# FCC Test Report

| | | |
|---|---|---|
| **Equipment** | : | **Philips HUE Bridge 2.1** |
| **Brand Name** | : | **PHILIPS** |
| **Model No.** | : | **3241312018A** |
| **FCC ID** | : | **2AGBW3241312018AX** |
| **Standard** | : | **47 CFR FCC Part 15.247** |
| **Frequency** | : | **2400 MHz – 2483.5 MHz** |
| **FCC Classification** | : | **DTS** |
| **Function** | : | ☒ **Point-to-multipoint;** ☐ **Point-to-point** |
| **Applicant / Manufacturer** | : | **Philips Lighting(China) Investment Co., Ltd.** Building 9, Lane 888, Tianlin Road, Minhang District, Shanghai 200233 China |

**The product sample received on Jun. 06, 2016 and completely tested on Jun. 22, 2016. We, SPORTON, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.**

**The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC., the test report shall not be reproduced except in full.**

**Reviewed by:**

**Kevin Liang / Assistant Manager**

Testing Laboratory
1190

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# Summary of Test Result

| Conformance Test Specifications | | | | | |
|---|---|---|---|---|---|
| **Report Clause** | **Ref. Std. Clause** | **Description** | **Measured** | **Limit** | **Result** |
| 1.1.2 | 15.203 | Antenna Requirement | Antenna connector mechanism complied | FCC 15.203 | Complied |
| 3.1 | 15.207 | AC Power-line Conducted Emissions | [dBuV]: 0.4532600MHz<br>31.02 (Margin 25.80dB) - QP<br>25.31 (Margin 21.51dB) - AV | FCC 15.207 | Complied |
| 3.2 | 15.247(a) | DTS Bandwidth | Refer as Appendix A | ≥500kHz | Complied |
| 3.3 | 15.247(b) | Fundamental Emission Output Power | Refer as Appendix B | Power [dBm]:30 | Complied |
| 3.4 | 15.247(e) | Power Spectral Density | Refer as Appendix C | PSD [dBm/3kHz]:8 | Complied |
| 3.5 | 15.247(d) | Test Result of Transmitter Radiated Bandedge Emissions | Non-Restricted Bands:<br>2398.180 MHz: 25.47 dB<br>Restricted Bands<br>[dBuV/m at 3m]: 2484.320MHz<br>66.770 (Margin 7.02 dB) – PK<br>2483.600MHz<br>52.900 (Margin 1.10 dB) - AV | Non-Restricted Bands:> 20 dBc<br>Bands: FCC 15.209 | Complied |
| 3.6 | 15.247(d) | Transmitter Radiated Unwanted Emissions | Restricted Bands<br>[dBuV/m at 3m]:4924.000 MHz<br>52.89 (Margin 1.11dB) - AV<br>55.73 (Margin 18.27dB) - PK | Non-Restricted Bands:> 20 dBc<br>Restricted Bands: FCC 15.209 | Complied |

# Revision History

| Report No. | Version | Description | Issued Date |
|---|---|---|---|
| FR651210AC | Rev. 02 | Initial issue of report | Jul. 18, 2016 |
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# 1 General Description

## 1.1 Information

### 1.1.1 RF General Information

| Band | Mode | BWch (MHz) | Nss-Min | Nant | Worst Data Rate / MCS |
|---|---|---|---|---|---|
| 2.4G | 11b | 20 | 1 | 1 | 1 Mbps |
| 2.4G | 11g | 20 | 1 | 1 | 6 Mbps |
| 2.4G | HT20 | 20 | 1,(M0-7) | 1 | MCS 0 |
| 2.4G | HT40 | 40 | 1,(M0-7) | 1 | MCS 0 |

Note:
- 2.4G is the 2.4GHz Band (2.4-2.4835GHz).
- 11b mode uses a combination of DSSS-DBPSK, DQPSK, CCK modulation.
- 11g, HT20 and HT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- BWch is the nominal channel bandwidth.
- Nss-Min is the minimum number of spatial streams.
- Nant is the number of outputs. e.g., 2(2,3) means have 2 outputs for port 2 and port 3. 2 means have 2 outputs for port 1 and port 2.

### 1.1.2 Antenna Information

| Antenna Category | | | |
|---|---|---|---|
| ☒ | Integral antenna (antenna permanently attached) | | |
| | ☒ | Temporary RF connector provided | |
| | ☐ | No temporary RF connector provided<br>Transmit chains bypass antenna and soldered temporary RF connector provided for connected measurement. In case of conducted measurements the transmitter shall be connected to the measuring equipment via a suitable attenuator and correct for all losses in the RF path. | |
| ☐ | External antenna (dedicated antennas) | | |
| | ☐ | Single power level with corresponding antenna(s). | |
| | ☐ | Multiple power level and corresponding antenna(s). | |
| | ☐ | RF connector provided | |
| | | ☐ | Unique antenna connector. (e.g., MMCX, U.FL, IPX, and RP-SMA, RP-N type…) |
| | | ☐ | Standard antenna connector. (e.g., SMA, N, BNC, and TNC type…) |

| Antenna General Information | | | |
|---|---|---|---|
| No. | Ant. Cat. | Ant. Type | Gain (dBi) |
| 1 | Integral | printed PIFA | 2.4 |

### 1.1.3 Type of EUT

| Identify EUT | |
|---|---|
| EUT Serial Number | N/A |
| Presentation of Equipment | ☐ Production ; ☒ Pre-Production ; ☐ Prototype |
| **Type of EUT** | |
| ☒ | Stand-alone |
| ☐ | Combined (EUT where the radio part is fully integrated within another device)<br>Combined Equipment - Brand Name / Model No.: … |
| ☐ | Plug-in radio (EUT intended for a variety of host systems)<br>Host System - Brand Name / Model No.: … |
| ☐ | Other: |

### 1.1.4 Mode Test Duty Cycle

| Operated Mode for Worst Duty Cycle | |
|---|---|
| **Test Signal Duty Cycle (x)** | **Power Duty Factor [dB] – (10 log 1/x)** |
| ☒ 100.00% - IEEE 802.11b | 0.00 |
| ☒ 97.50%- IEEE 802.11g | 0.11 |
| ☒ 97.30%- IEEE 802.11n (HT20) | 0.12 |
| ☒ 96.10%- IEEE 802.11n (HT40) | 0.17 |

### 1.1.5 EUT Operational Condition

| | | | |
|---|---|---|---|
| **Supply Voltage** | ☒ AC mains | ☐ DC | |
| **Type of DC Source** | ☒ External AC adapter | ☐ From Host System | ☐ Battery |

## 1.2 Testing Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- 47 CFR FCC Part 15
- ANSI C63.10-2013
- FCC KDB 558074 D01 v03r05
- FCC 15.247

## 1.3 Testing Location Information

| Testing Location | | | | | | |
|---|---|---|---|---|---|---|
| ☒ | HWA YA | ADD : | No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C. | | | |
| | | TEL : | 886-3-327-3456 | FAX : | 886-3-327-6973 | |
| **Test Condition** | | **Test Site No.** | **Test Engineer** | **Test Environment** | **Test Date** | |
| AC Conduction | | CO04-HY | Daniel | 21.5°C / 55% | 22/06/2016 | |
| RF Conducted | | TH01-HY | Howard | 23.5°C / 65% | 14/06/2016 | |
| Radiated | | 03CH03-HY | Jeff | 26.6°C / 63% | 22/06/2016 | |

Test site registered number [ 553509 ] with FCC.

