

**ELECTROMAGNETIC COMPATIBILITY
TEST REPORT
TO
FCC 47 CFR Part 15 Subpart C 15.247
RSS-247 Issue 1 & RSS-Gen Issue 4**

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Address: 16 – 211 Schoolhouse Street, Coquitlam, BC, V3K 4X9, Canada

Accreditations (ISO 17025):



Standard Council of Canada: Accredited Laboratory No. 743

International Accreditation Service Inc.: Accredited Laboratory: No. TL-239

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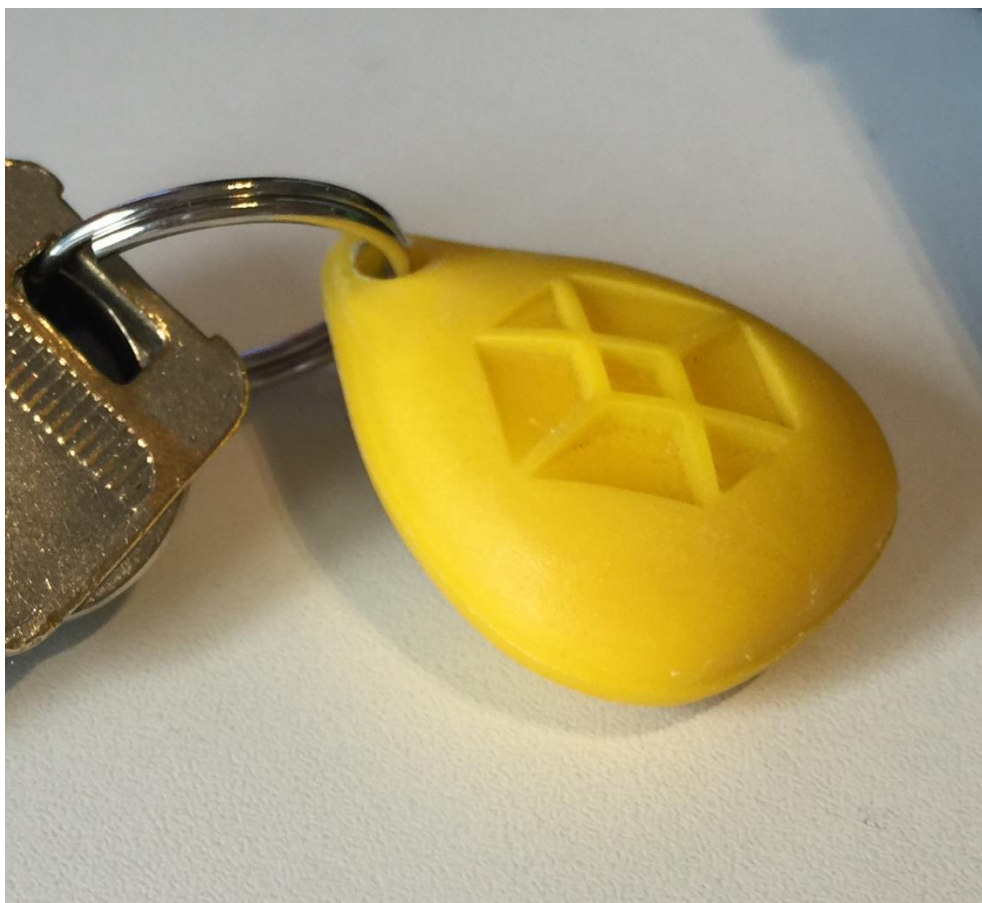
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Fax: (610) 537-5178

Test Standard: FCC 47 CFR Part 15 Subpart C 15.247
RSS-247 Issue 1 & RSS-Gen Issue 4

Equipment under Test (EUT): LC01
EUT Description: Bluetooth low Energy Device (LC01)

Manufacturer: OMS3
Model Number: LC01

FCC Registration (FRN): 0025012618
FCC ID: 2AGDQLC01
IC: 20975-LC01



LC01 (EUT)

The following tests demonstrate the testimony to "FCC & IC" Mark Electromagnetic compatibility testing for "LC01" manufactured by OMS3

| | Test | Standard | Description | Result |
|---------|---|---|--|----------|
| Part 1 | Antenna requirement | FCC 47 CFR Part 15.203 RSS-Gen Issue4 8.3 | Soldered, non-replaceable antenna | Complies |
| Part 2 | Radiated Emissions (Un-intentional) | FCC CFR47 Part 15 Subpart B; RSS Gen issue 4, ICES-003 Issue 5 | The emission are measured when the transmitter is not activated. | Complies |
| Part 3 | RF Peak Power Output | FCC Part 15.247 (b)(3) RSS 247 Issue1 5.4 (4) | Maximum peak conducted output power shall not exceed 1 W. | Complies |
| Part 4 | Occupied Bandwidth 6dB Bandwidth | FCC Part 15.247 (a) (2) and RSS 247 Issue1 5.2(1) | The minimum -6 dB bandwidth shall be at least 500 kHz. | Complies |
| Part 5 | 99% Occupied Bandwidth | RSS-Gen Issue 4 | The Bandwidth to be reported | Complies |
| Part 6 | Power Spectral Density | FCC Part 15.247 (e) and RSS 247 Issue1 5.2(2) | The transmitter power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission | Complies |
| Part 7 | Out-of-band Emissions (Band Edge) | FCC Part 15.247 (d) and RSS- 247 Issue1 5.5 | In any 100 kHz bandwidth outside the frequency band in which the digitally modulated device is operating, the RF power that is produced shall be at least 20dB. | Complies |
| Part 8 | Radiated Spurious Emissions-Transmit Mode | FCC Part 15 247 (d), 209 (a), 205, RSS-247 Issue 1 5.5 RSS- Gen Issue4 8.10 | Radiated emissions requirements as stated in the Standards. | Complies |
| Part 9 | RF Exposure Compliance | FCC KDB447498; CFR 47, Part 1.1307, 1310; Part 2, Subpart J 1091,RSS-102(2.5.1) | Any radio transmitter should not emit higher than the limit | Complies |
| Part 10 | Frequency Stability | FCC Part 15.215(c) & RSS-Gen Issue 4 (8.11) | Frequency Stability measurements were performed at extreme temperature conditions | Complies |

Tests were conducted on a sample of the equipment for the purpose of demonstrating compliance with CFR 47 FCC Part 15 Subpart C and Industry Canada RSS-Gen Issue4, RSS-247 Issue1. The manufacturer is responsible for the tested product configuration, continued product compliance with these standards listed, and for the appropriate auditing of subsequent products as required.

This is to certify that the following report is true and correct to the best of our knowledge.

X 

Written by Jack Qin
RF/EMC Test Engineer/Technical Writer

X 

Reviewed by Aman Jathaul,
EMC Project Manager

Revision History

| Date | Report Number | Rev # | Details | Authors Initials |
|---|-----------------------|-------|-------------------|------------------|
| October 16, 2015 | E10726-1501_OMS3-BLE4 | 0.0 | Draft Test Report | JQ |
| December 17, 2015 | E10726-1501_OMS3-LC01 | 0.1 | Draft Test Report | JQ |
| December 29, 2015 | E10726-1501_OMS3-LC01 | 1.0 | Final Test Report | JQ |
| All previous versions of this report have been superseded by the latest dated revision as listed in the above table. Please dispose of all previous electronic and paper printed revisions accordingly. | | | | |

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Section I: PRODUCT DESCRIPTION

| | |
|------------------------|--|
| EUT | LC01 |
| Functional Description | <p>The EUT can lock and unlock of any Windows (7,8 or 10) computer automatically. Walk up to your computer, and it will automatically log you in without the need to press a single key. Step away to refill your coffee, and your computer will lock, protecting your work.</p> <p>Each machine on your network can be registered to an Azure Cloud hosted web management console, where you may link keys to local and Active Directory accounts on any computer running the client service.</p> |
| Manufacturer | OMS3 |
| Model Number | LC01 |
| FCC ID | 2AGDQLC01 |
| IC Number | 20975-LC01 |
| Frequency Range | 2402MHz -2480MHz |
| Transmit Type | Bluetooth low energy |
| Transmit Power | -1.04 dBm eirp |
| Modulation | GFSK |
| Number of Channels | 40 |
| Ratings | +3.6 Vdc, powered by coin cell battery |

ANTENNA DESCRIPTION

| | |
|-------------|--|
| Description | PCB Antenna/Antenna is integrated in the board |
| Gain | 0dBi |

Section II: General Information

FACILITIES AND ACCREDITATION

Main Laboratory Headquarters: Quality Auditing Institute
Headquarters Location/Address: 16 – 211 Schoolhouse Street, Coquitlam, BC, 3K 4X9, Canada
EMC Laboratory Address: 19473 Fraser Way, Pitt Meadows, BC, V3Y 2V4, Canada
FCC Test Site Registration Number:
(3 m /10 m Open Area Test Site [OATS] and 3 m Semi-Anechoic Chamber [SAC]): 226383
FCC Designation Number: CA9543
Industry Canada Test Site Registration Number (3m SAC): 9543B-1
Standard Council of Canada: ISO/IEC 17025:2005 Accredited Laboratory No. 743
International Accreditation Service Inc.: ISO/IEC 17025:2005 Accredited Laboratory: No. TL-239

ENVIROMENTAL CONDITIONS: INDOORS

Temperature: 22-28°C R.H.: 39.7 - 54.4%

TESTING METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.4-2009, ANSI C63.10-2009, ANSI C63.10-2013, FCC CFR 47 Part 2, FCC CFR 47 Part 15, and RSS-Gen, Issue 4 and RSS-210, Issue 8. The FCC testing was also done using the FCC KDB 558074 D01 DTS Meas Guidance v03r03.

EUT TESTING CONFIGURATION

The transmitter was set for continuous operation on various frequencies in modulated modes of operation.

WORST TEST CASE

Worst-case orientation was determined by rotating the EUT on three orthogonal planes, during the pre-compliance test and final radiated emissions tests were performed in that worst orientation.

GENERAL TEST PROCEDURES

RF Conducted Emissions

The EUT is placed on a test bench connected directly to an EMI Receive and Spectrum Analyzer Conducted emissions are measured in the frequency range 10kHz to 25GHz using CISPR Peak, Quasi-Peak and Average detectors.

Radiated Emissions

Below 1000MHz, EUT was placed on the turntable 0.8m above a ground plane 3m away from a receiving antenna. Height of receiving antenna varied from 1m to 4m, its polarity changes from vertical to horizontal. Above 1000MHz, EUT was placed 1.5m high from the ground plane on an insulated surface and absorbers were placed on the ground plane as required by the standard. During measurements turntable was also rotated 360 degrees to determine worst case orientation. Motion of turntable and receiving antenna allows determining position of maximum emission level. Quasi-peak detector applies for measurements of emissions with frequency range of 30 to 1000MHz. and average/peak detector otherwise.

Restricted Bands of Operation

- (a) Except as shown in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

| MHz | MHz | MHz | GHz |
|-------------------|---------------------|---------------|-------------|
| 0.090-0.110 | 16.42-16.423 | 399.9-410 | 4.5-5.15 |
| 1 0.495-0.505* | 16.69475-16.69525 | 608-614 | 5.35-5.46 |
| 2.1735-2.1905 | 16.80425-16.80475 | 960-1240 | 7.25-7.75 |
| 4.125-4.128 | 25.5-25.67 | 1300-1427 | 8.025-8.5 |
| 4.17725-4.17775 | 37.5-38.25 | 1435-1626.5 | 9.0-9.2 |
| 4.20725-4.20775 | 73-74.6 | 1645.5-1646.5 | 9.3-9.5 |
| 6.215-6.218 | 74.8-75.2 | 1660-1710 | 10.6-12.7 |
| 6.26775-6.26825 | 108-121.94 | 1718.8-1722.2 | 13.25-13.4 |
| 6.31175-6.31225 | 123-138 | 2200-2300 | 14.47-14.5 |
| 8.291-8.294 | 149.9-150.05 | 2310-2390 | 15.35-16.2 |
| 8.362-8.366 | 156.52475-156.52525 | 2483.5-2500 | 17.7-21.4 |
| 8.37625-8.38675 | 156.7-156.9 | 2690-2900 | 22.01-23.12 |
| 8.41425-8.41475 | 162.0125-167.17 | 3260-3267 | 23.6-24.0 |
| 12.29-12.293 | 167.72-173.2 | 3332-3339 | 31.2-31.8 |
| 12.51975-12.52025 | 240-285 | 3345.8-3358 | 36.43-36.5 |
| 12.57675-12.57725 | 322-335.4 | 3600-4400 | -2 |
| 13.36-13.41 | | | |

* - note FCC-specific .

Canada-specific frequency ranges - 3.020-3.026, 5.677-5.683, 121.94-123.0, 149.9-150.05, 162.0125-167.17, 167.72-173.2, 1300-1427, 2483.5-2500, 3500-3600,

(2) Above 38,6 GHz

(b) Except as provided in paragraphs (d) and (e) of this section, the field strength of emissions appearing within these frequency bands shall not exceed the limits shown in § 15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in § 15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in § 15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in § 15.35 apply to these measurements.

