Excellence in Compliance Testing

Certification Test Report

FCC ID: SDBLGZ1000
IC: 2220A-LGZ1000

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

ACS Report Number: 11-2093.W06.1B

Manufacturer: Sensus Metering Systems, Inc.
Model: 560 Xz

Test Begin Date: **December 01, 2011**
Test End Date: **April 18, 2012**

Report Issue Date: May 30, 2012

ACCREDITED TESTING

FOR THE SCOPE OF ACCREDITATION UNDER CERTIFICATE NUMBER AT-1533

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

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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 a modular approval.

1.2 Product description

The 560 Xz is a printed circuit board that can be installed within a Landis and Gyr (L+G) electric meter to facilitate wireless communication capability between the meter and a back-end system. The radio can also form a ZigBee home area network (HAN). The combination of the two radios provides a utility with the means to communicate between a back-end system and individual devices (e.g. in-premise display) on the HAN.

Technical Information:
Band of Operation: 2405 MHz - 2480 MHz
Number of Channels: 16
Modulation Format: O-QPSK
Antenna Type/Gain: Meandered F PCB antenna, -6 dBi
Operating Voltage: 3.6 VDC

Manufacturer Information:
Sensus Metering Systems, Inc.
639 Davis Drive
Morrisville, NC 27560

Test Sample Serial Number(s):
081091700363484800 1D23010000E40C,
081091700362873100 1D23010000CC27,
081091700363200100 1D23010000D8ED,
081091700363751200 1D23010000EE74,
081091700363488600 1D23010000E432,
081091700363493100 1D23010000E45F

Note: The samples used for the Radiated and RF conducted evaluation were preset to an individual frequency corresponding to the low, middle and high channels of the band of operation.

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

1.3 Test Methodology and Considerations

The 560 Xz was evaluated in full for compliance to the standards listed above. For radiated emissions, including band edge, the EUT was evaluated in the orientation of typical installation. For the purpose of RF conducted measurements, the modules tested were provided with a temporary 50 ohm SMA connector at the antenna port.

The 560 Xz contains multiple transceivers which can operate simultaneously, the Flexnet transceiver and the Zigbee transceiver. These transceivers do not share the same antenna; therefore only radiated intermodulation products were evaluated. Radiated inter-modulation products were compliant.

The power line conducted emissions evaluation was performed for the EUT inserted inside of a Landis and Gyr (L+G) meter. The power line conducted emission results are reported for the configuration leading to the highest emissions.

This report only addresses the Zigbee radio section which operates under FCC Part 15.247 as well as IC RSS-210. The Flexnet (Licensed) operation under FCC Part 24, 90 and 101 as well as IC RSS-119 and RSS-134 are addressed in a separate certification report.

The unintentional emissions evaluations are documented separately in a Verification Report.

2 TEST FACILITIES

2.1 Location

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

Advanced Compliance Solutions, Inc.
3998 FAU Blvd, Suite 310
Boca Raton, Florida 33431
Phone: (561) 961-5585
Fax: (561) 961-5587
www.acstestlab.com

FCC Test Firm Registration #: 587595
Industry Canada Lab Code: 4175C

2.2 Laboratory Accreditations/Recognitions/Certifications

ACS is accredited to ISO/IEC 17025 by ANSI-ASQ National Accreditation Board under their ACLASS program and has been issued certificate number AT-1533 in recognition of this accreditation. Unless otherwise specified, all test methods described within this report are covered under the ISO/IEC 17025 scope of accreditation.

2.3 Radiated & Conducted Emissions Test Site Description

2.3.1 Semi-Anechoic Chamber Test Site

The EMC radiated test facility consists of an RF-shielded enclosure. The interior dimensions of the indoor semi-anechoic chamber are approximately 48 feet (14.6 m) long by 36 feet (10.8 m) wide by 24 feet (7.3 m) high and consist of rigid, 1/8 inch (0.32 cm) steel-clad, wood core modular panels with steel framing. In the shielded enclosure, the faces of the panels are galvanized and the chamber is self-supporting. 8-foot RF absorbing cones are installed on 4 walls and the ceiling. The steel-clad ground plane is covered with vinyl floor.

The turntable is driven by pneumatic motor, which is capable of supporting a 2000 lb. load. The turntable is flushed with the chamber floor which it is connected to, around its circumference, with a continuous metallic loaded spring. An EMCO Model 1050 Multi-device Controller controls the turntable position.

A pneumatic motor is used to control antenna polarizations and height relative to the ground. The height information is displayed on the control unit EMCO Model 1050.

The control room is an RF shielded enclosure attached to the semi-anechoic chamber with two bulkhead panels for connecting RF, and control cables. The dimension of the room is 7.3 m x 4.9 m x 3 m high and the entrance doors of both control and conducted rooms are 3 feet (0.91 m) by 7 feet (2.13 m).

A diagram of the Semi-Anechoic Chamber Test Site is shown in Figure 2.3.1-1 below:

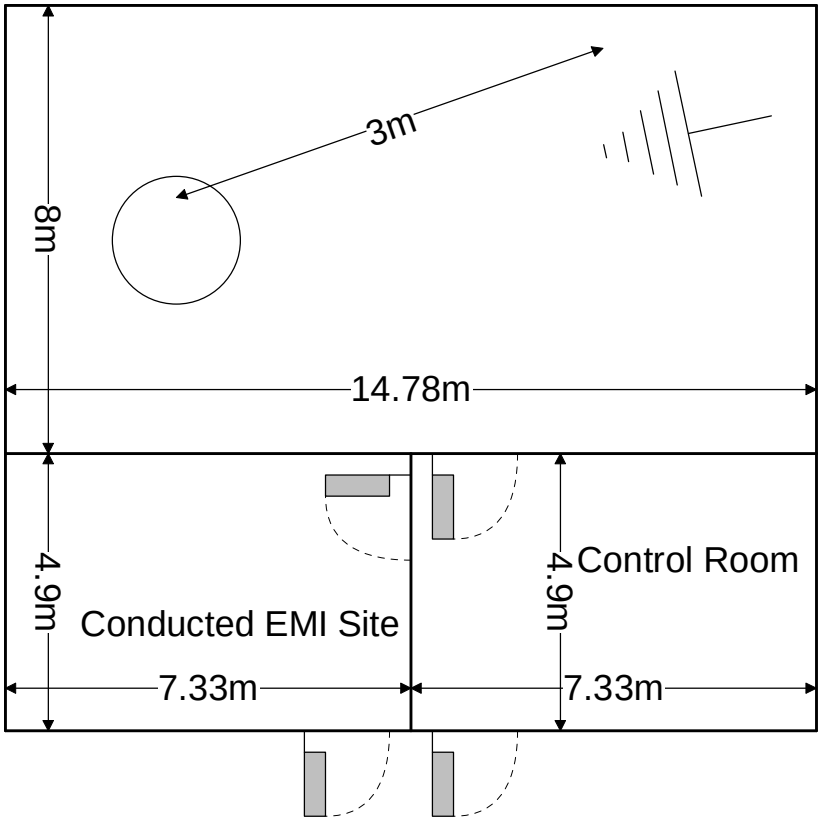

Figure 2.3.1-1: Semi-Anechoic Chamber Test Site

2.3.2 Conducted Emissions Test Site Description

The dimensions of the shielded conducted room are 7.3 x 4.9 x 3 m^3. As per ANSI C63.4 2003 requirements, the data were taken using two LISNs; a Solar Model 8028-50 50 Ω/50 µH and an EMCO Model 3825, which are installed as shown in Photograph 3. For 220 V, 50 Hz, a Polarad LISN (S/N 879341/048) is used in conjunction with a 1 kVA, 50 Hz/220 V EDGAR variable frequency generator, Model 1001B, to filter conducted noise from the generator.