## 1.4 Measurement Uncertainty

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2)

| Measurement Uncertainty | | |
|---|---|---|
| **Test Item** | | **Uncertainty** |
| AC power-line conducted emissions | | ±2.3 dB |
| Emission bandwidth, 6dB bandwidth | | ±0.6 % |
| RF output power, conducted | | ±0.1 dB |
| Power density, conducted | | ±0.6 dB |
| Unwanted emissions, conducted | 9 – 150 kHz | ±0.4 dB |
| | 0.15 – 30 MHz | ±0.4 dB |
| | 30 – 1000 MHz | ±0.6 dB |
| | 1 – 18 GHz | ±0.5 dB |
| | 18 – 40 GHz | ±0.5 dB |
| | 40 – 200 GHz | N/A |
| All emissions, radiated | 9 – 150 kHz | ±2.5 dB |
| | 0.15 – 30 MHz | ±2.3 dB |
| | 30 – 1000 MHz | ±2.6 dB |
| | 1 – 18 GHz | ±3.6 dB |
| | 18 – 40 GHz | ±3.8 dB |
| | 40 – 200 GHz | N/A |
| Temperature | | ±0.8 °C |
| Humidity | | ±5 % |
| DC and low frequency voltages | | ±0.9% |
| Time | | ±1.4 % |
| Duty Cycle | | ±0.6 % |

# 2 Test Configuration of EUT

## 2.1 The Worst Case Modulation Configuration

| Worst Modulation Used for Conformance Testing | | | |
|---|---|---|---|
| **Modulation Mode** | **Transmit Chains ($N_{TX}$)** | **Data Rate / MCS** | **Worst Data Rate / MCS** |
| 11b | 1 | 1-11 Mbps | 1 Mbps |
| 11g | 1 | 6-54 Mbps | 6 Mbps |
| HT20 | 1 | MCS 0-7 | MCS 0 |
| HT40 | 1 | MCS 0-7 | MCS 0 |

Note 1: IEEE Std. 802.11n modulation consists of HT20 and HT40 (HT: High Throughput). The EUT support HT20 and HT40. Worst modulation mode of Guard Interval (GI) is 800ns.
Note 2: Modulation modes consist below configuration:
11b: IEEE 802.11b, 11g: IEEE 802.11g, HT20/HT40: IEEE 802.11n
Note 3: RF output power specifies that Maximum Peak Conducted Output Power.

## 2.2 Test Channel Mode

| Test Software Version | ART2-GUI/2.3 |
|---|---|

| Band | Mode | BWch (MHz) | Nss-Min | Nant | Ch. (MHz) | Range | Power Setting |
|---|---|---|---|---|---|---|---|
| 2.4G | 11b | 20 | 1 | 1 | 2412 | L | 8.5 |
| 2.4G | 11b | 20 | 1 | 1 | 2437 | M | 7.5 |
| 2.4G | 11b | 20 | 1 | 1 | 2462 | H | 8 |
| 2.4G | 11g | 20 | 1 | 1 | 2412 | L | 13 |
| 2.4G | 11g | 20 | 1 | 1 | 2437 | M | 14.5 |
| 2.4G | 11g | 20 | 1 | 1 | 2462 | H | 12.5 |
| 2.4G | HT20 | 20 | 1,(M0-7) | 1 | 2412 | L | 12.5 |
| 2.4G | HT20 | 20 | 1,(M0-7) | 1 | 2437 | M | 15.5 |
| 2.4G | HT20 | 20 | 1,(M0-7) | 1 | 2462 | H | 12.5 |
| 2.4G | HT40 | 40 | 1,(M0-7) | 1 | 2422 | L | 10 |
| 2.4G | HT40 | 40 | 1,(M0-7) | 1 | 2437 | M | 13 |
| 2.4G | HT40 | 40 | 1,(M0-7) | 1 | 2452 | H | 10.5 |

**Abbreviation Explanation**

| Band | Mode | BWch (MHz) | Nss-Min | Nant | Ch. (MHz) | Range | Test Cond. | Abbreviation |
|---|---|---|---|---|---|---|---|---|
| 2.4G | HT20 | 20 | 1,(M0-15) | 2 | 2412 | L | TN,VN | 2.4G;HT20;20;1,(M0-15);2;2412;L;TN,VN |
| 2.4G | HT40 | 40 | 1,(M0-15) | 2 | 2437 | M | TN,VN | 2.4G;HT40;40;1,(M0-15);2;2437;M;TN,VN |

Note:
- Test range channel consist of L (Low Ch.), M (Middle Ch.), H (High Ch.), S (Single Ch).

# The Worst Case Measurement Configuration

| The Worst Case Mode for Following Conformance Tests | |
|---|---|
| **Tests Item** | AC power-line conducted emissions |
| **Condition** | AC power-line conducted measurement for line and neutral<br>Test Voltage: 120Vac / 60Hz |
| **Operating Mode** | Operating Mode Description |
| 1 | Transmit Mode |

| The Worst Case Mode for Following Conformance Tests | |
|---|---|
| **Tests Item** | DTS Bandwidth, Fundamental Emission Output Power, Power Spectral Density, Emissions in Non-restricted Frequency Bands |
| **Test Condition** | Conducted measurement at transmit chains |

| The Worst Case Mode for Following Conformance Tests | | | |
|---|---|---|---|
| **Tests Item** | Emissions in Restricted Frequency Bands | | |
| **Test Condition** | Radiated measurement<br>If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type. | | |
| **User Position** | ☐ EUT will be placed in fixed position. | | |
| | ☒ EUT will be placed in mobile position and operating multiple positions. EUT shall be performed three orthogonal planes. | | |
| | ☐ EUT will be a hand-held or body-worn battery-powered devices and operating multiple positions. | | |
| **Operating Mode < 1GHz** | ☒ 1. Transmit Mode | | |
| **Orthogonal Planes of EUT** | **X Plane** | **Y Plane** | **Z Plane** |
| | | | |
| **Worst Planes of EUT** | V | | |

## 2.3 Accessories And Support Equipment

| Accessories | | | | |
|---|---|---|---|---|
| AC Adapter | Brand Name | Ten Pao | Model Name | S005BMM0500100 |
| | Power Rating | I/P:100-240Vac, 300 mA, O/P: 5 Vdc, 1000 mA | | |
| | Power Cord | 1.5 meter, non-shielded cable, w/o ferrite core | | |
| RJ45 Cable | Category | CAT5 | In/Out door | - |
| | Power Cord | 1 meter, non-shielded cable | | |

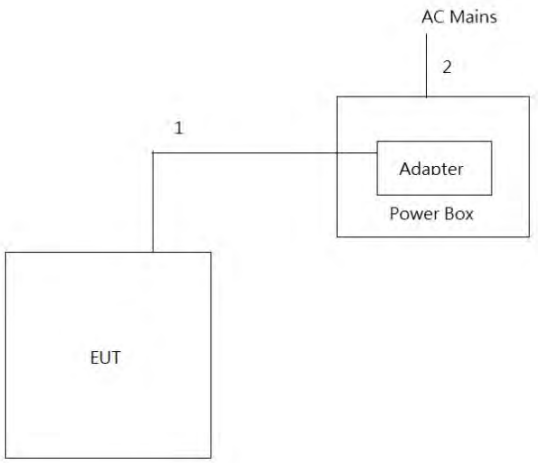
Reminder: Regarding to more detail and other information, please refer to user manual.

| Support Equipment - RF Conducted | | | |
|---|---|---|---|
| **No.** | **Equipment** | **Brand Name** | **Model Name** |
| 1 | Notebook | DELL | E5530 |
| 2 | AC Adapter for Notebook | DELL | HA65NM130 |

| Support Equipment - AC Conduction and Radiated Emission | | | |
|---|---|---|---|
| **No.** | **Equipment** | **Brand Name** | **Model Name** |
| 1 | - | - | - |
| 2 | - | - | - |

