Excellence in Compliance Testing

Certification Test Report

FCC ID: 2AE4LX805
IC: 20317-X805

FCC Rule Part: 15.247
IC Radio Standards Specification: RSS-247

ACS Report Number: 15-2058.W06.1A

Applicant: Sonavation Incorporated

Model(s): X805-0001

Test Begin Date: **June 25, 2015**
Test End Date: **July 23, 2015**

Report Issue Date: August 19, 2015

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY

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 ANAB, ANSI, or any agency of the Federal Government.

Reviewed by:

Thierry Jean-Charles
EMC Engineer
Advanced Compliance Solutions, Inc.

This report contains 33 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-247.

1.2 Applicant Information

Sonavation Incorporated
3970 RCA Blvd Suite 7003
Palm Beach Gardens, FL 33410

1.3 Product Description

The Sonavation Incorporated model X805-0001 is a battery operated biometric security pocket keyfob with fingerprint sensor, USB and Bluetooth communications. It authorizes application transactions via three possible communication paths. All actions are first preceded by a fingerprint match verification. The three communications paths are USB direct connect to a computer, a Bluetooth low energy RF path, or a NFC card emulation transaction.

Technical Details

Mode of Operation:	Bluetooth Low Energy (BLE)
Frequency Range:	2402 MHz - 2480 MHz
Number of Channels:	40
Channel Separation:	2 MHz
Modulations:	GMSK
Antenna Type/Gain:	Ceramic Chip Antenna, 0 dBi
Input Power:	5 VDC (USB), 3VDC (Internal Battery)

Model Number: X805-0001

Test Sample Serial Number(s): 1B1R5B2J004Y (RF Conducted), 1B1R5B2J002U (Radiated and power line conducted emissions)

Test Sample Condition: The equipment was provided in good condition without any physical damage.

1.4 Test Methodology and Considerations

The EUT was evaluated for radiated, power line and RF conducted emissions. During the evaluation, the EUT was connected to a laptop computer and the CC debugger programming interface.

For the RF conducted measurements, the EUT was modified with an RF connector for direct coupling to the spectrum analyzer.

For the radiated emissions evaluation, preliminary measurements were performed for the EUT set in three orthogonal orientations. The test results reported in this document correspond to the worst case configurations. The EUT was set flat on the table top for the radiated spurious emissions and sideways for the radiated band-edge measurements.

Compliance to the power line conducted emission requirements were investigated with the EUT powered through a laptop computer.

The EUT was also evaluated for unintentional emissions. The results are documented separately in a Declaration of Conformity test 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 #: 475089
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 ANAB 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:

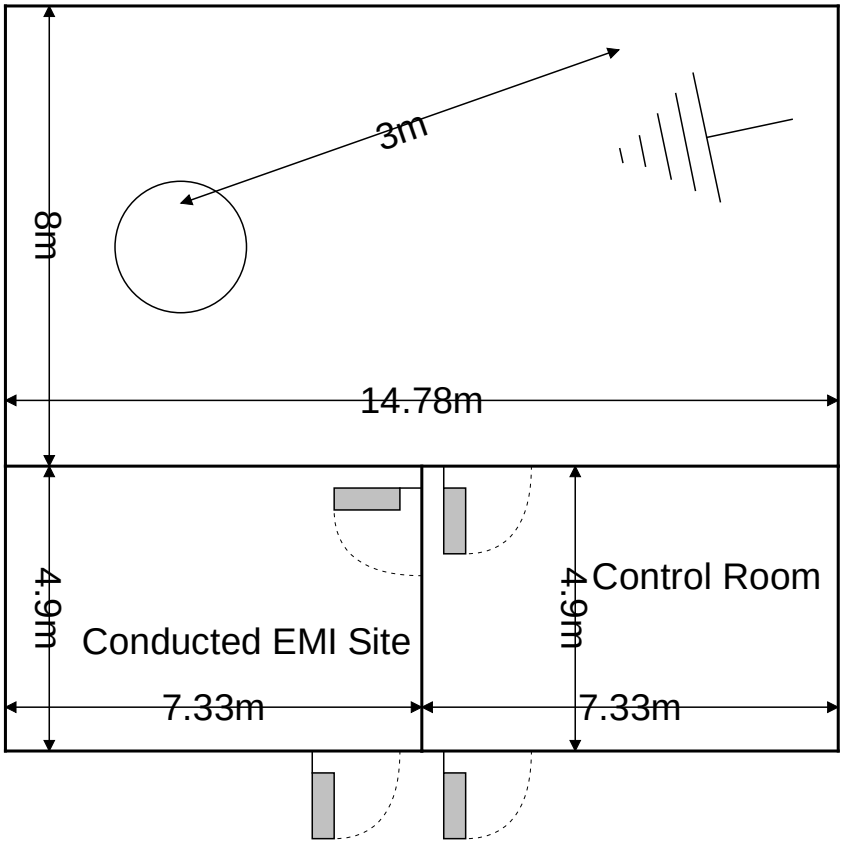

Figure 2.3.1-1: Semi-Anechoic Chamber Test Site

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. The data is 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 evaluations requiring 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:

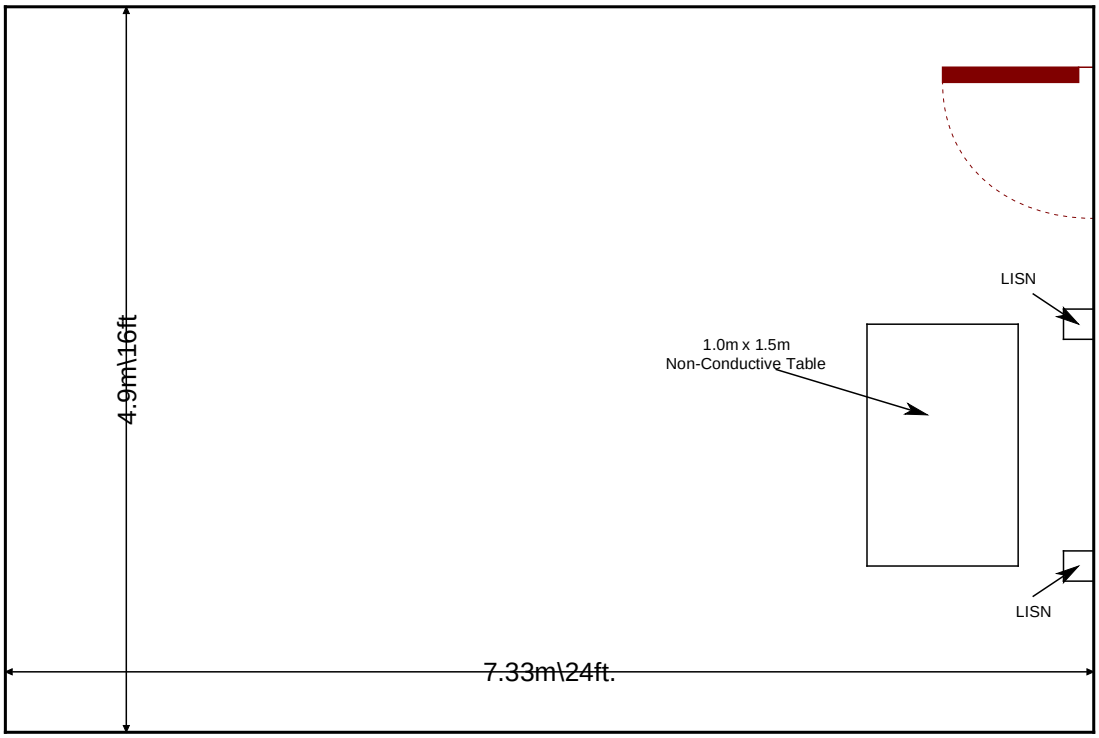

Figure 2.3.2-1: AC Mains Conducted EMI Site

3 APPLICABLE STANDARD REFERENCES

The following standards were used:

- ANSI C63.4-2014: Method of Measurements of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the 9 kHz to 40 GHz.
- ANSI C63.10-2013: American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices
- US Code of Federal Regulations (CFR): Title 47, Part 2, Subpart J: Equipment Authorization Procedures, 2015.
- US Code of Federal Regulations (CFR): Title 47, Part 15, Subpart C: Radio Frequency Devices, Intentional Radiators, 2015
- Industry Canada Radio Standards Specification: RSS-247 — Digital Transmission Systems (DTSs), Frequency Hopping Systems (FHSs) and Licence-Exempt Local Area Network (LE-LAN) Devices, Issue 1, May 2015.
- Industry Canada Radio Standards Specification: RSS-GEN – General Requirements for Compliance of Radio Apparatus, Issue 4, November 2014.

