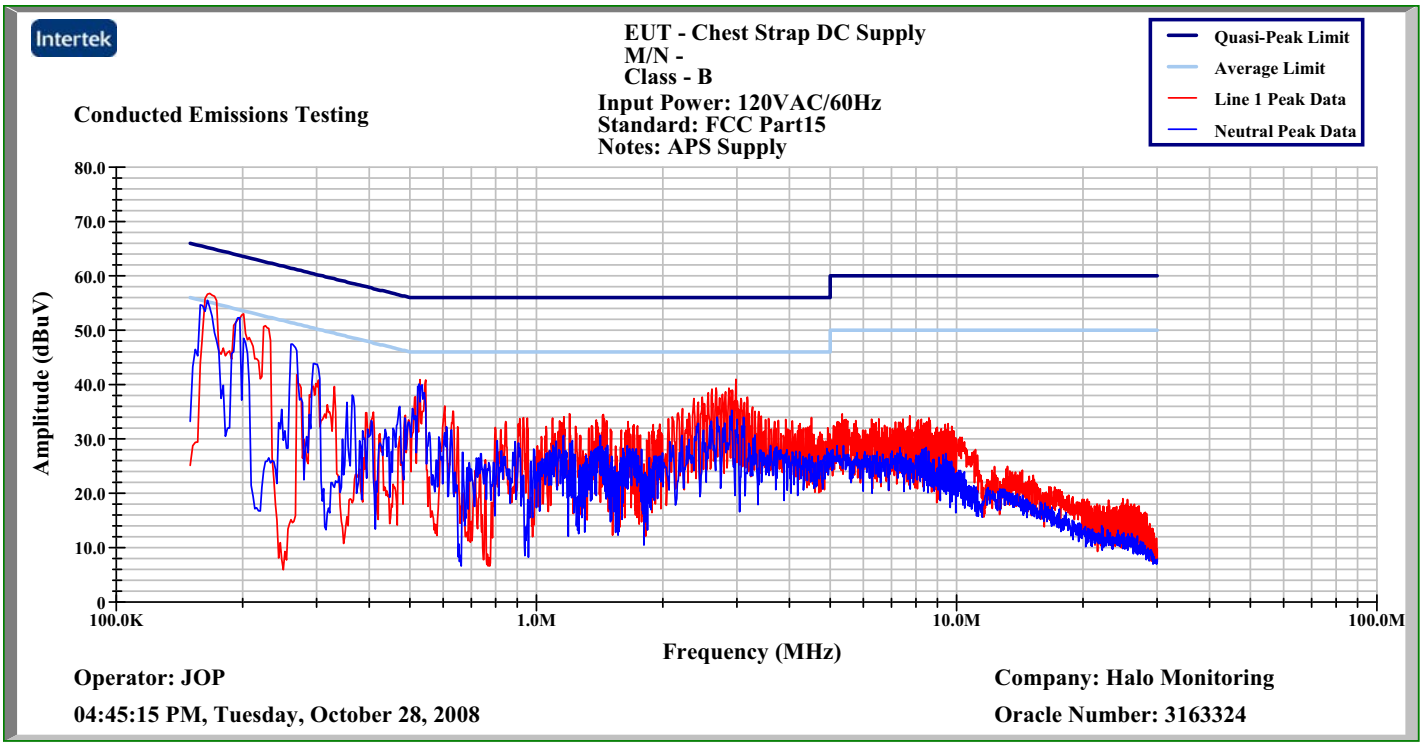
**Plot:**




Peak Plot - CUI Supply

## 6.0 Conducted emissions on AC power lines (Conducted Emissions)

**Plot:**




Peak Plot - APS Supply

## 6.0 Conducted emissions on AC power lines (Conducted Emissions)

**Data:**

**Date:** 10/28/2008
**Frequency Range (MHz):** 0.15-30 **Limit:** CISPR Class B
**Input power:** 120VAC/60Hz **Modifications for compliance (y/n):** n