A diagram of the room is shown below in figure 2.3.2-1:

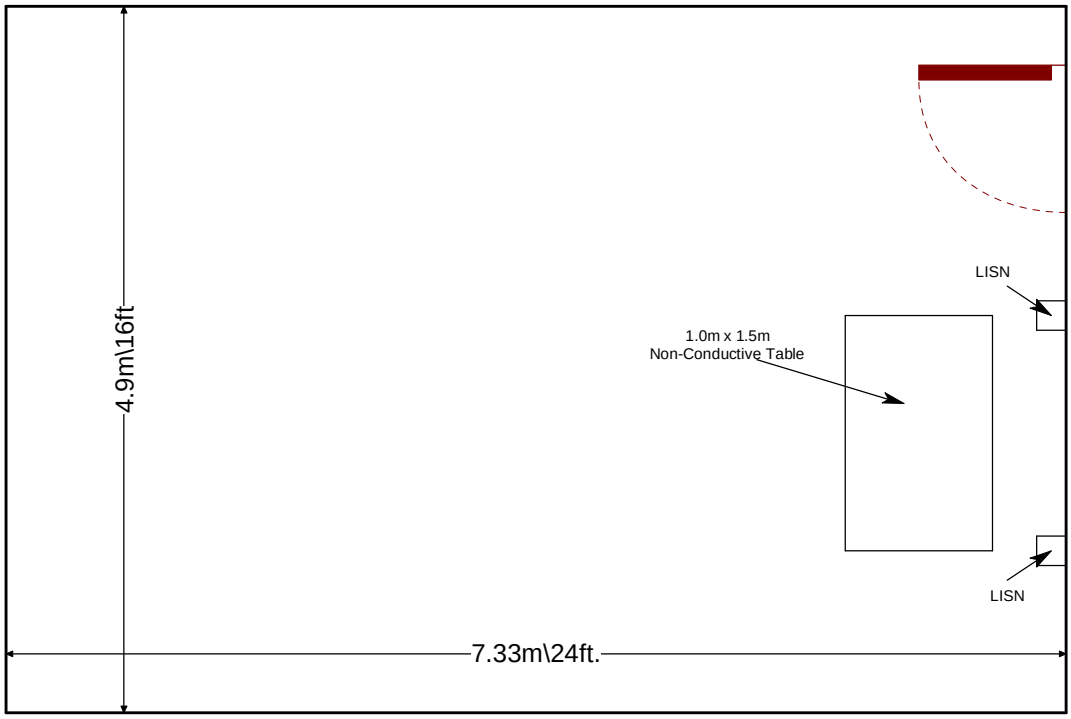

Figure 2.3.2-1: AC Mains Conducted EMI Site

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, 2012
- US Code of Federal Regulations (CFR): Title 47, Part 15, Subpart C: Radio Frequency Devices, Intentional Radiators, 2012
- KDB Publication No. 558074 – Guidance for Performing Measurements on Digital Transmission Systems (DTS) Operating under Section 15.247, January 18, 2012
- 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
523	Agilent	E7405	Spectrum Analyzers	MY45103293	1/5/2011	1/5/2013
524	Chase	CBL6111	Antennas	1138	1/7/2011	1/7/2013
2006	EMCO	3115	Antennas	2573	3/2/2011	3/2/2013
2008	COM-Power	AH-826	Antennas	81009	NCR	NCR
2011	Hewlett-Packard	HP 8447D	Amplifiers	2443A03952	1/3/2011	1/3/2012
2011	Hewlett-Packard	HP 8447D	Amplifiers	2443A03952	1/2/2012	1/2/2013
2022	EMCO	LISN3825/2R	LISN	1095	8/19/2011	8/19/2013
2037	ACS Boca	Chamber EMI Cable Set	Cable Set	2037	1/7/2011	1/7/2012
2037	ACS Boca	Chamber EMI Cable Set	Cable Set	2037	1/2/2012	1/2/2013
2044	QMI	N/A	Cables	2044	1/7/2011	1/7/2012
2044	QMI	N/A	Cables	2044	1/2/2012	1/2/2013
2045	ACS Boca	Conducted Cable Set	Cable Set	2045	1/6/2011	1/6/2012
2045	ACS Boca	Conducted Cable Set	Cable Set	2045	1/2/2012	1/2/2013
2064	CIR Q-TEL	FHT/22-10K-13/50-3A/3A	Filter	9	1/15/2011	1/15/2012
2064	CIR Q-TEL	FHT/22-10K-13/50-3A/3A	Filter	9	12/30/2011	12/30/2012
2070	Mini Circuits	VHF-8400+	Filter	2070	2/3/2011	2/3/2012
2070	Mini Circuits	VHF-8400+	Filter	2070	1/19/2012	1/19/2013
2072	Mini Circuits	VHF-3100+	Filter	30737	2/3/2011	2/3/2012
2072	Mini Circuits	VHF-3100+	Filter	30737	1/19/2012	1/19/2013
2075	Hewlett Packard	8495B	Attenuators	2626A11012	1/2/2012	1/2/2013
2076	Hewlett Packard	HP5061-5458	Cables	2076	2/2/2011	2/2/2012
2076	Hewlett Packard	HP5061-5458	Cables	2076	1/2/2012	1/2/2013
2082	Teledyne Storm Products	90-010-048	Cables	2082	6/6/2011	6/6/2012
2086	Merrimac	FAN-6-10K	Attenuators	23148-83-1	12/30/2011	12/30/2012
2091	Agilent Technologies, Inc.	8573A	Spectrum Analyzers	2407A03233	12/12/2011	12/12/2013
RE586	Agilent Technologies, Inc.	83017A	Amplifiers	3123A00168	9/23/2011	9/23/2012

NCR=No Calibration Required

5 SUPPORT EQUIPMENT

Table 5-1: Support Equipment – Radiated Emissions

Item	Equipment Type	Manufacturer	Model Number	Serial Number
1	DC Power Supply	MPJA	HY5003	003700278

Table 5-2: Support Equipment – Power Line Conducted Emissions

Item	Equipment Type	Manufacturer	Model Number	Serial Number
1	Electric Meter	Landis+Gyr	Focus AXR PACII Form 2S CL200	109122891
2	Meter Socket	Landis+Gyr	Type 3R	UAT111-0JCA

