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# Certification Test Report

## FCC ID: RS2SXI1

## FCC Rule Part: 15.247
## IC Radio Standards Specification: RSS-210

## ACS Report Number: 11-0363.W06.11.A

Manufacturer: SIRIUS XM Radio Inc.
Model: SXi1

Test Begin Date: September 26, 2011
Test End Date: September 26, 2011

Report Issue Date: September 27, 2011

FOR THE SCOPE OF ACCREDITATION UNDER LAB Code 200612-0

This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.

**Reviewed by:**
**Kirby Munroe**
**Director, Wireless Certifications**
**ACS, Inc.**



**This report contains 15 pages**

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# 1 GENERAL

## 1.1 Purpose

The purpose of this report is to demonstrate compliance with Part 15 Subpart C of the FCC's Code of Federal Regulations and Industry Canada's Radio Standards Specification RSS-210 for the specific requirements detailed in this report.

## 1.2 Product description

Sirius XM Lynx Hardware Features:

- Revolutionary SiriusXM PowerConnect™ FM Transmitter works through your vehicle's radio* with easy Do-It-Yourself Installation. The color-coded Vehicle Dock makes it simple to connect.
- Customize your display by choosing the backlight color theme that matches your mood or vehicle dash lights.
- Personalize your radio by choosing the trim ring that reflects your taste or complements your vehicle interior.
- View artist name, song title, and channel information on the large color display.
- Browse programs, artists, and songs playing on other channels without having to change the channel.
- One-Touch Jump™ to traffic and weather of the 20 most congested cities, or to the previous channel to which you were listening.
- Save and enjoy fast access to your favorite channels.
- Lock and unlock channels with easy-to-use parental controls.
- Complete PowerConnect Vehicle Kit included.
- Universal docking capability - add accessories for your home, office, additional vehicles or even outdoors.
- Connectivity could be achieved via Satellite, WiFi, Bluetooth & USB.

Technical Details:

| | |
|---|---|
| Operating Range | 2412GHz – 2462MHz |
| Number of Channels | 11 |
| Modulation | 802.11b: DSSS (BPSK / QPSK / CCK);<br>802.11g: OFDM (BPSK / QPSK / 16QAM / 64QAM)<br>802.11n: OFDM (BPSK / QPSK / 16QAM / 64QAM) |
| Data Rate | 802.11b: 11, 5.5, 2, 1 Mbps;<br>802.11g: 54, 48, 36, 24, 18, 12, 9, 6 Mbps;<br>802.11n: 65, 58.5, 52, 39, 26, 19.5, 13, 6.5 Mbps; |
| Input Voltage | 3.7V Li-Ion Battery |

Applicant Information:
SIRIUS XM Radio Inc.
1500 Eckington PL NE
Washington, DC 20002

Test Sample Serial Number(s): 8MK004HY (Radiated), X4K004H1 (Conducted)

Test Sample Condition: Test samples were provided in working order with no visible defects.

### 1.3 Test Methodology and Considerations

The following modes/data rates were used for final radiated emissions measurements:

802.11b: 5.5 Mbps (Low Channel), 2Mbps (Mid Channel), 11Mbps (High Channel)
802.11g: 6 Mbps (Low Channel), 9Mbps (Mid Channel), 9Mbps (High Channel),
802.11n: MCS0 (All Channels)

For radiated emissions, including band-edge, multiple orientations were evaluated.

The EUT was modified with a temporary 50 ohm antenna connector for the purpose of performing RF conducted measurements.

# 2 TEST FACILITIES

## 2.1 Location

The radiated and conducted emissions test sites are located at the following address:

Advanced Compliance Solutions
5015 B.U. Bowman Drive
Buford, GA 30518
Phone: (770) 831-8048
Fax: (770) 831-8598

## 2.2 Laboratory Accreditations/Recognitions/Certifications

ACS is accredited to ISO/IEC 17025 by the National Institute of Standards and Technology under their National Voluntary Laboratory Accreditation Program (NVLAP), Lab Code 200612-0. Unless otherwise specified, all tests methods described within this report are covered under the ISO/IEC 17025 scope of accreditation.