| A | B | C | D | E | F | G | H | I |
|---|---|---|---|---|---|---|---|---|
| **LISN Number 1,2** | **Detector (P,QP, A)** | **Frequency MHz** | **Reading dBuV** | **Cable Loss dB** | **LISN Ins. Loss dB** | **Net dBuV** | **Limit dBuV** | **Margin dB** |
| **APS Power Supply** | | | | | | | | |
| 1 | QP | 0.162 | 47.7 | 0.2 | 0.3 | 48.2 | 65.5 | -17.3 |
| 1 | A | 0.162 | 29.7 | 0.2 | 0.3 | 30.2 | 55.5 | -25.3 |
| 1 | QP | 0.200 | 44.5 | 0.2 | 0.3 | 45.0 | 63.6 | -18.6 |
| 1 | A | 0.200 | 27.5 | 0.2 | 0.3 | 28.0 | 53.6 | -25.6 |
| 1 | P | 0.300 | 39.3 | 0.2 | 0.3 | 39.8 | 50.2 | -10.4 |
| 1 | P | 0.518 | 41.1 | 0.2 | 0.2 | 41.5 | 46.0 | -4.5 |
| 1 | P | 2.733 | 37.8 | 0.2 | 0.1 | 38.1 | 46.0 | -7.9 |
| 1 | P | 5.848 | 34.2 | 0.2 | 0.2 | 34.6 | 50.0 | -15.4 |
| 2 | QP | 0.162 | 52.8 | 0.2 | 0.3 | 53.3 | 65.5 | -12.2 |
| 2 | A | 0.162 | 39.6 | 0.2 | 0.3 | 40.1 | 55.5 | -15.4 |
| 2 | QP | 0.211 | 46.3 | 0.2 | 0.2 | 46.7 | 63.2 | -16.5 |
| 2 | A | 0.211 | 29.8 | 0.2 | 0.2 | 30.2 | 53.2 | -23.0 |
| 2 | P | 0.311 | 42.5 | 0.2 | 0.2 | 42.9 | 50.0 | -7.1 |
| 2 | P | 0.527 | 41.4 | 0.2 | 0.1 | 41.7 | 46.0 | -4.3 |
| 2 | P | 2.708 | 35.2 | 0.2 | 0.0 | 35.4 | 46.0 | -10.6 |
| 2 | P | 5.198 | 29.8 | 0.2 | 0.1 | 30.1 | 50.0 | -19.9 |
| **Calculations** | | G=D+E+F | | I=G-H | | | | |

Note: Peak measurements are compared to the average limit.

Tabular Data - APS Supply

## 6.0 Conducted emissions on AC power lines (Conducted Emissions)

**Data:**

**Date:** 10/28/2008
**Frequency Range (MHz):** 0.15-30 **Limit:** CISPR Class B
**Input power:** 120VAC/60Hz **Modifications for compliance (y/n):** n

| A | B | C | D | E | F | G | H | I |
|---|---|---|---|---|---|---|---|---|
| **LISN Number 1,2** | **Detector (P,QP, A)** | **Frequency MHz** | **Reading dBuV** | **Cable Loss dB** | **LISN Ins. Loss dB** | **Net dBuV** | **Limit dBuV** | **Margin dB** |
| **CUI Power Supply** | | | | | | | | |
| 1 | QP | 0.163 | 53.7 | 0.2 | 0.3 | 54.2 | 65.5 | -11.3 |
| 1 | A | 0.163 | 40.6 | 0.2 | 0.3 | 41.1 | 55.5 | -14.4 |
| 1 | QP | 0.412 | 50.4 | 0.2 | 0.2 | 50.8 | 57.6 | -6.8 |
| 1 | A | 0.412 | 34.2 | 0.2 | 0.2 | 34.6 | 47.6 | -13.0 |
| 1 | QP | 0.496 | 49.6 | 0.2 | 0.2 | 50.0 | 56.1 | -6.1 |
| 1 | A | 0.496 | 30.9 | 0.2 | 0.2 | 31.3 | 46.1 | -14.8 |
| 1 | QP | 0.742 | 53.4 | 0.2 | 0.1 | 53.7 | 56.0 | -2.3 |
| 1 | A | 0.742 | 34.0 | 0.2 | 0.1 | 34.3 | 46.0 | -11.7 |
| 1 | QP | 0.989 | 52.4 | 0.2 | 0.1 | 52.7 | 56.0 | -3.3 |
| 1 | A | 0.989 | 27.0 | 0.2 | 0.1 | 27.3 | 46.0 | -18.7 |
| 1 | QP | 1.128 | 45.7 | 0.2 | 0.1 | 46.0 | 56.0 | -10.0 |
| 1 | A | 1.128 | 30.1 | 0.2 | 0.1 | 30.4 | 46.0 | -15.6 |
| 2 | QP | 0.152 | 51.2 | 0.2 | 0.3 | 51.7 | 66.0 | -14.3 |
| 2 | A | 0.152 | 40.1 | 0.2 | 0.3 | 40.6 | 56.0 | -15.4 |
| 2 | QP | 0.409 | 48.3 | 0.2 | 0.1 | 48.6 | 57.8 | -9.2 |
| 2 | A | 0.409 | 35.8 | 0.2 | 0.1 | 36.1 | 47.8 | -11.7 |
| 2 | QP | 0.483 | 44.6 | 0.2 | 0.1 | 44.9 | 56.3 | -11.4 |
| 2 | A | 0.483 | 34.3 | 0.2 | 0.1 | 34.6 | 46.3 | -11.7 |
| 2 | QP | 0.738 | 50.6 | 0.2 | 0.1 | 50.9 | 56.0 | -5.1 |
| 2 | A | 0.738 | 31.9 | 0.2 | 0.1 | 32.2 | 46.0 | -13.8 |
| 2 | QP | 0.989 | 53.9 | 0.2 | 0.1 | 54.2 | 56.0 | -1.8 |
| 2 | A | 0.989 | 32.4 | 0.2 | 0.1 | 32.7 | 46.0 | -13.3 |
| 2 | QP | 1.124 | 45.3 | 0.2 | 0.0 | 45.5 | 56.0 | -10.5 |
| 2 | A | 1.124 | 29.9 | 0.2 | 0.0 | 30.1 | 46.0 | -15.9 |
| **Calculations** | | G=D+E+F | | I=G-H | | | | |