6 EQUIPMENT UNDER TEST SETUP BLOCK DIAGRAM

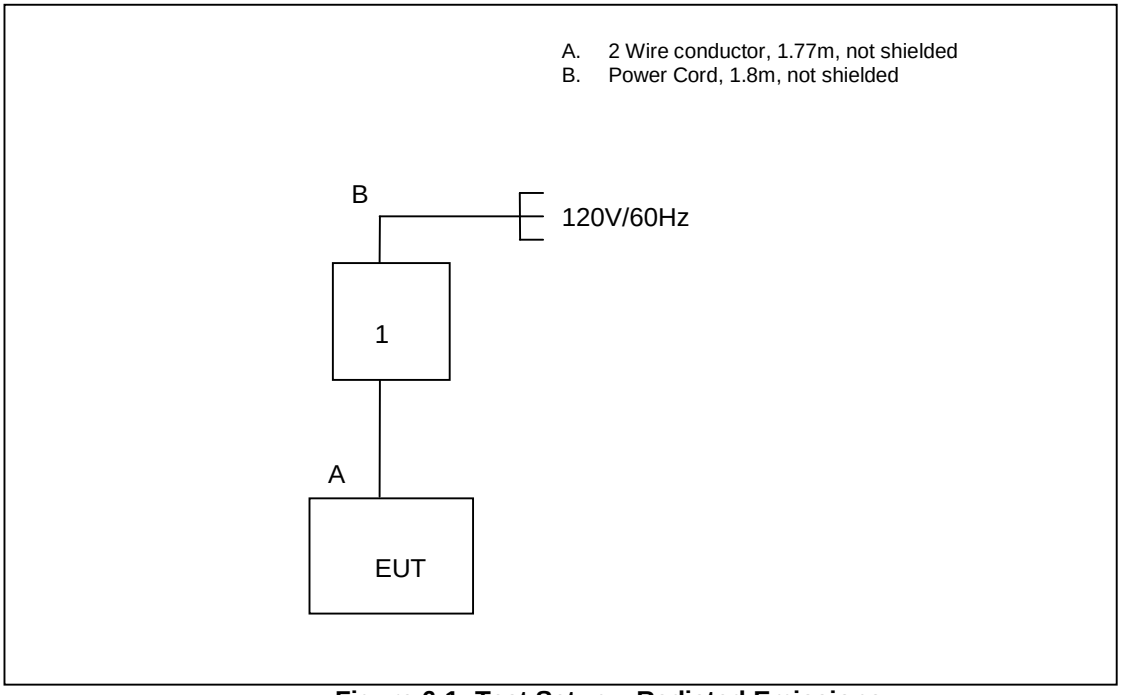

Figure 6-1: Test Setup – Radiated Emissions

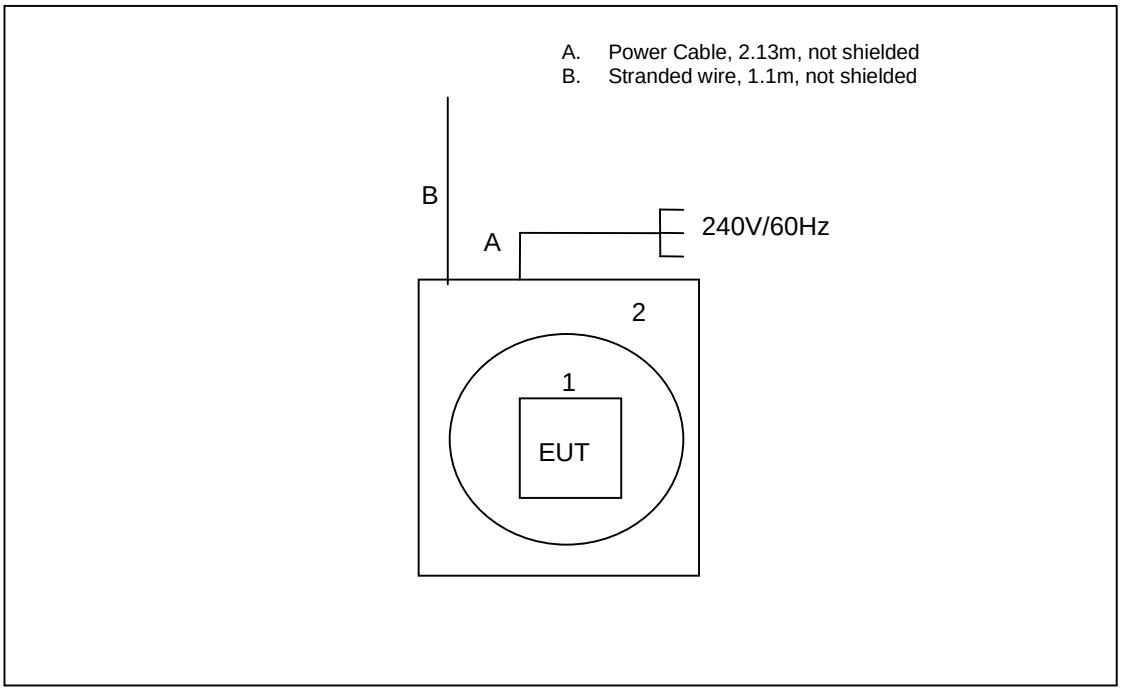

Figure 6-2: Test Setup – Power Line Conducted Emissions

7 SUMMARY OF TESTS

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

7.1 Antenna Requirement – FCC: Section 15.203

The 560 Xz uses a meandered F printed antenna, thus meeting the requirements of 15.203.

7.2 6 dB Bandwidth - FCC: Section 15.247(a)(2) IC: RSS-210 A8.2(a)

7.2.1 Measurement Procedure

The 6dB bandwidth was measured in accordance with the FCC KDB Publication No. 558074 “Guidance for Performing Compliance Measurements on Digital Transmission Systems (47 CFR 15.247)”. The RBW of the spectrum analyzer was set to 30 kHz and VBW 100 kHz. Span was set large enough to capture the entire emissions and >> RBW.

The 99% occupied bandwidth was measured with the spectrum analyzer span set to fully display the emission, including the emissions skirts. The RBW was to 1% of the span. The occupied 99% bandwidth was measured by using a delta marker at the lower and upper frequencies leading to 0.5% of the total power.

7.2.2 Measurement Results

Results are shown below.

Table 7.2.2-1: 6dB / 99% Bandwidth

Frequency [MHz]	6dB Bandwidth [kHz]	99% Bandwidth (kHz)
2405	1800	2830
2440	1810	2860
2480	1820	2840