The Semi-Anechoic Chamber Test Site, Open Area Test Site (OATS) and Conducted Emissions Site have been fully described, submitted to, and accepted by the FCC, Industry Canada and the Japanese Voluntary Control Council for Interference by information technology equipment.

FCC Registration Number: 511277
Industry Canada Lab Code: IC 4175A-1
VCCI Member Number: 1831

- VCCI OATS Registration Number R-1526
- VCCI Conducted Emissions Site Registration Number: C-1608

## 2.3 Radiated Emissions Test Site Description

### 2.3.1 Semi-Anechoic Chamber Test Site

The Semi-Anechoic Chamber Test Site consists of a 20' x 30' x 18' shielded enclosure. The chamber is lined with Toyo Ferrite Grid Absorber, model number FFG-1000. The ferrite tile grid is 101 x 101 x 19mm thick and weighs approximately 550 grams. These tiles are mounted on steel panels and installed directly on the inner walls of the chamber.

The turntable is 150cm in diameter and is located 160cm from the back wall of the chamber. The chamber is grounded via 1 - 8' copper ground rod, installed at the center of the back wall, it is bound to the ground plane using 3/4" stainless steel braided cable.

The turntable is all steel, flush mounted table installed in an all steel frame. The table is remotely operated from inside the control room located 25' from the range. The turntable is electrically bonded to the surrounding ground plane via steel fingers installed on the edge of the turn table. The steel fingers make constant contact with the ground plane during operation.

Behind the turntable is a 3' x 6' x 4' deep shielded pit used for support equipment if necessary. The pit is equipped with 1 - 4" PVC chases from the turntable to the pit that allow for cabling to the EUT if necessary. The underside of the turntable can be accessed from the pit so cables can be supplied to the EUT from the pit.

A diagram of the Semi-Anechoic Chamber Test Site is shown in Figure 2.3-1 below:

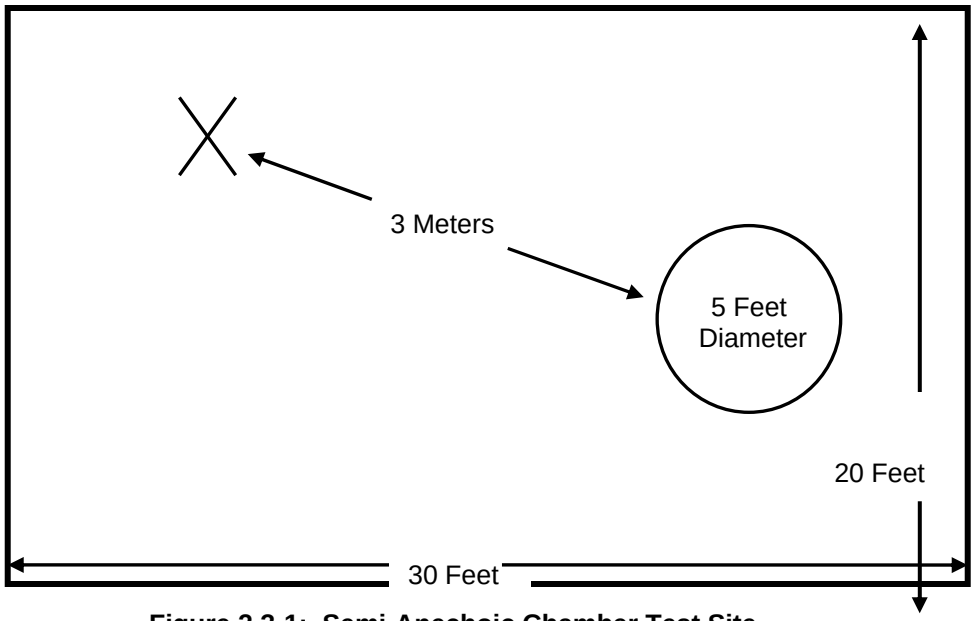


**Figure 2.3-1: Semi-Anechoic Chamber Test Site**

### 2.3.2 Open Area Tests Site (OATS)

The open area test site consists of a 40' x 66' concrete pad covered with a perforated electro-plated galvanized sheet metal. The perforations in the sheet metal are 1/8" holes that are staggered every 3/16". The individual sheets are placed to overlap each other by 1/4" and are riveted together to provide a continuous seam. Rivets are spaced every 3" in a 3 x 20 meter perimeter around the antenna mast and EUT area. Rivets in the remaining area are spaced as necessary to properly secure the ground plane and maintain the electrical continuity.