Note: Peak measurements are compared to the average limit.

Tabular Data - CUI Supply

## 7.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)

### Method:

Measurements shall be performed with a quasi-peak detector instrument that meets the requirements of Section One of CISPR 16.

Bandwidths:
30 MHz to 1000 MHz: 120 kHz RBW and 1 MHz VBW
Above 1000 MHz: 1 MHz RBW and 3 MHz VBW

Detectors:
Equal to or less than 1000 MHz: CISPR quasi-peak detector (alternative: peak detector)
Above 1000 MHz: Average detector (applies to average limit)
Above 1000 MHz: Peak detector (applies to peak limit)

Limits:
Equal to or less than 1000 MHz, the limits are specified as quasi-peak. If a peak detector is used, the limit does not change.
Above 1000 MHz, the limits are specified as average. The peak limit is 20 dB above the average limit. Both peak and average measurements are required to be reported.

Frequency range of radiated measurements
For an intentional radiator, the spectrum shall be investigated from the lowest radio frequency signal generated in the device, without going below 9 kHz, up to at least the frequency shown in this paragraph:

(1) If the intentional radiator operates below 10 GHz: to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower.

(2) If the intentional radiator operates at or above 10 GHz and below 30 GHz: to the fifth harmonic of the highest fundamental frequency or to 100 GHz, whichever is lower.

(3) If the intentional radiator operates at or above 30 GHz: to the fifth harmonic of the highest fundamental frequency or to 200 GHz, whichever is lower, unless specified otherwise elsewhere in the rules.

(4) If the intentional radiator contains a digital device, regardless of whether this digital device controls the functions of the intentional radiator or the digital device is used for additional control or function purposes other than to enable the operation of the intentional radiator, the frequency range shall be investigated up to the range specified in paragraphs (a)(1) through (a)(3) of this section or the range applicable to the digital device, as shown in paragraph (b)(1) of this section, whichever is the higher frequency range of investigation.

Measurement antenna requirements:
Below 30 MHz - Loop antenna
30 to 1000 MHz - Biconical, Log Periodic, or equivalent
Above 1000 MHz - Horn or equivalent

Measurements of the radiated field are made with the antenna located at a distance of 3 or 10 meters from the EUT. The limit applied to the measurement shall be appropriate for the test distance. The test distance shall be indicated in the results section.

The EUT shall be arranged and connected with cables terminated in accordance with the product specification.

Exploratory tests should be carried out while varying the cable positions to determine the maximum or near-maximum emission level. During manipulation, cables shall not be placed under or on top of the system test components unless such placement is required by the inherent equipment design.

The antenna shall be adjusted between 1m and 4m in height above the ground plane for maximum meter reading at each test frequency.