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
78	EMCO	6502	Antennas	9104-2608	2/13/2015	2/13/2017
523	Agilent	E7405	Spectrum Analyzers	MY45103293	12/26/2014	12/26/2016
2002	EMCO	3108	Antennas	2147	11/22/2013	11/22/2015
2004	EMCO	3146	Antennas	1385	11/22/2013	11/22/2015
2006	EMCO	3115	Antennas	2573	4/14/2015	4/14/2017
2008	COM-Power	AH-826	Antennas	81009	NCR	NCR
2011	Hewlett-Packard	HP 8447D	Amplifiers	2443A03952	12/31/2014	12/31/2015
2022	EMCO	LISN3825/2R	LISN	1095	9/9/2013	9/9/2015
2037	ACS Boca	Chamber EMI Cable Set	Cable Set	2037	2/17/2015	2/17/2016
2044	QMI	N/A	Cables	2044	12/31/2014	12/31/2015
2045	ACS Boca	Conducted Cable Set	Cable Set	2045	1/1/2015	1/1/2016
2070	Mini Circuits	VHF-8400+	Filter	2070	12/31/2014	12/31/2015
2072	Mini Circuits	VHF-3100+	Filter	30737	12/31/2014	12/31/2015
2082	Teledyne Storm Products	90-010-048	Cables	2082	4/22/2015	4/22/2016
2086	Merrimac	FAN-6-10K	Attenuators	23148-83-1	12/31/2014	12/31/2015
2089	Agilent Technologies, Inc.	83017A	Amplifiers	3123A00214	12/12/2014	12/12/2015
2095	ETS Lindgren	TILE4! - Version 4.2.A	Software	85242	NCR	NCR
2111	Aeroflex Inmet	40AH2W-20	Attenuator	2111	7/25/2014	7/25/2015
3004	Teseq	CFL 9206A	Attenuators	34720	10/21/2013	10/21/2015

NCR=No Calibration Required

5 SUPPORT EQUIPMENT

Table 5-1: EUT and Support Equipment

Item #	Type Device	Manufacturer	Model/Part #	Serial #
1	EUT	Sonavation Incorporated	X805-0001	1B1R5B2J002U
2	Laptop	DELL	Latitude D531	CN-0XM006-48643-789-2125
3	Laptop AC Adapter	Dell	LA65NS2-01	CN-06TM1C- 72438-358- 218F- A01
4	Interface Board	Sonavation Incorporated	NA	NA
5	CC Debugger	Texas Instruments	NA	NA

Table 5-2: Cable Description

Cable #	Cable Type	Length	Shield	Termination
A	USB	1.01 m	No	EUT to Laptop
B	USB	0.98 m	No	Laptop to CC Debugger
C	Power	1.85 m	No	Laptop to AC Adapter
D	Power Cord	0.90 m	No	Laptop AC Adapter to Extension Cord
E	Extension Power Cord	1.82 m	No	Power Cord to AC Mains
F	Ribbon Cable	0.10 m	No	EUT to Interface Board
G	Ribbon Cable	0.16 m	No	CC Debugger to Interface Board

6 EQUIPMENT UNDER TEST SETUP BLOCK DIAGRAM

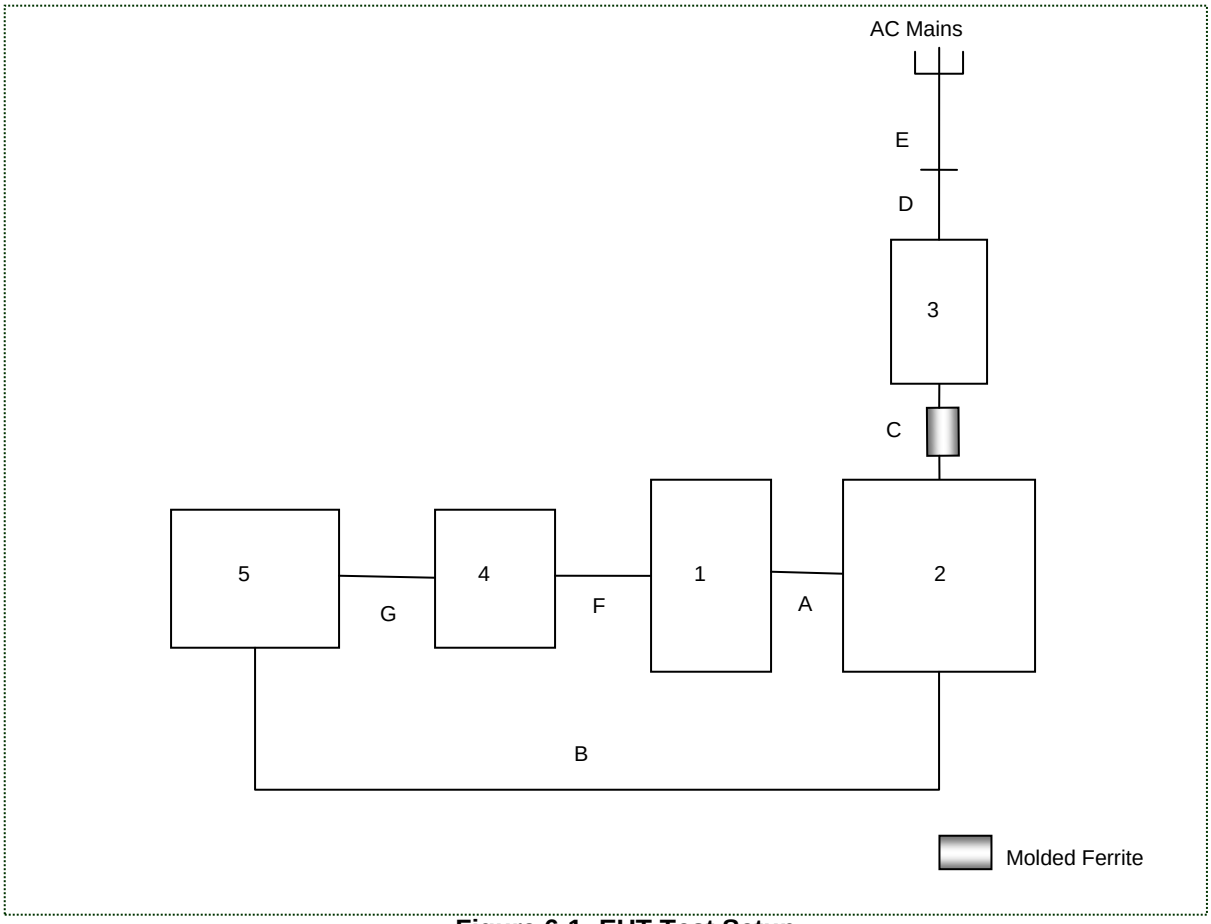

Figure 6-1: EUT Test Setup

7 SUMMARY OF TESTS

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

7.1 Antenna Requirement – FCC: Section 15.203

The EUT uses a 0 dBi surface mount ceramic antenna. The antenna is not detachable, thus meeting the requirements of FCC Section 15.203.

7.2 6 dB Bandwidth - FCC: Section 15.247(a)(2) IC: RSS-247 5.5(1); 99% Bandwidth IC: RSS-GEN 6.6

7.2.1 Measurement Procedure

The 6dB bandwidth was measured in accordance with ANSI C63.10:2013 Section 11.8 DTS Bandwidth Option 1. The RBW of the spectrum analyzer was set to 100 kHz and VBW 300 kHz. Span was set large enough to capture the emissions and >> RBW.

The 99% occupied bandwidth was measured with the spectrum analyzer span set to fully display the emission. The RBW was set to 1% to 5% of the approximated bandwidth. . The occupied 99% bandwidth was measured by using a delta marker at the lower and upper frequencies corresponding 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)
2402	730	1162.5
2440	730	1125.0
2480	725	1087.5

