

Certification Test Report

FCC ID: 2ACKW-NXTWVH01
IC: 22502-NXTWVH01

FCC Rule Part: 15.247
ISED Canada Radio Standards Specification: RSS-247

ACS Report Number: 16-2049.W06.1A

Applicant: NXT-ID, Inc.

Model(s): NXT-WAZ01-1110

Test Begin Date: **December 7, 2016**
Test End Date: **January 30, 2017**

Report Issue Date: March 14, 2017



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.

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This report contains 30 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 Innovation, Science and Economic Development Canada's Radio Standards Specification RSS-247 for the tests documented herein.

1.2 Applicant Information

NXT-ID, Inc
3255 Bayside Lakes BLVD SE,
Palm Bay, FL 32909

1.3 Product Description

The NXT-ID, Inc. model NXT-WAZ01-1110 is a digital smart card which incorporates NFC and Bluetooth Low Energy (BLE). The device is used as a payment device for Credit Card services. This test report documents the compliance of the BLE radio.

Technical Details

Mode of Operation:	Bluetooth Low Energy (BLE)
Frequency Range:	2402 MHz - 2480 MHz
Number of Channels:	40
Channel Separation:	2 MHz
Modulations:	GFSK
Antenna Type/Gain:	Johanson Technology 2450AT07A0100 Chip Antenna / +1 dBi
Input Power:	3.8 VDC Battery

Model Number: NXT-WAZ01-1110

Test Sample Serial Number(s): 4404 (Radiated Emissions), 4415 (Power line Conducted Emissions), 4291 (RF Conducted)

Test Sample Condition: The samples provided were in good physical condition with no noticeable damage.

1.4 Test Methodology and Considerations

The BLE transceiver was evaluated for radiated, power line and RF conducted emissions using a test software power setting of 4 dBm. Compliance to the unintentional emissions requirements is documented separately in a verification test report.

For radiated emissions, the EUT standalone was determined to lead to higher emissions than the EUT connected to the EMV/USB adapter. The EUT was configured with power leads and powered using a DC bench power supply. Preliminary radiated emissions measurements were performed for the EUT in three orthogonal orientations. The final measurements were collected using the flat orientation which led to the highest emissions as compared to the limits.

The RF conducted emissions measurements were performed on a sample configured with an RF connector at the antenna port for direct coupling to a spectrum analyzer and power leads for connection to a DC power supply.

The power line conducted emissions were performed on an unmodified sample. The device was powered using a USB to EMV test fixture and an off-the-shelf wall adapter.

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

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.

FCC Test Firm Registration #: 475089
Innovation, Science and Economic Development Canada Lab Code: 4175C

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 flooring.

The turntable is driven by pneumatic motor, which is capable of supporting a 2000 lb. load. The turntable is flush with the chamber floor which it is connected to, around its circumference, with a continuous metallic loaded spring. An EMCO Model 1060 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:

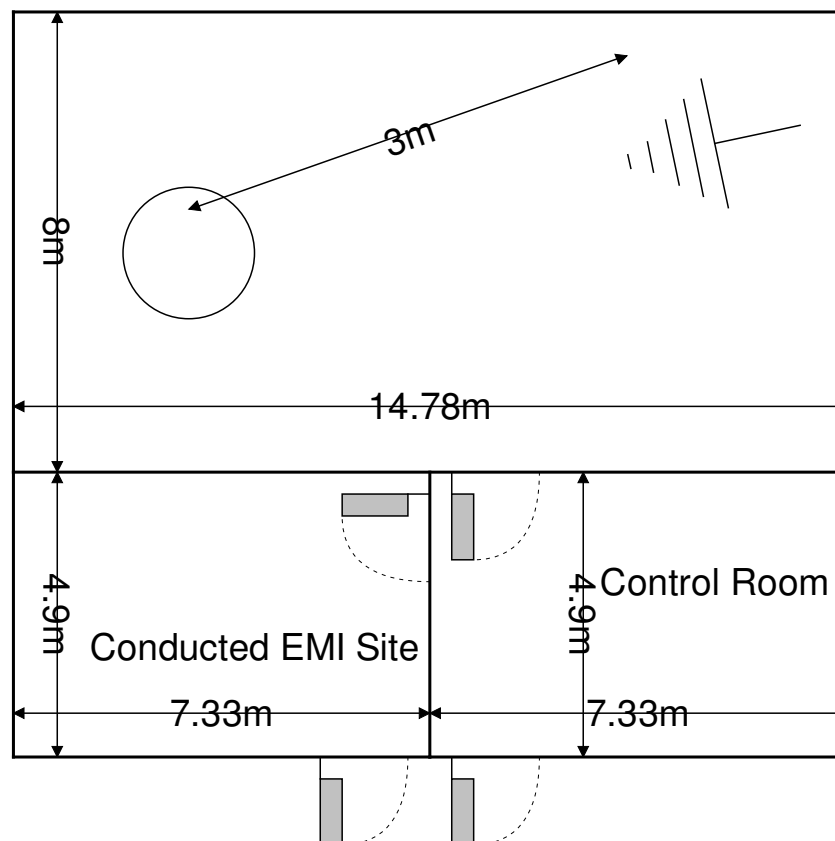


Figure 2.3.1-1: Semi-Anechoic Chamber Test Site

2.3.2 Conducted Emissions Test Site Description

The dimensions of the shielded conducted room are $7.3 \times 4.9 \times 3 \text{ m}^3$. The power line conducted emission site includes two LISNs: a Solar Model 8028-50 $50 \Omega/50 \mu\text{H}$ and an EMCO Model 3825/2R, which are installed as shown in the figure below. For evaluations requiring 230 V, 50 Hz AC input, a Polarad LISN (S/N 879341/048) is used in conjunction with a California Instruments signal generator Model 2001RP-OP1.