The antenna-to-EUT azimuth shall be varied during the measurement to find the maximum field-strength readings.

The antenna-to-EUT polarization (horizontal and vertical) shall be varied during the measurements to find the maximum field-strength readings.

If the EUT is handheld, it shall be oriented in each of its othogonal axes.

If the EUT is intended for tabletop use, it shall be placed on a table whose top is 0.8m above the ground plane. The table shall be constructed of non-conductive materials. Its dimensions are at least 1m by 1.5m, but may be extended for larger EUT.

If EUT is floor standing, the EUT was placed on a horizontal metal ground plane and isolated from the ground plane by up to 12 mm of insulating material.

Equipment setup for radiated disturbance tests shall follow the guidelines of ANSI C63.4:2003.

TEST SITE
The test site for radiated emissions is located at 1950 Evergreen Blvd, Suite 100, Duluth, Georgia 30096.

### Test Equipment Used:

| Description: | Manufacturer: | Model: | Asset Number: | Cal Date: | Cal Due: |
|---|---|---|---|---|---|
| Antenna, BiLog, 20-2000MHz | Chase | CBL6112A | 211518 | 12/20/2007 | 12/20/2008 |

## 7.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)

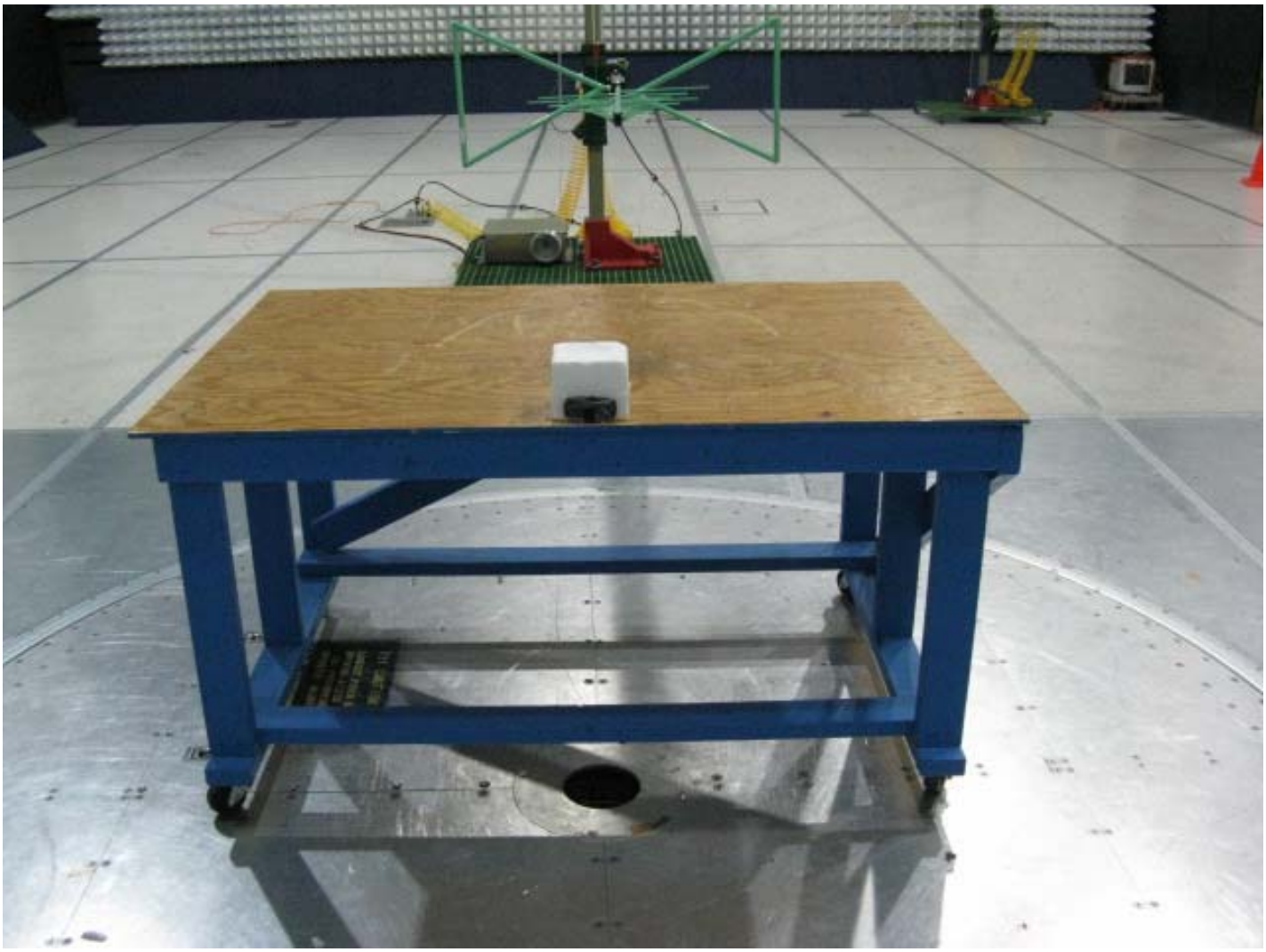
**Test Equipment Used:**

| Description: | Manufacturer: | Model: | Asset Number: | Cal Date: | Cal Due: |
|---|---|---|---|---|---|
| Antenna, Horn, <18 GHz | EMCO | 3115 | 213061 | 04/18/2008 | 04/18/2009 |
| Antenna, Horn, 18-40 GHz | EMCO | 3116 | 213023 | 04/29/2008 | 04/29/2009 |