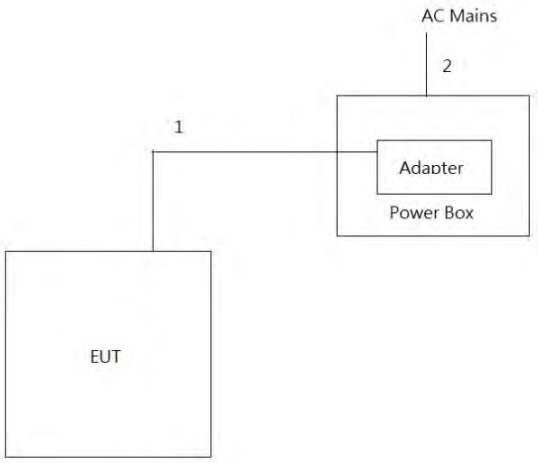
## 2.4 Test Setup Diagram

**Test Setup Diagram – AC Line Conducted Emission Test**




1.DC Power Line,1.5m,Non-Shielding
2.AC Power Line,2m,Non-Shielding

**Test Setup Diagram - Radiated Test**




1.DC Power Line,1.5m,Non-Shielding
2.AC Power Line,2m,Non-Shielding

# 3 Transmitter Test Result

## 3.1 AC Power-line Conducted Emissions

### 3.1.1 AC Power-line Conducted Emissions Limit

| AC Power-line Conducted Emissions Limit | | |
|---|---|---|
| **Frequency Emission (MHz)** | **Quasi-Peak** | **Average** |
| 0.15-0.5 | 66 - 56 * | 56 - 46 * |
| 0.5-5 | 56 | 46 |
| 5-30 | 60 | 50 |
| Note 1: * Decreases with the logarithm of the frequency. | | |

### 3.1.2 Measuring Instruments

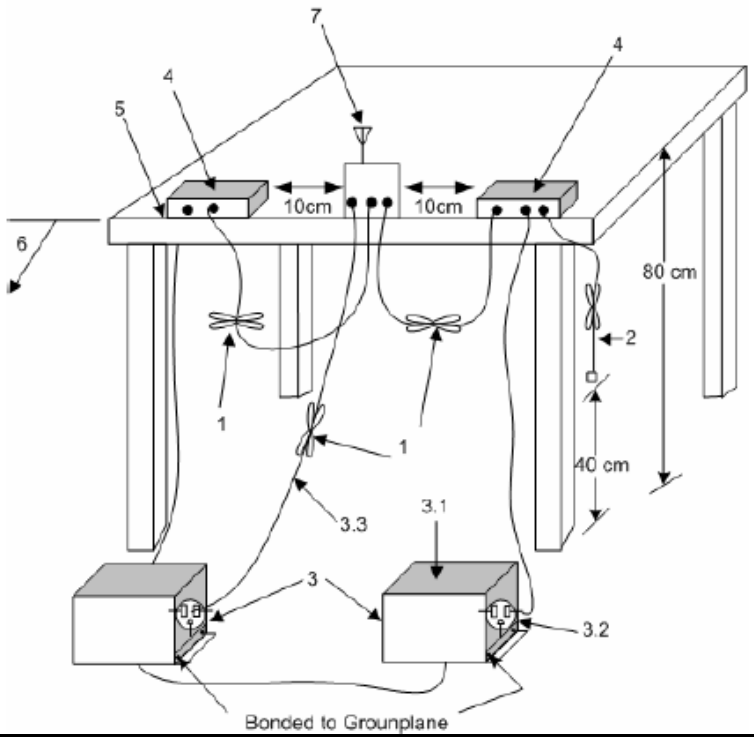
Refer a test equipment and calibration data table in this test report.

### 3.1.3 Test Procedures

| Test Method |
|---|
| ▪ Refer as ANSI C63.10-2013, clause 6.2 for AC power-line conducted emissions. |

### 3.1.4 Test Setup

**AC Power-line Conducted Emissions**



### 3.1.5 Test Result of AC Power-line Conducted Emissions

Refer as Appendix I

## 3.2 DTS Bandwidth

### 3.2.1 6dB Bandwidth Limit

| 6dB Bandwidth Limit |
|---|
| **Systems using digital modulation techniques:** |
| ▪ 6 dB bandwidth ≥ 500 kHz. |

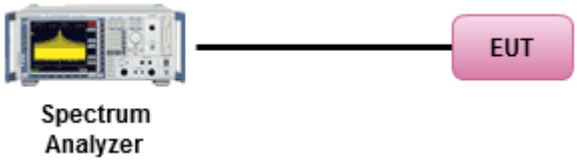
### 3.2.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

### 3.2.3 Test Procedures

| Test Method | |
|---|---|
| ▪ For the emission bandwidth shall be measured using one of the options below: | |
| | ☒ Refer as FCC KDB 558074, clause 8.1 Option 1 for 6 dB bandwidth measurement. |
| | ☐ Refer as FCC KDB 558074, clause 8.2 Option 2 for 6 dB bandwidth measurement. |
| | ☒ Refer as ANSI C63.10, clause 6.9.1 for occupied bandwidth testing. |

### 3.2.4 Test Setup

| Emission Bandwidth |
|---|
|   |

### 3.2.5 Test Result of Emission Bandwidth

Refer as Appendix A

## 3.3 Fundamental Emission Output Power

### 3.3.1 Fundamental Emission Output Power Limit

| | | | |
|---|---|---|---|
| **Maximum Peak Conducted Output Power or Maximum Conducted Output Power Limit** | | | |
| ▪ 2400-2483.5 MHz Band: | | | |
| | ▪ If $G_{TX} \leq 6$ dBi, then $P_{Out} \leq 30$ dBm (1 W) | | |
| | ▪ Point-to-multipoint systems (P2M): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 – (G_{TX} – 6)$ dBm | | |
| | ▪ Point-to-point systems (P2P): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 – (G_{TX} – 6)/3$ dBm | | |
| | ▪ Smart antenna system (SAS): | | |
| | | - Single beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 – (G_{TX} – 6)/3$ dBm | |
| | | - Overlap beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 – (G_{TX} – 6)/3$ dBm | |
| | | - Aggregate power on all beams: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 – (G_{TX} – 6)/3 + 8$dB dBm | |
| **e.i.r.p. Power Limit:** | | | |
| ▪ 2400-2483.5 MHz Band | | | |
| | ▪ Point-to-multipoint systems (P2M): $P_{eirp} \leq 36$ dBm (4 W) | | |
| | ▪ Point-to-point systems (P2P): $P_{eirp} \leq MAX(36, [P_{Out} + G_{TX}])$ dBm | | |
| | ▪ Smart antenna system (SAS) | | |
| | | - Single beam: $P_{eirp} \leq MAX(36, P_{Out} + G_{TX})$ dBm | |
| | | - Overlap beam: $P_{eirp} \leq MAX(36, P_{Out} + G_{TX})$ dBm | |
| | | - Aggregate power on all beams: $P_{eirp} \leq MAX(36, [P_{Out} + G_{TX} + 8])$ dBm | |
| **$P_{Out}$** = maximum peak conducted output power or maximum conducted output power in dBm,<br>**$G_{TX}$** = the maximum transmitting antenna directional gain in dBi.<br>**$P_{eirp}$** = e.i.r.p. Power in dBm. | | | |