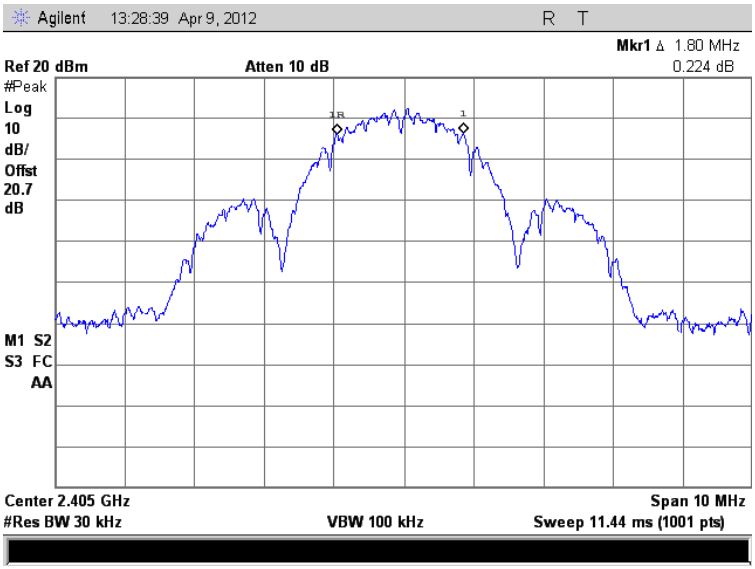

Figure 7.2.2-1: 6dB BW - Low Channel

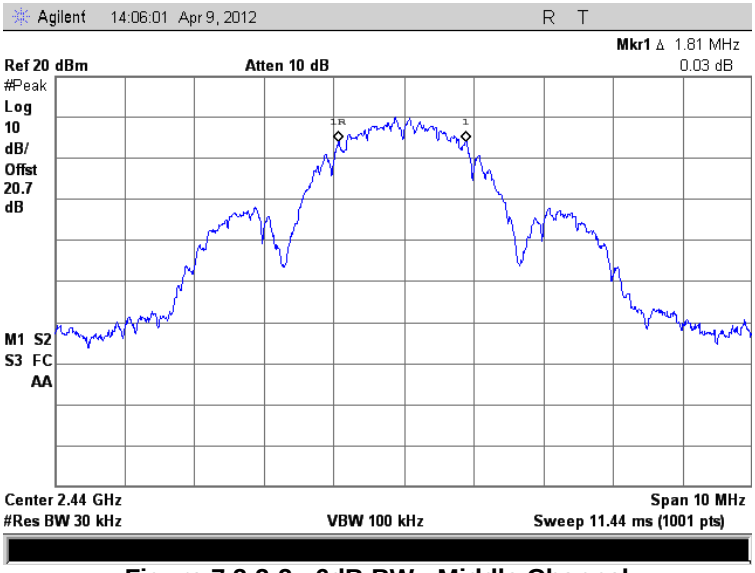

Figure 7.2.2-2: 6dB BW - Middle Channel

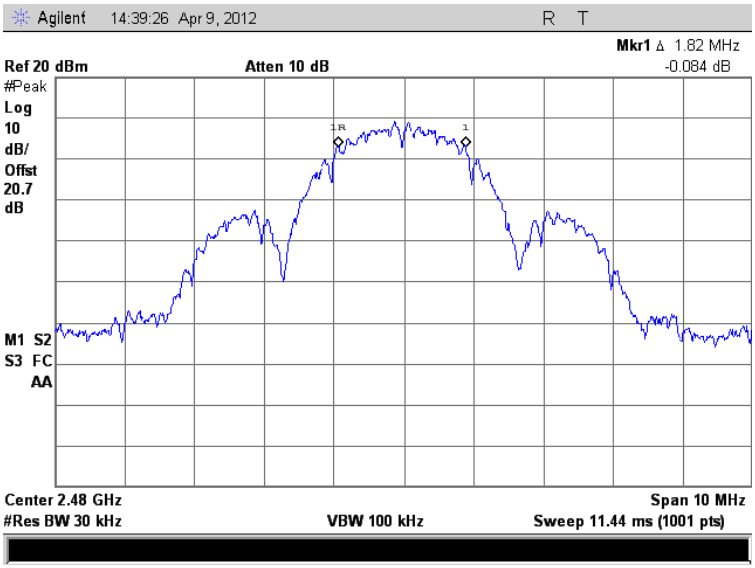

Figure 7.2.2-3: 6dB BW - High Channel

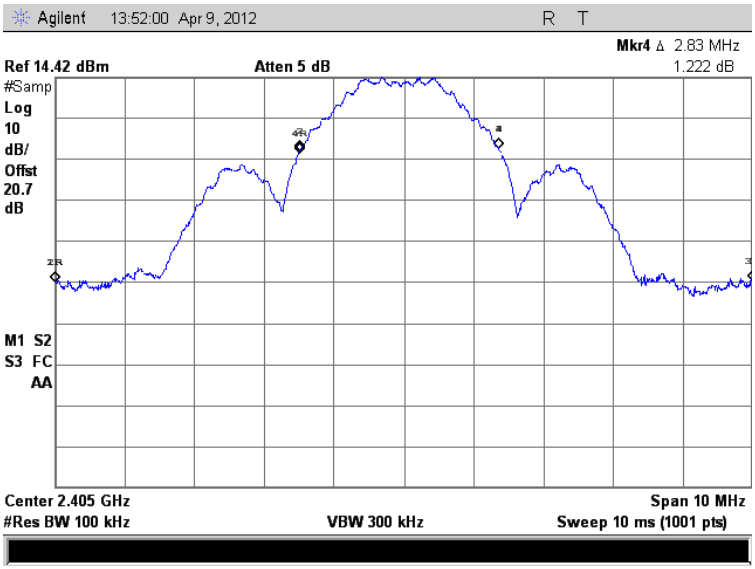

Figure 7.2.2-4: 99% OBW - Low Channel

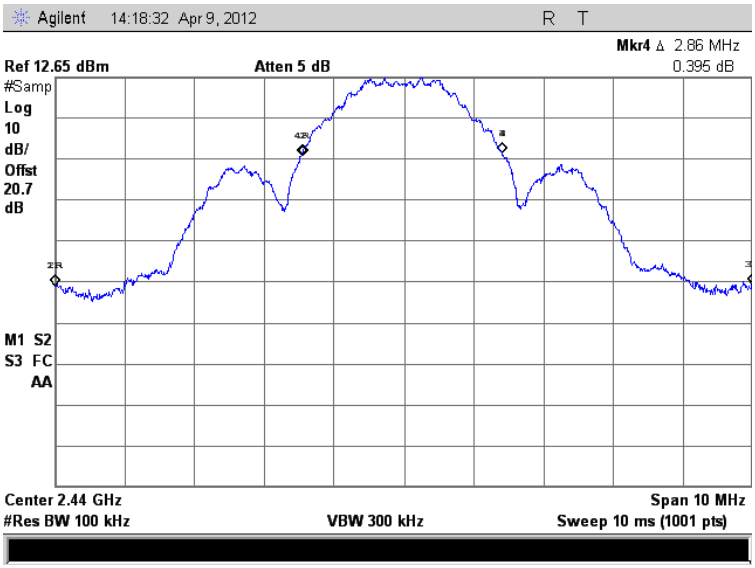

Figure 7.2.2-5: 99% OBW - Middle Channel

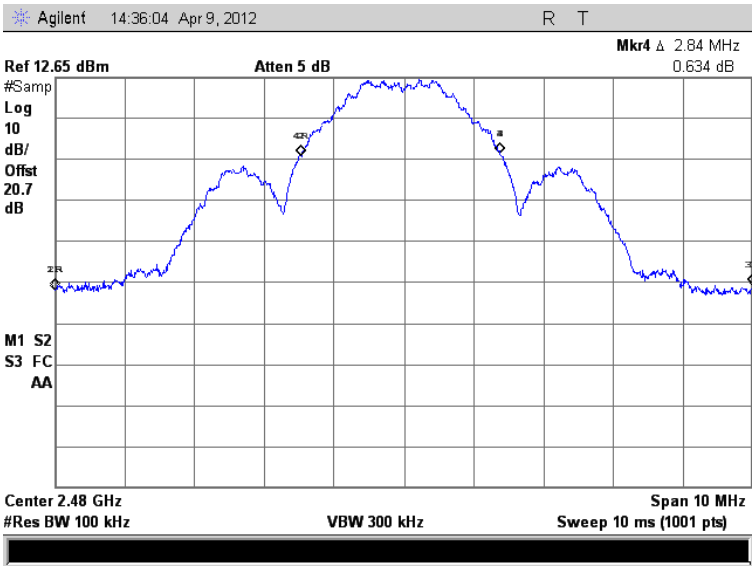

Figure 7.2.2-6: 99% OBW - High Channel

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

7.3.1 Measurement Procedure (Conducted Method)

The Peak Output Power was measured in accordance with the FCC KDB Publication No. 558074 "Guidance for Performing Compliance Measurements on Digital Transmission Systems (47 CFR 15.247)" Measurement Procedure PK2. The RF output of the equipment under test was directly connected to the input of the Spectrum Analyzer. Data was collected with the EUT operating at maximum power per channelization.

7.3.2 Measurement Results

Results are shown below.

Table 7.3.2-1: RF Output Power

Frequency [MHz]	Level [dBm]
2405	21.17
2440	19.31
2480	18.20

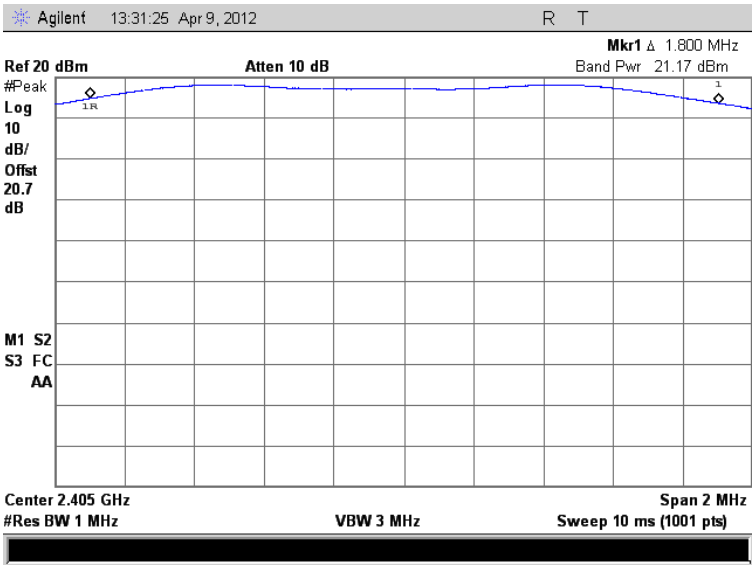

Figure 7.3.2-1: RF Output Power - Low Channel

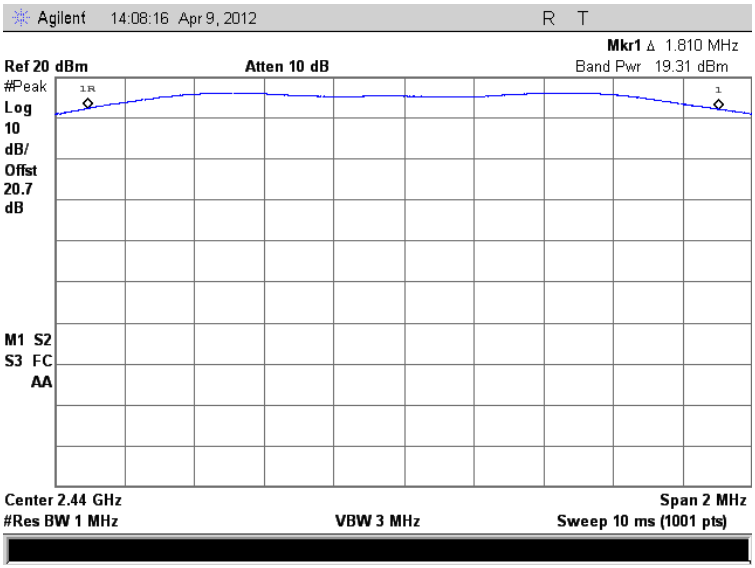

Figure 7.3.2-2: RF Output Power - Middle Channel

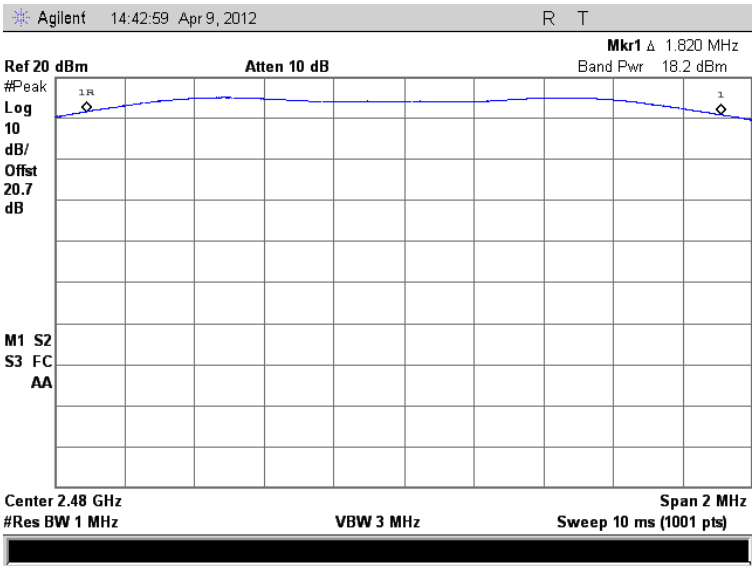

Figure 7.3.2-3: RF Output Power - High Channel

7.4 Band-Edge Compliance and Spurious Emissions-FCC 15.247(d) IC:RSS-210 A8.5

7.4.1 Band-Edge Compliance of RF Conducted Emissions

7.4.1.1 Measurement Procedure

The RF output port of the EUT was directly connected to the input of the spectrum analyzer. The EUT was investigated at the lowest and highest channel available to determine band-edge compliance. For each measurement the spectrum analyzer's RBW was set to 100 kHz, and the VBW was set to 300 kHz.

7.4.1.2 Measurement Results

Results are shown below.