| Cable E01, <18GHz | Pasternack | RG214/U | E01 | 05/05/2008 | 05/05/2009 |
| Cable E05, <18GHz | Huber-Suhner | Sucoflex 104PEA | E05 | 05/05/2008 | 05/05/2009 |
| Cable E201, 18 GHz, N, 3m | Megaphase | TM18 NKNK 118 | E201 | 01/16/2008 | 01/16/2009 |
| Cable E401, 40 GHz, 2.9, 9" | Megaphase | TM40 K1K1 9 | E401 | 06/04/2008 | 06/04/2009 |
| Cable E402, 40 GHz, 2.9, 9" | Megaphase | TM40 K1K1 9 | E402 | 06/04/2008 | 06/04/2009 |
| Cable E404, 40 GHz, 2.9, 2m | Megaphase | TM40 K1K1 80 | E404 | 06/04/2008 | 06/04/2009 |
| Cable MP3, 18 GHz, N, 10m | Megaphase | G919-NKNK-394 | MP3 | 05/05/2008 | 05/05/2009 |
| Cable ST1, 7m, N-N, 18 GHz | Storm Products Co. | PR90-206-7MTR | ST1 | 01/16/2008 | 01/16/2009 |
| EMI Receiver | Hewlett Packard | 8546A | 211505 | 12/13/2007 | 12/13/2008 |
| EMI Receiver, Preselector section | Hewlett Packard | 85460A | 015762 | 12/13/2007 | 12/13/2008 |
| Excel spreadsheet for radiated emissions | Software | Excel - RE Worksh | SW004 | 11/21/2007 | 11/21/2008 |
| Preamplifier, 18-40GHz, 29 dB Gain | Miteq | JS41800400-30-5P | 200080 | 02/19/2008 | 02/19/2009 |
| Preamplifier, 18-40GHz, 29 dB Gain | Miteq | JS41800400-30-5P | 200106 | 09/02/2008 | 09/02/2009 |
| Preamplifier, 20 MHz to 18 GHz, 40 dB | A.H. Systems | PAM-0118 | 200108 | 03/27/2008 | 03/27/2009 |
| Preamplifier, 20MHz to 2GHz, 30 dB | A.H. Systems | PAM-0202 | 200082 | 11/26/2007 | 11/26/2008 |
| Tile - software profile for radiated and conducted emissions testing. | Software | Tile - Emissions | SW006 | 11/21/2007 | 11/21/2008 |