### 3.3.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

### 3.3.3 Test Procedures

| Test Method | |
|---|---|
| ▪ Maximum Peak Conducted Output Power | |
| | ☐ Refer as FCC KDB 558074, clause 9.1.1 Option 1 (RBW ≥ EBW method). |
| | ☒ Refer as FCC KDB 558074, clause 9.1.2 Option 2 (peak power meter for VBW ≥ DTS BW) |
| ▪ Maximum Conducted Output Power | |
| | [duty cycle ≥ 98% or external video / power trigger] |
| | ☐ Refer as FCC KDB 558074, clause 9.2.2.2 Method AVGSA-1 (spectral trace averaging). |
| | ☐ Refer as FCC KDB 558074, clause 9.2.2.3 Method AVGSA-1 Alt. (slow sweep speed) |
| | duty cycle < 98% and average over on/off periods with duty factor |
| | ☐ Refer as FCC KDB 558074, clause 9.2.2.4 Method AVGSA-2 (spectral trace averaging). |
| | ☐ Refer as FCC KDB 558074, clause 9.2.2.5 Method AVGSA-2 Alt. (slow sweep speed) |
| | RF power meter and average over on/off periods with duty factor or gated trigger |
| | ☒ Refer as FCC KDB 558074, clause 9.2.3 Method AVGPM (using an RF average power meter). |
| ▪ For conducted measurement. | |
| | ▪ If the EUT supports multiple transmit chains using options given below:<br>Refer as FCC KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them. |
| | ▪ If multiple transmit chains, EIRP calculation could be following as methods:<br>$P_{total} = P_1 + P_2 + \ldots + P_n$<br>(calculated in linear unit [mW] and transfer to log unit [dBm])<br>$EIRP_{total} = P_{total} + DG$ |

### 3.3.4 Test Setup

| RF Output Power (Power Meter) |
|---|
| |

### 3.3.5 Test Result of Maximum Peak Conducted Output Power

Refer as Appendix B

### 3.3.6 Test Result of Maximum Average Conducted Output Power

Refer as Appendix B

# 3.4 Power Spectral Density

## 3.4.1 Power Spectral Density Limit

| Power Spectral Density Limit |
|---|
| ▪ Power Spectral Density (PSD) ≤ 8 dBm/3kHz |

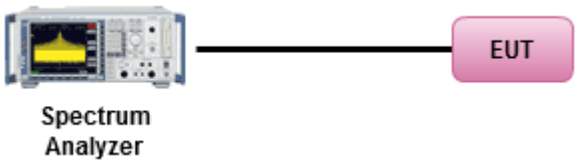
## 3.4.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

## 3.4.3 Test Procedures

| Test Method | | | |
|---|---|---|---|
| ▪ Peak power spectral density procedures that the same method as used to determine the conducted output power. If maximum peak conducted output power was measured to demonstrate compliance to the output power limit, then the peak PSD procedure below (Method PKPSD) shall be used. If maximum conducted output power was measured to demonstrate compliance to the output power limit, then one of the average PSD procedures shall be used, as applicable based on the following criteria (the peak PSD procedure is also an acceptable option). | | | |
| | ☒ Refer as FCC KDB 558074, clause 10.2 Method PKPSD (RBW=3-100kHz; Detector=peak). | | |
| | [duty cycle ≥ 98% or external video / power trigger] | | |
| | ☐ Refer as FCC KDB 558074, clause 10.3 Method AVGPSD-1 (spectral trace averaging). | | |
| | ☐ Refer as FCC KDB 558074, clause 10.4 Method AVGPSD-2 (slow sweep speed) | | |
| | duty cycle < 98% and average over on/off periods with duty factor | | |
| | ☐ Refer as FCC KDB 558074, clause 10.5 Method AVGPSD-1 Alt (spectral trace averaging). | | |
| | ☐ Refer as FCC KDB 558074, clause 10.6 Method AVGPSD-2 Alt. (slow sweep speed) | | |
| ▪ For conducted measurement. | | | |
| | ▪ If The EUT supports multiple transmit chains using options given below: | | |
| | | ☒ Option 1: Measure and sum the spectra across the outputs. Refer as FCC KDB 662911, In-band power spectral density (PSD). Sample all transmit ports simultaneously using a spectrum analyzer for each transmit port. Where the trace bin-by-bin of each transmit port summing can be performed. (i.e., in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3, and so on up to the $N_{TX}$ output to obtain the value for the first frequency bin of the summed spectrum.). Add up the amplitude (power) values for the different transmit chains and use this as the new data trace. | |
| | | ☐ Option 2: Measure and sum spectral maxima across the outputs. With this technique, spectra are measured at each output of the device at the required resolution bandwidth. The maximum value (peak) of each spectrum is determined. These maximum values are then summed mathematically in linear power units across the outputs. These operations shall be performed separately over frequency spans that have different out-of-band or spurious emission limits, | |
| | | ☐ Option 3: Measure and add 10 log(N) dB, where N is the number of transmit chains. Refer as FCC KDB 662911, In-band power spectral density (PSD). Performed at each transmit chains and each transmit chains shall be compared with the limit have been reduced with 10 log(N). Or each transmit chains shall be add 10 log(N) to compared with the limit. | |

### 3.4.4 Test Setup

| Power Spectral Density |
| --- |
|   |

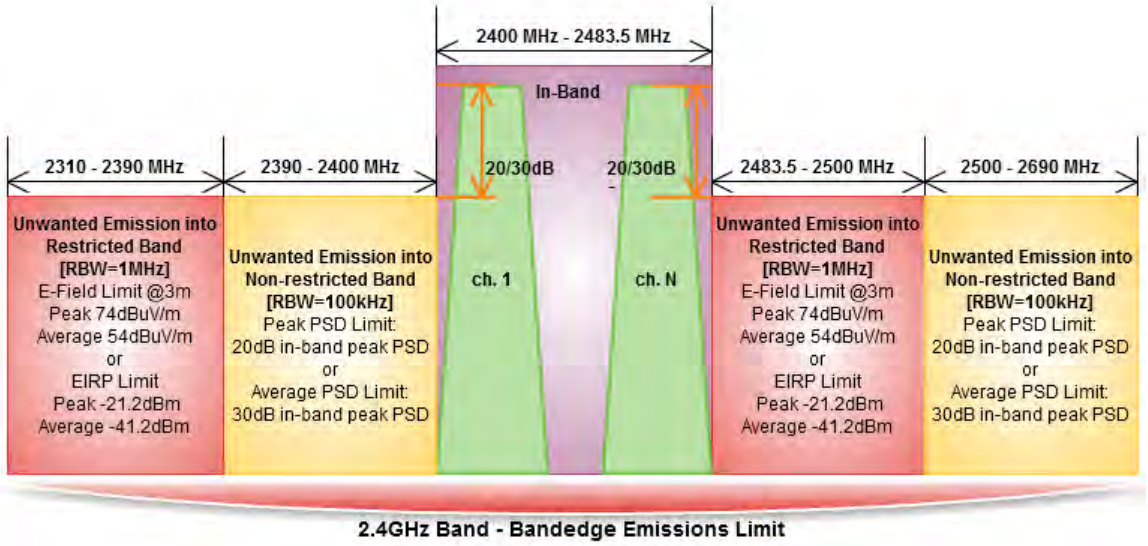
### 3.4.5 Test Result of Power Spectral Density