MEASUREMENT UNCERTAINTY

| Parameter | Uncertainty |
|-------------------------------|----------------------------|
| Radio Frequency | $\pm 1 \times 10^{-5}$ MHz |
| Total RF power, conducted | ± 1 dB |
| RF power density, conducted | ± 2.75 dB |
| Spurious emissions, conducted | ± 3 dB |
| Radiated Emissions | ± 3 dB |
| Temperature | $\pm 1^\circ\text{C}$ |
| Humidity | ± 5 % |
| DC and low frequency voltages | ± 3 % |

Test Equipment List

| Manufacturer | Model | Description | Serial No. | Last Cal | Cal Due Date |
|-----------------|------------------|---|--------------------|-----------------|--------------|
| ETS Lindgren | 2165 | Turntable | 00043677 | N/A | N/A |
| ETS Lindgren | 2125 | Mast | 00077487 | N/A | N/A |
| Rohde & Schwarz | ESU40 | EMI Receiver | 100011 | 2014-11-20 | 2017-11-20 |
| FCC | FCC-LISN-50-25-2 | LISN (150kHz-30MHz) | 9927 | 30-Nov-2012 | 30-Nov-2015 |
| EMCO | 6502 | Loop Antenna 10kHz-30MHz | 2178 | 8/21/2014 | 8/21/2017 |
| Sunol Sciences | JB3 | Biconilog Antenna 30MHz-3GHz (Prescan use only) | A120106 | 28-Oct-2013 | 28-Oct-2016 |
| ETS Lindgren | 3117 | Horn Antenna 1GHz-18GHz | 00075944 | 29-Aug-2013 | 29-Aug-2016 |
| EMCO | 3160-09 | Horn Antenna 18GHz-26.54GHz | 9701-1071 | 30-Aug-13 | 30-Aug-16 |
| ETS Lindgren | S201 | 5 meter Semi-Anechoic Chamber | 1030 | N/A | N/A |
| A.H.Systems Inc | PAM-1840VH | Preamplifier | 152 | 14-Jun-2013 | 14-Jun-2016 |
| A.H.Systems Inc | SAC-40G-2.25 | RF cable | 396 | Conditional use | |
| A.H.Systems Inc | SAC-40G-0.3 | RF cable | 395 | Conditional use | |
| ETS Lindgren | 7002-006 | USB RF Power Sensor | 14I00048S NO050 | 2014-11-20 | 2017-11-20 |

Measurement Software List

| Manufacturer | Model | Version | Description |
|-----------------|--------|---------|-------------------------------------|
| Rhode & Schwarz | EMC 32 | 6.20.0 | Emissions Pre-scan Test Software |

Section III: Test Information

Part 1 - Antenna Requirements

DATE: October 16, 2015

TEST STANDARD: FCC 47 CFR Part 15.203 and RSS-Gen Issue4 8.3

APPLICABLE REGULATIONS: - "An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that the user can replace a broken antenna, but the use of a standard antenna jack or electrical connector is prohibited."... "the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this Part are not exceeded."

RESULT: This device is assembled with a soldered, non-replaceable antenna.

Part 2 - Radiated Emissions Testing (Unintentional Mode)

DATE: October 01, 2015

TEST STANDARD: FCC CFR47 Part 15 Subpart B; RSS Gen issue 4, ICES-003 Issue 5

MINIMUM STANDARD: Except as provided elsewhere in FCC CFR47, Part 15, Subpart C & RSS-247 issue 1, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table

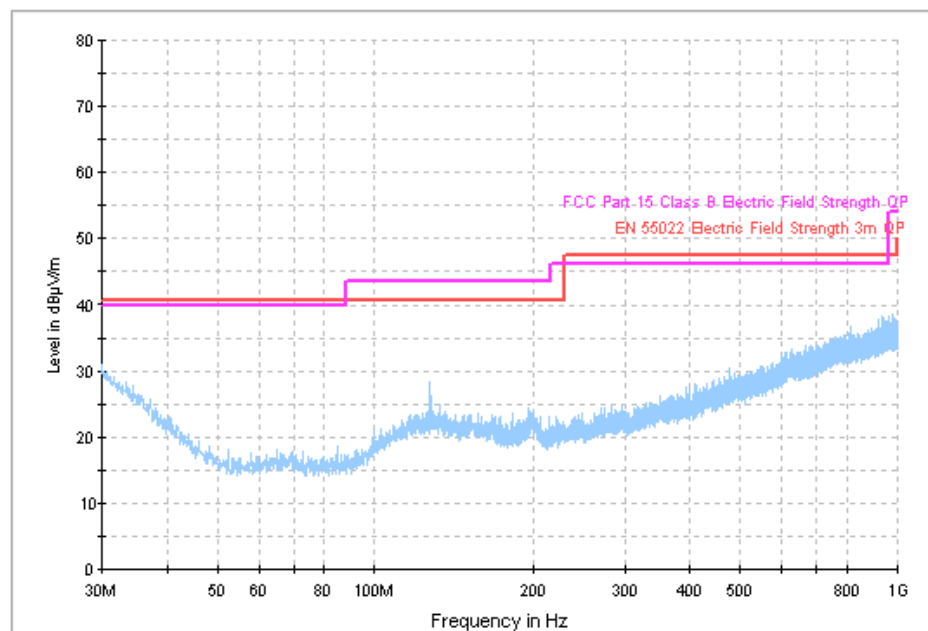
| Frequency (MHz) | Field Strength (dB μ V/m) at 3m |
|-----------------|-------------------------------------|
| 30 – 88 | 40 |
| 88 – 216 | 43.5 |
| 216 - 960 | 46 |
| 960 – above | 54 |

Note: In the above emission table, the tighter limit applies at the band edges.

TEST SETUP: The EUT was placed on a turntable, which is 0.8 m above ground plane. Emissions in both horizontal and vertical polarizations were measured while rotating the EUT on a turntable and moving the receiving antenna from 1m to 4 m high to maximize the emissions signal strength. The equipment was set up in a 3-meter Semi Anechoic Chamber for preliminary measurements and finals were completed in 3m/10m Open Air Test Site at 3 meters.

PERFORMANCE: Complies with standard.

MEASUREMENT DATA & PLOT:



Note: All radiated emissions were at least 20 dB below the required limit line.

PERFORMANCE: Complies with standard.

Part 3 - RF Peak Power Output

DATE: October 12, 2015

TEST STANDARD: FCC Part 15.247 (b)(3), RSS 247 Issue1 5.4 (4)

TEST REQUIREMENT: (3) For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt. As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power. Maximum Conducted Output Power is defined as the total transmit power delivered to all antennas and antenna elements averaged across all symbols in the signaling alphabet when the transmitter is operating at its maximum power control level. Power must be summed across all antennas and antenna elements. The average must not include any time intervals during which the transmitter is off or is transmitting at a reduced power level. If multiple modes of operation are possible (e.g., alternative modulation methods), the maximum conducted output power is the highest total transmit power occurring in any mode. Except as provided in RSS 247 Issue1 5.4 (4), the e.i.r.p. shall not exceed 4 W.

MEASUREMENT METHOD: As called by the standards above.

TEST DATA:

| Low Channel-0-2402MHz | | | | | | | | | | | |
|-------------------------|----------|-------------|---------|----------------|-------|------------|-------|----------------|-------------------|-------|-------|
| Freq. | Peak-Raw | Average-Raw | Ant-Pol | Antenna Height | Angle | Cable Loss | AF | Peak-Corrected | Average Corrected | EIPR | Limit |
| MHz | dBuV | dBuV | | cm | deg | dB | dBm | dBuV/m | dBuV/m | dBm | dBm |
| 2402 | 55.82 | 48.67 | V | 100 | 101 | 4.69 | 32.5 | 93.01 | 85.86 | -2.25 | 30 |
| 2402 | 57.03 | 49.97 | H | 128 | 150 | 4.69 | 32.5 | 94.22 | 87.16 | -1.04 | 30 |
| Mid Channel-19-2440MHz | | | | | | | | | | | |
| Freq. | Peak-Raw | Average-Raw | Ant-Pol | Antenna Height | Angle | Cable Loss | AF | Peak-Corrected | Average Corrected | EIPR | Limit |
| MHz | dBuV | dBuV | | cm | deg | dB | dBm | dBuV/m | dBuV/m | dBm | dBm |
| 2440 | 56.42 | 49.4 | V | 104.8 | 37.6 | 4.92 | 32.58 | 93.92 | 86.9 | -1.34 | 30 |
| 2440 | 54.72 | 47.52 | H | 173 | 23.5 | 4.92 | 32.58 | 92.22 | 85.02 | -3.04 | 30 |
| High Channel-39-2480MHz | | | | | | | | | | | |
| Freq. | Peak-Raw | Average-Raw | Ant-Pol | Antenna Height | Angle | Cable Loss | AF | Peak-Corrected | Average Corrected | EIPR | Limit |
| MHz | dBuV | dBuV | | cm | deg | dB | dBm | dBuV/m | dBuV/m | dBm | dBm |
| 2480 | 51.75 | 44.5 | V | 103 | 225 | 5.19 | 32.66 | 89.6 | 82.35 | -5.66 | 30 |
| 2480 | 53.38 | 46.5 | H | 128 | 150 | 5.19 | 32.66 | 91.23 | 84.35 | -4.03 | 30 |

RESULTS: Pass: Complies.

Part 4 - Occupied Bandwidth 6dB Bandwidth

DATE: October 08, 2015

TEST STANDARD: FCC Part 15.247 (a) (2) and RSS 247 Issue1 5.2(1)

TEST REQUIREMENT: The minimum -6 dB bandwidth shall be at least 500 kHz.

TEST SETUP: The antenna port of EUT was directly connected to a spectrum analyzer.

MEASUREMENT METHOD: As called by the standards above.

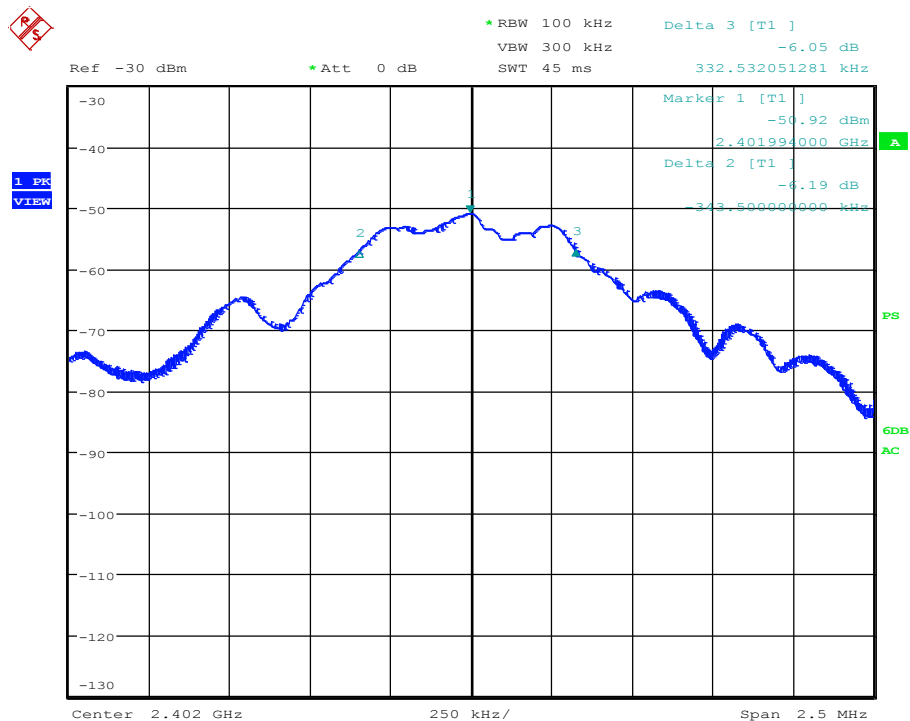
DEVICE DESCRIPTIONS: As described in the above EUT description and set up section.