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

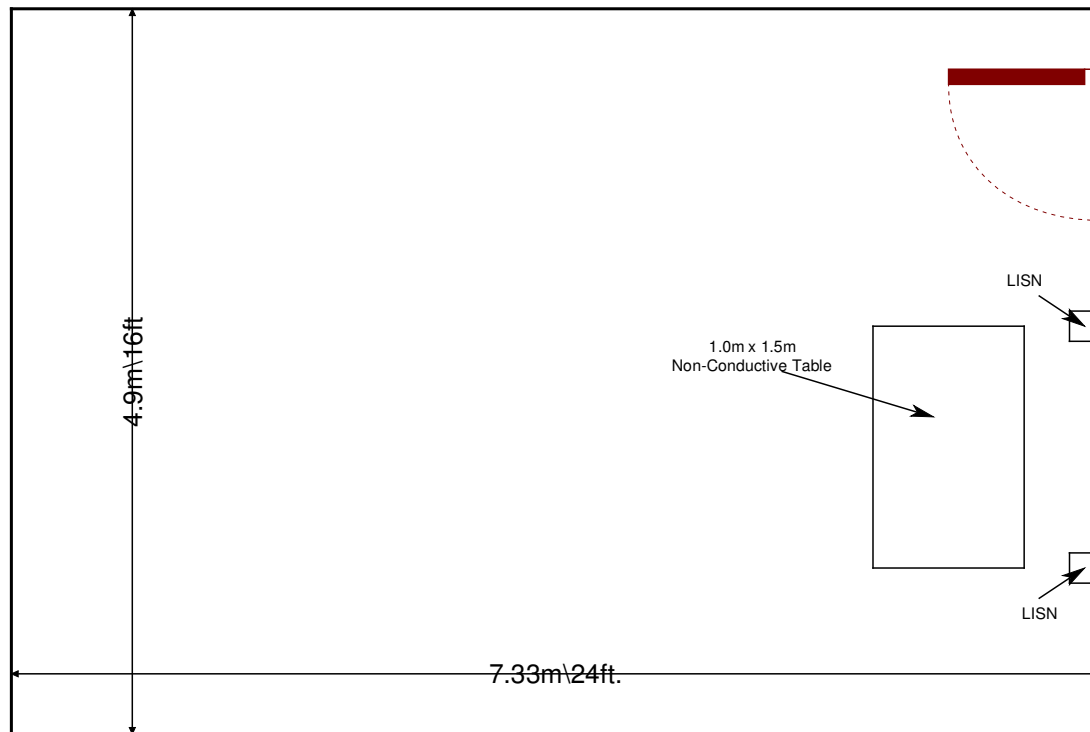


Figure 2.3.2-1: AC Mains Conducted EMI Site

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, 2017.
- ❖ US Code of Federal Regulations (CFR): Title 47, Part 15, Subpart C: Radio Frequency Devices, Intentional Radiators, 2017
- ❖ FCC KDB 558074 D01 DTS Meas Guidance v03r05 - Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under §15.247, April 8, 2016.
- ❖ Innovation, Science and Economic Development Canada Radio Standards Specification: RSS-247 — Digital Transmission Systems (DTSS), Frequency Hopping Systems (FHSs) and Licence-Exempt Local Area Network (LE-LAN) Devices, Issue 2, February 2017.
- ❖ Innovation, Science and Economic Development 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

Table 4-1: Test Equipment List

AssetID	Manufacturer	Model #	Equipment Type	Serial #	Last Calibration Date	Calibration Due Date
78	EMCO	6502	Antennas	9104-2608	5/11/2016	5/11/2018
282	Microwave Circuits	H2G020G4	Filters	74541	5/25/2016	5/25/2017
283	Rohde & Schwarz	FSP40	Spectrum Analyzers	1000033	7/21/2016	7/21/2018
523	Agilent	E7405	Spectrum Analyzers	MY45103293	12/26/2014	12/26/2016
523	Agilent	E7405	Spectrum Analyzers	MY45103293	12/9/2016	12/9/2018
653	Suhner	SF-102A	Cables	0944/2A	9/6/2016	9/6/2017
2002	EMCO	3108	Antennas	2147	11/19/2015	11/19/2017
2004	EMCO	3146	Antennas	1385	11/19/2015	11/19/2017
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	11/2/2016	11/2/2017
2022	EMCO	LISN3825/2R	LISN	1095	9/14/2015	9/14/2017
2045	ACS Boca	Conducted Cable Set	Cable Set	2045	10/31/2016	10/31/2017
2082	Teledyne Storm Products	90-010-048	Cables	2082	4/21/2016	4/21/2017
2086	Merrimac	FAN-6-10K	Attenuators	23148-83-1	11/2/2016	11/2/2017
2089	Agilent Technologies, Inc.	83017A	Amplifiers	3123A00214	12/9/2015	12/9/2016
2089	Agilent Technologies, Inc.	83017A	Amplifiers	3123A00214	12/2/2016	12/2/2017
2095	ETS Lindgren	TILE4! - Version 4.2.A	Software	85242	NCR	NCR
2111	Aeroflex Inmet	40AH2W-20	Attenuator	2111	7/20/2016	7/20/2017
2112	Teledyne Storm Products	921-0101-036	Cables	12-06-698	11/2/2016	11/2/2017
2121	ACS Boca	Radiated Cable Set	Cable Set	2121	8/1/2016	8/1/2017
3004	Teseq	CFL 9206A	Attenuators	34720	9/14/2016	9/14/2017

Note:

NCR=No Calibration Required

The assets calibration information is provided to cover the entire test period.

5 SUPPORT EQUIPMENT**Table 5-1: EUT and Support Equipment Description (Radiated Emissions)**

Item #	Type Device	Manufacturer	Model/Part #	Serial #
1	EUT	NXT-ID, Inc.	NXT-WAZ01-1110	4404
2	DC Power Supply	MPJA	HY5003	003700278

Table 5-2: Cable Description (Radiated Emissions)