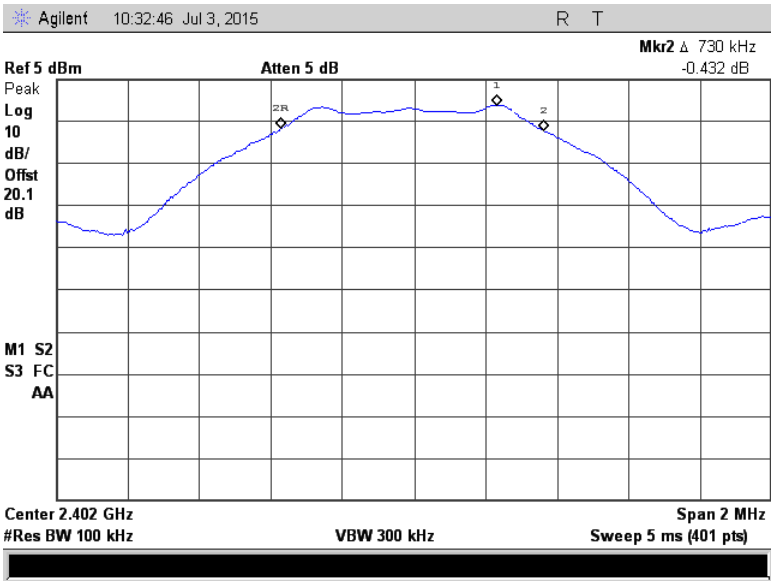

Figure 7.2.2-1: 6dB BW - Low Channel

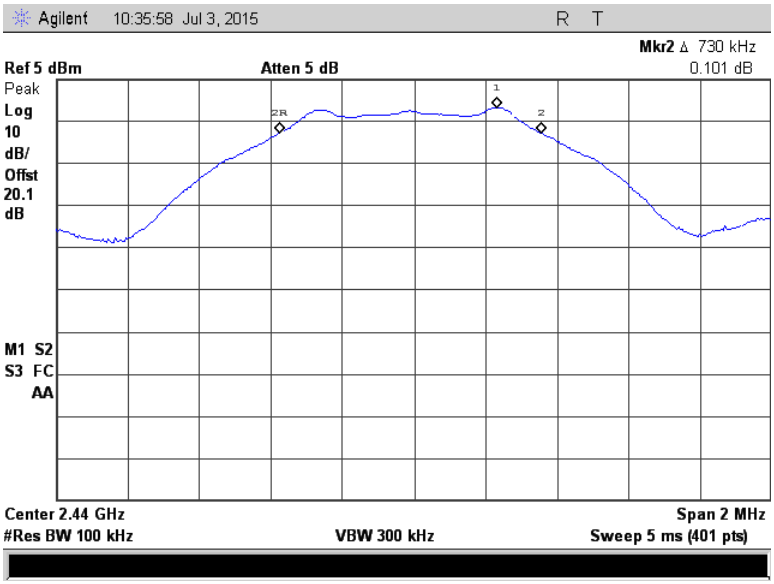

Figure 7.2.2-2: 6dB BW - Middle Channel

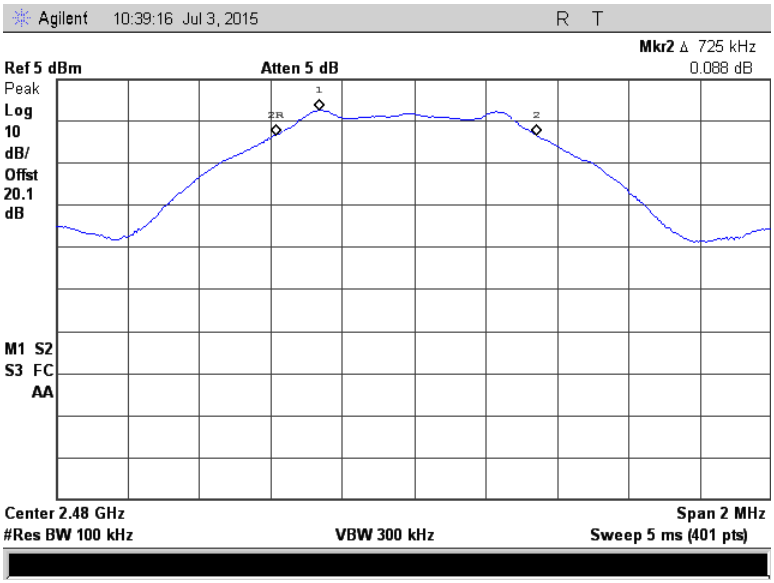

Figure 7.2.2-3: 6dB BW - High Channel

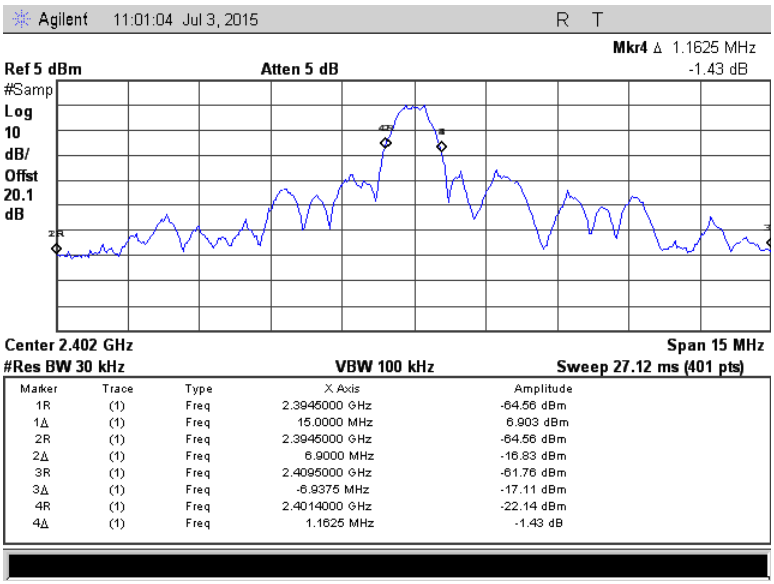

Figure 7.2.2-4: 99% OBW - Low Channel

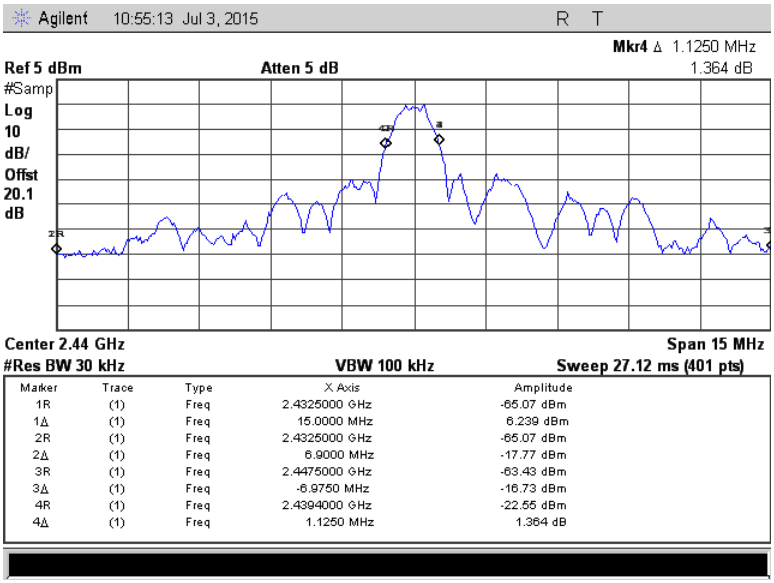

Figure 7.2.2-5: 99% OBW - Middle Channel

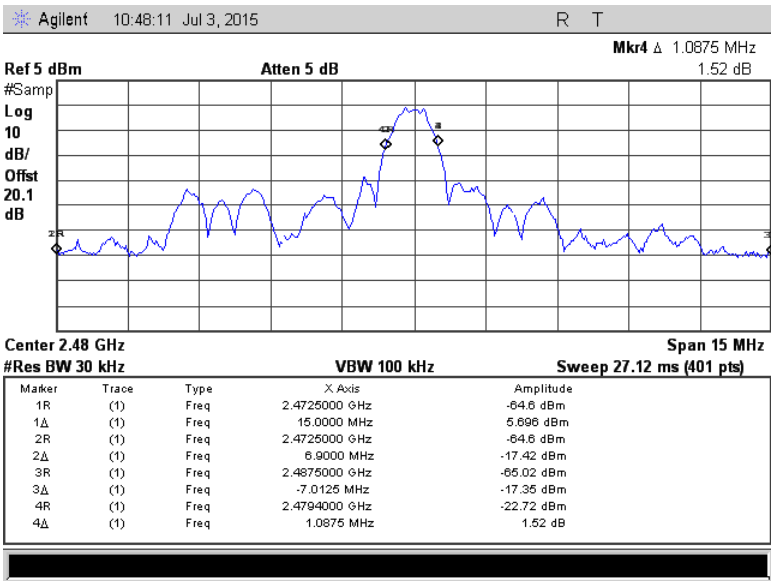

Figure 7.2.2-6: 99% OBW - High Channel

7.3 Peak Output Power - FCC Section 15.247(b)(3) IC: RSS-247 A8.4(4)

7.3.1 Measurement Procedure (Conducted Method)

The Peak Output Power was measured in accordance with ANSI C63.10:2013 Section 11.9.1 Maximum peak conducted output power. The RF output of the equipment under test was directly connected to the input of the spectrum analyzer through suitable attenuation.

7.3.2 Measurement Results

Results are shown below.