MEASUREMENT DATA:

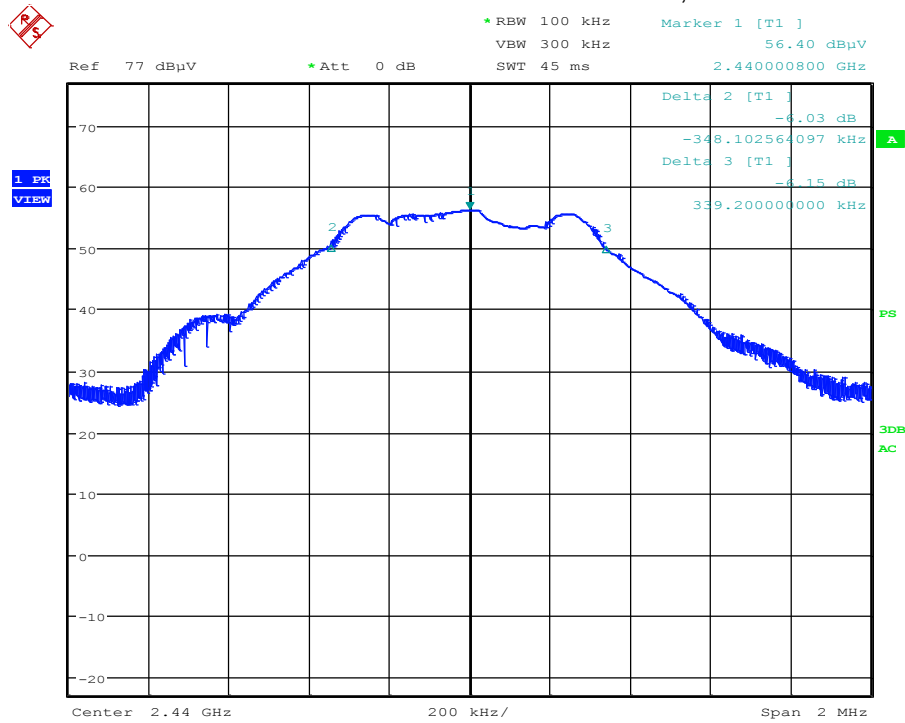
| Channel | Frequency (MHz) | 6dB Bandwidth at Hi date rate (kHz) | 6dB Bandwidth at Low date rate (kHz) |
|---------|-----------------|-------------------------------------|--------------------------------------|
| Low | 2402 | 574.3 | 580.3 |
| Mid | 2440 | 687.3 | 701.4 |
| High | 2480 | 652.2 | 672.8 |

RESULTS: Pass: Complies.

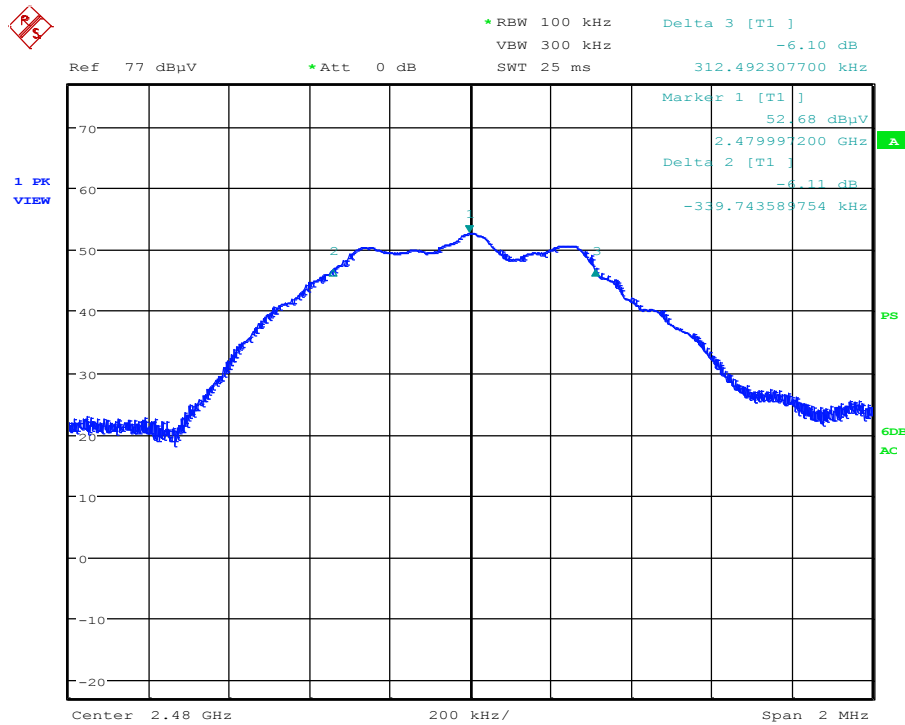
MEASUREMENT PLOT:



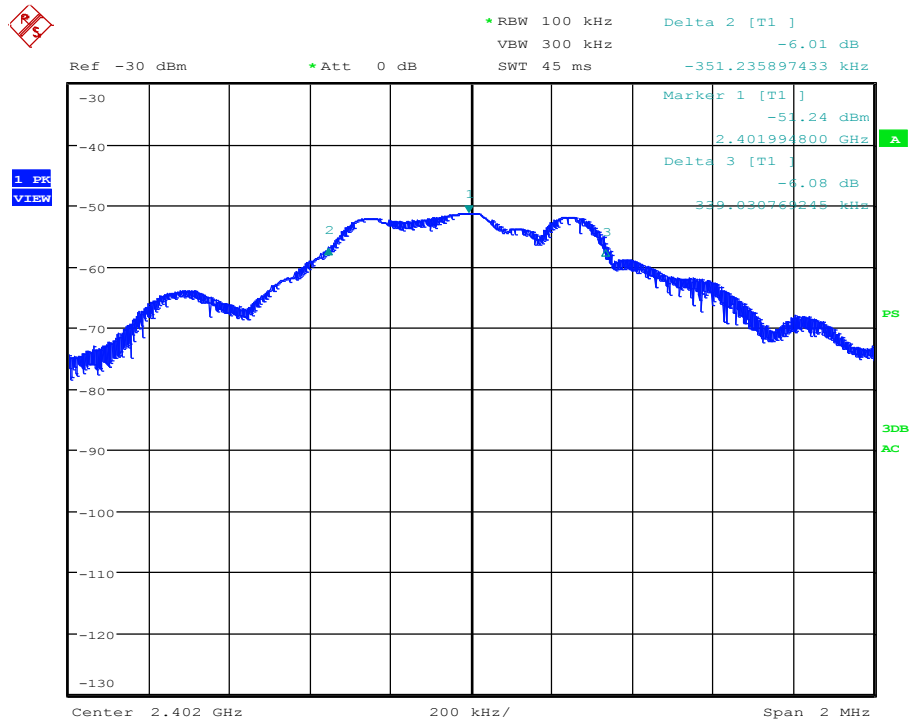
LOW CHANNEL – 6dB OCCUPIED BANDWIDTH, Hi data rate



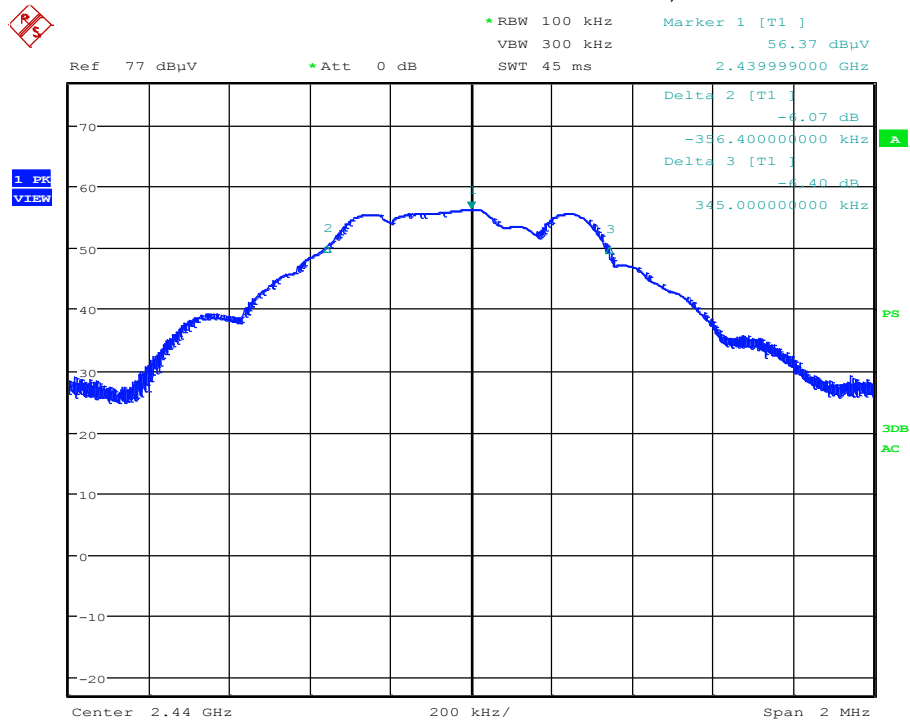
MID CHANNEL – 6dB OCCUPIED BANDWIDTH, Hi data rate



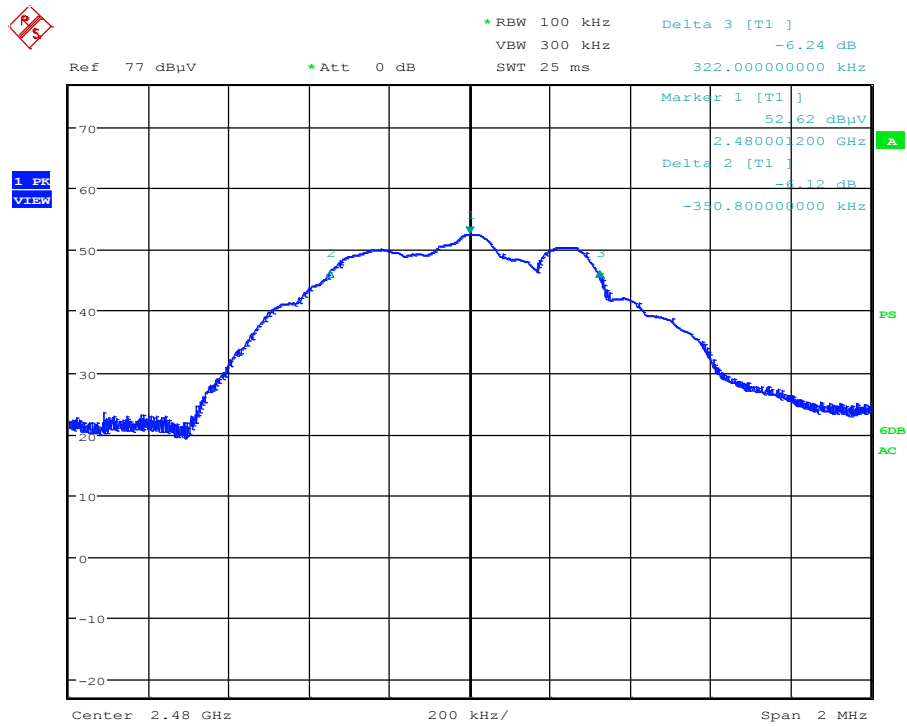
HIGH CHANNEL – 6dB OCCUPIED BANDWIDTH, Hi data rate



LOW CHANNEL – 6dB OCCUPIED BANDWIDTH, Low data rate



MID CHANNEL – 6dB OCCUPIED BANDWIDTH, Low data rate



HIGH CHANNEL – 6dB OCCUPIED BANDWIDTH, Low data rate

Part 5 - 99% Occupied Bandwidth

DATE: October 08, 2015

TEST STANDARD: RSS-Gen Issue 4

TEST SETUP: The antenna port of EUT was directly connected to a spectrum analyzer.

MEASUREMENT METHOD: As called by the standards above.

DEVICE DESCRIPTIONS: As described in the above EUT description and set up section.

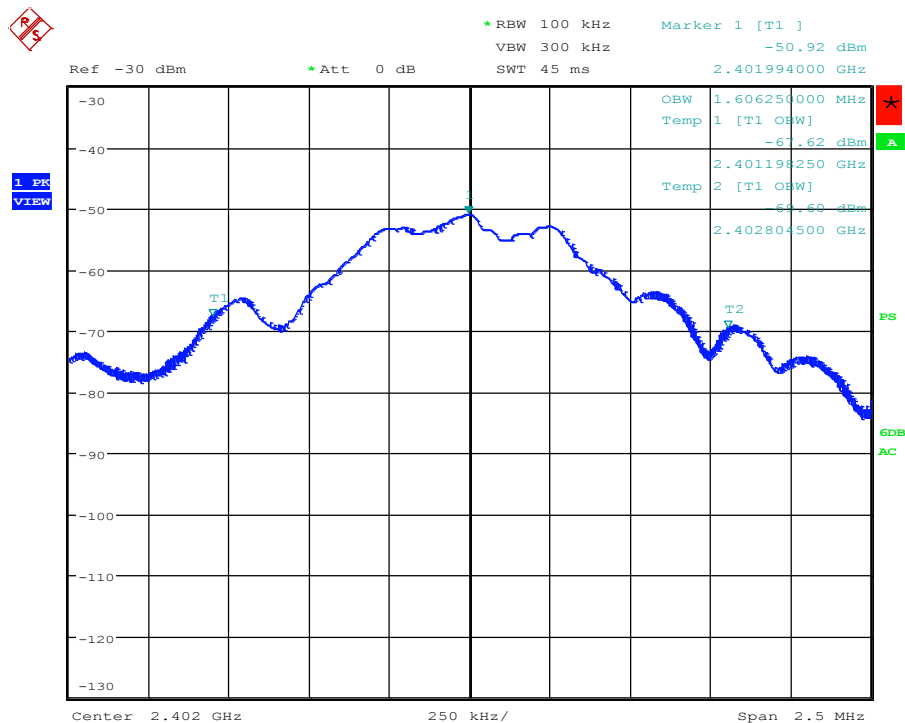
MEASUREMENT DATA:

| Channel | Frequency | 99% Bandwidth at Hi data rate | 99% Bandwidth at Low data rate |
|---------|-----------|----------------------------------|-----------------------------------|
| | MHz | MHz | MHz |
| Low | 2402 | 1.61 | 1.68 |
| Mid | 2440 | 1.13 | 1.15 |
| High | 2480 | 1.06 | 1.06 |