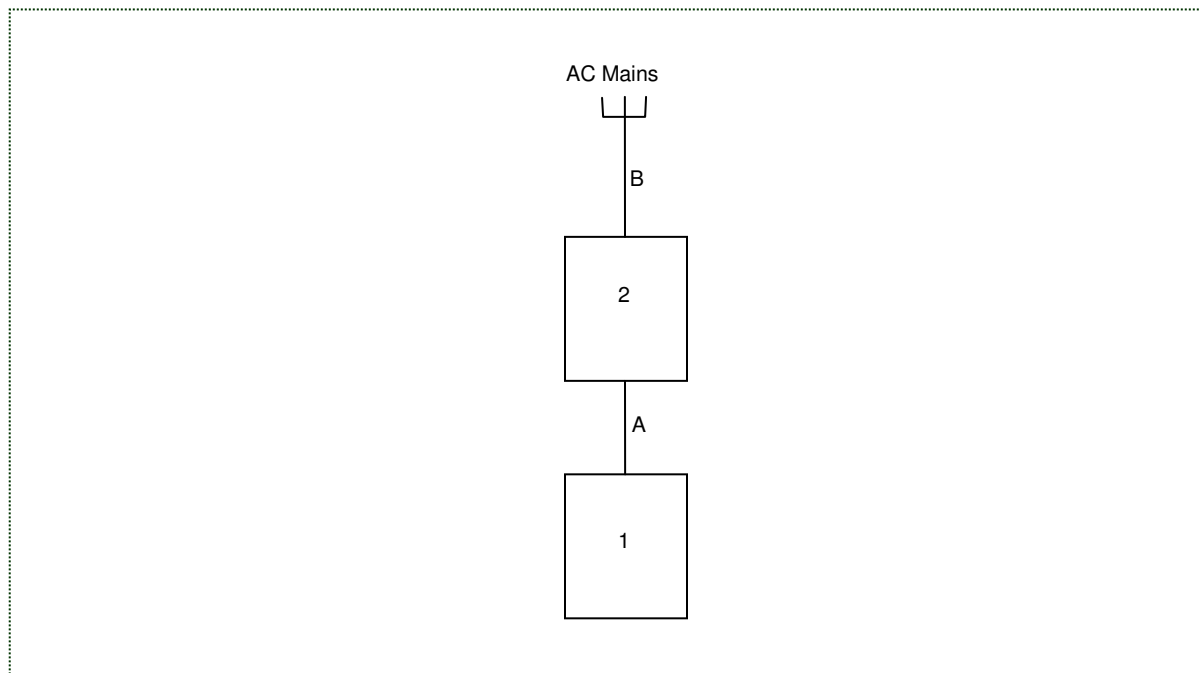
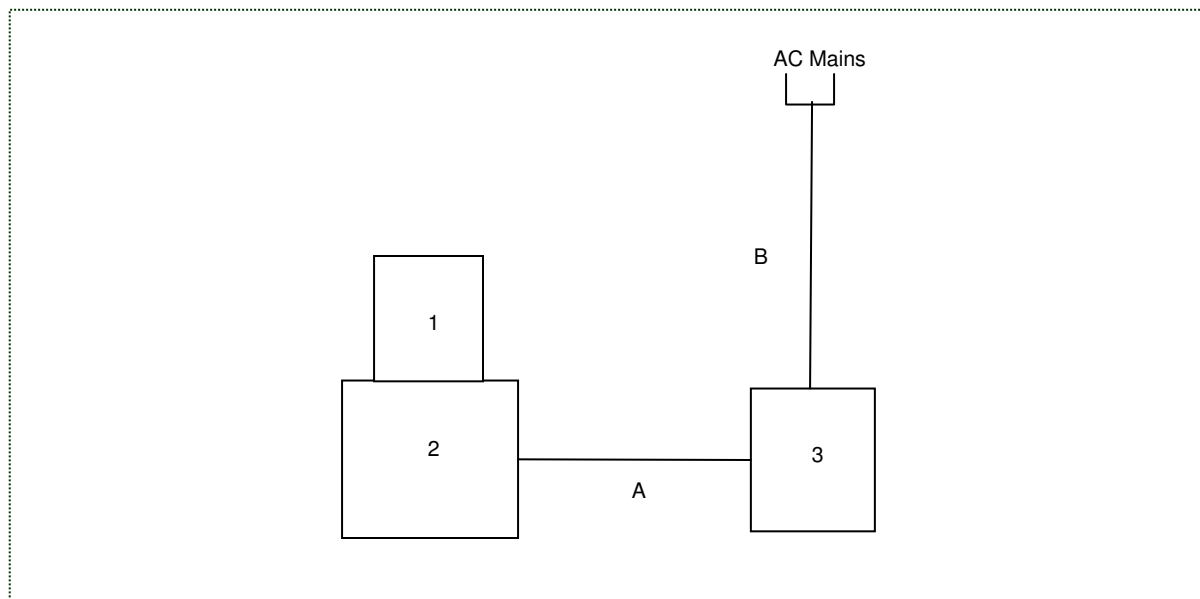
Cable #	Cable Type	Length	Shield	Termination
A	Twisted Pair	2.0 m	No	EUT to Power Supply
B	Power Cord	1.8 m	No	Power Supply to AC Mains

Table 5-3: EUT and Support Equipment Description (Power Line Conducted Emissions)

Item #	Type Device	Manufacturer	Model/Part #	Serial #
1	EUT	NXT-ID, Inc.	NXT-WAZ01-1110	4415
2	USB/EMV Fixture	NXT-ID, Inc.	N/A	ACS#6
3	Wall Charger	Archer	AR-C5	ACS#8

Table 5-4: Cable Description (Power Line Conducted Emissions)

Cable #	Cable Type	Length	Shield	Termination
A	USB	1.75 m	No	USB/EMV to Wall Charger
B	Extension Cord	1.83 m	No	Power Supply to AC Mains

6 EQUIPMENT UNDER TEST SETUP BLOCK DIAGRAM**Figure 6-1: EUT Test Setup (Radiated Emissions)****Figure 6-2: EUT 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 EUT uses an internal 1 dBi chip antenna. The antenna is not removable without permanently damaging the unit, thus meeting the requirements of FCC Section 15.203.

7.2 6 dB Bandwidth - FCC: Section 15.247(a)(2); ISSED Canada: RSS-247 5.2(a); 99% Bandwidth ISSED Canada: RSS-GEN 6.6

7.2.1 Measurement Procedure

The 6dB bandwidth was measured in accordance with the FCC KDB 558074 D01 DTS Meas Guidance v03r05 Section 8.2 Option 2. 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. A peak detector was used for the measurements.

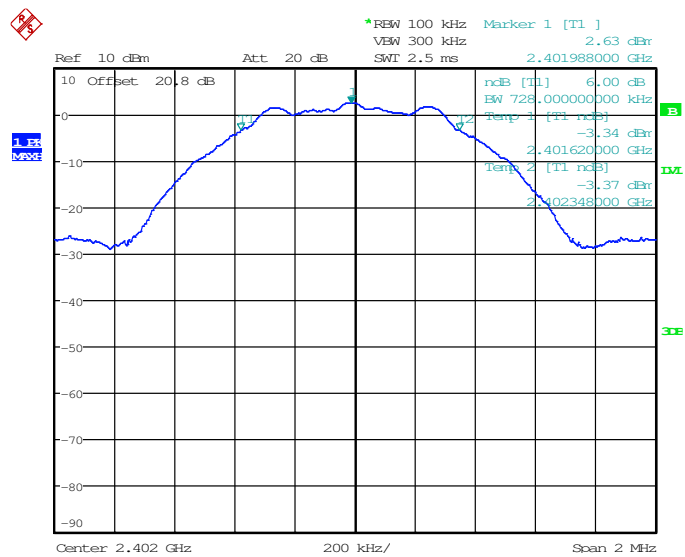
The 99% occupied bandwidth was measured with a sample detector and the spectrum analyzer span set to fully display the emission. The RBW was set to 1% to 5% of the approximated bandwidth. The occupied 99% bandwidth was measured by using 99% bandwidth equipment function of the spectrum analyzer.

7.2.2 Measurement Results

Results are shown below.