Table 7.3.2-1: RF Output Power

Frequency [MHz]	Level [dBm]
2402	-1.274
2440	-1.843
2480	-2.408

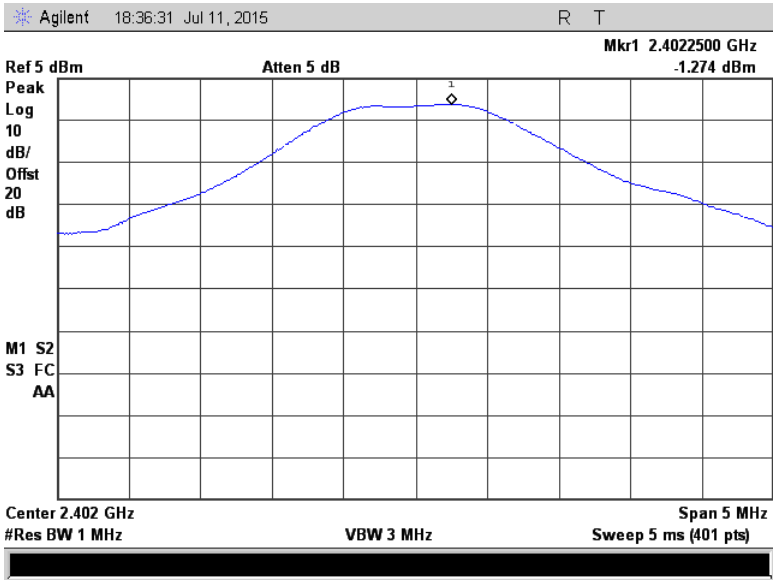

Figure 7.3.2-1: RF Output Power - Low Channel

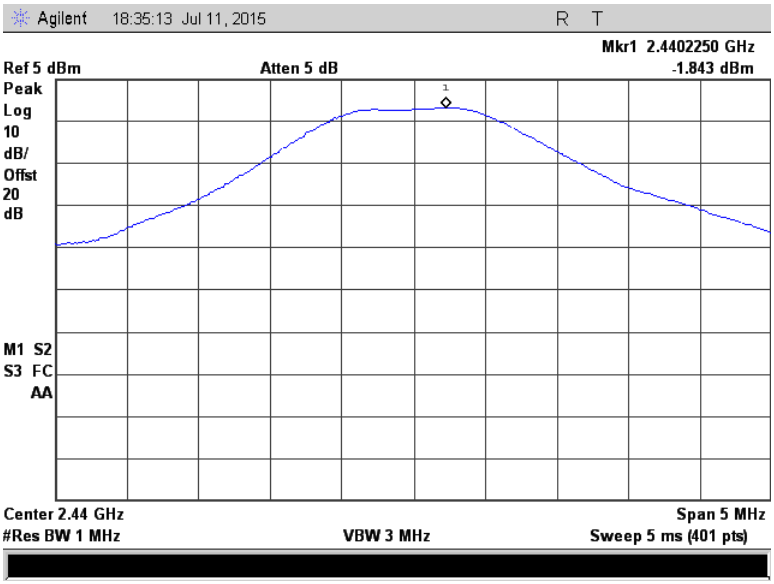

Figure 7.3.2-2: RF Output Power - Middle Channel

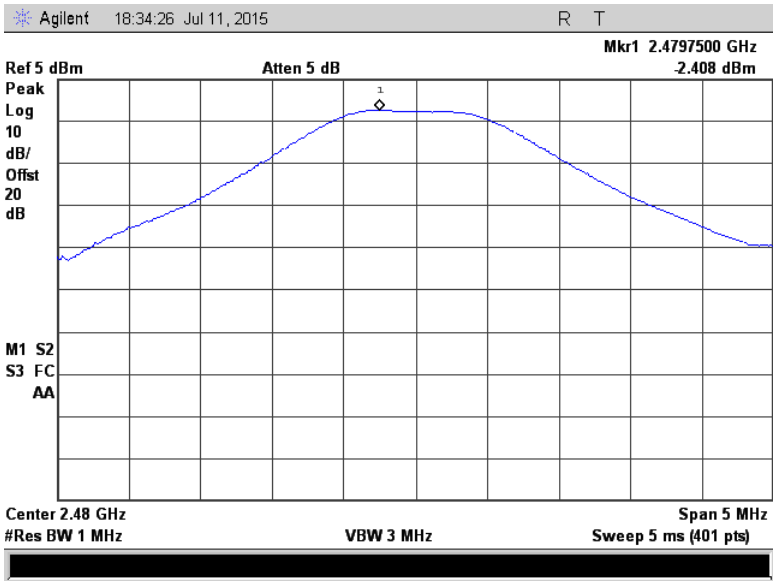

Figure 7.3.2-3: RF Output Power - High Channel

7.4 Band-Edge Compliance and Spurious Emissions-FCC 15.247(d) IC: RSS-247 5.5

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 via suitable attenuation. 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.

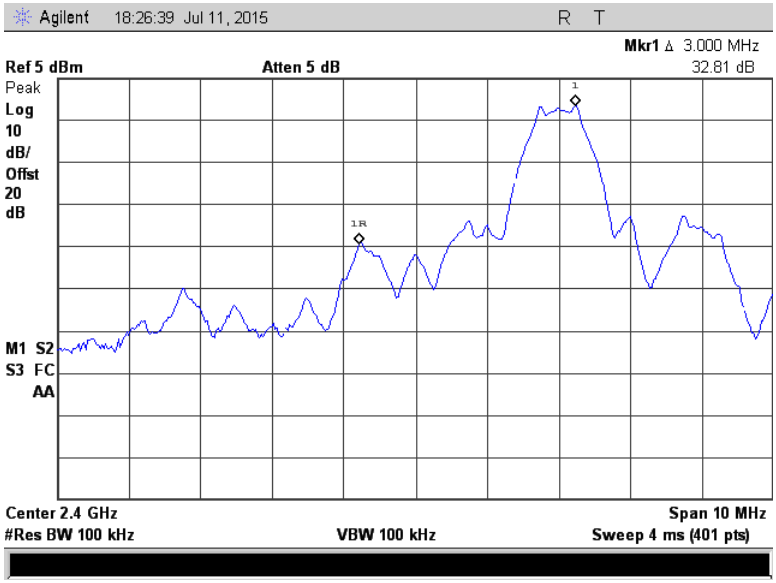

Figure 7.4.1.2-1: Lower Band-edge

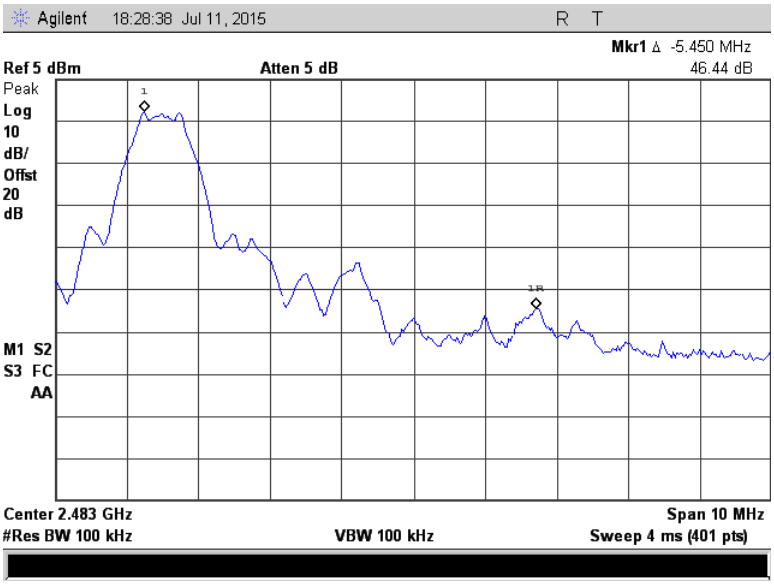

Figure 7.4.1.2-2: Upper Band-edge

7.4.2 RF Conducted Spurious Emissions

7.4.2.1 Measurement Procedure

The RF Conducted Spurious Emissions were measured in accordance with ANSI C63.10:2013 Section 11.11 Emissions in nonrestricted frequency bands. 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. The reference level was determined by measuring the Peak PSD level in any 100 kHz bandwidth within the DTS channel bandwidth.

7.4.2.2 Measurement Results

Results are shown below.