The entire ground plane extends 12' beyond the turntable edge and 16' beyond the antenna mast when set to a 10 meter measurement distance. The ground plane is grounded via 4 - 8' copper ground rods, each installed at a corner of the ground plane and bound to the ground plane using 3/4" stainless steel braided cable.

The turntable is an all aluminum 10' flush mounted table installed in an all aluminum frame. The table is remotely operated from inside the control room located 40' from the range. The turntable is electrically bonded to the surrounding ground plane via steel fingers installed on the edge of the turn table. The steel fingers make constant contact with the ground plane during operation.

Adjacent to the turntable is a 7' x 7' square and 4' deep concrete pit used for support equipment if necessary. The pit is equipped with 5 - 4" PVC chases from the pit to the control room that allow for cabling to the EUT if necessary. The underside of the turntable can be accessed from the pit so cables can be supplied to the EUT from the pit. The pit is covered with 2 sheets of 1/4" diamond style re-enforced steel sheets. The sheets are painted to match the perforated steel ground plane; however the underside edges have been masked off to maintain the electrical continuity of the ground plane. All reflecting objects are located outside of the ellipse defined in ANSI C63.4.

A diagram of the Open Area Test Site is shown in Figure 2.3-2 below:

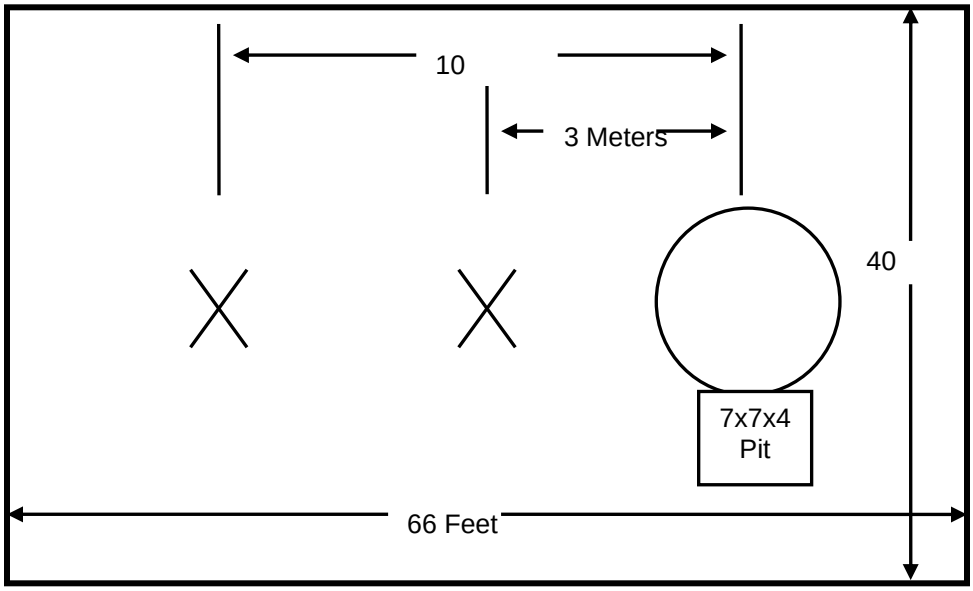


**Figure 2.3-2: Open Area Test Site**

## 3 APPLICABLE STANDARD REFERENCES

The following standards were used:

- ANSI C63.4-2003: Method of Measurements of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the 9KHz to 40GHz
- US Code of Federal Regulations (CFR): Title 47, Part 2, Subpart J: Equipment Authorization Procedures, 2011
- US Code of Federal Regulations (CFR): Title 47, Part 15, Subpart C: Radio Frequency Devices, Intentional Radiators, 2011
- FCC KDB Publication No. 558074 - Guidance on Measurements for Digital Transmission Systems (47 CFR 15.247), March 2005
- Industry Canada Radio Standards Specification: RSS-210 - Low-power License-exempt Radiocommunication Devices (All Frequency Bands): Category I Equipment, Issue 8 December 2010
- Industry Canada Radio Standards Specification: RSS-GEN – General Requirements and Information for the Certification of Radiocommunication Equipment, Issue 3 December 2010.