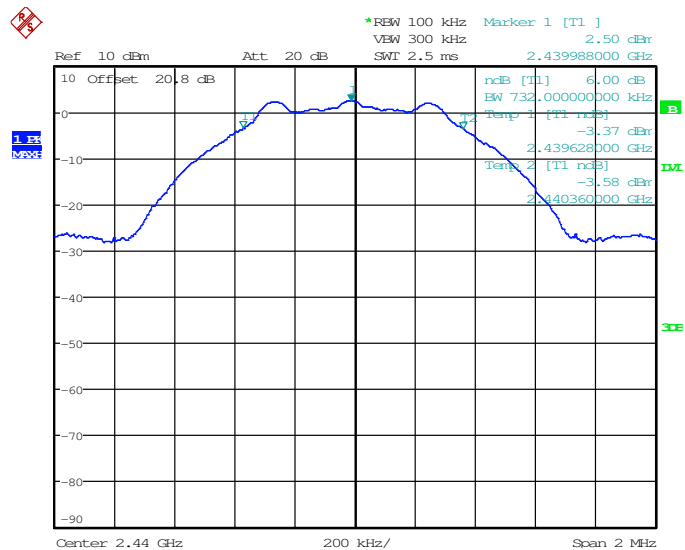
Table 7.2.2-1: 6dB / 99% Bandwidth

Frequency [MHz]	6dB Bandwidth [kHz]	99% Bandwidth [kHz]
2402	728	1072
2440	732	1072
2480	736	1072