Refer as Appendix C

# 3.5 Transmitter Radiated Bandedge Emissions

## 3.5.1 Transmitter Radiated Bandedge Emissions Limit

**Transmitter Radiated Bandedge Emissions Limit**




## 3.5.2 Measuring Instruments

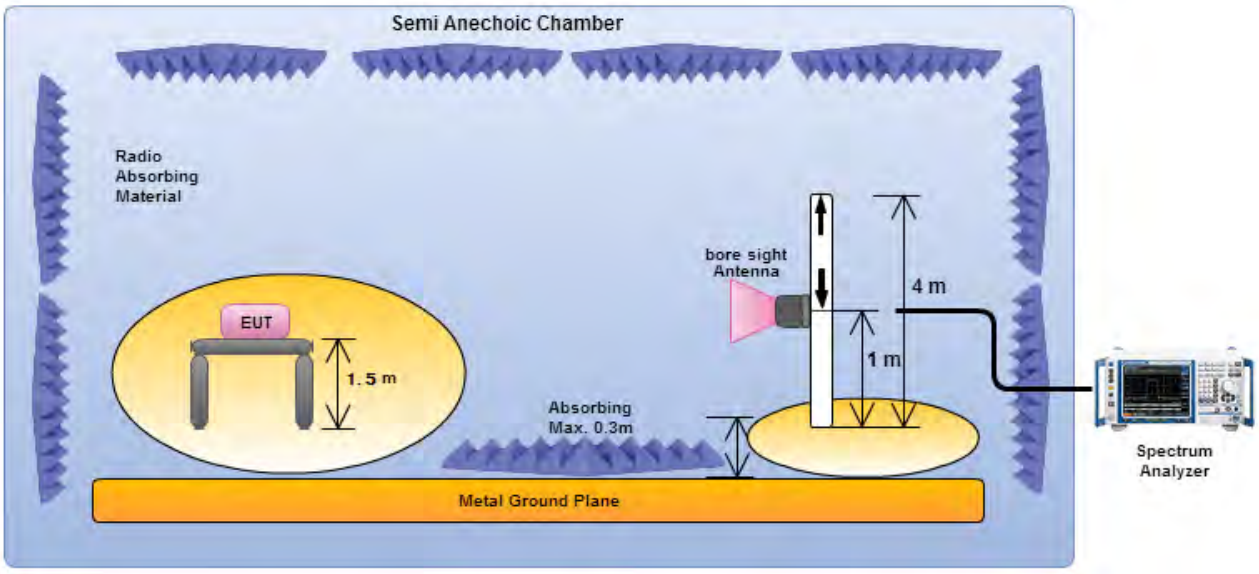
Refer a test equipment and calibration data table in this test report.

### 3.5.3 Test Procedures

| Test Method | | | |
|---|---|---|---|
| ☒ | The average emission levels shall be measured in [duty cycle ≥ 98 or duty factor]. | | |
| ☒ | Refer as ANSI C63.10, clause 6.10 bandedge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band. | | |
| ☒ | For the transmitter unwanted emissions shall be measured using following options below: | | |
| | ☒ | Refer as FCC KDB 558074, clause 11 for unwanted emissions into non-restricted bands. | |
| | ☒ | Refer as FCC KDB 558074, clause 12 for unwanted emissions into restricted bands. | |
| | | ☐ | Refer as FCC KDB 558074, clause 12.2.5.1 Option 1 (trace averaging for duty cycle ≥98%) |
| | | ☐ | Refer as FCC KDB 558074, clause 12.2.5.2 Option 2 (trace averaging + duty factor). |
| | | ☒ | Refer as FCC KDB 558074, clause 12.2.5.3 Option 3 (Reduced VBW≥1/T). |
| | | ☐ | Refer as ANSI C63.10, clause 4.1.4.2.3 (Reduced VBW). VBW ≥ 1/T, where T is pulse time. |
| | | ☐ | Refer as ANSI C63.10, clause 4.1.4.2.4 average value of pulsed emissions. |
| | | ☒ | Refer as FCC KDB 558074, clause 11.3 and 12.2.4 measurement procedure peak limit. |
| ☒ | For the transmitter bandedge emissions shall be measured using following options below: | | |
| | ☐ | Refer as FCC KDB 558074, clause 13.3 for narrower resolution bandwidth (100kHz) using the band power and summing the spectral levels (i.e., 1 MHz). | |
| | ☐ | Refer as ANSI C63.10, clause 6.10 for band-edge testing. | |
| | ☒ | Refer as ANSI C63.10, clause 6.10.6.2 for marker-delta method for band-edge measurements. | |
| ☒ | For radiated measurement, refer as FCC KDB 558074, clause 12.2.7 and ANSI C63.10, clause 6.6. Test distance is 3m. | | |

### 3.5.4 Test Setup

**Transmitter Radiated Bandedge Emissions**




Electric field tests shall be performed in transmitter bandedge emissions using a calibrated horn antenna.

### 3.5.5 Test Result of Emissions in Non-restricted Frequency Bands

Refer as Appendix D

## 3.6 Transmitter Radiated Unwanted Emissions

### 3.6.1 Transmitter in Radiated Unwanted Emissions Limit

| Restricted Band Emissions Limit | | | |
|---|---|---|---|
| **Frequency Range (MHz)** | **Field Strength (uV/m)** | **Field Strength (dBuV/m)** | **Measure Distance (m)** |
| 0.009~0.490 | 2400/F(kHz) | 48.5 - 13.8 | 300 |
| 0.490~1.705 | 24000/F(kHz) | 33.8 - 23 | 30 |
| 1.705~30.0 | 30 | 29 | 30 |
| 30~88 | 100 | 40 | 3 |
| 88~216 | 150 | 43.5 | 3 |
| 216~960 | 200 | 46 | 3 |
| Above 960 | 500 | 54 | 3 |

Note 1: Test distance for frequencies at or above 30 MHz, measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).

Note 2: Test distance for frequencies at below 30 MHz, measurements may be performed at a distance closer than the EUT limit distance; however, an attempt should be made to avoid making measurements in the near field. When performing measurements below 30 MHz at a closer distance than the limit distance, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two or more distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB/decade). The test report shall specify the extrapolation method used to determine compliance of the EUT.

| Un-restricted Band Emissions Limit | |
|---|---|
| **RF output power procedure** | **Limit (dB)** |
| Peak output power procedure | 20 |
| Average output power procedure | 30 |

Note 1: If the peak output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the peak conducted output power measured within any 100 kHz outside the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum measured in-band peak PSD level.

Note 2: If the average output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the power in any 100 kHz outside of the authorized frequency band shall be attenuated by at least 30 dB relative to the maximum measured in-band average PSD level.

### 3.6.2 Measuring Instruments

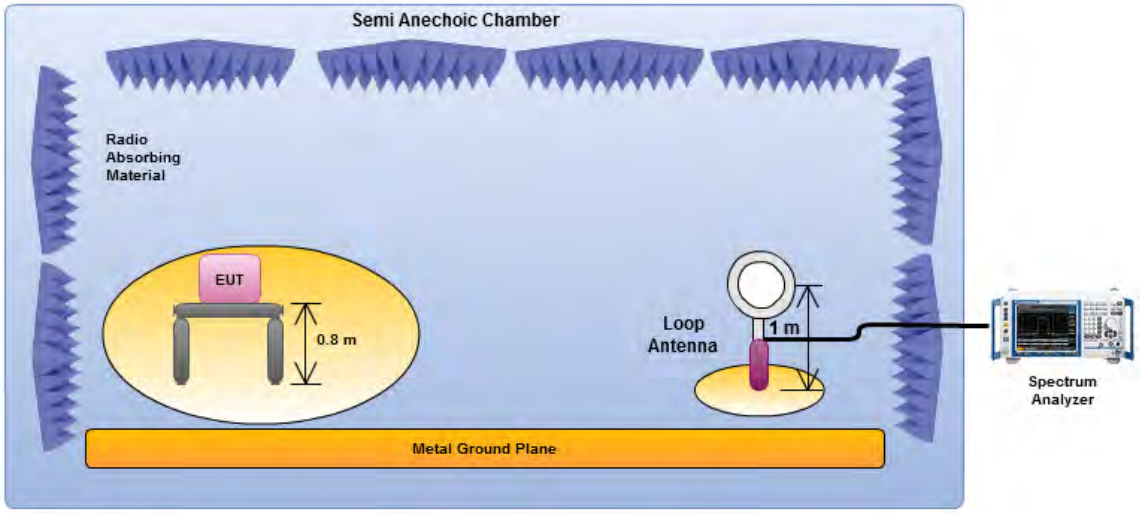
Refer a test equipment and calibration data table in this test report.