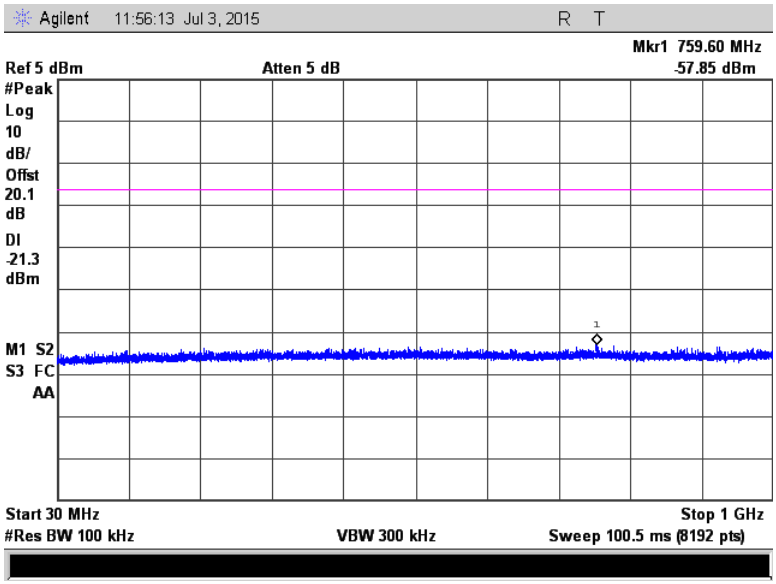

Figure 7.4.2.2-1: 30 MHz – 1 GHz – Low Channel

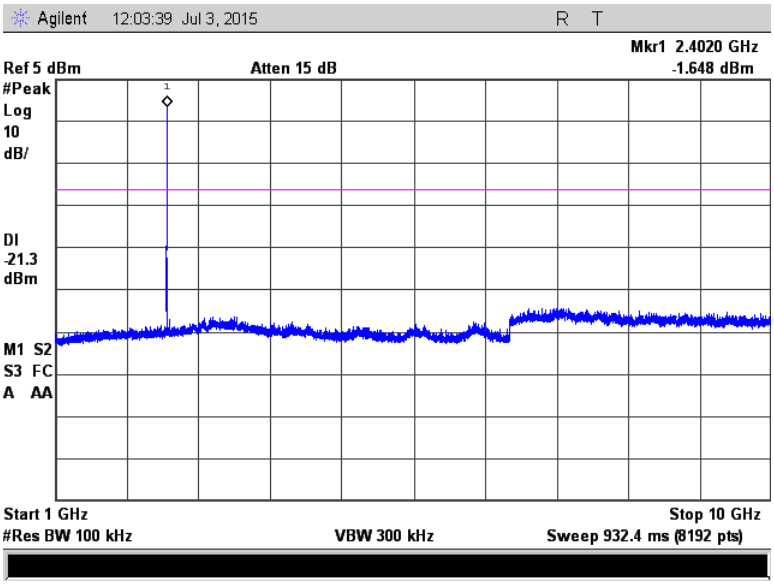

Figure 7.4.2.2-2: 1 GHz –10 GHz – Low Channel

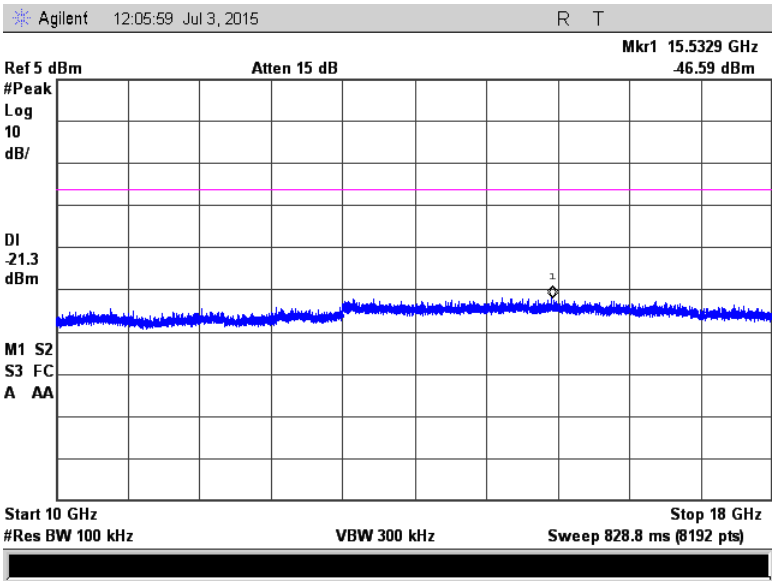

Figure 7.4.2.2-3: 10 GHz –18 GHz – Low Channel

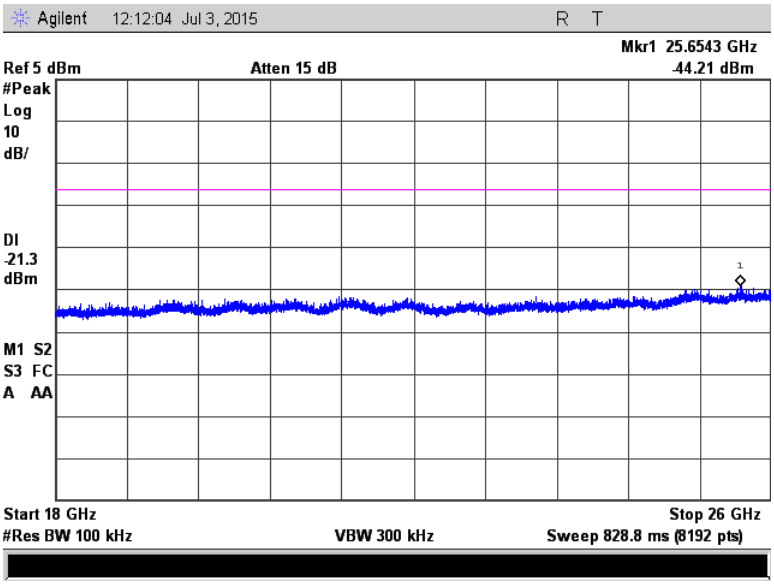

Figure 7.4.2.2-4: 18 GHz – 26 GHz – Low Channel

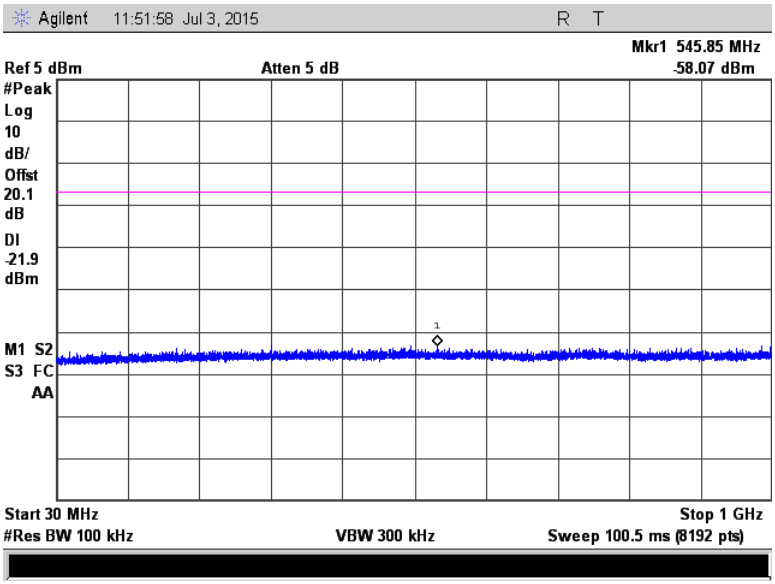

Figure 7.4.2.2-5: 30 MHz – 1 GHz –Middle Channel

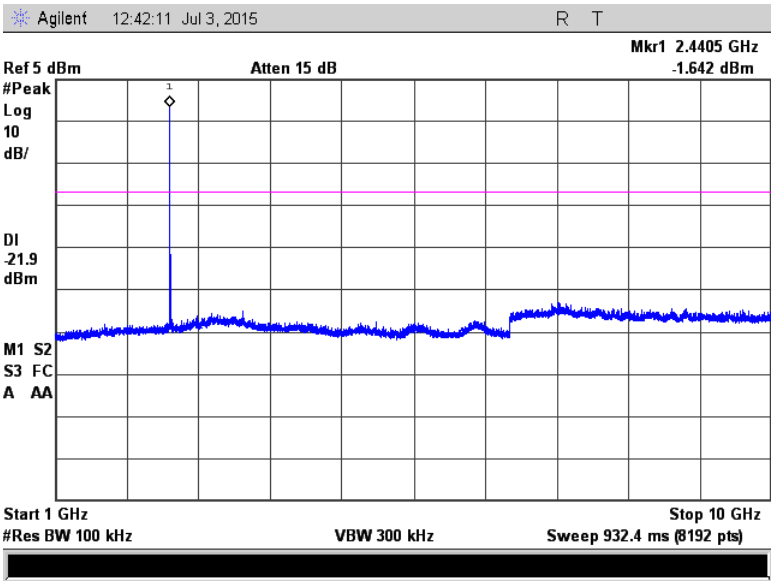

Figure 7.4.2.2-6: 1 GHz –10 GHz – Middle Channel

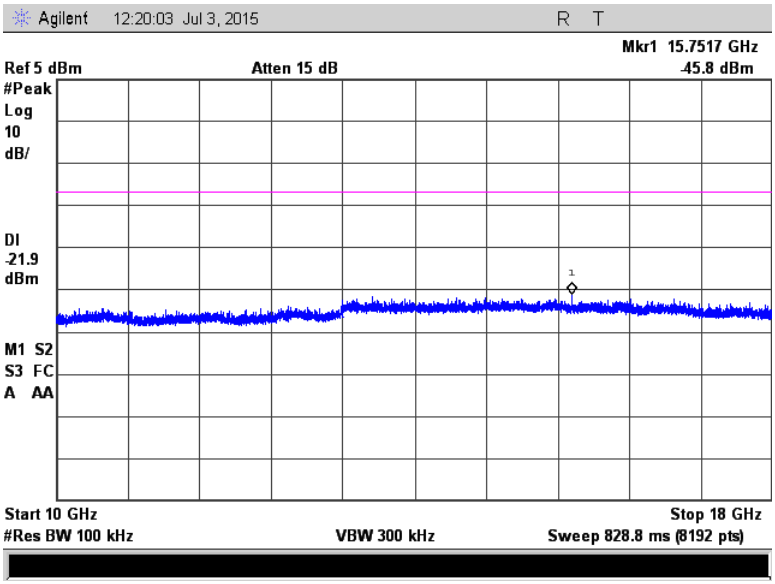

Figure 7.4.2.2-7: 10 GHz –18 GHz – Middle Channel

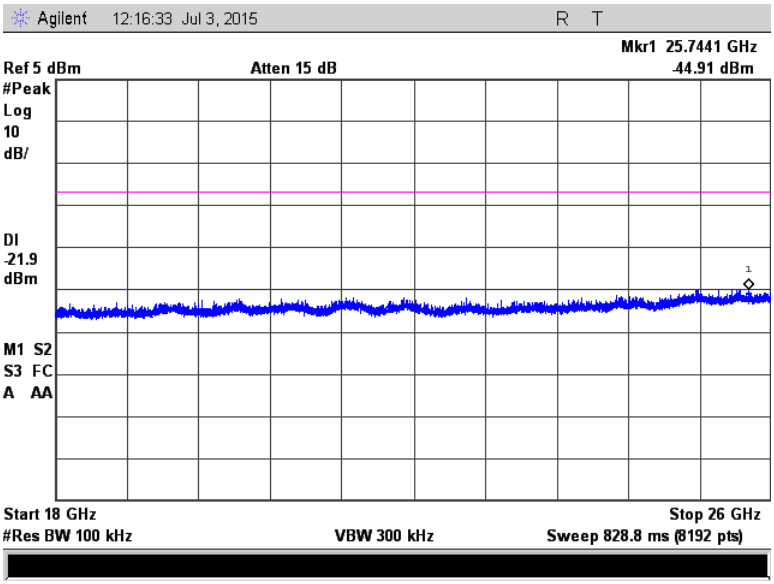

Figure 7.4.2.2-8: 18 GHz – 26 GHz – Middle Channel

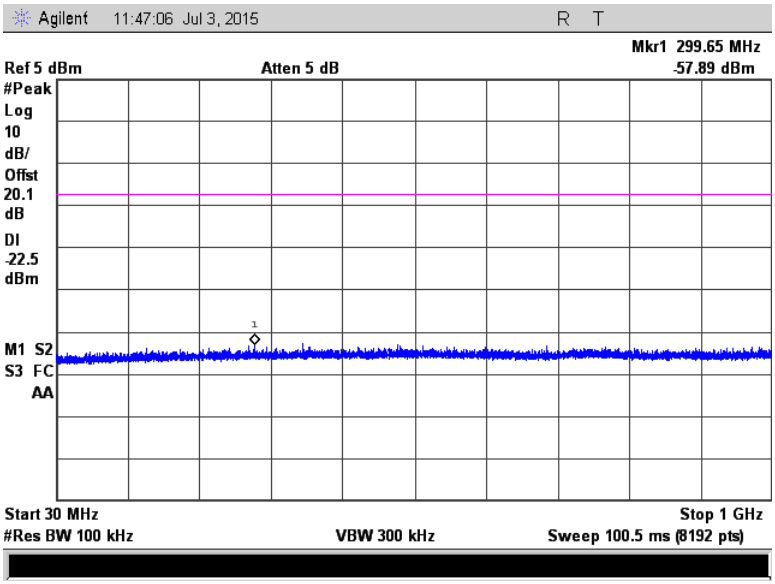