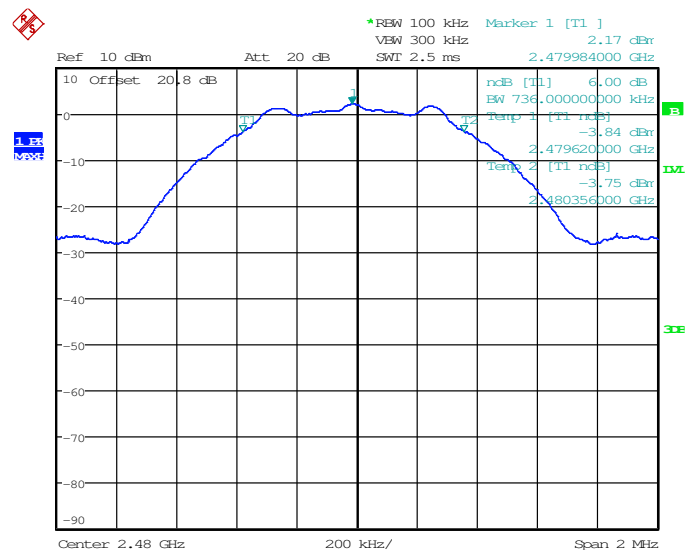
Date: 9.JAN.2017 14:55:39

Figure 7.2.2-1: 6dB BW - Low Channel



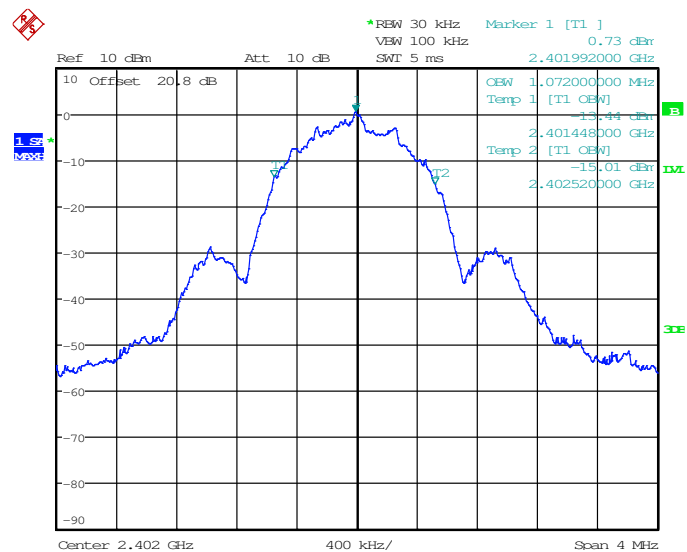
Date: 9.JAN.2017 15:02:54

Figure 7.2.2-2: 6dB BW - Middle Channel



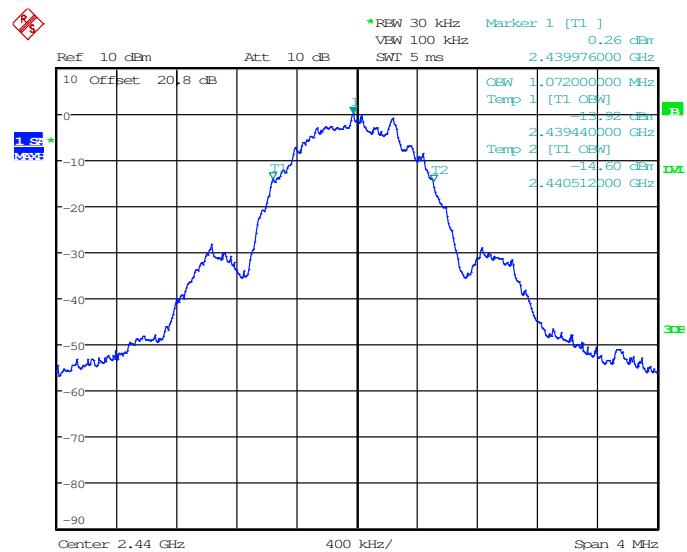
Date: 9.JAN.2017 15:15:38

Figure 7.2.2-3: 6dB BW - High Channel



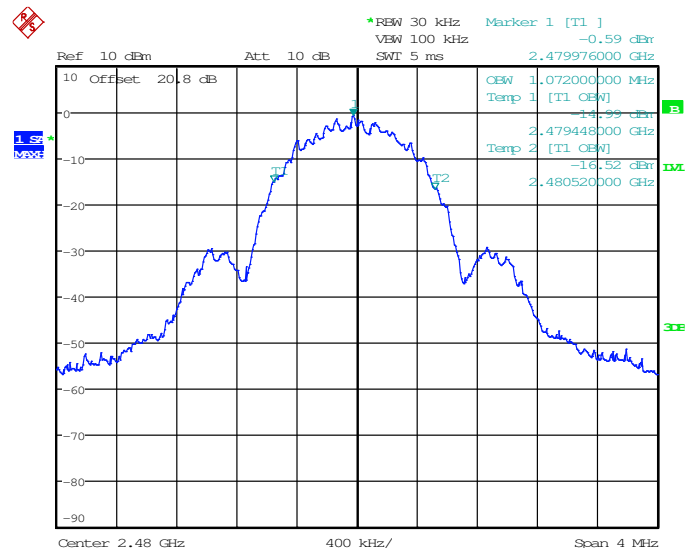
Date: 9.JAN.2017 15:32:45

Figure 7.2.2-4: 99% OBW - Low Channel



Date: 9.JAN.2017 15:28:24

Figure 7.2.2-5: 99% OBW - Middle Channel



Date: 9.JAN.2017 15:24:07

Figure 7.2.2-6: 99% OBW - High Channel

7.3 Peak Output Power - FCC Section 15.247(b)(3); ISED Canada: RSS-247 5.4(d)

7.3.1 Measurement Procedure (Conducted Method)

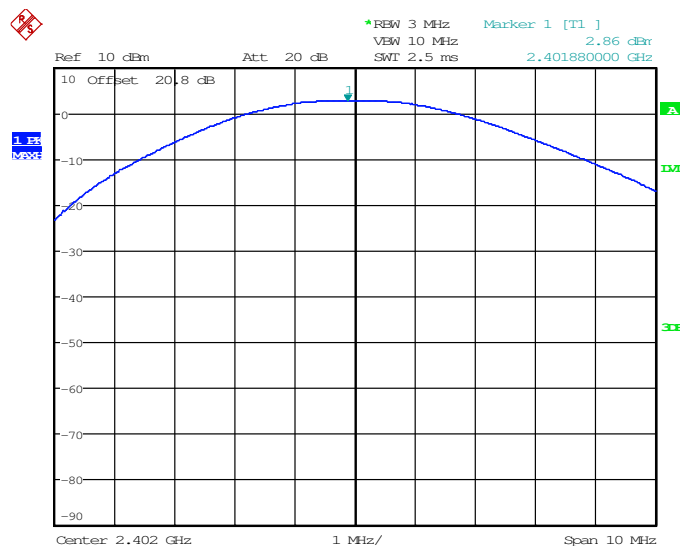
The fundamental emission output power was measured in accordance with the FCC KDB 558074 D01 DTS Meas Guidance v03r05 Section 9.1.1 RBW $\geq$ DTS bandwidth. The RF output of the equipment under test was directly connected to the input of the spectrum analyzer through suitable attenuation.

7.3.2 Measurement Results

Results are shown below.

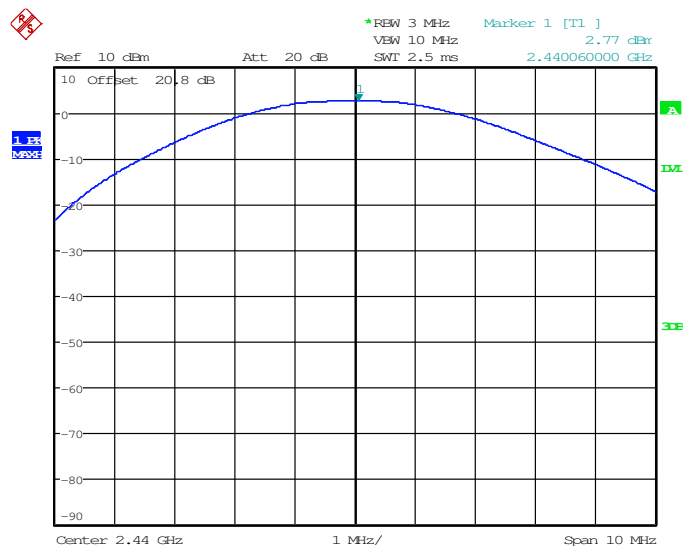
Table 7.3.2-1: RF Output Power

Frequency [MHz]	Level [dBm]
2402	2.86
2440	2.77
2480	2.40

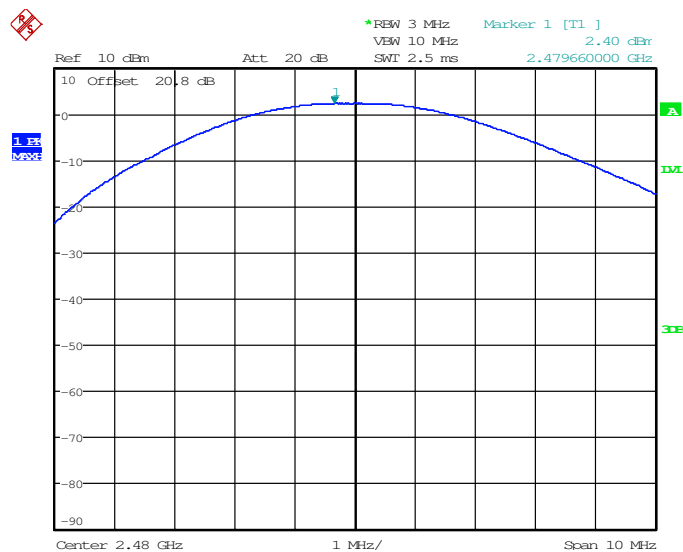


Date: 9.JAN.2017 14:46:03

Figure 7.3.2-1: RF Output Power - Low Channel



Date: 9.JAN.2017 15:01:28

Figure 7.3.2-2: RF Output Power - Middle Channel

Date: 9.JAN.2017 15:12:26

Figure 7.3.2-3: RF Output Power - High Channel

7.4 Band-Edge and Spurious Emissions

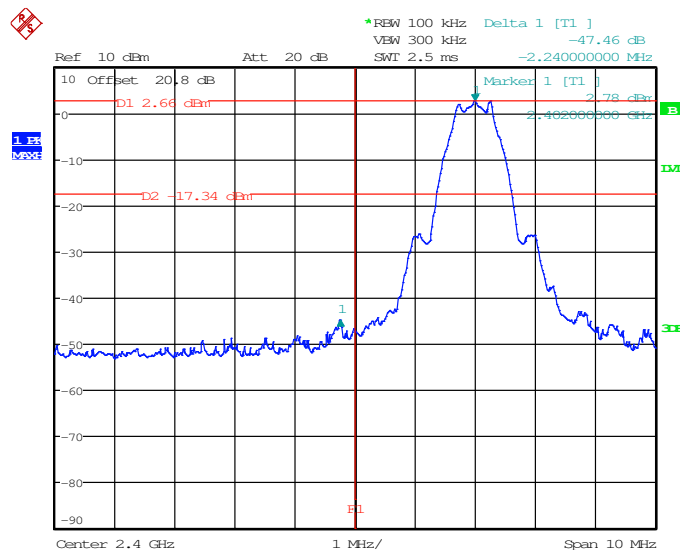
7.4.1 Band-Edge Compliance of RF Conducted Emissions - FCC Section 15.247(d); ISED Canada: RSS-247 5.5

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.



Date: 9.JAN.2017 15:36:41

Figure 7.4.1.2-1: Lower Band-edge

Figure 7.4.1.2-2: Upper Band-edge

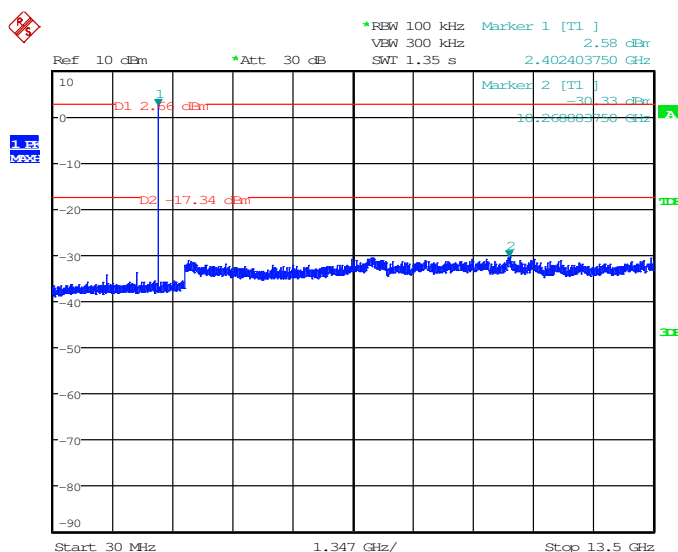
7.4.2 RF Conducted Spurious Emissions - FCC Section 15.247(d); ISSED Canada: RSS-247 5.5

7.4.2.1 Measurement Procedure

The RF Conducted Spurious Emissions were measured in accordance with the FCC KDB 558074 D01 DTS Meas Guidance v03r05 Section 11.3 Emission level measurement. 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.