### 3.6.3 Test Procedures

| Test Method | | | |
|---|---|---|---|
| ☒ | Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements). | | |
| ☒ | The average emission levels shall be measured in [duty cycle ≥ 98 or duty factor]. | | |
| ☒ | For the transmitter unwanted emissions shall be measured using following options below: | | |
| | ☒ | Refer as FCC KDB 558074, clause 11 for unwanted emissions into non-restricted bands. | |
| | ☒ | Refer as FCC KDB 558074, clause 12 for unwanted emissions into restricted bands. | |
| | | ☐ | Refer as FCC KDB 558074, clause 12.2.5.1 Option 1 (trace averaging for duty cycle ≥98%) |
| | | ☐ | Refer as FCC KDB 558074, clause 12.2.5.2 Option 2 (trace averaging + duty factor). |
| | | ☒ | Refer as FCC KDB 558074, clause 12.2.5.3 Option 3 (Reduced VBW≥1/T). |
| | | ☐ | Refer as ANSI C63.10, clause 4.1.4.2.3 (Reduced VBW). VBW ≥ 1/T, where T is pulse time. |
| | | ☐ | Refer as ANSI C63.10, clause 4.1.4.2.4 average value of pulsed emissions. |
| | | ☒ | Refer as FCC KDB 558074, clause 11.3 and 12.2.4 measurement procedure peak limit. |
| | | ☒ | Refer as FCC KDB 558074, clause 12.2.3 measurement procedure Quasi-Peak limit. |
| ☒ | For radiated measurement, refer as FCC KDB 558074, clause 12.2.7. | | |
| | ☒ | Refer as ANSI C63.10, clause 6.4 for radiated emissions below 30 MHz and test distance is 3m. | |
| | ☒ | Refer as ANSI C63.10, clause 6.5 for radiated emissions 30 MHz to 1 GHz and test distance is 3m. | |
| | ☒ | Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1 GHz and test distance is 3m. | |
| ☒ | The any unwanted emissions level shall not exceed the fundamental emission level. | | |
| ☒ | All amplitude of spurious emissions that are attenuated by more than 30 dB below the permissible value has no need to be reported. | | |

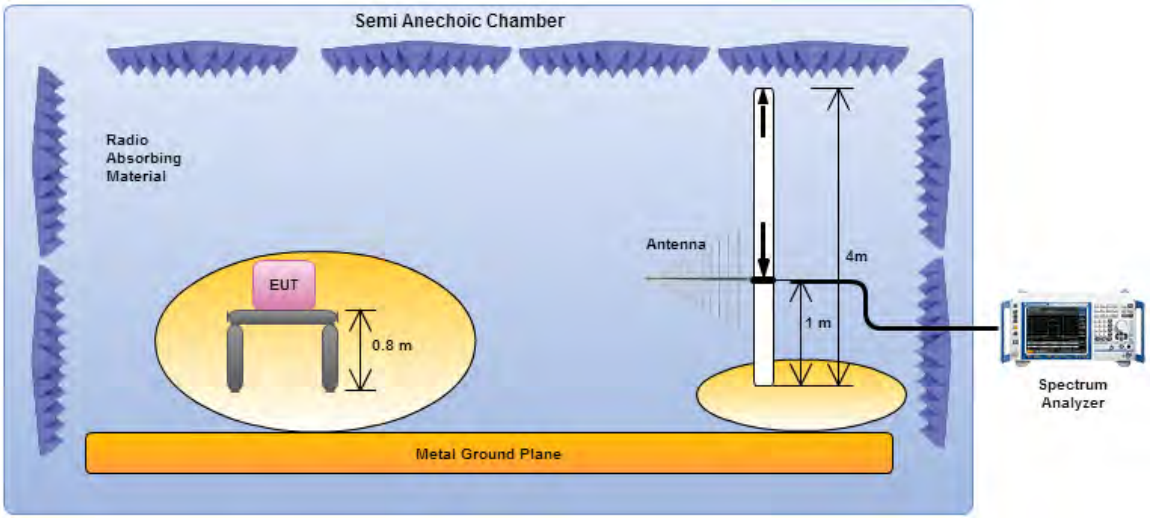
### 3.6.4 Test Setup

**Transmitter Spurious and Out of Band Emissions (9 kHz - 30 MHz)**



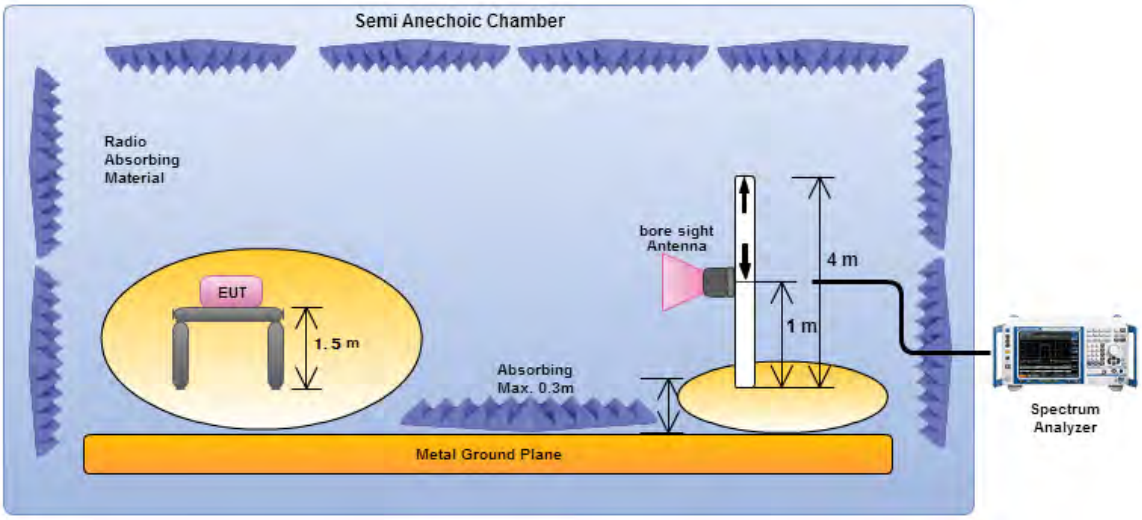

Magnetic field tests shall be performed in the frequency range of 9 kHz to 30 MHz using a calibrated loop antenna.

**Transmitter Radiated Unwanted Emissions (below 1GHz)**




Electric field tests shall be performed in the frequency range of 30 MHz to 1000 MHz using a calibrated bi-log antenna.

**Transmitter Radiated Unwanted Emissions (above 1GHz)**




Electric field tests shall be performed in the frequency range of 1 GHz to 10th harmonic of highest fundamental frequency or 40 GHz using a calibrated horn antenna.

### 3.6.5 Transmitter Radiated Unwanted Emissions (Below 30MHz)

All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.