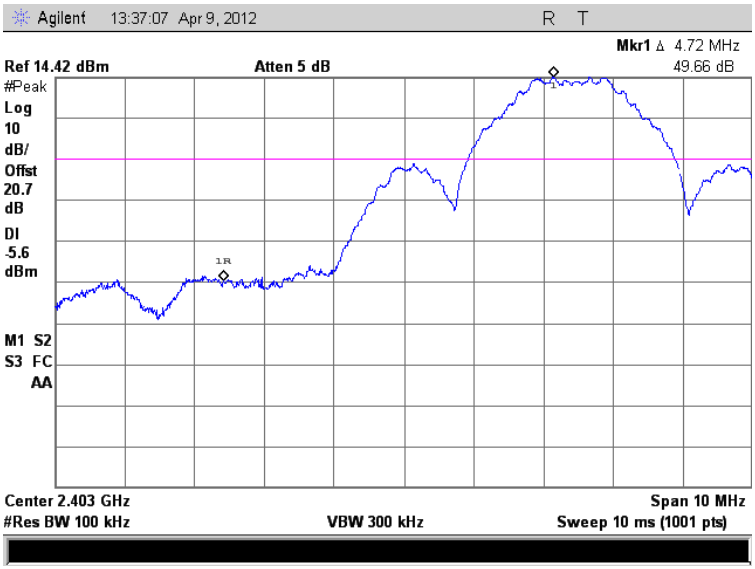

Figure 7.4.1.2-1: Lower Band-edge

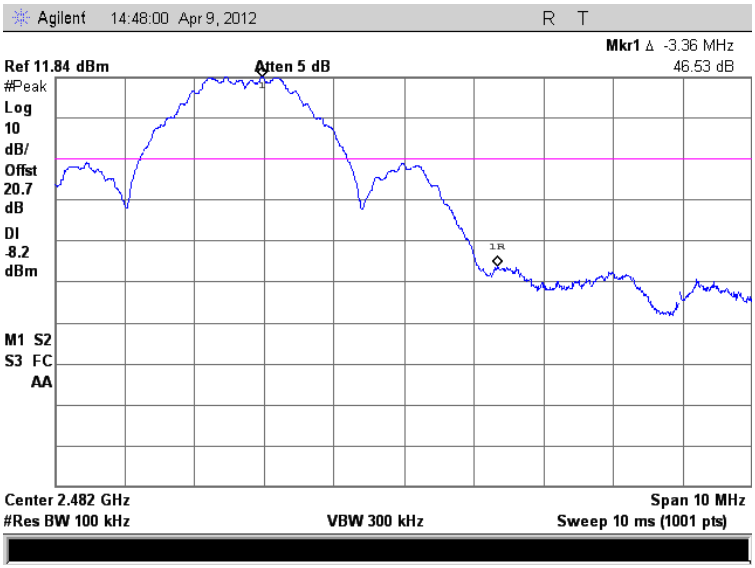

Figure 7.4.1.2-2: Upper Band-edge

7.4.2 Band-Edge Compliance of Radiated Emissions

7.4.2.1 Measurement Procedure

Because the upper band-edge coincides with a restricted band, band-edge compliance for the upper band-edge was determined using the radiated marker-delta method. The radiated field strength of the fundamental emission was first measured and then the marker-delta method was used to determine the field strength of the band-edge emission.

7.4.2.2 Measurement Results

Results are shown below.

Table 7.4.2.2-1: Upper Band-edge – Marker-Delta Method

Frequency (MHz)	Uncorrected Level (dBuV)		Antenna Polarity	Correction Factors	Fundamental Level (dBuV/m)		Marker-Delta (dB)	Band-Edge Level (dBuV/m)		Margin to Limits (dB)	
										74	54
	pk	Qpk/Avg	(H/V)	(dB)	pk	Qpk/Avg		pk	Qpk/Avg	pk	Qpk/Avg
2480	109.50	105.30	H	-9.92	99.58	95.38	45.26	54.32	50.12	19.68	3.88
2480	104.90	100.70	V	-9.92	94.98	90.78	45.45	49.53	45.33	24.47	8.67

Note: Delta Marker method at the upper band edge

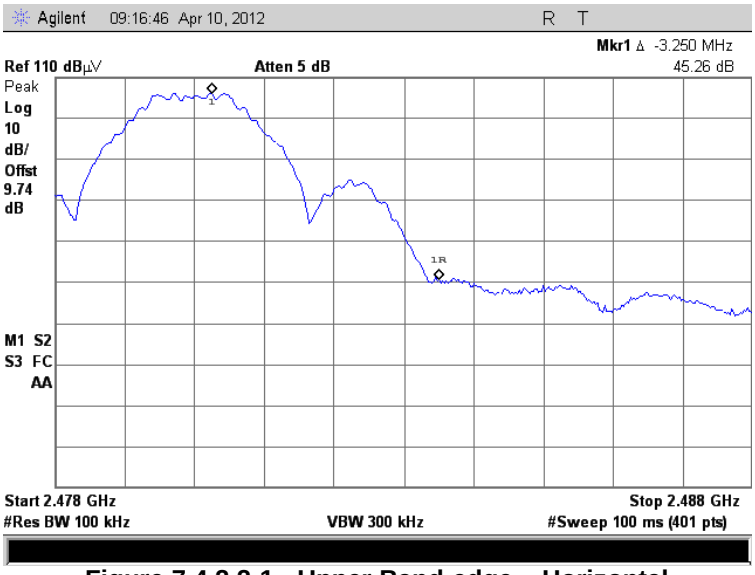

Figure 7.4.2.2-1: Upper Band-edge – Horizontal

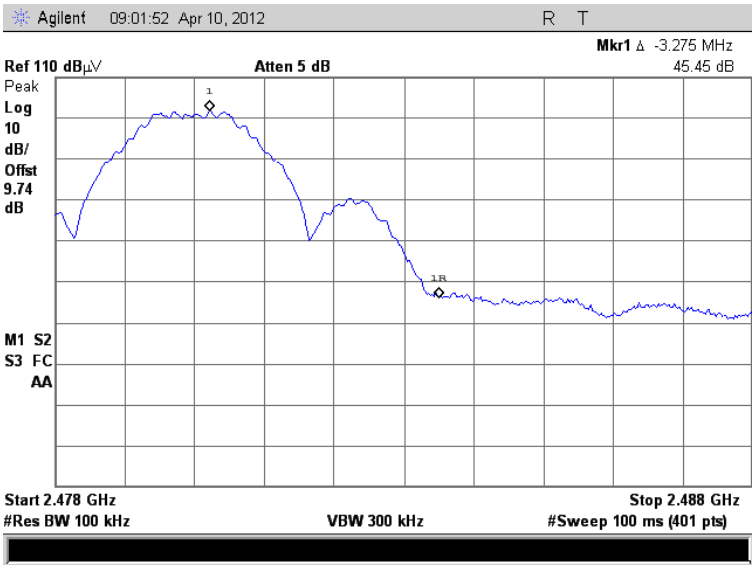

Figure 7.4.2.2-2: Upper Band-edge - Vertical

7.4.3 RF Conducted Spurious Emissions

7.4.3.1 Measurement Procedure

The RF Conducted Spurious Emissions were measured in accordance with the FCC KDB Publication No. 558074 "Guidance for Performing Compliance Measurements on Digital Transmission Systems (47 CFR 15.247)". The RF output port of the equipment under test was directly connected to the input of the spectrum analyzer. The EUT was investigated for conducted spurious emissions from 30MHz to 26 GHz, 10 times the highest fundamental frequency. Measurements were made at the low, center and high channels of the EUT. For each measurement, the spectrum analyzer's RBW was set to 100 kHz and the VBW was set to 300 kHz. The peak Max Hold function of the analyzer was utilized.

7.4.3.2 Measurement Results

Results are shown below.