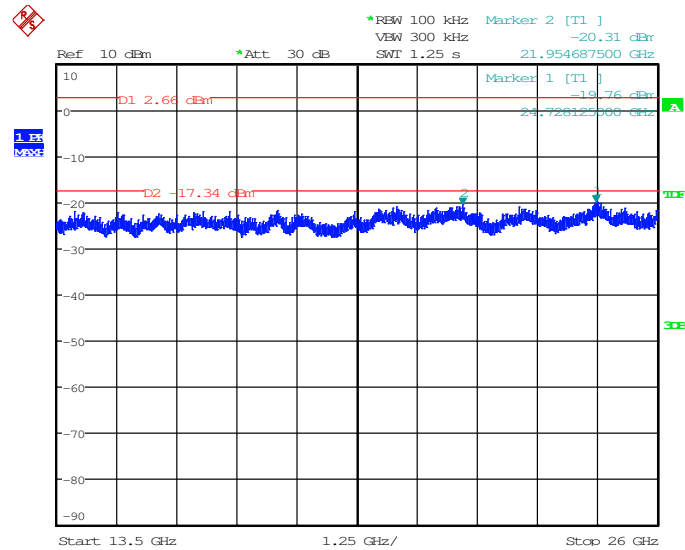
7.4.2.2 Measurement Results

Results are shown below.

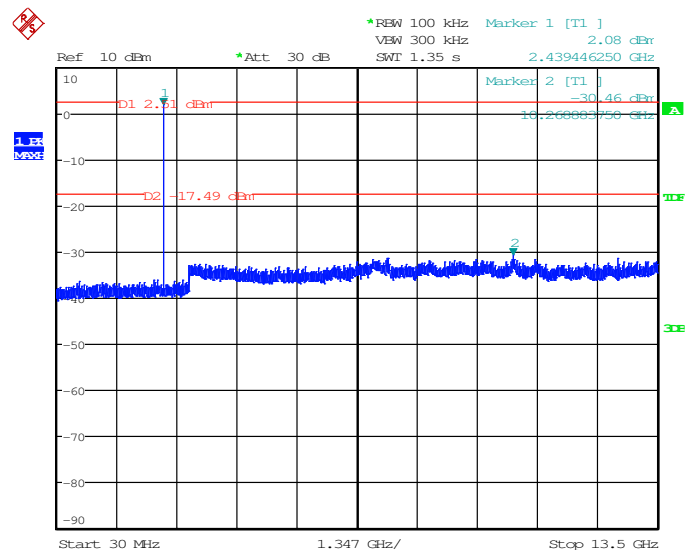


Date: 9.JAN.2017 18:58:18

Figure 7.4.2.2-1: 30 MHz – 13.5 GHz – Low Channel

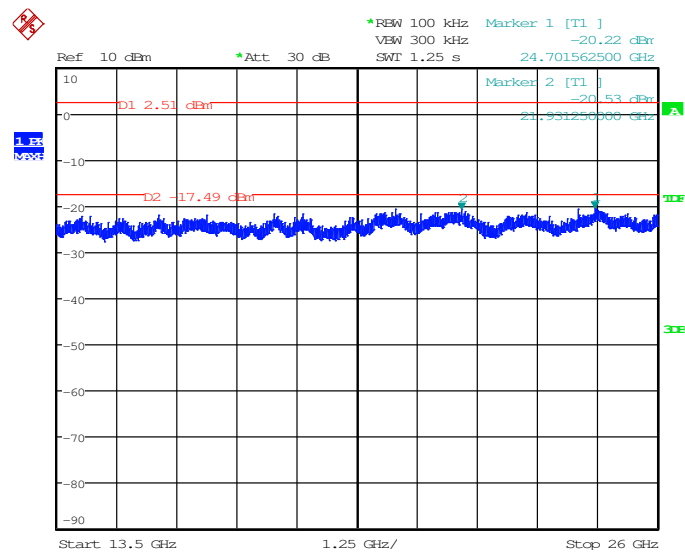


Date: 9.JAN.2017 16:33:42

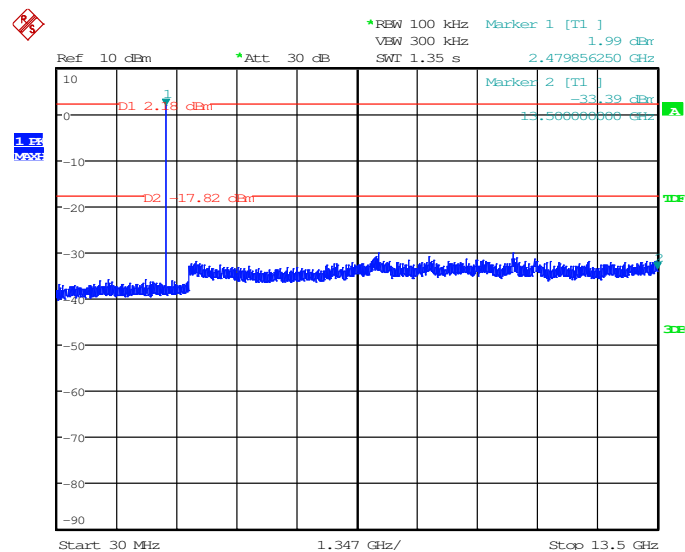
Figure 7.4.2.2-2: 13.5 GHz –26 GHz – Low Channel

Date: 9.JAN.2017 16:25:12

Figure 7.4.2.2-3: 30 MHz – 13.5 GHz –Middle Channel

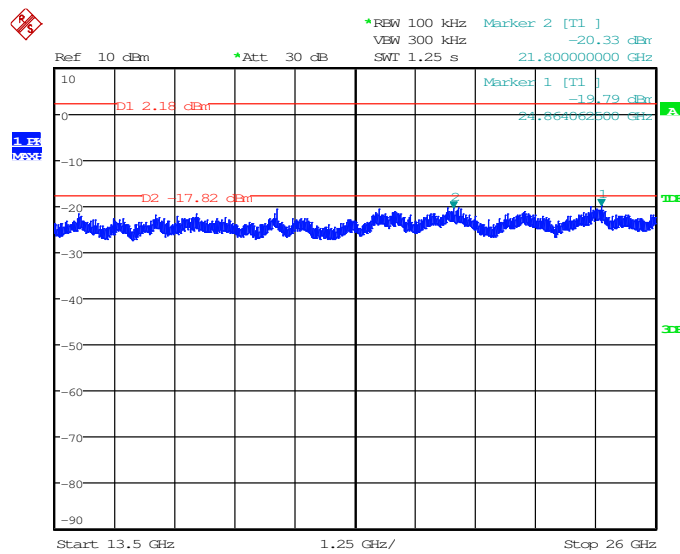


Date: 9.JAN.2017 16:29:06

Figure 7.4.2.2-4: 13.5 GHz –26 GHz – Middle Channel

Date: 9.JAN.2017 16:19:13

Figure 7.4.2.2-5: 30 MHz – 13.5 GHz – High Channel



Date: 9.JAN.2017 16:07:40

Figure 7.4.2.2-6: 13.5 GHz –26 GHz –High Channel

7.4.3 Radiated Spurious Emissions into Restricted Frequency Bands – FCC Sections 15.205, 15.209; ISD Canada: 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.