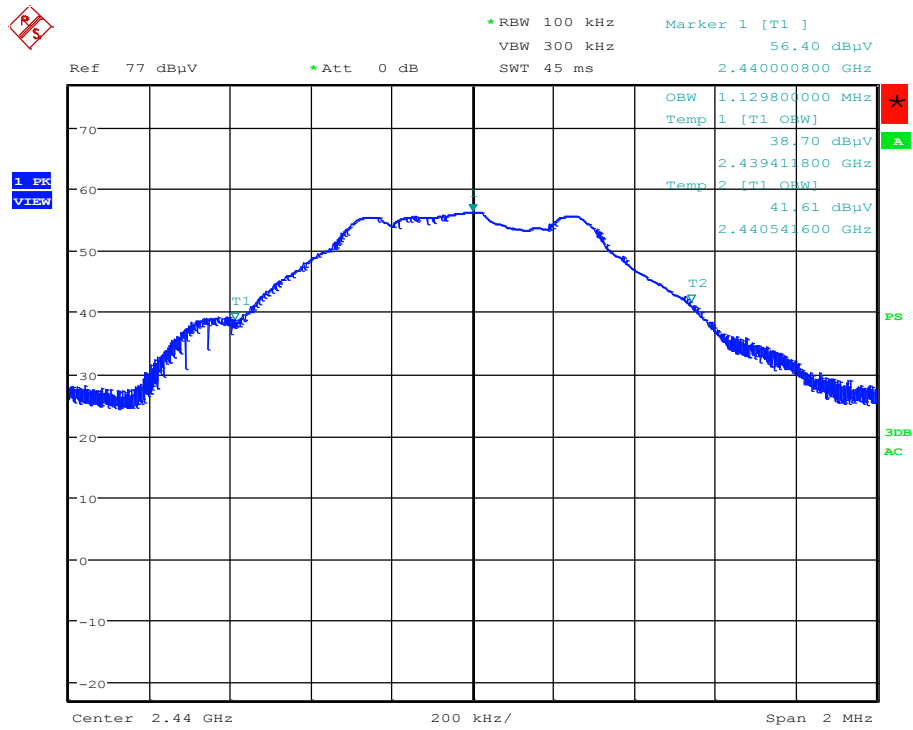
OBSERVATIONS: The EUT performed as expected.

PERFORMANCE: Complies

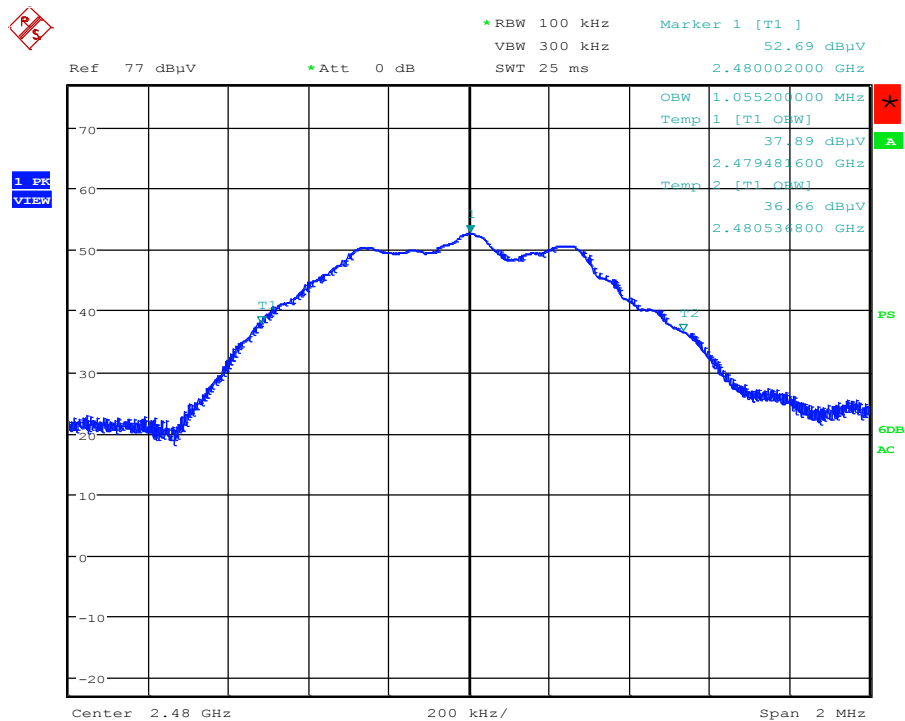
MEASUREMENT PLOT:



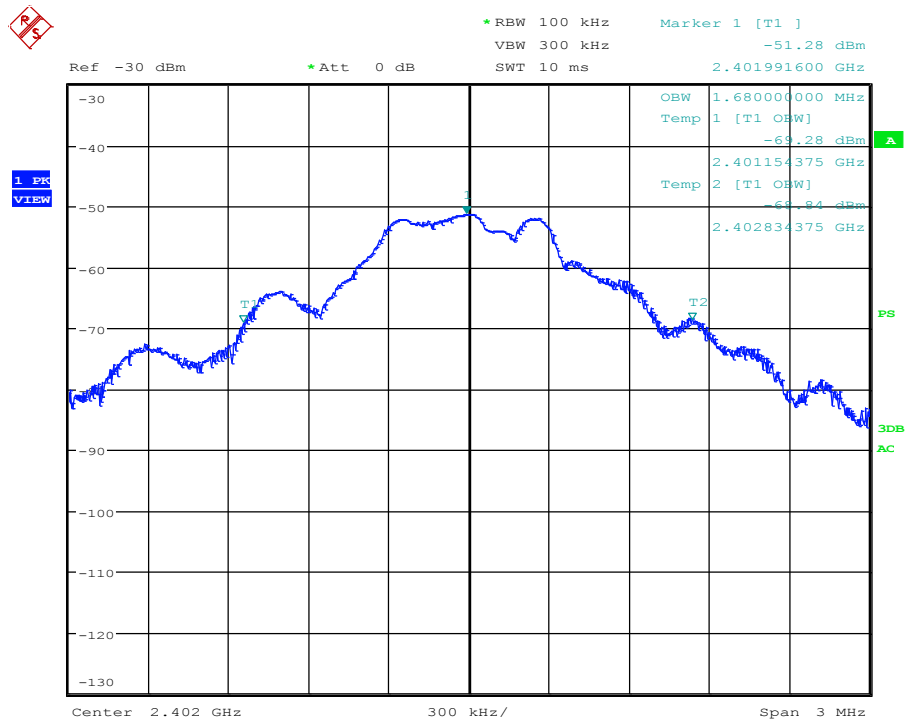
LOW CHANNEL – 99% OCCUPIED BANDWIDTH, Hi data rate



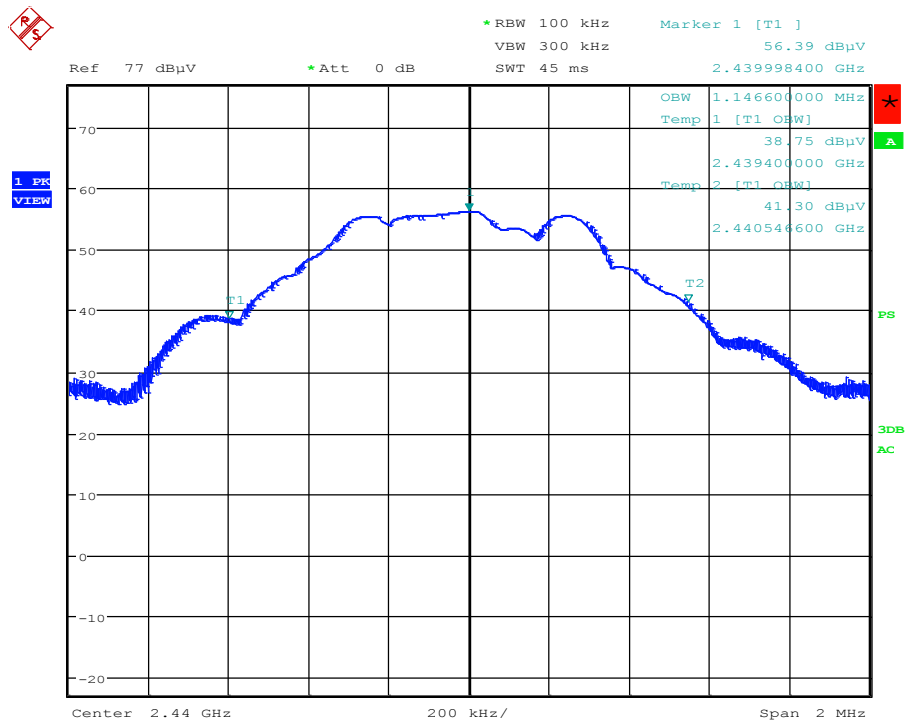
MIDDLE CHANNEL – 99% OCCUPIED BANDWIDTH, Hi data rate



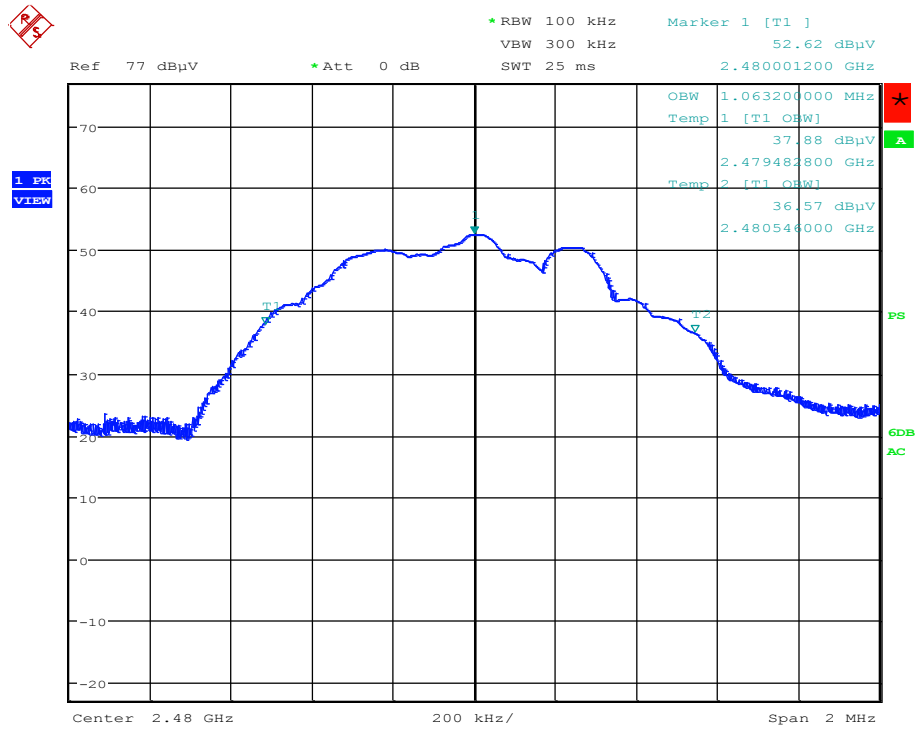
HIGH CHANNEL – 99% OCCUPIED BANDWIDTH, Hi data rate



LOW CHANNEL – 99% OCCUPIED BANDWIDTH, Low data rate



MIDDLE CHANNEL – 99% OCCUPIED BANDWIDTH, Low data rate



HIGH CHANNEL – 99% OCCUPIED BANDWIDTH, Low data rate

Part 6 - Power Spectral Density

DATE: October 08, 2015

TEST STANDARD: FCC Part 15.247 (e) and RSS 247 Issue1 5.2(2)

TEST METHOD: As called by the standards above

MINIMUM STANDARD: 8 dBm in any 3 kHz band

TEST SETUP: The EUT was connected to the DUT in conducted mode likewise for output power measurements.

METHOD OF MEASUREMENT: Measurements were made using a spectrum analyser with 3 kHz resolution bandwidth and peak detector. PSD was measured using radiated substitution method.