## 4 LIST OF TEST EQUIPMENT

The calibration interval of test equipment is annually or the manufacturer's recommendations. Where the calibration interval deviates from the annual cycle based on the instrument manufacturer's recommendations, it shall be stated below.

**Table 4-1: Test Equipment**

| AssetID | Manufacturer | Model # | Equipment Type | Serial # | Last Calibration Date | Calibration Due Date |
|---|---|---|---|---|---|---|
| 1 | Rohde & Schwarz | ESMI - Display | Spectrum Analyzers | 833771/007 | 9/23/2010 | 9/23/2012 |
| 2 | Rohde & Schwarz | ESMI-Receiver | Spectrum Analyzers | 839587/003 | 9/23/2010 | 9/23/2012 |
| 30 | Spectrum Technologies | DRH-0118 | Antennas | 970102 | 4/27/2011 | 4/27/2013 |
| 167 | ACS | Chamber EMI Cable Set | Cable Set | 167 | 1/26/2011 | 1/26/2012 |
| 267 | Agilent | N1911A | Meters | MY45100129 | 11/2/2010 | 11/2/2011 |
| 268 | Agilent | N1921A | Sensors | MY45240184 | 12/2/2010 | 12/2/2011 |
| 291 | Florida RF Cables | SMRE-200W-12.0-SMRE | Cables | None | 12/7/2010 | 12/7/2011 |
| 292 | Florida RF Cables | SMR-290AW-480.0-SMR | Cables | None | 4/11/2011 | 4/11/2012 |
| 338 | Hewlett Packard | 8449B | Amplifiers | 3008A01111 | 3/24/2011 | 3/24/2012 |
| 340 | Aeroflex/Weinschel | AS-20 | Attenuators | 7136 | 8/29/2011 | 8/29/2012 |
| 422 | Florida RF | SMS-200AW-72.0-SMR | Cables | 805 | 12/29/2010 | 12/29/2011 |
| 432 | Microwave Circuits | H3G020G4 | Filters | 264066 | 7/11/2011 | 7/11/2012 |

## 5 SUPPORT EQUIPMENT

**Table 5-1: Support Equipment**

| Item | Equipment Type | Manufacturer | Model Number | Serial Number |
|---|---|---|---|---|
| | | | | |
| The EUT was tested stand alone therefore no support equipment was utilized. | | | | |
| | | | | |