**Results: The sample tested was found to Comply.**

## 7.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)

**Photo:**



Test Setup

## 7.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)

**Photo:**

Test Setup

## 7.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)

**Photo:**

Test Setup

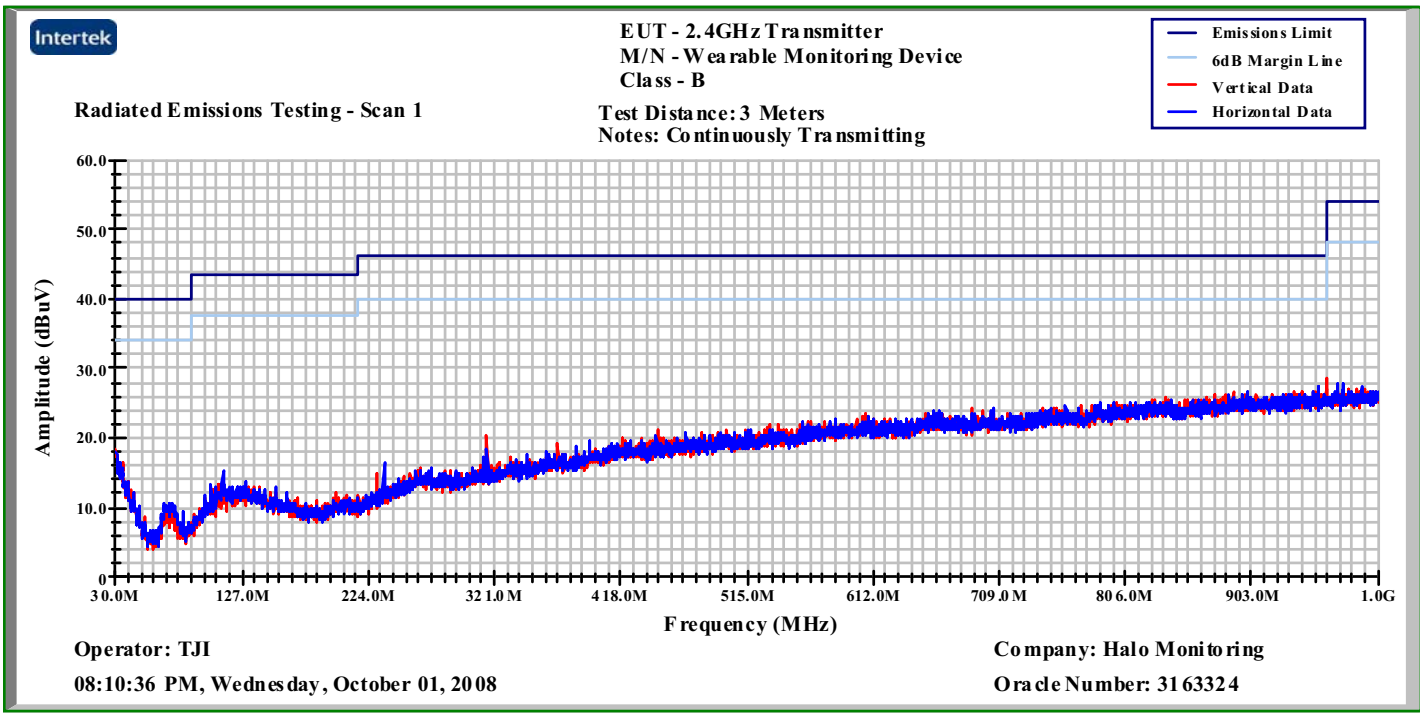
## 7.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)