Figure 7.4.2.2-9: 30 MHz – 1 GHz – High Channel

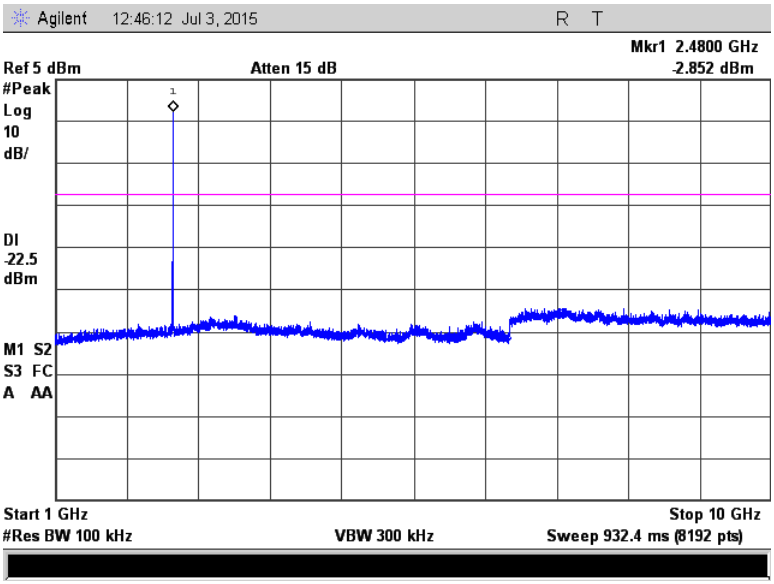

Figure 7.4.2.2-10: 1 GHz –10 GHz –High Channel

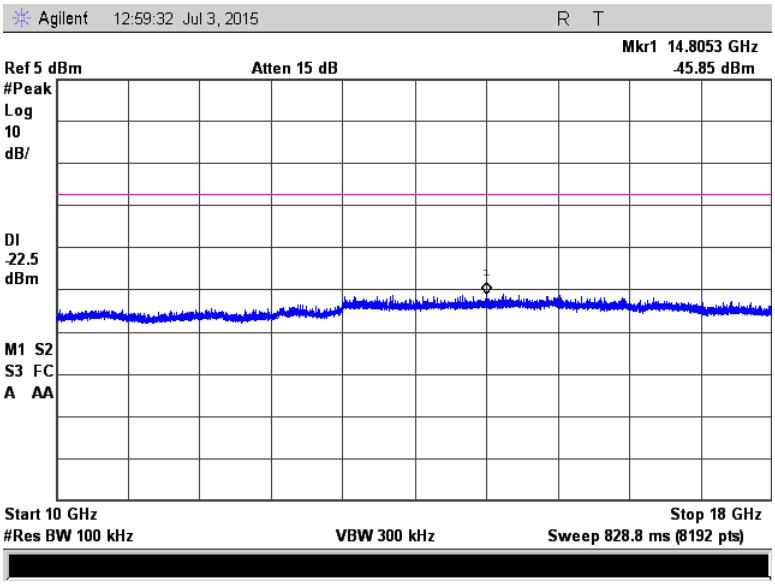

Figure 7.4.2.2-11: 10 GHz – 18 GHz –High Channel

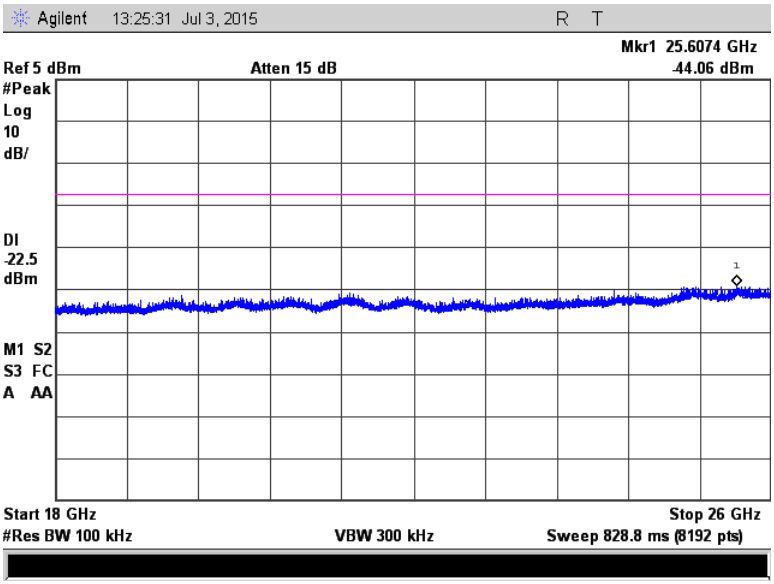

Figure 7.4.2.2-12: 18 GHz – 26 GHz –High Channel

7.4.3 Radiated Spurious Emissions into Restricted Frequency Bands - FCC 15.205, 15.209; IC: RSS-Gen 8.9, 8.10

7.4.3.1 Measurement Procedure

Radiated emissions tests were made over the frequency range of 9 kHz to 26 GHz, 10 times the highest fundamental frequency. Each emission found to be in a restricted band as defined by section 15.205, including any emission at the operational band-edge, was compared to the radiated emission limits as defined in section 15.209.