## 6 EQUIPMENT UNDER TEST SETUP BLOCK DIAGRAM

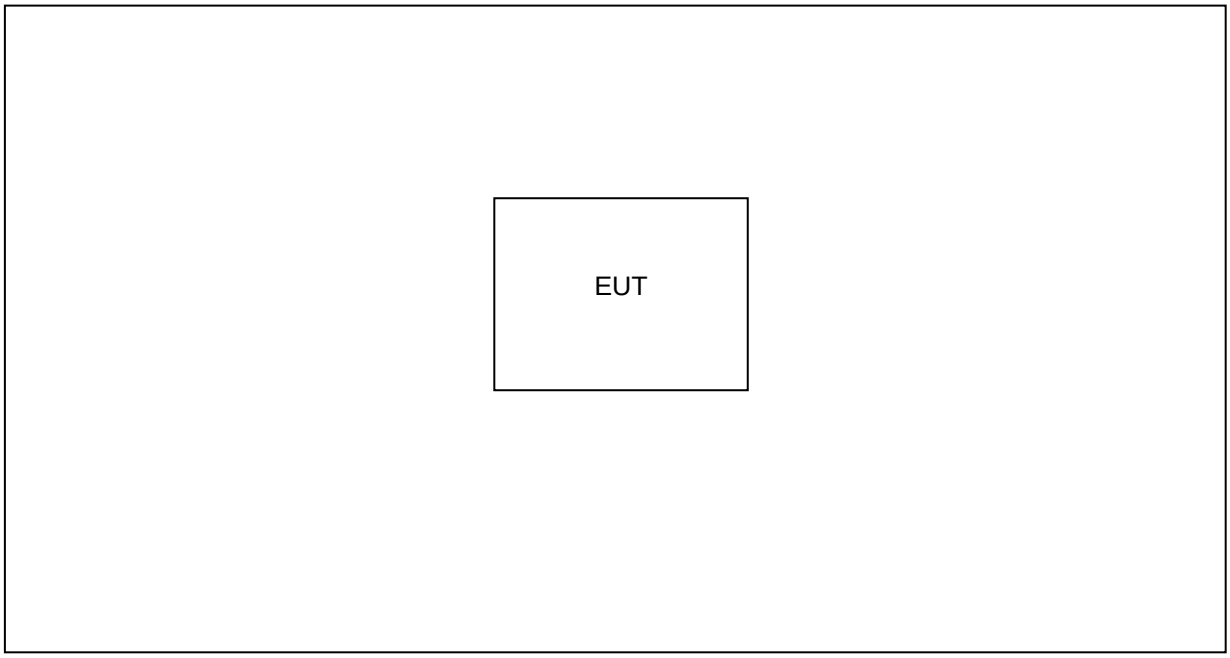


**Figure 6-1: EUT Test Setup**

# 7 SUMMARY OF TESTS

Along with the tabular data shown below, plots were taken of all signals deemed important enough to document.

## 7.1 Peak Output Power Requirement - FCC Section 15.247(b)(3) IC: RSS-210 A8.4(4)

### 7.1.1 Measurement Procedure

The Peak Output Power was measured in accordance with the FCC KDB Publication No. 558074 "Guidance on Measurements for Digital Transmission Systems (47 CFR 15.247)" Power Option 1. The RF output of the equipment under test was directly connected to the input of the power meter. The insertion loss for all cables and attenuators was included as an offset value. The EUT was operating at maximum power.

### 7.1.2 Measurement Results

Results are shown below in Tables 7.1.2-1 to 7.1.2-3 below.

**Table 7.1.2-1: Peak Output Power – 802.11b**

| Frequency (MHz) | Peak Output Power (dBm) | Average Output Power (dBm) | Data Rate (Mbps) |
|---|---|---|---|
| 2412 | 14.85 | 12.35 | 1 |
| 2412 | 14.88 | 12.57 | 2 |
| 2412 | 14.27 | 12.06 | 5.5 |
| 2412 | 14.49 | 12.23 | 11 |
| 2437 | 16.59 | 14.17 | 1 |
| 2437 | 16.64 | 14.27 | 2 |
| 2437 | 16.33 | 14.17 | 5.5 |
| 2437 | 16.21 | 14.00 | 11 |
| 2462 | 14.65 | 12.27 | 1 |
| 2462 | 14.62 | 12.32 | 2 |
| 2462 | 14.38 | 12.09 | 5.5 |
| 2462 | 14.27 | 12.08 | 11 |

**Table 7.1.2-2: Peak Output Power – 802.11g**

| Frequency (MHz) | Peak Output Power (dBm) | Average Output Power (dBm) | Data Rate (Mbps) |
|---|---|---|---|
| 2412 | 21.64 | 11.18 | 6 |
| 2412 | 21.82 | 11.28 | 9 |
| 2412 | 21.83 | 11.25 | 12 |
| 2412 | 21.21 | 11.19 | 18 |
| 2412 | 21.20 | 11.11 | 24 |
| 2412 | 21.37 | 11.05 | 36 |
| 2412 | 21.44 | 11.07 | 48 |
| 2412 | 21.29 | 11.07 | 54 |
| 2437 | 24.13 | 14.18 | 6 |
| 2437 | 24.03 | 14.08 | 9 |
| 2437 | 23.83 | 14.06 | 12 |
| 2437 | 23.69 | 13.98 | 18 |
| 2437 | 23.01 | 13.07 | 24 |
| 2437 | 22.70 | 12.94 | 36 |
| 2437 | 21.68 | 11.16 | 48 |
| 2437 | 21.54 | 11.04 | 54 |
| 2462 | 22.19 | 11.08 | 6 |
| 2462 | 22.51 | 11.01 | 9 |
| 2462 | 21.89 | 10.98 | 12 |
| 2462 | 21.58 | 11.02 | 18 |
| 2462 | 21.49 | 10.86 | 24 |
| 2462 | 21.33 | 11.03 | 36 |
| 2462 | 21.48 | 10.74 | 48 |
| 2462 | 21.41 | 10.77 | 54 |