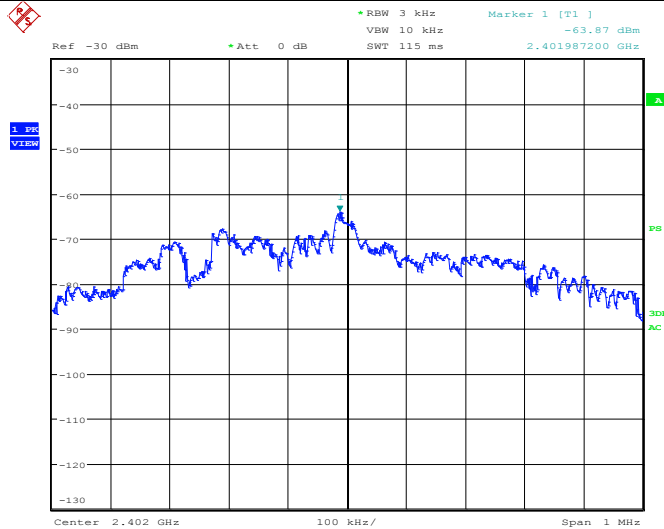
PERFORMANCE: Complies with Standard

MEASUREMENT DATA & PLOT:

| Low Channel, 2402MHz, RBW 3kHz | | | | | | | | | | |
|---------------------------------|----------|---------|----------------|-------|------------|----------------|----------------|--------|-------|-----------|
| Freq. | Peak-Raw | Ant-Pol | Antenna Height | Angle | Cable Loss | Antenna factor | Peak-Corrected | PSD | Limit | Data rate |
| (MHz) | (dBuV) | (V/H) | (cm) | (deg) | (dB) | (dBm) | (dBuV) | (dBm) | (dBm) | |
| 2402 | 43.13 | V | 100 | 212 | 4.69 | 32.5 | -26.68 | -14.94 | 8 | Low |
| 2402 | 39.52 | H | 100 | 110 | 4.69 | 32.5 | -30.29 | -18.55 | 8 | Low |
| 2402 | 40.56 | V | 100 | 226 | 4.69 | 32.5 | -29.25 | -17.51 | 8 | Hi |
| 2402 | 40.26 | H | 126 | 108 | 4.69 | 32.5 | -29.55 | -17.81 | 8 | Hi |
| Mid Channel, 2440MHz, RBW 3kHz | | | | | | | | | | |
| Freq. | Peak-Raw | Ant-Pol | Antenna Height | Angle | Cable Loss | Antenna factor | Peak-Corrected | PSD | Limit | Data rate |
| (MHz) | (dBuV) | (V/H) | (cm) | (deg) | (dB) | (dBm) | (dBuV) | (dBm) | (dBm) | |
| 2440 | 42.25 | V | 104.6 | 34.6 | 4.92 | 32.58 | -27.25 | -15.51 | 8 | Low |
| 2440 | 37.81 | H | 100 | 288 | 4.92 | 32.58 | -31.69 | -19.95 | 8 | Low |
| 2440 | 44.6 | V | 102 | 35 | 4.92 | 32.58 | -24.9 | -13.16 | 8 | Hi |
| 2440 | 39.86 | H | 100 | 285 | 4.92 | 32.58 | -29.64 | -17.9 | 8 | Hi |
| High Channel, 2480MHz, RBW 3kHz | | | | | | | | | | |
| Freq. | Peak-Raw | Ant-Pol | Antenna Height | Angle | Cable Loss | Antenna factor | Peak-Corrected | PSD | Limit | Data rate |
| (MHz) | (dBuV) | (V/H) | (cm) | (deg) | (dB) | (dBm) | (dBuV) | (dBm) | (dBm) | |
| 2480 | 39.53 | V | 100 | 58 | 5.19 | 32.66 | -29.62 | -17.88 | 8 | Low |
| 2480 | 36.15 | H | 123 | 115 | 5.19 | 32.66 | -33 | -21.26 | 8 | Low |
| 2480 | 40.73 | V | 101 | 37 | 5.19 | 32.66 | -28.42 | -16.68 | 8 | Hi |
| 2480 | 37.63 | H | 101 | 110 | 5.19 | 32.66 | -31.52 | -19.78 | 8 | Hi |