For measurements below 30 MHz, the receive antenna height was set to 1m and the EUT was rotated through 360 degrees. The resolution bandwidth was set to 200 Hz below 150 kHz and to 9 kHz above 150 kHz.

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 1000 MHz, peak measurements are made with RBW of 1 MHz and VBW of 3 MHz. Average measurements are performed in the linear scale using VBW of 30 Hz over a 5 second sweep.

7.4.3.2 Measurement Results

Radiated band-edge and spurious emissions found in the restricted frequency bands of 9 kHz to 26 GHz are reported in the tables below.

Table 7.4.3.2-1: 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 (2402 MHz)										
4804	53.11	45.81	H	0.42	53.53	46.23	74.0	54.0	20.5	7.8
4804	51.26	43.56	V	0.42	51.68	43.98	74.0	54.0	22.3	10.0
Middle Channel (2440 MHz)										
4880	52.88	45.03	H	0.66	53.54	45.69	74.0	54.0	20.5	8.3
4880	51.15	42.30	V	0.66	51.81	42.96	74.0	54.0	22.2	11.0
7320	47.40	34.60	H	5.36	52.76	39.96	74.0	54.0	21.2	14.0
7320	48.89	37.06	V	5.36	54.25	42.42	74.0	54.0	19.8	11.6
High Channel (2480 MHz)										
2483.5	59.16	47.70	H	-7.48	51.68	40.22	74.0	54.0	22.3	13.8
2483.5	59.06	46.42	V	-7.48	51.58	38.94	74.0	54.0	22.4	15.1
4957.95	48.12	41.27	V	0.91	49.03	42.18	74.0	54.0	25.0	11.8
4960	49.57	40.85	H	0.91	50.48	41.76	74.0	54.0	23.5	12.2
4960	48.83	39.35	V	0.91	49.74	40.26	74.0	54.0	24.3	13.7
7440	46.35	34.30	H	5.72	52.07	40.02	74.0	54.0	21.9	14.0
7440	45.90	33.99	V	5.72	51.62	39.71	74.0	54.0	22.4	14.3
12400	44.70	31.41	H	13.45	58.15	44.86	83.5	63.5	25.4	18.6

Note:
All emissions above 12.4 GHz were attenuated below the limits and the noise floor of the spectrum analyzer.

7.4.3.3 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: 53.11+ 0.42 = 53.53 dBµV/m
Margin: 74 dBµV/m – 53.53dBµV/m = 20.5 dB

Example Calculation: Average
Corrected Level: 45.81 + 0.42 = 46.23 dBµV/m
Margin: 54 dBµV/m – 46.23 dBµV/m = 7.8 dB

7.5 Power Spectral Density - FCC Section 15.247(e) IC: RSS-247 5.2(2)

7.5.1 PSD Measurement Procedure (Conducted Method)

The power spectral density was measured in accordance with ANSI C63.10:2013 Section 10.2 Method PKPSD (peak PSD). The RF output port of the EUT was directly connected to the input of the spectrum analyzer. Offset values were input for cable and external attenuation. The spectrum analyzer RBW was set to 3 kHz and VBW 10 kHz. Span was adjusted to 1.5 times the 6 dB bandwidth and the sweep time was set to auto.

7.5.2 Measurement Results

Results are shown below.

Table 7.5.2-1: Power Spectral Density

Frequency (MHz)	PSD (dBm)	Limit (dBm)	Margin (dB)
2402	-12.37	8	20.37
2440	-13.02	8	21.02
2480	-13.64	8	21.64

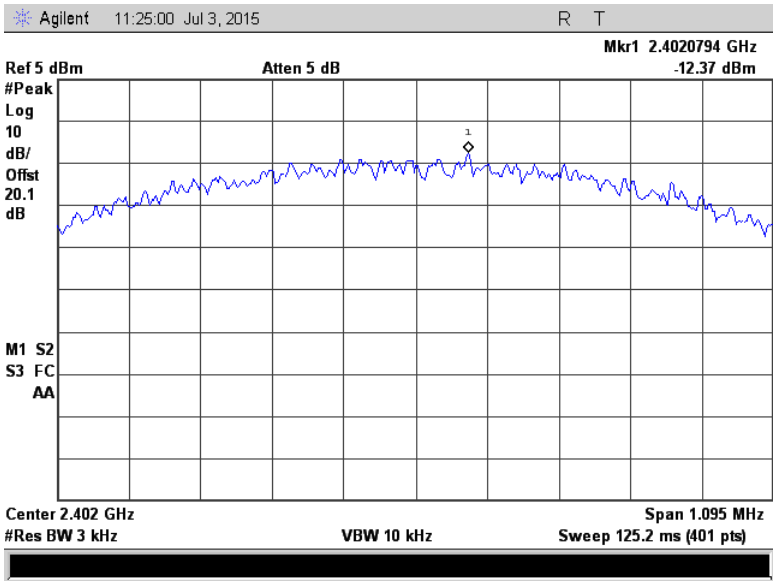

Figure 7.5.2-1: Power Spectral Density - Low Channel

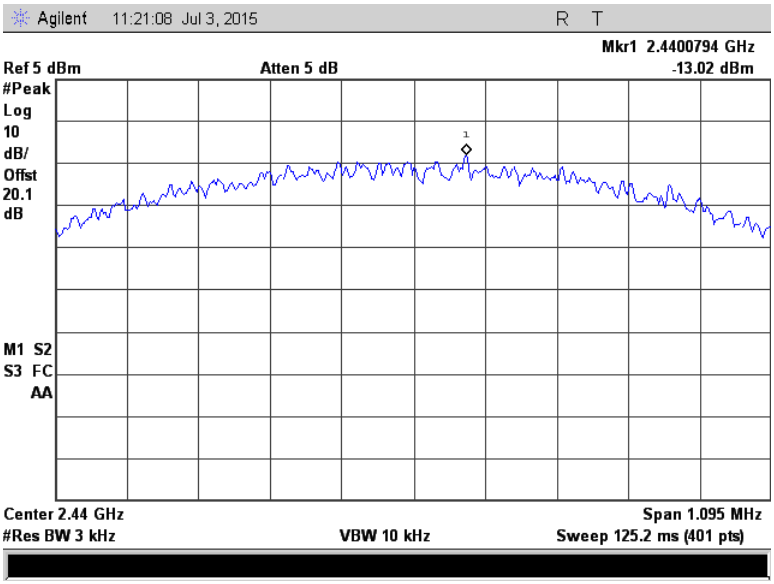

Figure 7.5.2-2: Power Spectral Density - Middle Channel

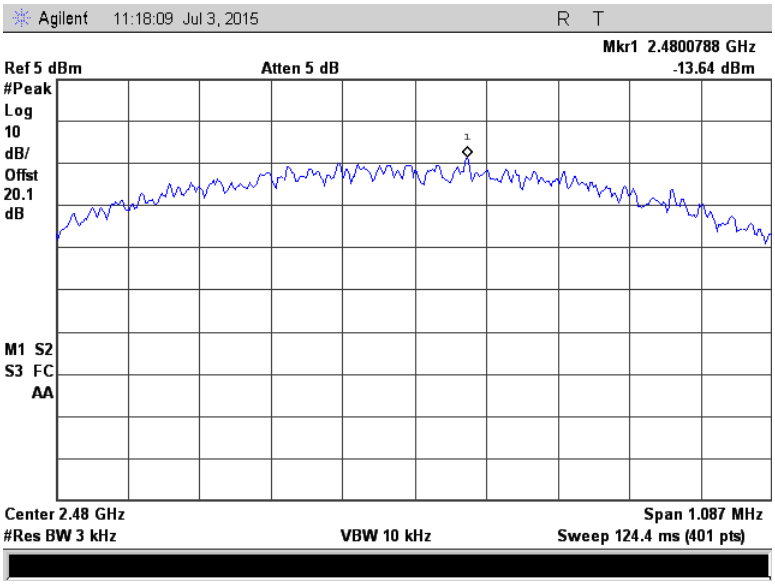

Figure 7.5.2-3: Power Spectral Density – High Channel

7.6 Power Line Conducted Emissions – FCC: Section 15.207 IC: RSS-Gen 8.8

7.6.1 Measurement Procedure

ANSI C63.4 sections 6 and 7 were the guiding documents for this evaluation. Conducted emissions were performed from 150 kHz to 30 MHz with the spectrum analyzer's resolution bandwidth set to 9 kHz and the video bandwidth set to 30 kHz. 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 are shown below.