**Table 7.1.2-3: Peak Output Power – 802.11n**

| Frequency (MHz) | Peak Output Power (dBm) | Average Output Power (dBm) | Data Rate (Mbps) |
|---|---|---|---|
| 2412 | 21.95 | 10.89 | MCS0 |
| 2412 | 21.8 | 11.13 | MCS1 |
| 2412 | 21.09 | 11.11 | MCS2 |
| 2412 | 21.56 | 11.16 | MCS3 |
| 2412 | 21.4 | 11.04 | MCS4 |
| 2412 | 21.01 | 10.64 | MCS5 |
| 2412 | 20.93 | 10.83 | MCS6 |
| 2412 | 20.30 | 9.66 | MCS7 |
| 2437 | 23.96 | 13.97 | MCS0 |
| 2437 | 23.37 | 13.44 | MCS1 |
| 2437 | 23.65 | 13.67 | MCS2 |
| 2437 | 23.06 | 12.89 | MCS3 |
| 2437 | 22.86 | 12.51 | MCS4 |
| 2437 | 21.32 | 11.03 | MCS5 |
| 2437 | 21.37 | 11.03 | MCS6 |
| 2437 | 20.72 | 10.13 | MCS7 |
| 2462 | 21.85 | 10.87 | MCS0 |
| 2462 | 22.00 | 11.04 | MCS1 |
| 2462 | 21.39 | 10.85 | MCS2 |
| 2462 | 21.89 | 10.68 | MCS3 |
| 2462 | 21.63 | 10.67 | MCS4 |
| 2462 | 21.02 | 10.57 | MCS5 |
| 2462 | 21.31 | 10.72 | MCS6 |
| 2462 | 20.59 | 9.64 | MCS7 |

## 7.2 Band-Edge Compliance of Radiated Emissions - FCC 15.247(d) IC: RSS-210 2.2

### 7.2.1 Measurement Procedure

The EUT was investigated at the low and high channels of operation to determine band-edge compliance. Compliance for the lower and upper band-edge was determined based on absolute radiated field strength measurements at the restricted band-edges. The marker-delta method was not applied based on the requirement that the spectrum analyzer RBW be > 1% of the span that encompasses both the peak of the fundamental emission and the band-edge emission under investigation. The standard BW of 1MHz was required therefore the marker-delta method using a reduced RBW was not applied.

The EUT was rotated through 360° and the receive antenna height was varied from 1m to 4m so that the maximum radiated emissions level would be detected. Peak and average measurements were made with RBW and VBW of 1 MHz and 3 MHz respectively.

The highest emission found to be in the restricted band at the band-edge as defined by section 15.205 was compared to the radiated emission limits as defined in section 15.209.

### 7.2.2 Measurement Results

Band-edge data is displayed in Table 7.2.2-1 to 7.2.2-3.