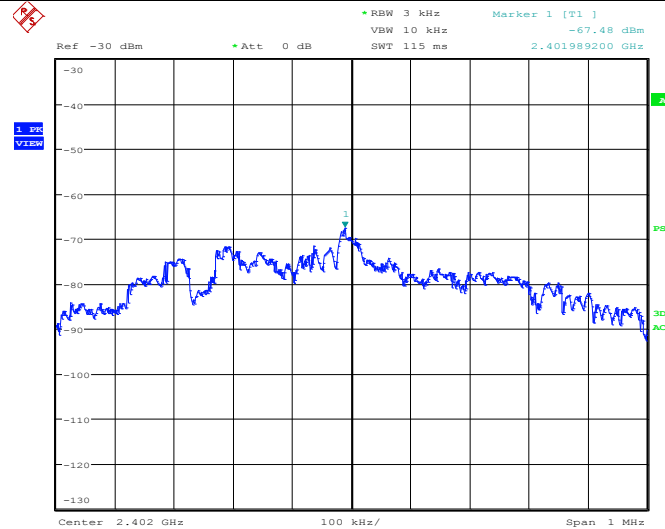
Low Channel, 2402MHz, RBW 3kHz

Vertical antenna, Low date rate



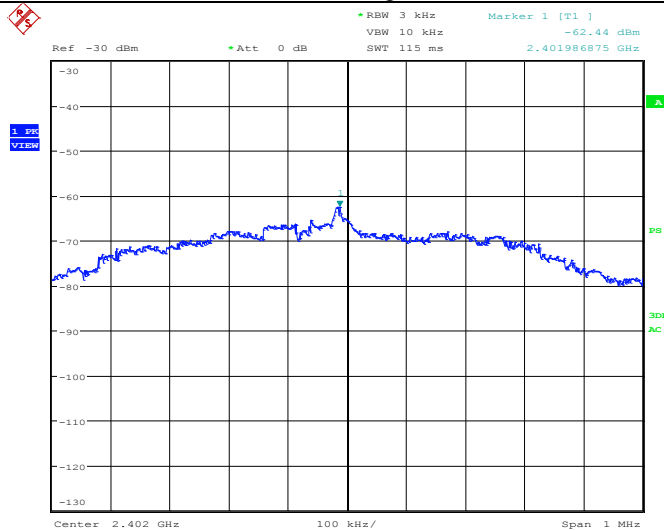
Date: 8.OCT.2015 19:32:56

Horizontal antenna, Low date rate



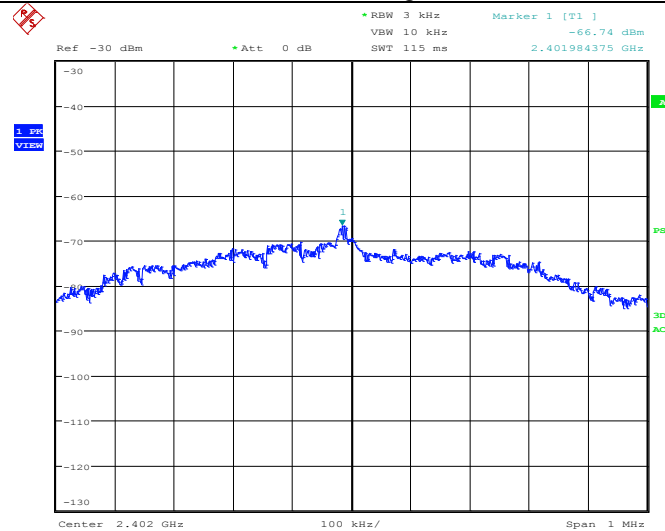
Date: 8.OCT.2015 19:44:35

Vertical antenna, High date rate



Date: 8.OCT.2015 20:12:32

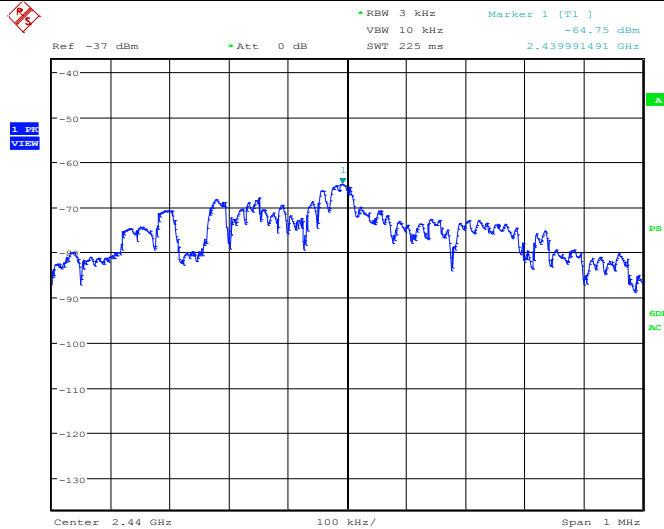
Horizontal antenna, High date rate



Date: 8.OCT.2015 20:20:43

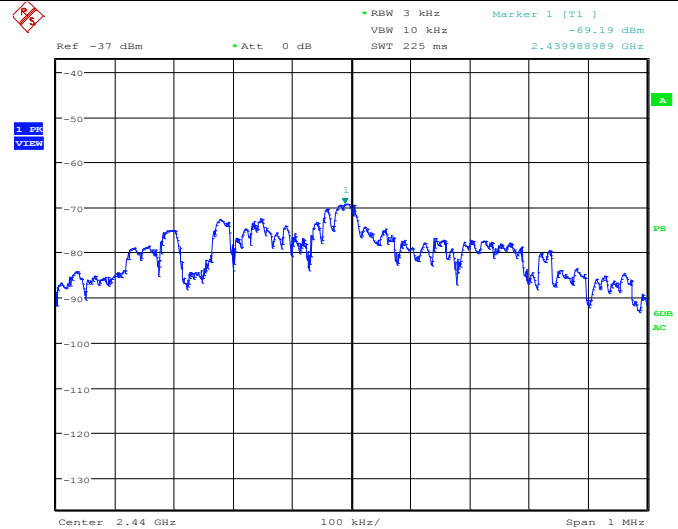
Mid Channel, 2440MHz, RBW 3kHz

Vertical antenna, Low date rate



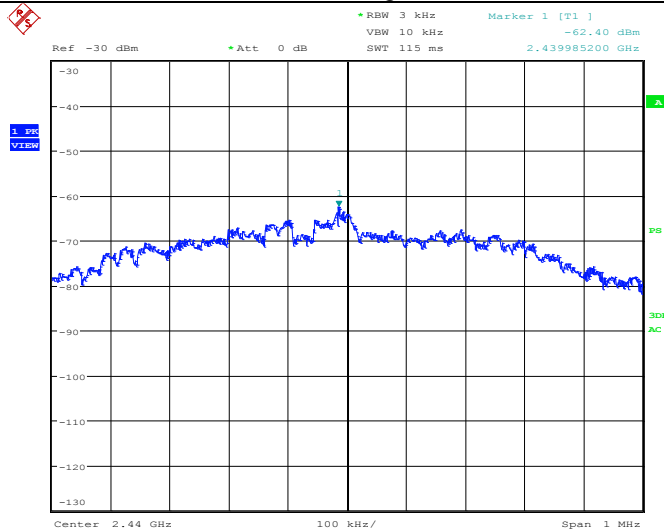
Date: 8.OCT.2015 17:58:37

Horizontal antenna, Low date rate



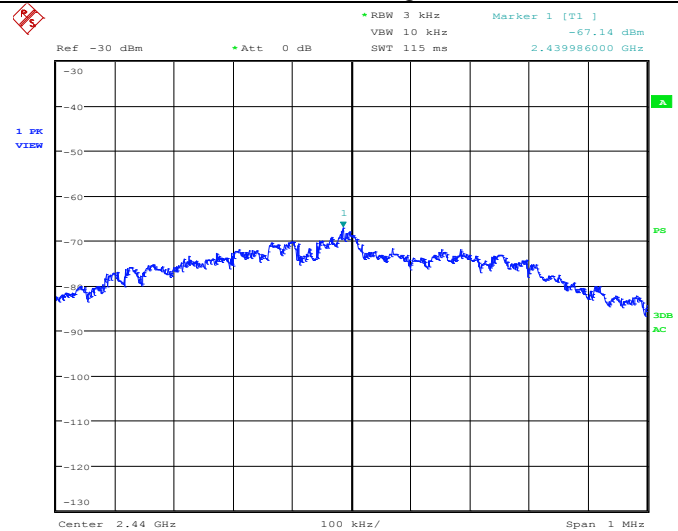
Date: 8.OCT.2015 18:04:44

Vertical antenna, High date rate



Date: 8.OCT.2015 18:35:40

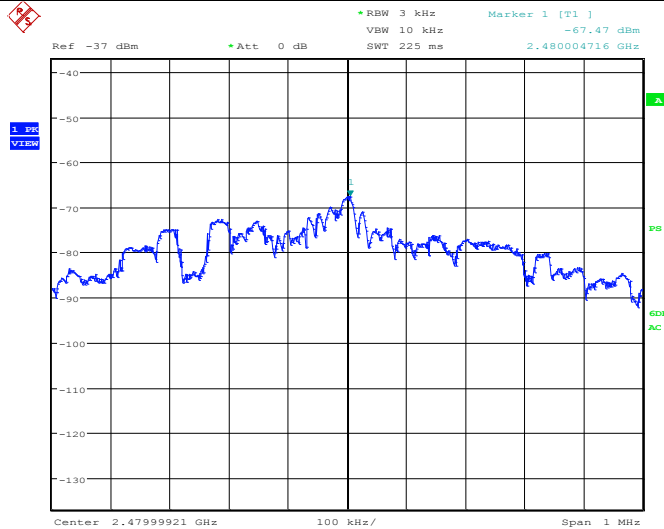
Horizontal antenna, High date rate



Date: 8.OCT.2015 18:29:35

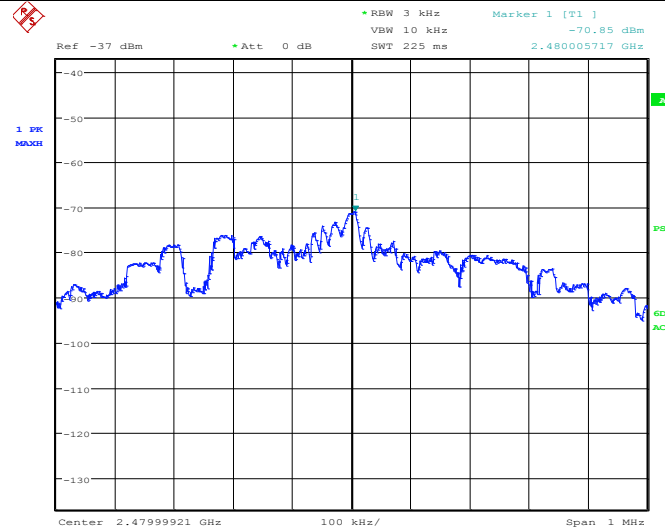
High Channel, 2480MHz, RBW 3kHz

Vertical antenna, Low date rate



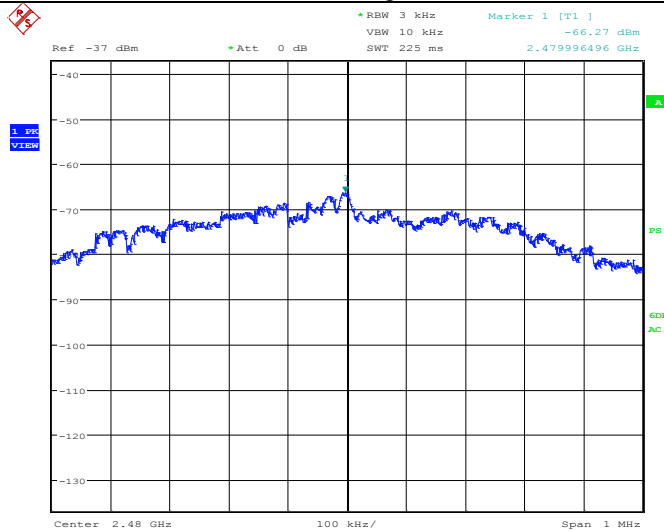
Date: 8.OCT.2015 16:57:29

Horizontal antenna, Low date rate



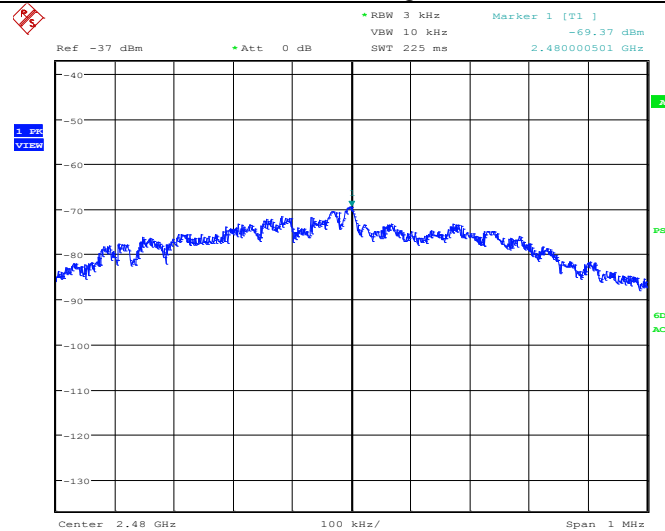
Date: 8.OCT.2015 16:45:46

Vertical antenna, High date rate



Date: 8.OCT.2015 17:24:00

Horizontal antenna, High date rate



Date: 8.OCT.2015 17:15:59

Part 7 - Out of Band Emissions (Band Edge)

DATE: October 08, 2015

TEST STANDARD: FCC Part 15.247 (d) and RSS-247 Issue1 5.5

TEST REQUIREMENTS:

FCC Part 15.247 (d):

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

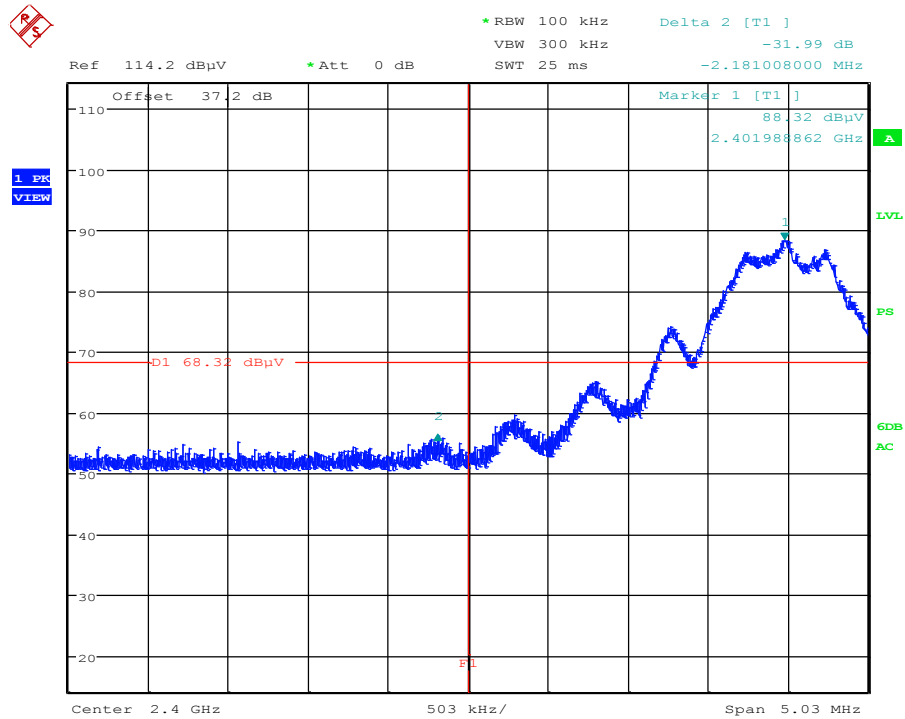
RSS-247 Issue1 5.5:

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under Section 5.4(4), the attenuation required shall be 30 dB instead of 20 dB attenuation below the general field strength limits specified in RSS-Gen is not required.

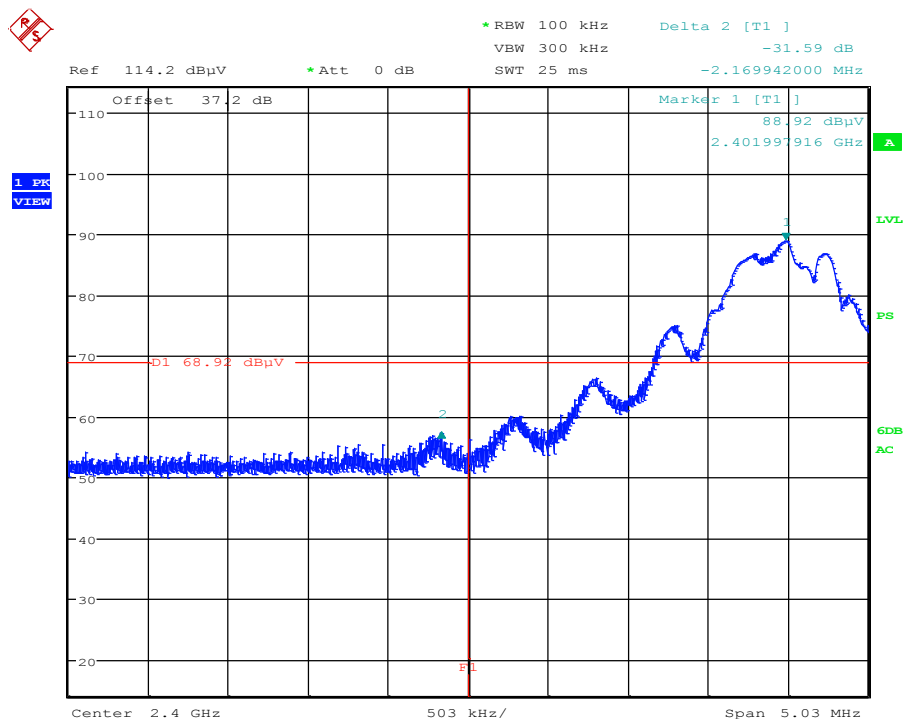
MEASUREMENT METHOD: As called by the standards above.

RESULTS: Pass: Complies

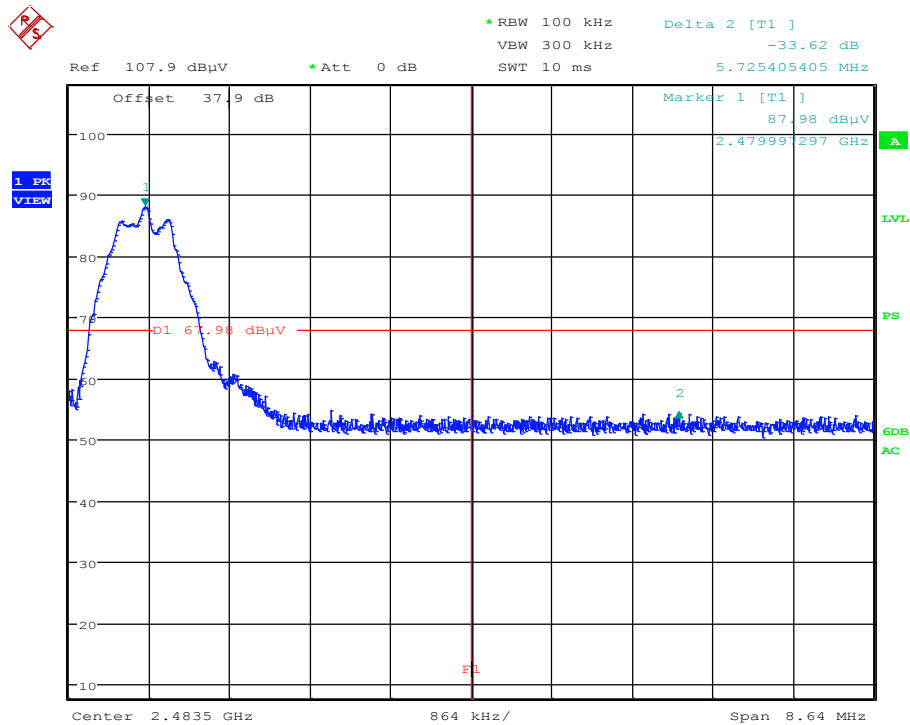
MEASUREMENT DATA & PLOT:



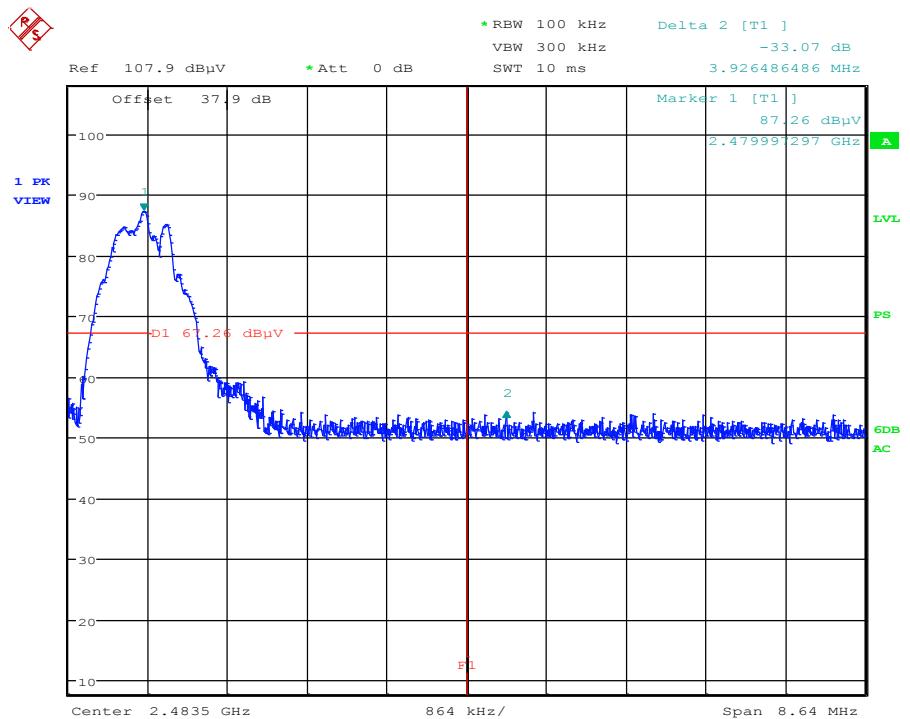
OUT OF BAND EMISSIONS - LOW CHANNEL, High data rate



OUT OF BAND EMISSIONS - LOW CHANNEL, Low data rate



OUT OF BAND EMISSIONS - HIGH CHANNEL, High data rate



OUT OF BAND EMISSIONS - HIGH CHANNEL, Low data rate

Part 8 - Radiated Spurious Emissions-Transmit Mode

DATE: October 01, 2015

TEST STANDARD: FCC Part 15.247 (d), FCC Part 15.209 (a), FCC Part 15.205, RSS-Gen Issue4 8.10, RSS-247 Issue 1 5.5