### 3.6.6 Transmitter Radiated Unwanted Emissions

Refer as Appendix E

# 4 Test Equipment and Calibration Data

### Instrument for AC Conduction

| Instrument | Manufacturer | Model No. | Serial No. | Characteristics | Calibration Last Cal. | Calibration Due Date |
|---|---|---|---|---|---|---|
| EMC Receiver | KEYSIGHT | N9038A | MY54130031 | 20Hz ~ 8.4GHz | Apr. 14, 2016 | Apr. 13, 2017 |
| LISN | SCHWARZBECK MESS-ELEKTRONIK | NSLK 8127 | 8127-477 | 9kHz ~ 30MHz | Jan. 26, 2016 | Jan. 25, 2017 |
| RF Cable-CON | HUBER+SUHNER | RG213/U | 07611832020001 | 9kHz ~ 30MHz | Oct. 30, 2015 | Oct. 29, 2016 |
| EMI Filter | LINDGREN | LRE-2030 | 2651 | < 450 Hz | NCR | NCR |

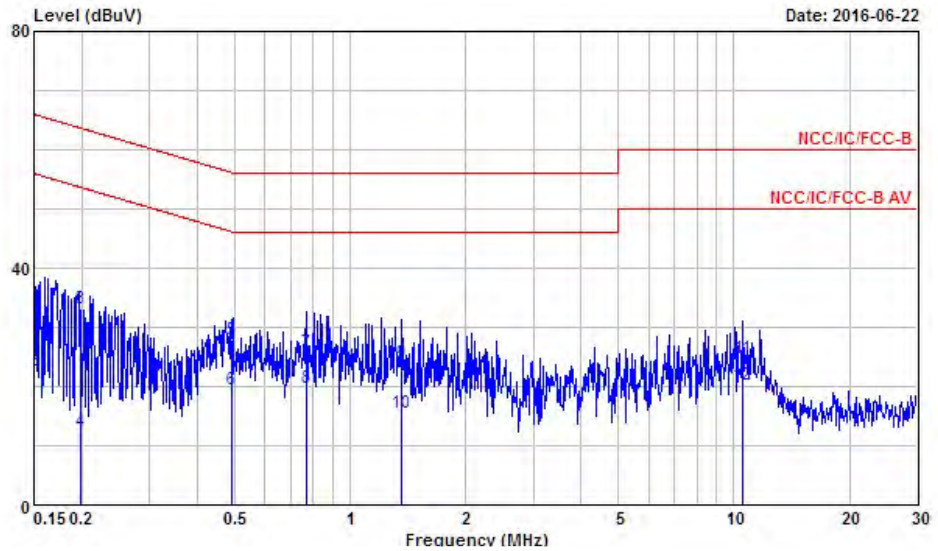
### Instrument for Conducted Test

| Instrument | Manufacturer | Model No. | Serial No. | Characteristics | Calibration Last Cal. | Calibration Due Date |
|---|---|---|---|---|---|---|
| Spectrum Analyzer | R&S | FSV 40 | 101500 | 9KHz~40GHz | May 12, 2016 | May 11, 2017 |
| Power Sensor | Anritsu | MA2411B | 917017 | 300MHz ~ 40GHz | Feb. 04, 2016 | Fed. 03, 2017 |
| Power Meter | Anritsu | ML2495A | 949003 | 300MHz ~ 40GHz | Feb. 04, 2016 | Fed. 03, 2017 |
| Signal Generator | R&S | SMR40 | 100116 | 10MHz ~ 40GHz | Jul. 28, 2015 | Jul. 27, 2016 |

### Instrument for Radiated Test

| Instrument | Manufacturer | Model No. | Serial No. | Characteristics | Calibration Last Cal. | Calibration Due Date |
|---|---|---|---|---|---|---|
| 3m Semi Anechoic Chamber | SIDT FRANKONIA | SAC-3M | 03CH03-HY | 30MHz ~ 1GHz 3m | Nov. 28, 2015 | Nov. 27, 2016 |
| 3m Semi Anechoic Chamber | SIDT FRANKONIA | SAC-3M | 03CH03-HY | 1GHz ~ 18GHz 3m | Dec. 16, 2015 | Dec. 15, 2016 |
| Amplifier | HP | 8447D | 2944A08033 | 10kHz ~ 1.3GHz | May 10, 2016 | May 09, 2017 |
| Amplifier | Agilent | 8449B | 3008A02120 | 1GHz ~ 26.5GHz | Sep. 02, 2015 | Sep. 01, 2016 |
| Spectrum | R&S | FSV40 | 101513 | 9kHz ~ 40GHz | Feb. 16, 2016 | Feb. 15, 2017 |
| Bilog Antenna | SCHAFFNER | CBL 6112D | 22237 | 30MHz ~ 1GHz | Sep. 18, 2015 | Sep. 17, 2016 |
| Horn Antenna | SCHWARZBECK | BBHA9120D | 1531 | 1GHz ~ 18GHz | Apr. 22, 2016 | Apr. 21, 2017 |
| Horn Antenna | SCHWARZBECK | BBHA9170 | BBHA9170154 | 18GHz ~ 40GHz | Jan. 29, 2016 | Jan. 28, 2017 |
| Loop Antenna | TESEQ | HLA 6120 | 31244 | 9 kHz~30 MHz | Feb.02.2015 | Feb.01.2017 |

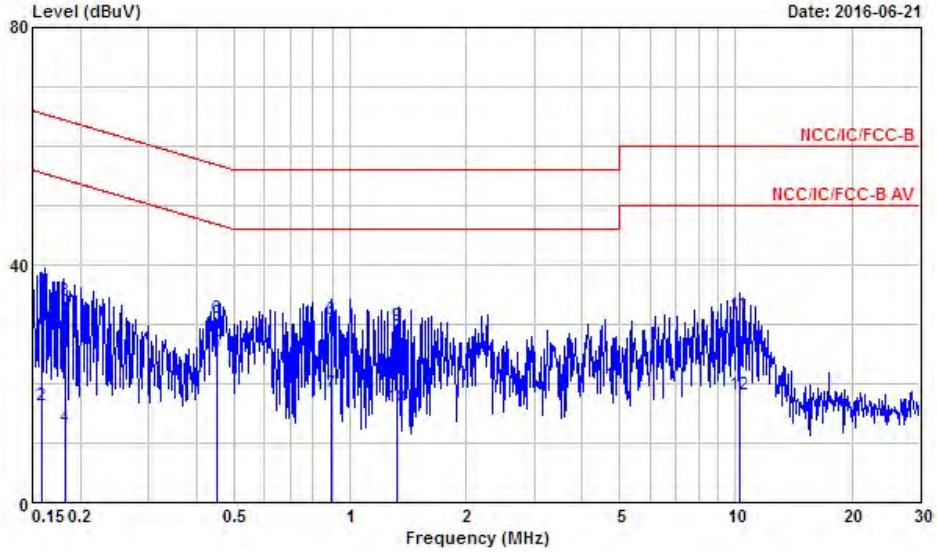
| AC Power-line Conducted Emissions Result | | | |
|---|---|---|---|
| **Operating Mode** | 1 | **Power Phase** | Neutral |
| **Operating Function** | AC Power & Radio link (WLAN) | | |