**Table 7.2.2-1: Band-edge Radiated Emissions – 802.11b**

| Frequency (MHz) | Level (dBuV) | | Antenna Polarity | Correction Factors | Corrected Level (dBuV/m) | | Limit (dBuV/m) | | Margin (dB) | |
|---|---|---|---|---|---|---|---|---|---|---|
| | pk | Qpk/Avg | (H/V) | (dB) | pk | Qpk/Avg | pk | Qpk/Avg | pk | Qpk/Avg |
| **X Orientation** | | | | | | | | | | |
| **2390** | 52.73 | 41.86 | H | -5.46 | 47.27 | 36.40 | 74.0 | 54.0 | 26.7 | 17.6 |
| **2390** | 54.76 | 42.03 | V | -5.46 | 49.30 | 36.57 | 74.0 | 54.0 | 24.7 | 17.4 |
| **2483.5** | 54.48 | 43.76 | H | -5.04 | 49.44 | 38.72 | 74.0 | 54.0 | 24.6 | 15.3 |
| **2483.5** | 57.22 | 45.89 | V | -5.04 | 52.18 | 40.85 | 74.0 | 54.0 | 21.8 | 13.2 |
| **Y Orientation** | | | | | | | | | | |
| **2390** | 49.99 | 38.58 | H | -5.46 | 44.53 | 33.12 | 74.0 | 54.0 | 29.5 | 20.9 |
| **2390** | 57.20 | 44.47 | V | -5.46 | 51.74 | 39.01 | 74.0 | 54.0 | 22.3 | 15.0 |
| **2483.5** | 51.81 | 40.86 | H | -5.04 | 46.77 | 35.82 | 74.0 | 54.0 | 27.2 | 18.2 |
| **2483.5** | 58.01 | 46.28 | V | -5.04 | 52.97 | 41.24 | 74.0 | 54.0 | 21.0 | 12.8 |
| **Z Orientation** | | | | | | | | | | |
| **2390** | 52.55 | 40.01 | H | -5.46 | 47.09 | 34.55 | 74.0 | 54.0 | 26.9 | 19.4 |
| **2390** | 56.08 | 43.68 | V | -5.46 | 50.62 | 38.22 | 74.0 | 54.0 | 23.4 | 15.8 |
| **2483.5** | 53.62 | 42.26 | H | -5.04 | 48.58 | 37.22 | 74.0 | 54.0 | 25.4 | 16.8 |
| **2483.5** | 58.42 | 46.99 | V | -5.04 | 53.38 | 41.95 | 74.0 | 54.0 | 20.6 | 12.1 |

**Table 7.2.2-2: Band-edge Radiated Emissions – 802.11g**

| Frequency (MHz) | Level (dBuV) | | Antenna Polarity | Correction Factors | Corrected Level (dBuV/m) | | Limit (dBuV/m) | | Margin (dB) | |
|---|---|---|---|---|---|---|---|---|---|---|
| | pk | Qpk/Avg | (H/V) | (dB) | pk | Qpk/Avg | pk | Qpk/Avg | pk | Qpk/Avg |
| **X Orientation** | | | | | | | | | | |
| **2390** | 62.48 | 46.50 | H | -5.46 | 57.02 | 41.04 | 74.0 | 54.0 | 17.0 | 13.0 |
| **2390** | 63.55 | 48.15 | V | -5.46 | 58.09 | 42.69 | 74.0 | 54.0 | 15.9 | 11.3 |
| **2483.5** | 59.43 | 46.20 | H | -5.04 | 54.39 | 41.16 | 74.0 | 54.0 | 19.6 | 12.8 |
| **2483.5** | 62.86 | 48.71 | V | -5.04 | 57.82 | 43.67 | 74.0 | 54.0 | 16.2 | 10.3 |
| **Y Orientation** | | | | | | | | | | |
| **2390** | 58.49 | 42.87 | H | -5.46 | 53.03 | 37.41 | 74.0 | 54.0 | 21.0 | 16.6 |
| **2390** | 64.11 | 49.03 | V | -5.46 | 58.65 | 43.57 | 74.0 | 54.0 | 15.3 | 10.4 |
| **2483.5** | 56.64 | 43.33 | H | -5.04 | 51.60 | 38.29 | 74.0 | 54.0 | 22.4 | 15.7 |
| **2483.5** | 62.20 | 48.43 | V | -5.04 | 57.16 | 43.39 | 74.0 | 54.0 | 16.8 | 10.6 |
| **Z Orientation** | | | | | | | | | | |
| **2390** | 57.43 | 43.74 | H | -5.46 | 51.97 | 38.28 | 74.0 | 54.0 | 22.0 | 15.7 |
| **2390** | 66.24 | 48.94 | V | -5.46 | 60.78 | 43.48 | 74.0 | 54.0 | 13.2 | 10.5 |
| **2483.5** | 58.06 | 45.41 | H | -5.04 | 53.02 | 40.37 | 74.0 | 54.0 | 21.0 | 13.6 |
| **2483.5** | 66.06 | 50.90 | V | -5.04 | 61.02 | 45.86 | 74.0 | 54.0 | 13.0 | 8.1 |