MINIMUM STANDARD: FCC Part 15.209 a):
Except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

| Frequency (MHz) | Field Strength uV/m | Distance m |
|--------------------|------------------------|---------------|
| 0.009-0.49 | 2400/F(kHz) | 300 |
| 0.49-1.705 | 24000/F(kHz) | 30 |
| 1.705 - 30 | 30 | 30 |
| 30 - 88 | 100 | 3 |
| 88 - 216 | 150 | 3 |
| 216 – 960 | 200 | 3 |
| Above 960 | 500 | 3 |

FCC Part 15.247 (d):

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

FCC Part 15.205 (a):

Except as shown in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

| MHz | MHz | MHz | GHz |
|-------------------|---------------------|---------------|----------------|
| 0.090-0.110 | 16.42-16.423 | 399.9-410 | 4.5-5.15 |
| 1 0.495-0.505* | 16.69475-16.69525 | 608-614 | 5.35-5.46 |
| 2.1735-2.1905 | 16.80425-16.80475 | 960-1240 | 7.25-7.75 |
| 4.125-4.128 | 25.5-25.67 | 1300-1427 | 8.025-8.5 |
| 4.17725-4.17775 | 37.5-38.25 | 1435-1626.5 | 9.0-9.2 |
| 4.20725-4.20775 | 73-74.6 | 1645.5-1646.5 | 9.3-9.5 |
| 6.215-6.218 | 74.8-75.2 | 1660-1710 | 10.6-12.7 |
| 6.26775-6.26825 | 108-121.94 | 1718.8-1722.2 | 13.25-13.4 |
| 6.31175-6.31225 | 123-138 | 2200-2300 | 14.47-14.5 |
| 8.291-8.294 | 149.9-150.05 | 2310-2390 | 15.35-16.2 |
| 8.362-8.366 | 156.52475-156.52525 | 2483.5-2500 | 17.7-21.4 |
| 8.37625-8.38675 | 156.7-156.9 | 2690-2900 | 22.01-23.12 |
| 8.41425-8.41475 | 162.0125-167.17 | 3260-3267 | 23.6-24.0 |
| 12.29-12.293 | 167.72-173.2 | 3332-3339 | 31.2-31.8 |
| 12.51975-12.52025 | 240-285 | 3345.8-3358 | 36.43-36.5 |
| 12.57675-12.57725 | 322-335.4 | 3600-4400 | Above 38.6 GHz |
| 13.36-13.41 | | | |

RSS-Gen Issue4 8.10:

Fundamental components of modulation of licence-exempt radio apparatus shall not fall within the restricted bands of the below table

| MHz | MHz | GHz |
|---------------------|---------------|---|
| 0.090-0.110 | 240-285 | 9.0-9.2 |
| 2.1735-2.1905 | 322-335.4 | 9.3-9.5 |
| 3.020-3.026 | 399.9-410 | 10.6-12.7 |
| 4.125-4.128 | 608-614 | 13.25-13.4 |
| 4.17725-4.17775 | 960-1427 | 14.47-14.5 |
| 4.20725-4.20775 | 1435-1626.5 | 15.35-16.2 |
| 5.677-5.683 | 1645.5-1646.5 | 17.7-21.4 |
| 6.215-6.218 | 1660-1710 | 22.01-23.12 |
| 6.26775-6.26825 | 1718.8-1722.2 | 23.6-24.0 |
| 6.31175-6.31225 | 2200-2300 | 31.2-31.8 |
| 8.291-8.294 | 2310-2390 | 36.43-36.5 |
| 8.362-8.366 | 2655-2900 | Above 38.6 |
| 8.37625-8.38675 | 3260-3267 | Note: Certain frequency bands listed in Table 3 and in bands above 38.6 GHz are designated for licence-exempt applications. These frequency bands and the requirements that apply to the devices are set out in the 200- and 300- series RSSs, such as RSS-210 and RSS-310, which contain the requirements that apply to licence-exempt radio apparatus. |
| 8.41425-8.41475 | 3332-3339 | |
| 12.29-12.293 | 3345.8-3358 | |
| 12.51975-12.52025 | 3500-4400 | |
| 12.57675-12.57725 | 4500-5150 | |
| 13.36-13.41 | 5350-5460 | |
| 16.42-16.423 | 7250-7750 | |
| 16.69475-16.69525 | 8025-8500 | |
| 16.80425-16.80475 | | |
| 25.5-25.67 | | |
| 37.5-38.25 | | |
| 73-74.6 | | |
| 74.8-75.2 | | |
| 108-138 | | |
| 156.52475-156.52525 | | |
| 156.7-156.9 | | |

Unwanted emissions falling into restricted bands of shall comply with the limits specified below

| Frequency (MHz) | Field Strength | |
|-----------------|----------------|-------------------------------|
| | uV/m @ 3-m | Calculated dB μ V/m at 3m |
| 30 – 88 | 100 | 40.0 |
| 88 – 216' | 150 | 43.5 |
| 216 - 960 | 200 | 46.0 |
| 960 - 1000 | 500 | 54.0 |

RSS-247 Issue 1 5.5:

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under Section 5.4(4), the attenuation required shall be 30 dB instead of 20 dB attenuation below the general field strength limits specified in RSS-Gen is not required.

TEST SETUP: The EUT was tested in our 3 m SAC and was positioned on the center of the turntable and connected to a 3Vdc battery. The transmitter was set for continuous transmission. The lowest, middle and highest channels in the 2400-2483.5 MHz band were measured for all radiated emissions 10 kHz to 25 GHz. The EUT was pre-scanned in 3 different orthogonal orientations and was found to radiate highest when placed flat on the table top as indicated in the test photos.

MEASUREMENT METHOD: Measurements were made using spectrum analyser and receiver, 200Hz RBW average detector for the frequency range 9-150KHz; 9kHz RBW average detector for the Frequency range 150kHz to 30MHz; 120kHz RBW quasi-peak detector using the appropriate antennas, amplifiers and filters.
The measurement results are obtained as described below:
 $E \text{ [dB}\mu\text{V/m]} = \text{Un-Corrected Value} + \text{ATOT}$
Where ATOT is total correction factor including cable loss, antenna factor and preamplifier gain (ATOT = LCABLES + AF - AMP).

PERFORMANCE: Complies with Standard

EMISSIONS DATA:

1. Radiated Emissions test was performed from 9 kHz-25GHz
2. All emissions below 1GHz were more than 20dB lower than the limit line.
3. Except the emissions reported below, all emissions above 1GHz were more than 20dB lower than the limit.

| Freq. | Peak-Raw | Average-Raw | Pol. | Antenna Height | Angle | Loss | Antenna factor | Peak-Corr. | Average-Corr. | Peak Limit | Average Limit |
|-----------------------|----------|-------------|------|----------------|-------|--------|----------------|------------|---------------|------------|---------------|
| MHz | dBuV | dBuV | V/H | cm | deg | dB | dB/m | dBuV/m | dBuV/m | dBuV/m | dBuV/m |
| High Channel | | | | | | | | | | | |
| 4960 | 46.08 | 35.54 | H | 100 | 310 | -23.87 | 34.1 | 56.31 | 45.77 | 74 | 54 |
| 4960 | 43.01 | 30.4 | V | 101 | 148 | -23.87 | 34.1 | 53.24 | 40.63 | 74 | 54 |
| 7439.99 | 31.5 | 22.8 | H | 146 | 58 | -18.67 | 35.58 | 48.41 | 39.71 | 74 | 54 |
| 7439.99 | 31.85 | 21 | V | 123 | 148 | -18.67 | 35.58 | 48.76 | 37.91 | 74 | 54 |
| Middle Channel | | | | | | | | | | | |
| 4880 | 45.1 | 34.7 | H | 100 | 133 | -24.09 | 34.1 | 55.11 | 44.71 | 74 | 54 |
| 4880 | 43.7 | 33.4 | V | 100 | 133 | -24.09 | 34.1 | 53.71 | 43.41 | 74 | 54 |
| 7319.99 | 32 | 22.4 | H | 138 | 68 | -19.42 | 35.53 | 48.11 | 38.51 | 74 | 54 |
| 7319.99 | 32.2 | 23.1 | V | 133 | 126 | -19.42 | 35.53 | 48.31 | 39.21 | 74 | 54 |
| Low Channel | | | | | | | | | | | |
| 4804 | 45.96 | 35.3 | H | 110 | 105 | -24.91 | 34.1 | 55.15 | 44.49 | 74 | 54 |
| 4804 | 43.1 | 33.2 | V | 100 | 360 | -24.91 | 34.1 | 52.29 | 42.39 | 74 | 54 |
| 7206 | 31.86 | 22.8 | H | 125 | 310 | -20.19 | 34.1 | 45.77 | 36.71 | 74 | 54 |
| 7206 | 31.6 | 21.9 | V | 100 | 58 | -20.19 | 34.1 | 45.51 | 35.81 | 74 | 54 |

Part 9 - RF Exposure Evaluation

DATE: October 23, 2015

FCC 1.1310 states the criteria listed in the table below shall be used to evaluate the environmental impact of human exposure to radiofrequency (RF) radiation as specified in Section 1.1307(b), except in the case of portable devices which shall be evaluated according to the provisions of Section 2.1093. Further information on evaluating compliance with these limits can be found in the FCC's OST/OET Bulletin Number 65, "Evaluating Compliance with FCC-Specified Guidelines for Human Exposure to Radiofrequency Radiation".

| Frequency Range (MHz) | Electric Field Strength (V/m) | Magnetic Field Strength (A/m) | Power Density (mW/cm ²) | Average Time (s) |
|--|-------------------------------|-------------------------------|-------------------------------------|------------------|
| (A) Limits for Occupational/Control Exposures | | | | |
| 300-1500 | - | - | F/300 | 6 |
| 1500-100,000 | - | - | 5 | 6 |
| (B) Limits for General Population/Uncontrolled Exposures | | | | |
| 300-1500 | - | - | F/1500 | 6 |
| 1500-100,000 | - | - | 1 | 30 |

TABLE 1 - POWER DENSITY LIMITS

RF EXPOSURE EVALUATION DISTANCE CALCULATION

From the above Table, the Maximum Power Density safe exposure level for General Population Uncontrolled Exposure of 30 Seconds for the frequency range of 2.4 to 2.4835GHz is 1mW/cm².

| Max EIRP | Max EIRP | Power Density Limit | Safe distance |
|----------|----------|---------------------|---------------|
| dBm | mW | mW/cm ² | cm |
| -1.04 | 0.79 | 1 | 0.25 |

$$d = \sqrt{\left(\frac{EIRP}{4\pi S}\right)}$$

Where: d = Distance to the center of radiation of the antenna (cm) for the allowable

S = Allowable Power density Limit (mW/cm²)

EIRP = Equivalent isotopically radiated power (mW)

As shown above, the minimum distance where the MPE limit is reached is 0.25 cm from the EUT. The EUT is safe for touching with a hand when it transmits signal, if the space between the case surface and the antenna is taken into account.

Part 10 - Frequency Stability

DATE: October 13, 2015
TEST STANDARD: FCC Part 15.215(c) and RSS-Gen Issue 4 (8.11)
MINIMUM STANDARD: RSS-Gen Issue 4 (8.11):

Transmitter frequency stability for licence-exempt radio apparatus shall be measured in accordance with Section 6.11. For licence-exempt radio apparatus, the frequency stability shall be measured at temperatures of -20°C (-4°F), +20°C (+68°F) and +50°C (+122°F) instead of at the temperatures specified in Section 6.11.