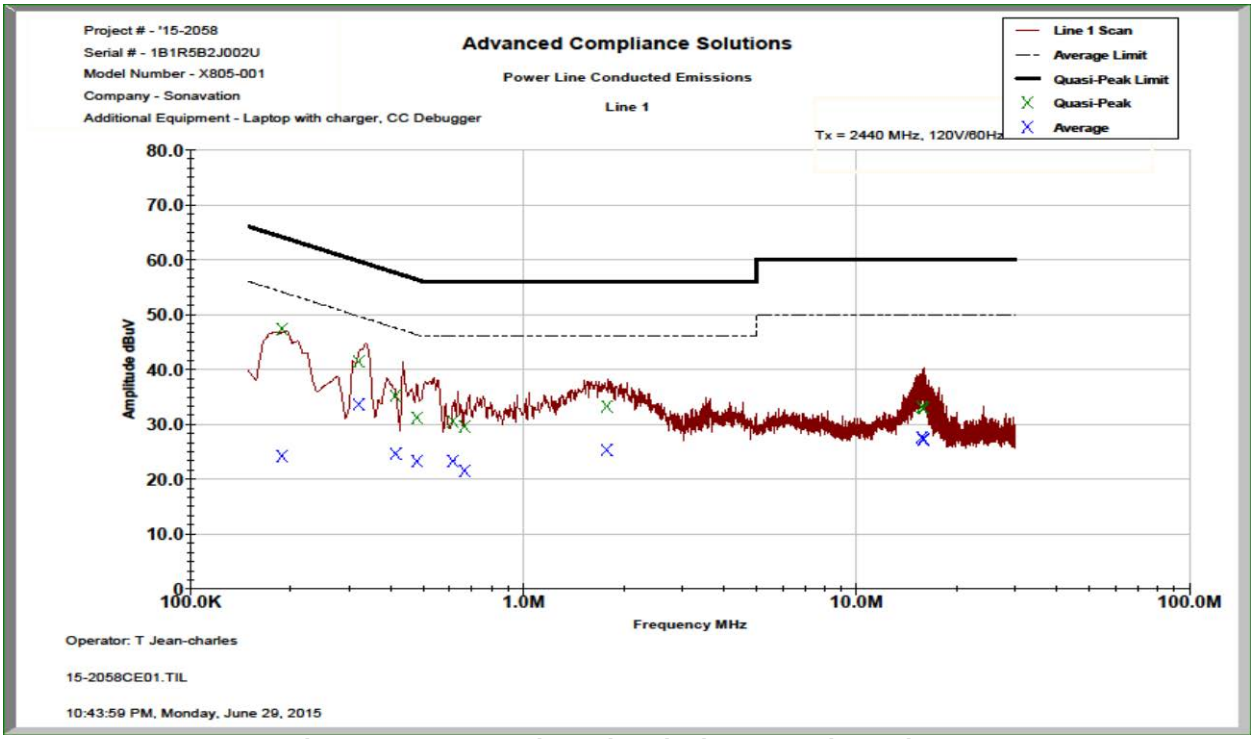

Figure 7.6.2-1: Conducted Emissions Results – Line 1

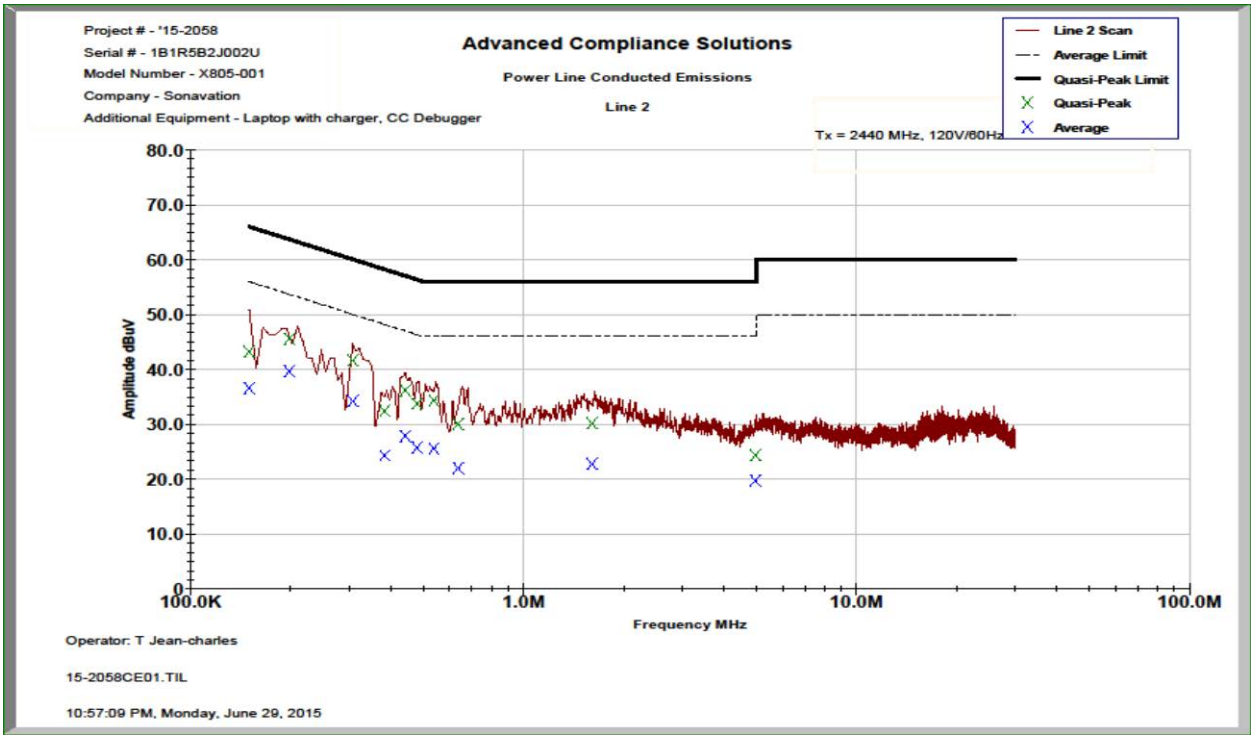

Figure 7.6.2-2: Conducted Emissions Results – Line 2

Table 7.6.2-1: Conducted EMI Results

☒ Line 1 ☒ Line 2 ☐ Line 3
☐ Line 4
☒ To Ground ☐ Floating
☐ Telecom Port ____
☒ dBµV ☐ dBµA

Plot Number: 15-2058CE01
Power Supply Description: 19.5 VDC

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									
0.188675	37.372	14.178	10.04	47.41	24.21	64.09	54.09	16.7	29.9
0.320513	31.368	23.605	10.03	41.40	33.64	59.69	49.69	18.3	16.1
0.413575	25.177	14.571	10.03	35.21	24.60	57.58	47.58	22.4	23.0
0.479999	21.172	13.273	10.03	31.20	23.30	56.34	46.34	25.1	23.0
0.615063	20.538	13.29	10.03	30.57	23.32	56.00	46.00	25.4	22.7
0.667299	19.598	11.483	10.03	29.63	21.52	56.00	46.00	26.4	24.5
1.77921	23.169	15.197	10.04	33.21	25.24	56.00	46.00	22.8	20.8
15.749	22.407	16.896	10.72	33.13	27.62	60.00	50.00	26.9	22.4
15.846	22.166	16.502	10.73	32.89	27.23	60.00	50.00	27.1	22.8
15.9132	22.043	16.384	10.73	32.77	27.11	60.00	50.00	27.2	22.9
Line 2									
0.150452	33.155	26.526	10.06	43.22	36.59	65.98	55.98	22.8	19.4
0.19865	35.575	29.618	10.05	45.63	39.67	63.67	53.67	18.0	14.0
0.308212	31.569	24.183	10.04	41.61	34.22	60.02	50.02	18.4	15.8
0.383724	22.412	14.289	10.03	32.44	24.32	58.20	48.20	25.8	23.9
0.442538	26.131	17.84	10.04	36.17	27.88	57.01	47.01	20.8	19.1
0.48	23.717	15.715	10.04	33.75	25.75	56.34	46.34	22.6	20.6
0.538762	24.289	15.526	10.04	34.33	25.57	56.00	46.00	21.7	20.4
0.63745	19.933	11.981	10.05	29.98	22.03	56.00	46.00	26.0	24.0
1.60757	20.067	12.657	10.06	30.12	22.71	56.00	46.00	25.9	23.3
4.98	14.033	9.405	10.26	24.30	19.67	56.00	46.00	31.7	26.3

8 CONCLUSION

In the opinion of ACS, Inc., the model X805-0001 manufactured by Sonavation Incorporated meets the requirements of FCC Part 15 subpart C and Industry Canada's Radio Standards Specification RSS-247 for the test procedures documented in the test report.

END REPORT