**Table 7.2.2-3: Band-edge Radiated Emissions – 802.11n**

| Frequency (MHz) | Level (dBuV) | | Antenna Polarity | Correction Factors | Corrected Level (dBuV/m) | | Limit (dBuV/m) | | Margin (dB) | |
|---|---|---|---|---|---|---|---|---|---|---|
| | pk | Qpk/Avg | (H/V) | (dB) | pk | Qpk/Avg | pk | Qpk/Avg | pk | Qpk/Avg |
| **X Orientation** | | | | | | | | | | |
| **2390** | 66.21 | 47.60 | H | -5.46 | 60.75 | 42.14 | 74.0 | 54.0 | 13.2 | 11.9 |
| **2390** | 65.63 | 47.80 | V | -5.46 | 60.17 | 42.34 | 74.0 | 54.0 | 13.8 | 11.7 |
| **2483.5** | 62.30 | 46.68 | H | -5.04 | 57.26 | 41.64 | 74.0 | 54.0 | 16.7 | 12.4 |
| **2483.5** | 63.19 | 49.98 | V | -5.04 | 58.15 | 44.94 | 74.0 | 54.0 | 15.9 | 9.1 |
| **Y Orientation** | | | | | | | | | | |
| **2390** | 56.56 | 42.16 | H | -5.46 | 51.10 | 36.70 | 74.0 | 54.0 | 22.9 | 17.3 |
| **2390** | 67.00 | 49.65 | V | -5.46 | 61.54 | 44.19 | 74.0 | 54.0 | 12.5 | 9.8 |
| **2483.5** | 59.03 | 43.91 | H | -5.04 | 53.99 | 38.87 | 74.0 | 54.0 | 20.0 | 15.1 |
| **2483.5** | 64.41 | 50.31 | V | -5.04 | 59.37 | 45.27 | 74.0 | 54.0 | 14.6 | 8.7 |
| **Z Orientation** | | | | | | | | | | |
| **2390** | 62.23 | 44.98 | H | -5.46 | 56.77 | 39.52 | 74.0 | 54.0 | 17.2 | 14.5 |
| **2390** | 70.15 | 49.73 | V | -5.46 | 64.69 | 44.27 | 74.0 | 54.0 | 9.3 | 9.7 |
| **2483.5** | 69.64 | 51.96 | H | -5.04 | 64.60 | 46.92 | 74.0 | 54.0 | 9.4 | 7.1 |
| **2483.5** | 66.11 | 51.71 | V | -5.04 | 61.07 | 46.67 | 74.0 | 54.0 | 12.9 | 7.3 |

### 7.2.3 Sample Calculation:

$R_C = R_U + CF_T$

Where:

| | | |
|---|---|---|
| $CF_T$ | = | Total Correction Factor (AF+CA+AG)-DC (Average Measurements Only) |
| $R_U$ | = | Uncorrected Reading |
| $R_C$ | = | Corrected Level |
| AF | = | Antenna Factor |
| CA | = | Cable Attenuation |
| AG | = | Amplifier Gain |
| DC | = | Duty Cycle Correction Factor |

**Example Calculation: Peak**
Corrected Level: 52.73 - 5.46 = 47.27dBuV/m
Margin: 74dBuV/m – 47.27dBuV/m = 26.7dB

**Example Calculation: Average**
Corrected Level: 41.86 - 5.46 + 0 = 36.40dBuV
Margin: 54dBuV – 36.40dBuV = 17.6dB

## 8 CONCLUSION

In the opinion of ACS, Inc. the SXi1, manufactured by SIRIUS XM Radio Inc., meets the requirements of FCC Part 15 subpart C and Industry Canada's Radio Standards Specification RSS-210 as applicable to the tests results provided in this report.

# END REPORT