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 (H/V)	Correction Factors (dB)	Corrected Level (dBuV/m)		Limit (dBuV/m)		Margin (dB)	
	pk	Qpk/Avg			pk	Qpk/Avg	pk	Qpk/Avg	pk	Qpk/Avg
Low Channel										
2390	60.89	44.78	H	-5.39	55.50	39.39	74.0	54.0	18.5	14.6
4804	49.76	42.18	H	3.54	53.30	45.72	74.0	54.0	20.7	8.3
4804	45.07	33.91	V	3.54	48.61	37.45	74.0	54.0	25.4	16.5
Middle Channel										
4880	49.40	41.51	H	3.93	53.33	45.44	74.0	54.0	20.7	8.6
4880	45.10	34.47	V	3.93	49.03	38.40	74.0	54.0	25.0	15.6
7320	47.00	36.47	H	9.10	56.10	45.57	74.0	54.0	17.9	8.4
7320	44.87	32.38	V	9.10	53.97	41.48	74.0	54.0	20.0	12.5
High Channel										
2483.5	67.27	51.16	H	-4.92	62.35	46.24	74.0	54.0	11.6	7.8
2483.5	60.87	45.29	V	-4.92	55.95	40.37	74.0	54.0	18.0	13.6
4960	50.00	42.53	H	4.33	54.33	46.86	74.0	54.0	19.7	7.1
4960	45.92	35.07	V	4.33	50.25	39.40	74.0	54.0	23.7	14.6
7440	45.57	34.15	H	9.29	54.86	43.44	74.0	54.0	19.1	10.6
7440	43.91	31.58	V	9.29	53.20	40.87	74.0	54.0	20.8	13.1

Note: All emissions above 7.44 GHz were attenuated below the limits and the noise floor of the measurement equipment.

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: $60.89 + (-5.39) = 55.5 \text{ dB}\mu\text{V/m}$

Margin: $74 \text{ dB}\mu\text{V/m} - 55.5 \text{ dB}\mu\text{V/m} = 18.5 \text{ dB}$

Example Calculation: Average

Corrected Level: $44.78 + (-5.39) = 39.39 \text{ dB}\mu\text{V/m}$

Margin: $54 \text{ dB}\mu\text{V/m} - 39.39 \text{ dB}\mu\text{V/m} = 14.6 \text{ dB}$

7.5 Power Spectral Density - FCC Section 15.247(e); ISED Canada: RSS-247 5.2(b)

7.5.1 PSD Measurement Procedure (Conducted Method)

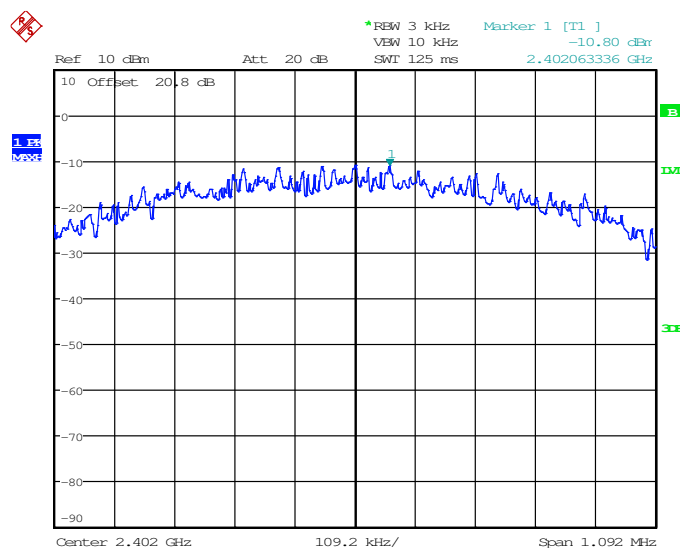
The power spectral density was measured in accordance with the FCC KDB 558074 D01 DTS Meas Guidance v03r05 Section 10.2 Method PKPSD (peak PSD). The RF output port of the EUT was directly connected to the input of the spectrum analyzer. Offset values were input for cable and external attenuation. The 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	-10.80	8.0	18.8
2440	-10.73	8.0	18.73
2480	-10.39	8.0	18.39



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Figure 7.5.2-1: Power Spectral Density - Low Channel

7.6 Power Line Conducted Emissions – FCC: Section 15.207; ISED Canada: RSS-Gen 8.8

7.6.1 Measurement Procedure

ANSI C63.10 section 6.2 was the guiding document 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.