**Photo:**

Test Setup

## 7.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)

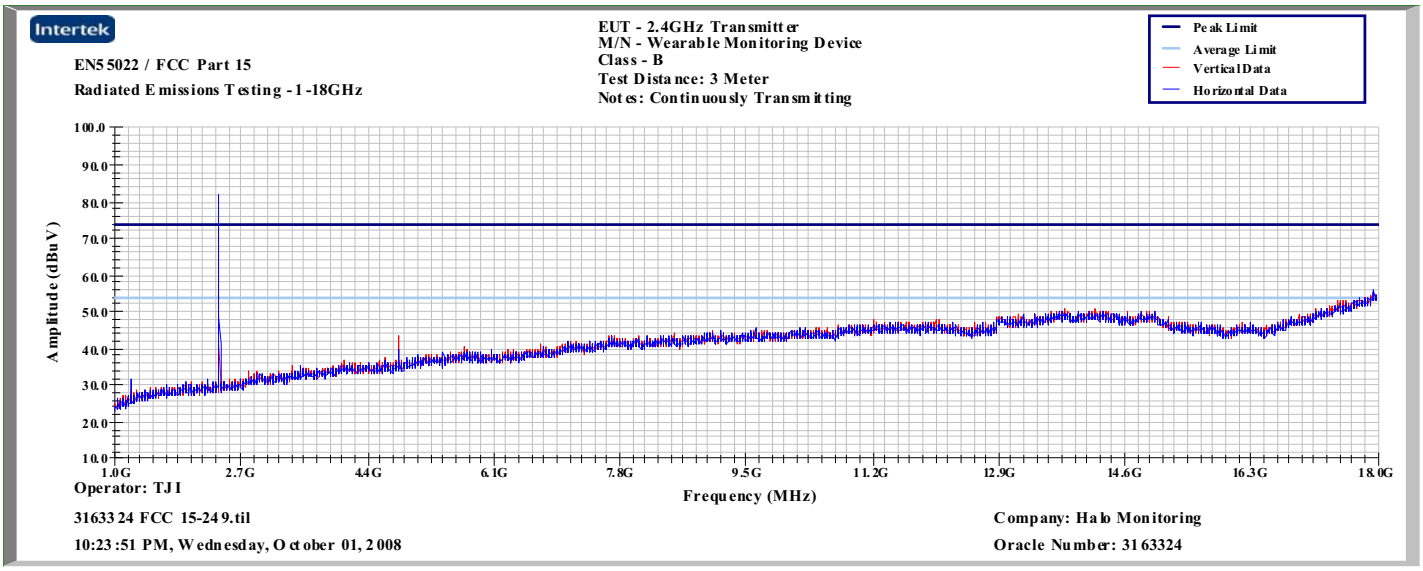
**Plot:**




Spurious Emissions Plot

## 7.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)

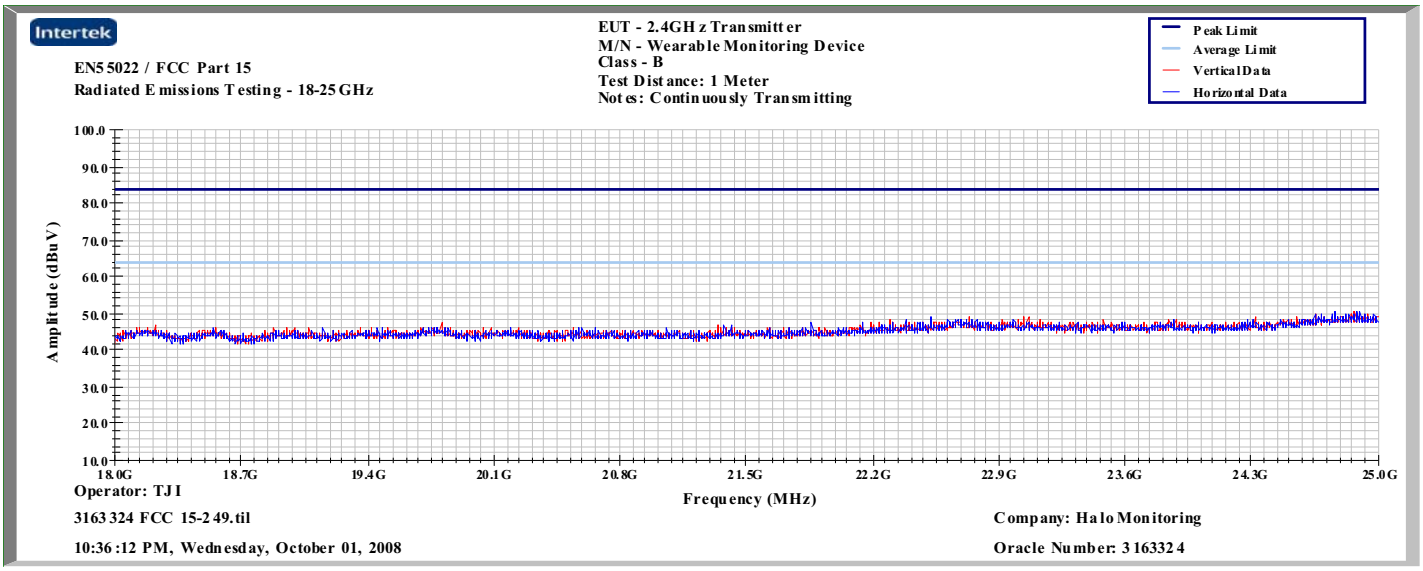
**Plot:**




Spurious Emissions Plot

## 7.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)

**Plot:**




Spurious Emissions Plot

## 7.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)

**Data:**

**Frequency Range (MHz):** 30-1000 **Test Distance (m):** 3
**Input power:** 5VDC Battery **Limit:** FCC15 Class B-3m
**Modifications for compliance (y/n):** n