If the frequency stability of the licence-exempt radio apparatus is not specified in the applicable standard (RSS), measurement of the frequency stability is not required provided that the occupied bandwidth of the licence-exempt radio apparatus lies entirely outside the restricted bands and the prohibited TV bands of 54-72 MHz, 76-88 MHz, 174-216 MHz, 470-608 MHz and 614-806 MHz

FCC (15.215(c) :

The 20dB bandwidth must remain within the designated frequency band over the expected variations in temperature and voltage range

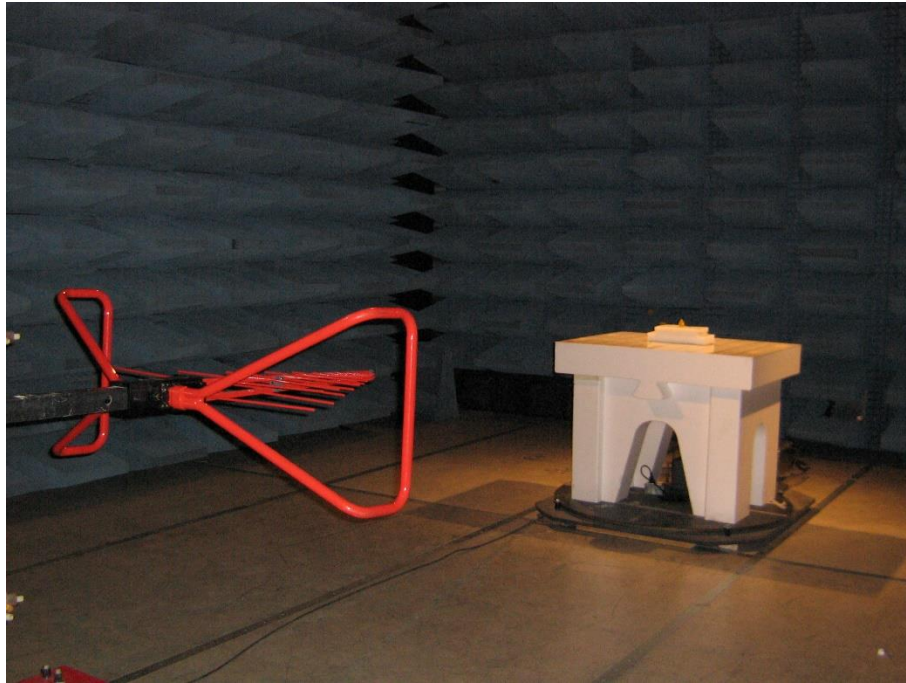
TEST SETUP: The EUT was bench tested and in our temperature chamber. The EUT voltage and temperature range was specified by the manufacturer. The transmitter was set for Carrier Wave (CW) mode and the lowest, middle and highest channel frequency was measured at each temperature setting. Measurements were made using a Spectrum Analyzer with 100Hz RBW, 300Hz VBW and average detector.

Measurement Data:

| Temp DegC | Channel | Voltage V | Frequency GHz | Freq Shift Hz | PPM | Uncorrected Peak Power dBm |
|--------------|---------|--------------|------------------|------------------|-------|-------------------------------|
| 20 | Low | 3.6 | 2.402000494 | 292 | 0.1 | -39.3 |
| | | 3 | 2.402000202 | 0 | 0.0 | -39.2 |
| | | 1.8 | 2.401999162 | -1040 | -0.4 | -39.4 |
| | Mid | 3.6 | 2.440000884 | 686 | 0.3 | -45.9 |
| | | 3 | 2.440000198 | 0 | 0.0 | -45.8 |
| | | 1.8 | 2.439999174 | -1024 | -0.4 | -45.1 |
| | High | 3.6 | 2.480000718 | 432 | 0.2 | -50.9 |
| | | 3 | 2.480000286 | 0 | 0.0 | -50.6 |
| | | 1.8 | 2.479999198 | -1088 | -0.4 | -50.5 |
| 30 | Low | 3.6 | 2.401992012 | -8190 | -3.4 | -40.0 |
| | | 3 | 2.40199154 | -8662 | -3.6 | -38.9 |
| | | 1.8 | 2.401990502 | -9700 | -4.0 | -39.0 |
| | Mid | 3.6 | 2.43999171 | -8488 | -3.5 | -46.5 |
| | | 3 | 2.439991458 | -8740 | -3.6 | -46.5 |
| | | 1.8 | 2.43999129 | -8908 | -3.7 | -49.3 |
| | High | 3.6 | 2.479992396 | -7890 | -3.2 | -51.2 |
| | | 3 | 2.479991472 | -8814 | -3.6 | -51.1 |
| | | 1.8 | 2.479990406 | -9880 | -4.0 | -50.9 |
| 40 | Low | 3.6 | 2.40198315 | -17052 | -7.1 | -39.8 |
| | | 3 | 2.401982758 | -17444 | -7.3 | -39.8 |
| | | 1.8 | 2.401981754 | -18448 | -7.7 | -39.8 |
| | Mid | 3.6 | 2.439982738 | -17460 | -7.2 | -44.0 |
| | | 3 | 2.43998237 | -17828 | -7.3 | -44.3 |
| | | 1.8 | 2.439981368 | -18830 | -7.7 | -43.9 |
| | High | 3.6 | 2.479983444 | -16842 | -6.8 | -51.4 |
| | | 3 | 2.479982262 | -18024 | -7.3 | -51.3 |
| | | 1.8 | 2.479982028 | -18258 | -7.4 | -50.6 |
| 50 | Low | 3.6 | 2.401975676 | -24526 | -10.2 | -39.6 |
| | | 3 | 2.401975222 | -24980 | -10.4 | -39.6 |
| | | 1.8 | 2.401974292 | -25910 | -10.8 | -39.5 |
| | Mid | 3.6 | 2.439975498 | -24700 | -10.1 | -43.6 |
| | | 3 | 2.439974902 | -25296 | -10.4 | -43.3 |
| | | 2.2 | 2.43997505 | -25148 | -10.3 | -44.1 |
| | High | 3.6 | 2.47997489 | -25396 | -10.2 | -49.1 |
| | | 3 | 2.47997445 | -25836 | -10.4 | -49.1 |
| | | 1.8 | 2.47997313 | -27156 | -10.9 | -49.0 |
| 60 | Low | 3.6 | 2.401971262 | -28940 | -12.0 | -39.9 |
| | | 3 | 2.401970852 | -29350 | -12.2 | -40.0 |

| | | | | | | |
|-----|------|-----|-------------|--------|-------|-------|
| | Mid | 1.8 | 2.401968038 | -32164 | -13.4 | -39.8 |
| | | 3.6 | 2.439970862 | -29336 | -12.0 | -44.0 |
| | | 3 | 2.439970484 | -29714 | -12.2 | -44.3 |
| | High | 1.8 | 2.43996922 | -30978 | -12.7 | -43.6 |
| | | 3.6 | 2.47997054 | -29746 | -12.0 | -53.6 |
| | | 3 | 2.47996996 | -30326 | -12.2 | -53.4 |
| | | 1.8 | 2.479968392 | -31894 | -12.9 | -53.5 |
| | | 3.6 | 2.401970326 | -29876 | -12.4 | -39.4 |
| | | 3 | 2.401969732 | -30470 | -12.7 | -39.4 |
| 70 | Low | 1.8 | 2.401968084 | -32118 | -13.4 | -39.7 |
| | | 3.6 | 2.439969476 | -30722 | -12.6 | -44.6 |
| | | 3 | 2.439969026 | -31172 | -12.8 | -44.4 |
| | Mid | 1.8 | 2.43996738 | -32818 | -13.4 | -44.8 |
| | | 3.6 | 2.479968868 | -31418 | -12.7 | -54.3 |
| | | 3 | 2.479968332 | -31954 | -12.9 | -54.6 |
| | High | 1.8 | 2.479966622 | -33664 | -13.6 | -54.8 |
| | | 3.6 | 2.40197023 | -29972 | -12.5 | -40.7 |
| | | 3 | 2.401969814 | -30388 | -12.7 | -40.8 |
| 75 | Low | 1.8 | 2.401968324 | -31878 | -13.3 | -41.0 |
| | | 3.6 | 2.439970114 | -30084 | -12.3 | -45.1 |
| | | 3 | 2.439969762 | -30436 | -12.5 | -45.6 |
| | Mid | 1.8 | 2.439968172 | -32026 | -13.1 | -45.2 |
| | | 3.6 | 2.479970068 | -30218 | -12.2 | -56.3 |
| | | 3 | 2.479969636 | -30650 | -12.4 | -56.3 |
| | High | 1.8 | 2.479967878 | -32408 | -13.1 | -56.1 |
| | | 3.6 | 2.40200727 | 7068 | 2.9 | -40.6 |
| | | 3 | 2.402006918 | 6716 | 2.8 | -40.3 |
| 10 | Low | 1.8 | 2.402005994 | 5792 | 2.4 | -40.4 |
| | | 3.6 | 2.440007828 | 7630 | 3.1 | -47.7 |
| | | 3 | 2.440007354 | 7156 | 2.9 | -47.8 |
| | Mid | 1.8 | 2.440006266 | 6068 | 2.5 | -47.3 |
| | | 3.6 | 2.480008008 | 7722 | 3.1 | -50.4 |
| | | 3 | 2.480007326 | 7040 | 2.8 | -53.0 |
| | High | 1.8 | 2.480006254 | 5968 | 2.4 | -50.7 |
| | | 3.6 | 2.40201256 | 12358 | 5.1 | -39.2 |
| | | 3 | 2.402012072 | 11870 | 4.9 | -39.2 |
| 0 | Low | 1.8 | 2.402010878 | 10676 | 4.4 | -39.3 |
| | | 3.6 | 2.440012816 | 12618 | 5.2 | -44.8 |
| | | 3 | 2.440012346 | 12148 | 5.0 | -44.8 |
| | Mid | 1.8 | 2.440011074 | 10876 | 4.5 | -44.9 |
| | | 3.6 | 2.480013078 | 12792 | 5.2 | -52.0 |
| | | 3 | 2.480012598 | 12312 | 5.0 | -51.7 |
| | High | 1.8 | 2.480011168 | 10882 | 4.4 | -51.3 |
| | | 3.6 | 2.402014058 | 13856 | 5.8 | -39.0 |
| | | 3 | 2.402013562 | 13360 | 5.6 | -39.5 |
| -10 | Low | 1.8 | 2.402011938 | 11736 | 4.9 | -39.1 |
| | | 3.6 | 2.440014286 | 14088 | 5.8 | -45.7 |
| | | 3 | 2.440013744 | 13546 | 5.6 | -44.5 |
| | Mid | 1.8 | 2.440012126 | 11928 | 4.9 | -45.2 |
| | | 3.6 | 2.480014496 | 14210 | 5.7 | -51.9 |
| | | 3 | 2.480013976 | 13690 | 5.5 | -52.0 |
| | High | 1.8 | 2.480012296 | 12010 | 4.8 | -51.9 |
| | | 3.6 | 2.402010726 | 10524 | 4.4 | -39.5 |
| | | 3 | 2.402009894 | 9692 | 4.0 | -39.5 |
| -20 | Low | 1.8 | 2.402007798 | 7596 | 3.2 | -39.4 |
| | | 3.6 | 2.440010928 | 10730 | 4.4 | -45.3 |
| | | 3 | 2.440010152 | 9954 | 4.1 | -45.6 |
| | Mid | 1.8 | 2.440007932 | 7734 | 3.2 | -45.3 |
| | | 3.6 | 2.480010778 | 10492 | 4.2 | -52.1 |
| | | 3 | 2.480010274 | 9988 | 4.0 | -52.2 |
| | High | 1.8 | 2.480008388 | 8102 | 3.3 | -52.1 |
| | | 3.6 | 2.402001628 | 1426 | 0.6 | -39.5 |
| | | 3 | 2.402000472 | 270 | 0.1 | -39.5 |
| -30 | Low | 1.8 | 2.40199809 | -2112 | -0.9 | -38.9 |
| | | 3.6 | 2.440000492 | 294 | 0.1 | -45.8 |
| | | 3 | 2.440000372 | 174 | 0.1 | -45.3 |
| | Mid | 1.8 | 2.439997894 | -2304 | -0.9 | -46.7 |
| | | 3.6 | 2.480001092 | 806 | 0.3 | -52.4 |
| | | 3 | 2.480000524 | 238 | 0.1 | -52.4 |
| | High | 1.8 | 2.479997948 | -2338 | -0.9 | -52.0 |

Appendix A: photos during the testing



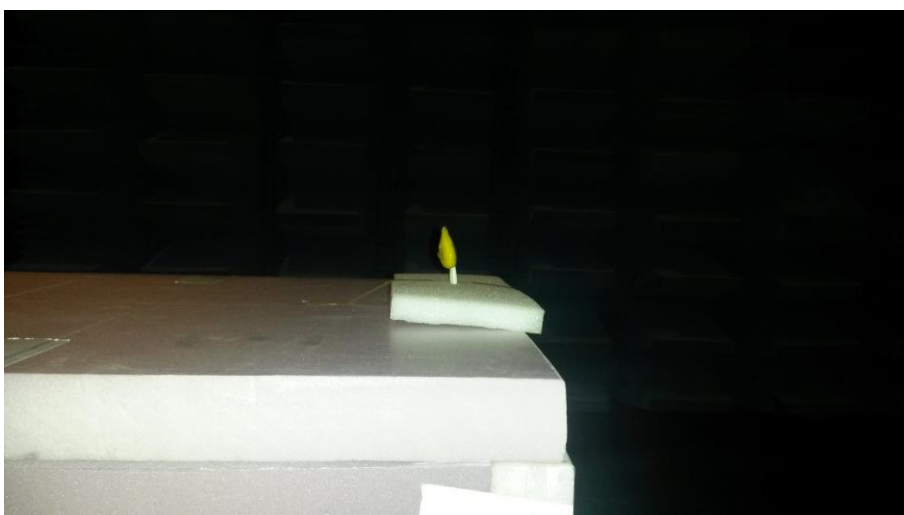
Radiated Emissions Setup in Semi-Anechoic Chamber, 30MHz-1GHz



Radiated Emissions Setup in Semi-Anechoic Chamber, 30MHz-1GHz



Radiated Emissions Setup in Semi-Anechoic Chamber, 1GHz-18GHz



Radiated Emissions Setup in Semi-Anechoic Chamber, 1GHz-18GHz