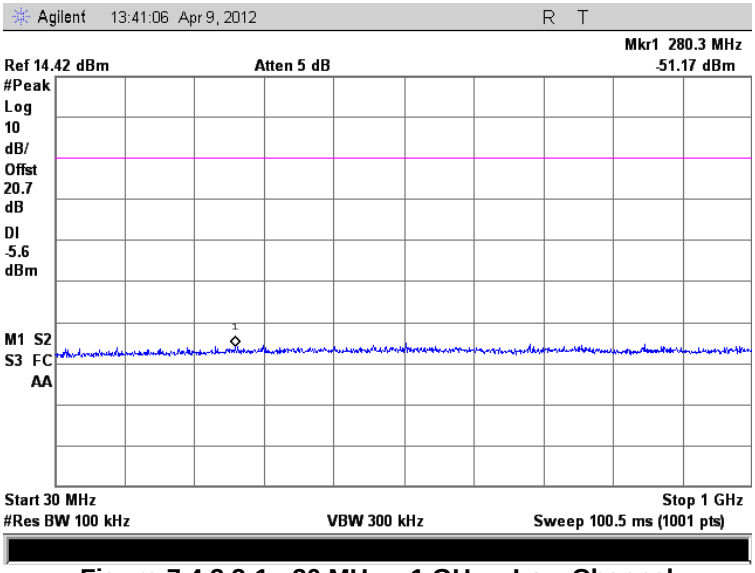

Figure 7.4.3.2-1: 30 MHz – 1 GHz – Low Channel

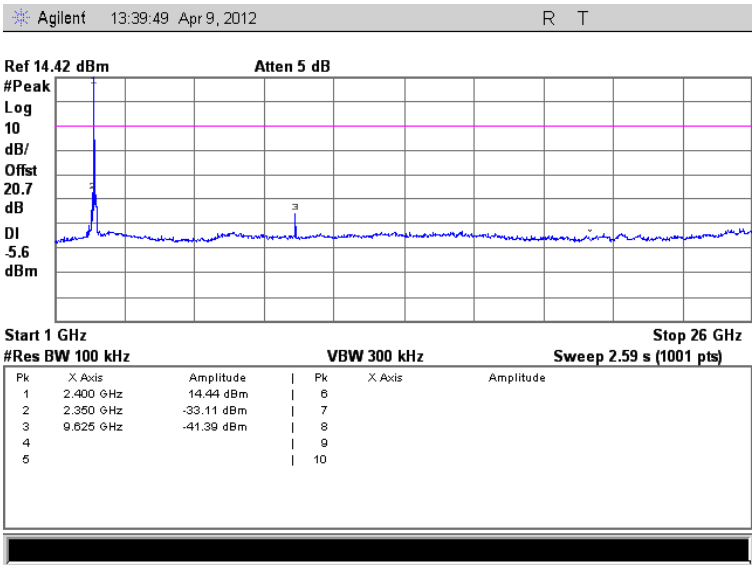

Figure 7.4.3.2-2: 1 GHz – 26 GHz – Low Channel

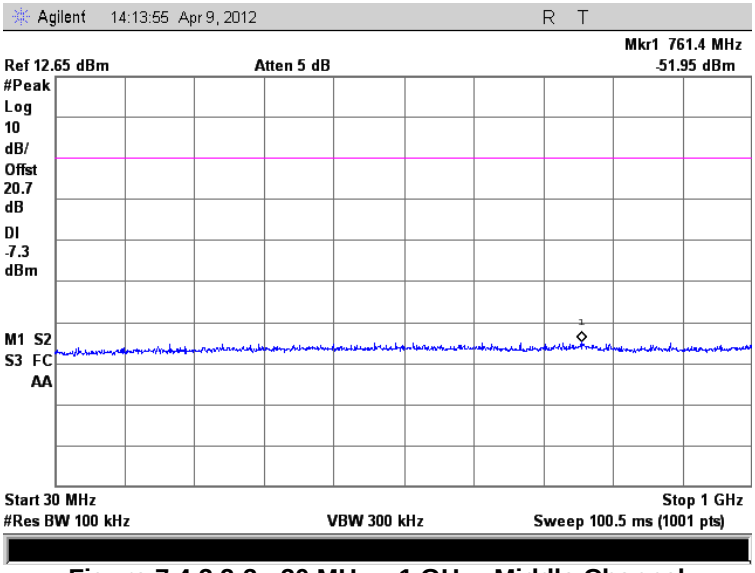

Figure 7.4.3.2-3: 30 MHz – 1 GHz –Middle Channel

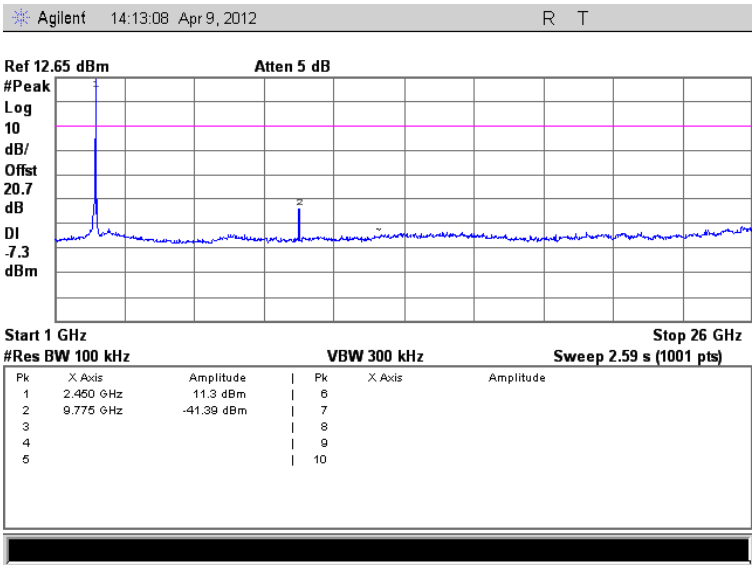

Figure 7.4.3.2-4: 1 GHz – 26 GHz – Middle Channel

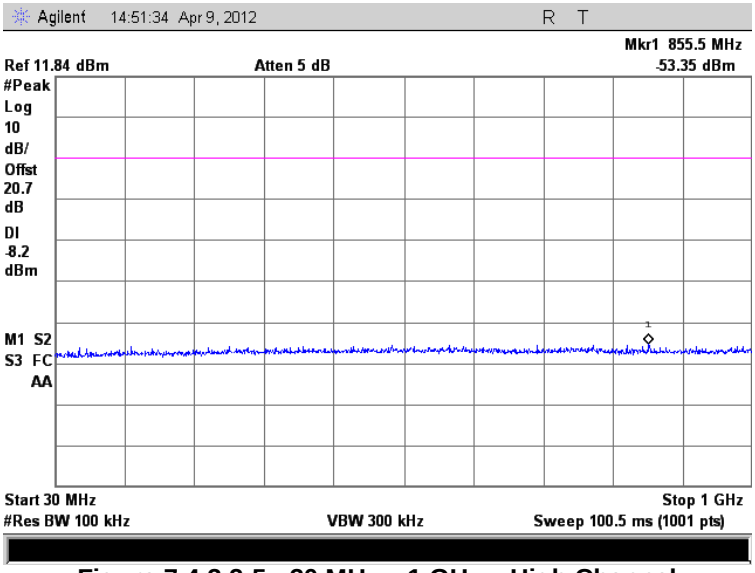

Figure 7.4.3.2-5: 30 MHz – 1 GHz – High Channel

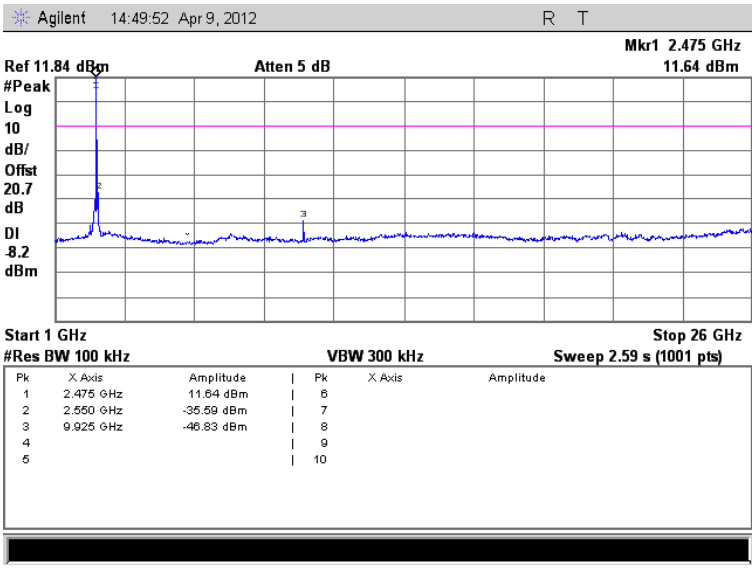

Figure 7.4.3.2-6: 1 GHz – 26 GHz –High Channel

7.4.4 Radiated Spurious Emissions - FCC Section 15.205 IC: RSS-210 2.2, RSS-GEN 7.2.5

7.4.4.1 Measurement Procedure

Radiated emissions tests were made over the frequency range of 30MHz to 26GHz, 10 times the highest fundamental frequency.

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. For frequencies below 1000MHz, quasi-peak measurements were made using a resolution bandwidth RBW of 120 kHz and a video bandwidth VBW of 300 kHz. For frequencies above 1000MHz, peak and average measurements made with RBW of 1 MHz and VBW of 3MHz and 10 Hz respectively.

Each emission found to be in a restricted band was compared to the applicable radiated limits.

7.4.4.2 Measurement Results

Radiated spurious emissions found in the band of 30MHz to 26 GHz are reported below.