| A | B | C | D | E | F | G | H | I | J |
|---|---|---|---|---|---|---|---|---|---|
| **Ant. Pol. (V/H)** | **Frequency MHz** | **Reading dB(uV)** | **Antenna Factor dB(1/m)** | **Cable Loss dB** | **Pre-amp Factor dB** | **Net dB(uV/m)** | **3m Limit dB(uV/m)** | **Margin dB** | **Detectors / Bandwidths / Axis** |
| v | 30.335 | 29.2 | 17.9 | 1.3 | 31.0 | 17.5 | 40.0 | -22.5 | Pk/120k/300k |
| h | 111.515 | 30.1 | 12.3 | 2.0 | 30.9 | 13.5 | 43.5 | -30.0 | Pk/120k/300k |
| h | 235.290 | 28.1 | 11.8 | 2.9 | 30.9 | 11.9 | 46.0 | -34.1 | Pk/120k/300k |
| v | 314.995 | 31.1 | 13.7 | 3.5 | 30.8 | 17.4 | 46.0 | -28.6 | Pk/120k/300k |
| v | 445.280 | 28.3 | 17.0 | 4.2 | 30.8 | 18.7 | 46.0 | -27.3 | Pk/120k/300k |
| v | 605.655 | 28.3 | 19.0 | 5.2 | 30.7 | 21.8 | 46.0 | -24.2 | Pk/120k/300k |
| **Calculations** | | G=C+D+E-F | | I=G-H | | | | | |

Spurious Emissions Data

## 7.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)

**Data:**

**Frequency Range (MHz):** 1000-18000 **Test Distance (m):** 3
**Input power:** 5VDC Battery **Limit:** FCC Part 15.249
**Modifications for compliance (y/n):** n

| A | B | C | D | E | F | G | H | I | J |
|---|---|---|---|---|---|---|---|---|---|
| **Ant. Pol. (V/H)** | **Frequency MHz** | **Reading dB(uV)** | **Antenna Factor dB(1/m)** | **Cable Loss dB** | **Pre-amp Factor dB** | **Net dB(uV/m)** | **Limit dB(uV/m)** | **Margin dB** | **Detectors / Bandwidths / Axis** |
| h | 1200.000 | 48.2 | 24.0 | 1.5 | 40.6 | 33.0 | 54.0 | -21.0 | Pk/1M/1M/X |
| v | 4806.030 | 52.0 | 32.1 | 2.6 | 41.1 | 45.6 | 54.0 | -8.4 | Pk/1M/1M/X |
| **Calculations** | | G=C+D+E-F | | I=G-H | | | | | |

Spurious Emissions Data

## 7.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)

**Data:**

**Frequency Range (MHz):** 2400 **Test Distance (m):** 3
**Input power:** 5VDC Battery **Limit:** FCC Part 15.249
**Modifications for compliance (y/n):** n

| A | B | C | D | E | F | G | H | I | J |
|---|---|---|---|---|---|---|---|---|---|
| **Ant. Pol. (V/H)** | **Frequency MHz** | **Reading dB(uV)** | **Antenna Factor dB(1/m)** | **Cable Loss dB** | **Pre-amp Factor dB** | **Net dB(uV/m)** | **Limit dB(uV/m)** | **Margin dB** | **Detectors / Bandwidths / Axis** |
| v | 2405.380 | 40.9 | 27.6 | 8.1 | 0.0 | 76.6 | 94.0 | -17.4 | Pk/1M/1M/X |
| h | 2404.850 | 51.8 | 27.7 | 8.1 | 0.0 | 87.6 | 94.0 | -6.4 | Pk/1M/1M/X |
| v | 2404.480 | 47.6 | 27.6 | 8.1 | 0.0 | 83.3 | 94.0 | -10.7 | Pk/1M/1M/Y |
| h | 2404.850 | 43.8 | 27.7 | 8.1 | 0.0 | 79.6 | 94.0 | -14.4 | Pk/1M/1M/Y |
| v | 2405.430 | 42.4 | 27.6 | 8.1 | 0.0 | 78.1 | 94.0 | -15.9 | Pk/1M/1M/Z |
| h | 2404.850 | 51.7 | 27.7 | 8.1 | 0.0 | 87.5 | 94.0 | -6.5 | Pk/1M/1M/Z |
| **Calculations** | | G=C+D+E-F | | I=G-H | | | | | |

Fundamental Data