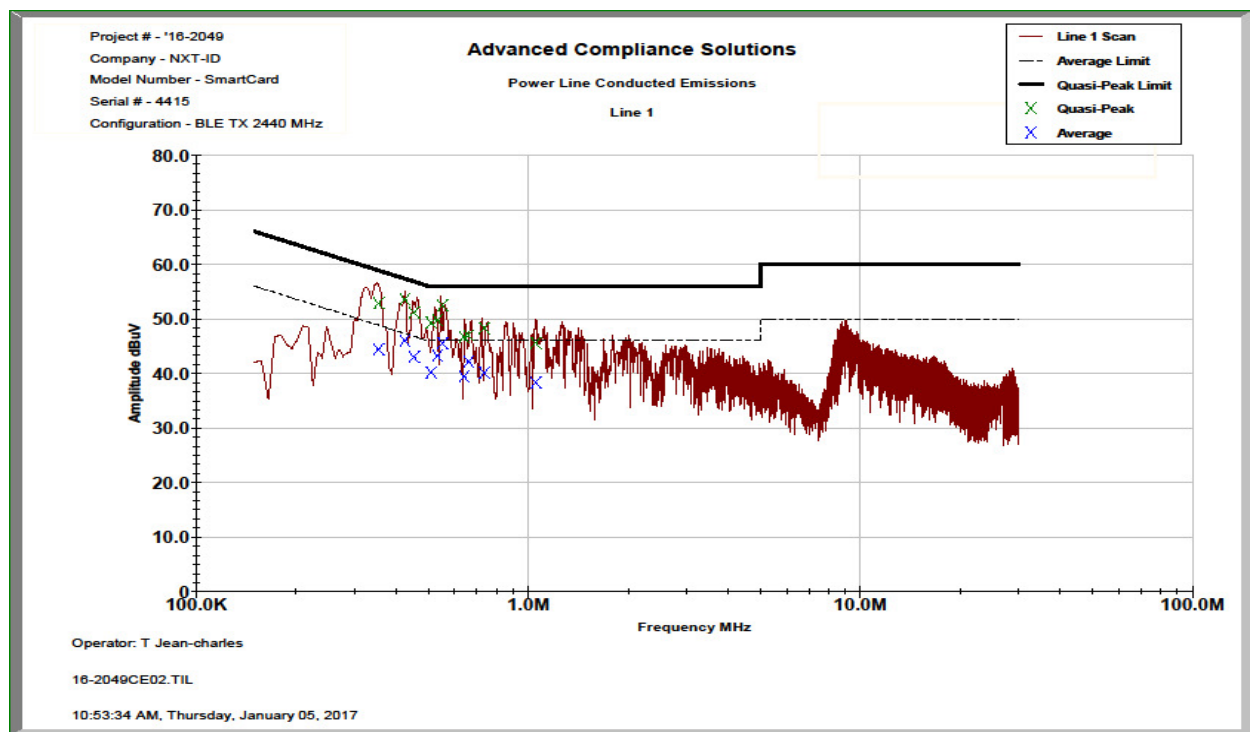


Figure 7.6.2-1: Conducted Emissions Results – Line 1

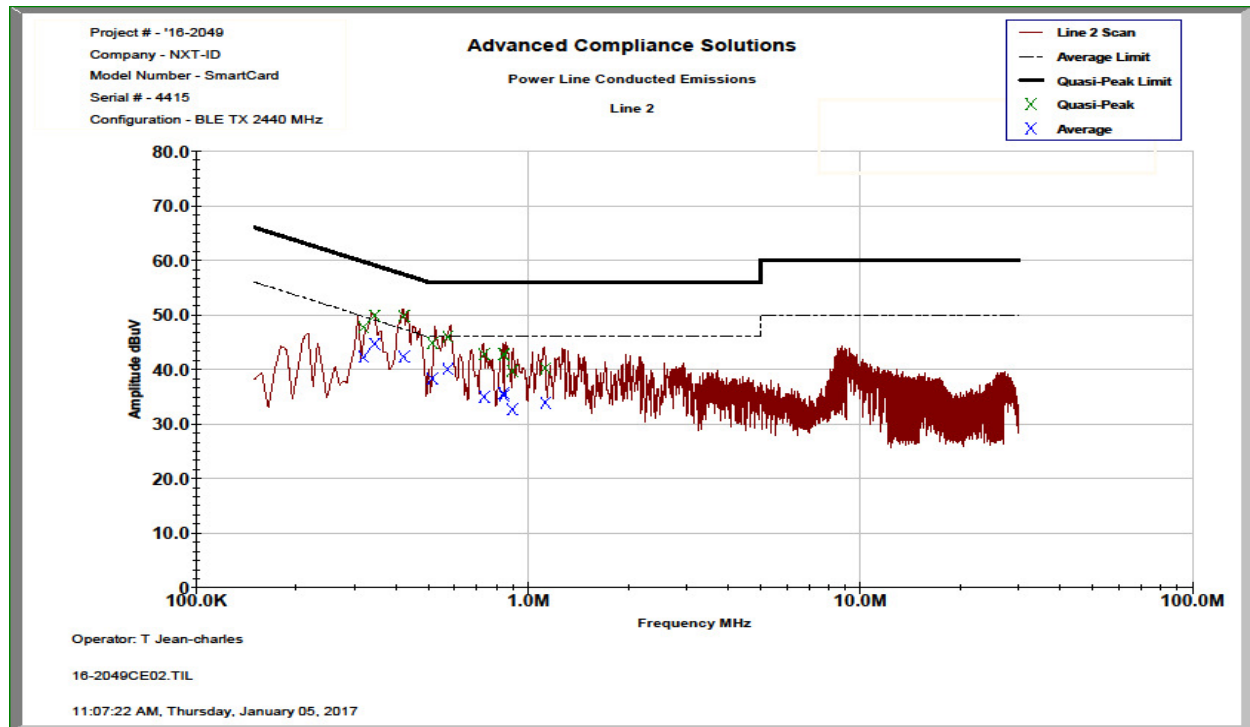


Figure 7.6.2-2: Conducted Emissions Results – Line 2

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: <u>16-2049CE02</u> Power Supply Description: <u>5 VDC</u>									
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									
0.354338	42.569	34.153	10.26	52.82	44.41	58.86	48.86	6.0	4.5
0.425262	43.347	35.766	10.28	53.63	46.05	57.34	47.34	3.7	1.3
0.453274	40.938	32.729	10.28	51.22	43.01	56.81	46.81	5.6	3.8
0.511	39.023	29.936	10.26	49.28	40.19	56.00	46.00	6.7	5.8
0.533425	39.504	32.983	10.26	49.76	43.24	56.00	46.00	6.2	2.8
0.552063	42.208	35.334	10.26	52.47	45.59	56.00	46.00	3.5	0.4
0.642075	36.404	29.172	10.27	46.67	39.44	56.00	46.00	9.3	6.6
0.661925	36.716	31.899	10.27	46.98	42.17	56.00	46.00	9.0	3.8
0.738813	38.04	29.867	10.27	48.31	40.13	56.00	46.00	7.7	5.9
1.05486	35.315	28.034	10.29	45.60	38.32	56.00	46.00	10.4	7.7
Line 2									
0.319463	37.5	32.07	10.21	47.71	42.28	59.72	49.72	12.0	7.4
0.345413	39.688	34.501	10.21	49.90	44.71	59.07	49.07	9.2	4.4
0.4223	39.612	32.101	10.22	49.83	42.32	57.40	47.40	7.6	5.1
0.51505	34.643	28.116	10.21	44.85	38.32	56.00	46.00	11.1	7.7
0.573224	35.716	29.837	10.21	45.93	40.05	56.00	46.00	10.1	5.9
0.737824	32.518	24.744	10.22	42.74	34.97	56.00	46.00	13.3	11.0
0.843524	32.575	25.375	10.24	42.82	35.62	56.00	46.00	13.2	10.4
0.8465	32.384	24.976	10.24	42.63	35.22	56.00	46.00	13.4	10.8
0.89625	29.504	22.392	10.24	39.75	32.64	56.00	46.00	16.3	13.4
1.12656	29.952	23.656	10.26	40.21	33.91	56.00	46.00	15.8	12.1

8 CONCLUSION

In the opinion of ACS, Inc., the model NXT-WAZ01-1110 manufactured by NXT-ID, Inc. meets the requirements of FCC Part 15 subpart C and Innovation, Science and Economic Development Canada's Radio Standards Specification RSS-247 for the test procedures documented in the test report.

END REPORT