Table 7.4.4.2-1: Radiated Spurious Emissions Tabulated Data

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
Low Channel 2405 MHz										
4810	59.67	53.44	H	-2.74	56.93	50.70	74.0	54.0	17.10	3.30
4810	55.66	48.47	V	-2.74	52.92	45.73	74.0	54.0	21.10	8.30
12025	49.38	37.15	H	9.66	59.04	46.81	83.5	63.5	24.50	16.70
12025	47.31	34.27	V	9.66	56.97	43.93	83.5	63.5	26.50	19.60
Middle Channel 2440 MHz										
4880	57.25	50.28	H	-2.55	54.70	47.73	74.0	54.0	19.30	6.30
4880	53.54	45.31	V	-2.55	50.99	42.76	74.0	54.0	23.00	11.20
7320	52.02	41.43	H	1.60	53.62	43.03	74.0	54.0	20.40	11.00
7320	50.37	38.92	V	1.60	51.97	40.52	74.0	54.0	22.00	13.50
12200	48.32	35.48	H	9.78	58.10	45.26	83.5	63.5	25.40	18.20
High Channel 2480 MHz										
4960	59.03	52.29	H	-2.35	56.68	49.94	74.0	54.0	17.30	4.10
4960	58.61	52.11	V	-2.35	56.26	49.76	74.0	54.0	17.70	4.20
7440	55.21	45.75	H	1.98	57.19	47.73	74.0	54.0	16.80	6.30
7440	53.04	41.86	V	1.98	55.02	43.84	74.0	54.0	19.00	10.20
12400	55.94	46.58	H	9.93	65.87	56.51	83.5	63.5	17.60	7.00
12400	50.46	39.20	V	9.93	60.39	49.13	83.5	63.5	23.10	14.40

Notes:
All emissions above 12400 MHz were attenuated below the noise floor of the measurement equipment and the limits.
The measurements above 10 GHz were performed at 1m. The limits at 3m are corrected using the distance factor of 20*log(3/1) dB = 9.5 dB.

7.4.4.3 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: 59.67 + (-2.74) = 56.93 dBµV/m
Margin: 74 dBµV/m – 56.93 dBµV/m = 17.07dB

Example Calculation: Average
Corrected Level: 53.44 + (-2.74) = 50.07 dBµV/m
Margin: 54 dBµV/m – 50.07 dBµV/m = 3.3 dB

7.5 Power Spectral Density - FCC Section 15.247(e) IC: RSS-210 A8.2(b)

7.5.1 PSD Measurement Procedure (Conducted Method)

The power spectral density was measured in accordance with the FCC KDB Publication No. 558074 "Guidance for Performing Compliance Measurements on Digital Transmission Systems (47 CFR 15.247)" Measurement Procedure PKPSD. The RF output port of the EUT was directly connected to the input of the spectrum analyzer. Offset values were input for cable and attenuation. The spectrum analyzer RBW was set to 100 kHz and VBW 300 kHz. Span was adjusted to 5-30% of the 6 dB bandwidth and the sweep time was set to auto. The PSD was calculated by using the BWCF = 10*log(3 kHz/100kHz) = -15.2 dB.

7.5.2 Measurement Results

Results are shown below.

Table 7.5.2-1: Power Spectral Density

Frequency (MHz)	PSD/100kHz (dBm)	Correction Factor (dB)	PSD/3kHz (dBm)	Limit (dBm)	Margin (dB)
2405	14.42	15.2	-0.78	8	8.78
2440	12.65	15.2	-2.55	8	10.55
2480	11.84	15.2	-3.36	8	11.36

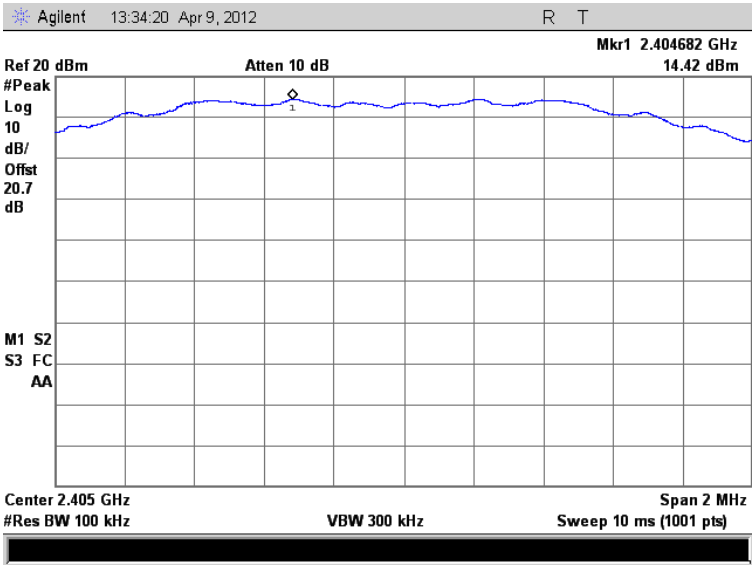

Figure 7.5.2-1: Power Spectral Density - Low Channel

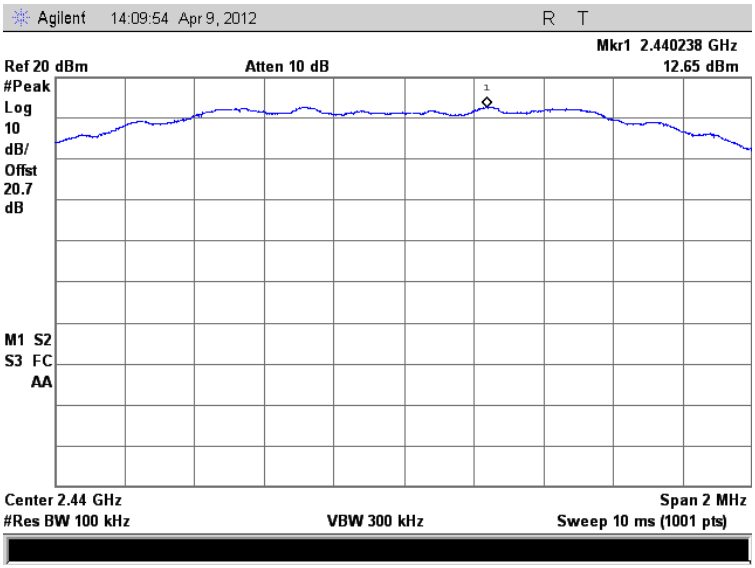

Figure 7.5.2-2: Power Spectral Density - Middle Channel

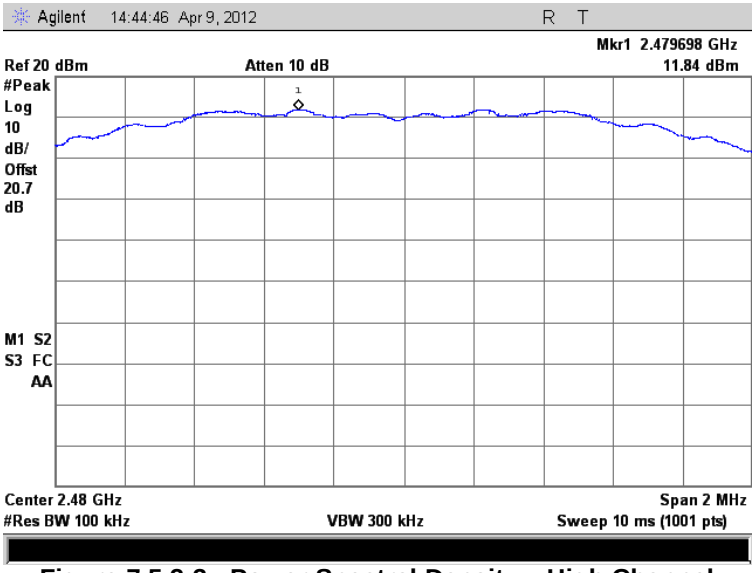

Figure 7.5.2-3: Power Spectral Density – High Channel

7.6 Power Line Conducted Emissions – FCC: Section 15.207 IC: RSS-Gen 7.2.4

7.6.1 Measurement Procedure

ANSI C63.4 sections 6 and 7 were the guiding documents for this evaluation. Conducted emissions were performed from 150kHz to 30MHz with the spectrum analyzer's resolution bandwidth set to 9kHz and the video bandwidth set to 30kHz. The calculation for the conducted emissions is as follows:

Corrected Reading = Analyzer Reading + LISN Loss + Cable Loss
Margin = Applicable Limit - Corrected Reading

7.6.2 Measurement Results

Results of the test are shown below.

Table 7.6.2-1: Line 1 Conducted EMI Results

☒ Line 1
☒ To Ground ☐ Floating
☐ Telecom Port _____
☒ dBµV ☐ dBµA

Plot Number: 11-2093CE01
Power Supply Description: N/A

Frequency (MHz)	Uncorrected Reading		Total Correction Factor (dB)	Corrected Level		Limit		Margin (dB)	
	Quasi-Peak	Average		Quasi-Peak	Average	Quasi-Peak	Average	Quasi-Peak	Average
Line 1									
0.262488	57.917	50.194	0.89	58.81	51.09	61.35	51.35	2.5	0.3
0.53565	46.719	41.391	0.52	47.24	41.91	56.00	46.00	8.8	4.1
0.679113	47.668	39.887	0.49	48.16	40.38	56.00	46.00	7.8	5.6
0.922088	45.539	38.264	0.46	46.00	38.72	56.00	46.00	10.0	7.3
2.79087	43.628	36.562	0.49	44.12	37.06	56.00	46.00	11.9	8.9
2.85491	45.285	38.414	0.50	45.79	38.92	56.00	46.00	10.2	7.1
2.9148	45.051	38.449	0.51	45.56	38.96	56.00	46.00	10.4	7.0
2.93809	44.832	38.671	0.51	45.34	39.18	56.00	46.00	10.7	6.8
2.95841	45.034	38.69	0.51	45.55	39.20	56.00	46.00	10.5	6.8
3.0084	43.404	37.178	0.52	43.92	37.70	56.00	46.00	12.1	8.3

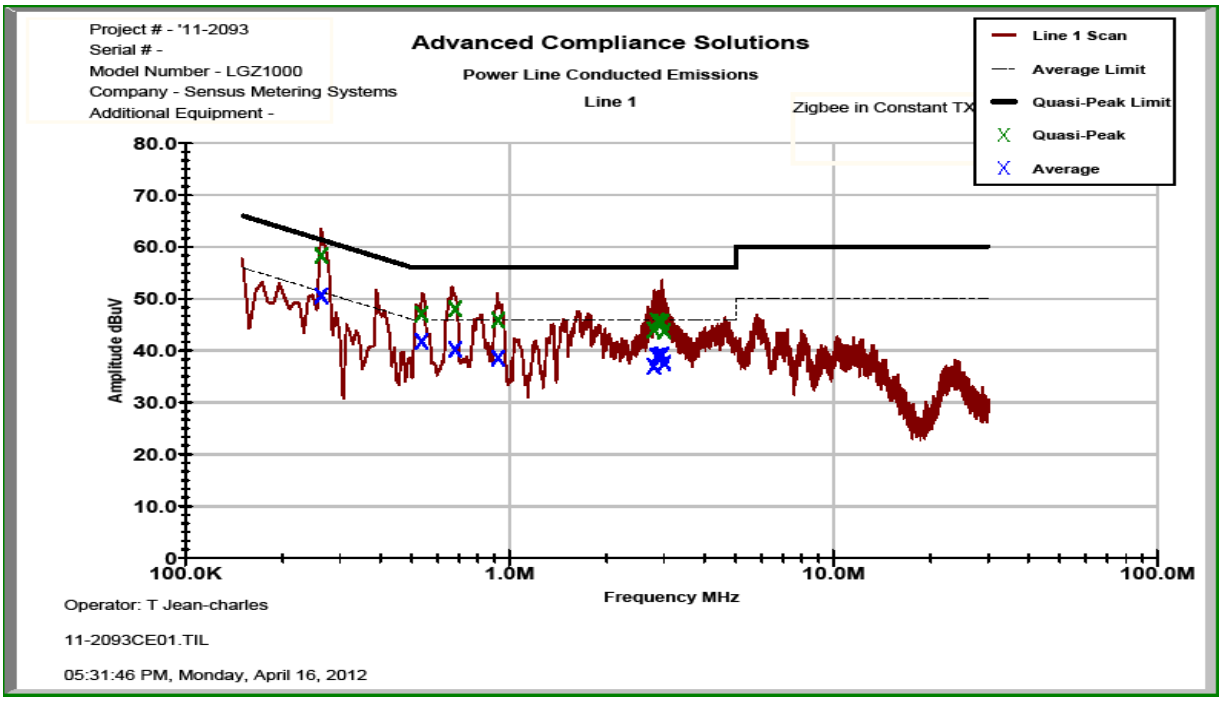

Figure 7.6.2-1: Line 1 Conducted EMI Results

Table 7.6.2-2: Line 2 Conducted EMI Results

☒ Line 2
☒ To Ground ☐ Floating
☐ Telecom Port ____
☒ dBµV ☐ dBµA

Plot Number: 11-2093CE01
Power Supply Description: N/A

Frequency (MHz)	Uncorrected Reading		Total Correction Factor (dB)	Corrected Level		Limit		Margin (dB)	
	Quasi-Peak	Average		Quasi-Peak	Average	Quasi-Peak	Average	Quasi-Peak	Average
Line 2									
0.152331	54.113	45.729	1.53	55.64	47.26	65.87	55.87	10.2	8.6
0.263087	57.967	49.791	0.87	58.84	50.66	61.33	51.33	2.5	0.7
0.3646	35.768	28.507	0.66	36.43	29.17	58.62	48.62	22.2	19.5
0.4001	47.056	37.064	0.60	47.65	37.66	57.85	47.85	10.2	10.2
0.44225	34.254	26.496	0.59	34.84	27.08	57.02	47.02	22.2	19.9
0.5185	37.996	27.971	0.53	38.52	28.50	56.00	46.00	17.5	17.5
0.5317	39.549	31.446	0.53	40.07	31.97	56.00	46.00	15.9	14.0
0.641412	32.622	23.18	0.49	33.11	23.67	56.00	46.00	22.9	22.3
0.664174	36.667	28.924	0.49	37.16	29.41	56.00	46.00	18.8	16.6
0.927162	32.496	24.105	0.46	32.96	24.57	56.00	46.00	23.0	21.4

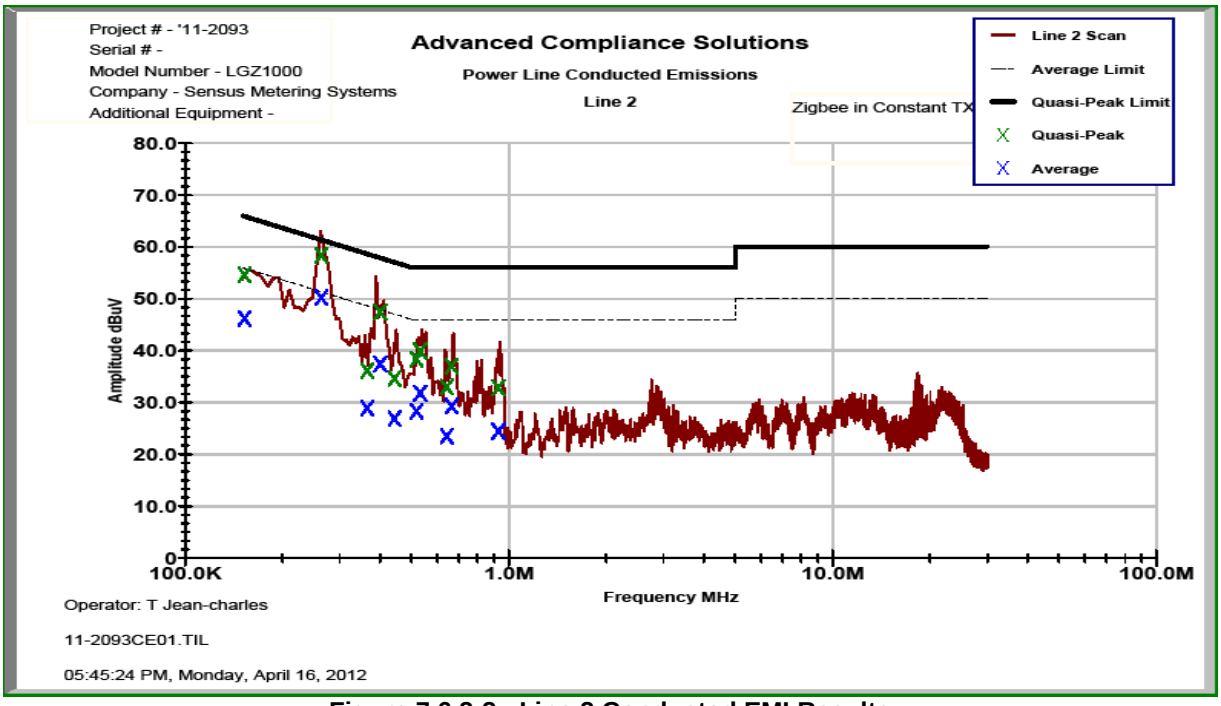

Figure 7.6.2-2: Line 2 Conducted EMI Results

8 CONCLUSION

In the opinion of ACS, Inc. the 560 Xz, manufactured by Sensus Metering Systems, Inc. meets the requirements of FCC Part 15 subpart C and Industry Canada's Radio Standards Specification RSS-210.

END REPORT