| | Freq | Level | Over Limit | Limit Line | Read Level | LISN Factor | Cable Loss | Remark |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV | dB | dBuV | dBuV | dB | dB | |
| 1 | 0.1500000 | 34.38 | -31.62 | 66.00 | 34.06 | 0.10 | 0.22 | QP |
| 2 | 0.1500000 | 22.74 | -33.26 | 56.00 | 22.42 | 0.10 | 0.22 | Average |
| 3 | 0.1977810 | 33.15 | -30.55 | 63.70 | 32.74 | 0.11 | 0.30 | QP |
| 4 | 0.1977810 | 12.37 | -41.33 | 53.70 | 11.96 | 0.11 | 0.30 | Average |
| 5 | 0.4932340 | 27.83 | -28.28 | 56.11 | 27.61 | 0.12 | 0.10 | QP |
| 6 | 0.4932340 | 19.58 | -26.53 | 46.11 | 19.36 | 0.12 | 0.10 | Average |
| 7 | 0.7709230 | 25.92 | -30.08 | 56.00 | 25.69 | 0.13 | 0.10 | QP |
| 8 | 0.7709230 | 19.64 | -26.36 | 46.00 | 19.41 | 0.13 | 0.10 | Average |
| 9 | 1.367 | 23.91 | -32.09 | 56.00 | 23.58 | 0.14 | 0.19 | QP |
| 10 | 1.367 | 15.61 | -30.39 | 46.00 | 15.28 | 0.14 | 0.19 | Average |
| 11 | 10.559 | 24.75 | -35.25 | 60.00 | 24.26 | 0.29 | 0.20 | QP |
| 12 | 10.559 | 20.29 | -29.71 | 50.00 | 19.80 | 0.29 | 0.20 | Average |

Note 1: “>20dB” means emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found emissions (No emissions were detected.)

| AC Power-line Conducted Emissions Result | | | |
|---|---|---|---|
| **Operating Mode** | 1 | **Power Phase** | Line |
| **Operating Function** | AC Power & Radio link (WLAN) | | |




| | Freq | Level | Over Limit | Limit Line | Read Level | LISN Factor | Cable Loss | Remark |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV | dB | dBuV | dBuV | dB | dB | |
| 1 | 0.1592000 | 34.90 | -30.61 | 65.51 | 34.56 | 0.11 | 0.23 | QP |
| 2 | 0.1592000 | 16.44 | -39.07 | 55.51 | 16.10 | 0.11 | 0.23 | Average |
| 3 | 0.1819220 | 33.99 | -30.41 | 64.40 | 33.61 | 0.11 | 0.27 | QP |
| 4 | 0.1819220 | 12.53 | -41.87 | 54.40 | 12.15 | 0.11 | 0.27 | Average |
| 5 | 0.4532600 | 25.31 | -21.51 | 46.82 | 25.09 | 0.12 | 0.10 | Average |
| 6 | 0.4532600 | 31.02 | -25.80 | 56.82 | 30.80 | 0.12 | 0.10 | QP |
| 7 | 0.8904620 | 18.46 | -27.54 | 46.00 | 18.23 | 0.13 | 0.10 | Average |
| 8 | 0.8904620 | 30.85 | -25.15 | 56.00 | 30.62 | 0.13 | 0.10 | QP |
| 9 | 1.328 | 29.71 | -26.29 | 56.00 | 29.39 | 0.14 | 0.18 | QP |
| 10 | 1.328 | 16.00 | -30.00 | 46.00 | 15.68 | 0.14 | 0.18 | Average |
| 11 | 10.229 | 31.48 | -28.52 | 60.00 | 31.02 | 0.26 | 0.20 | QP |
| 12 | 10.229 | 18.22 | -31.78 | 50.00 | 17.76 | 0.26 | 0.20 | Average |

Note 1: “>20dB” means emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found emissions (No emissions were detected.)

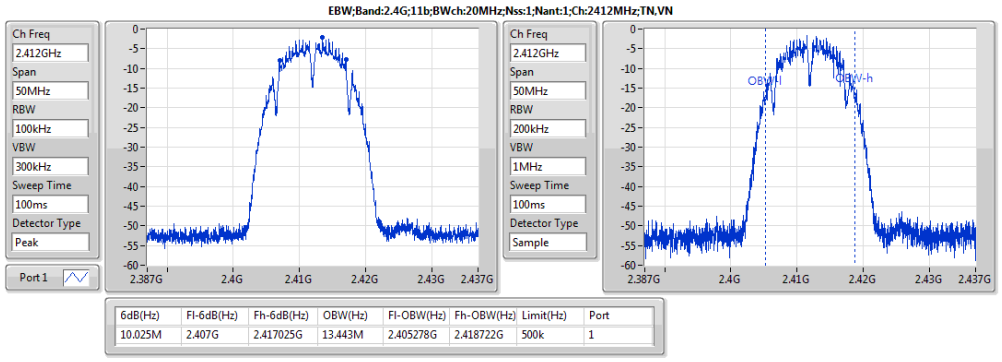
## Summary

| Mode | Max-N dB (Hz) | Max-OBW (Hz) | ITU-Code | Min-N dB (Hz) | Min-OBW (Hz) |
|---|---|---|---|---|---|
| 2.4G;11b;20;1;1 | 10.025M | 13.443M | 13M4G1D | 9.525M | 13.318M |
| 2.4G;11g;20;1;1 | 14.975M | 16.242M | 16M2D1D | 13.85M | 16.217M |
| 2.4G;HT20;20;1,(M0-7);1 | 15M | 17.366M | 17M4D1D | 14.9M | 17.266M |
| 2.4G;HT40;40;1,(M0-7);1 | 33.7M | 35.882M | 35M9D1D | 31.25M | 35.782M |

## Result

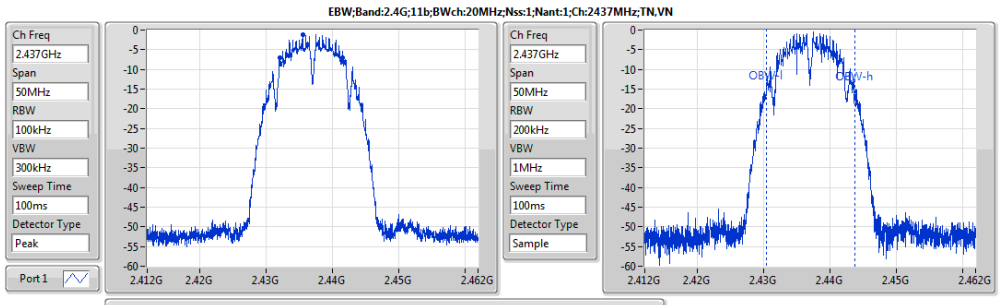
| Mode | Result | Limit | P1-N dB (Hz) | P1-OBW (Hz) |
|---|---|---|---|---|
| 2.4G;11b;20;1;1;2412;L;TN,VN | Pass | 500k | 10.025M | 13.443M |
| 2.4G;11b;20;1;1;2437;M;TN,VN | Pass | 500k | 9.55M | 13.343M |
| 2.4G;11b;20;1;1;2462;H;TN,VN | Pass | 500k | 9.525M | 13.318M |
| 2.4G;11g;20;1;1;2412;L;TN,VN | Pass | 500k | 14.975M | 16.217M |
| 2.4G;11g;20;1;1;2437;M;TN,VN | Pass | 500k | 14.45M | 16.242M |
| 2.4G;11g;20;1;1;2462;H;TN,VN | Pass | 500k | 13.85M | 16.217M |
| 2.4G;HT20;20;1,(M0-7);1;2412;L;TN,VN | Pass | 500k | 14.975M | 17.266M |
| 2.4G;HT20;20;1,(M0-7);1;2437;M;TN,VN | Pass | 500k | 15M | 17.366M |
| 2.4G;HT20;20;1,(M0-7);1;2462;H;TN,VN | Pass | 500k | 14.9M | 17.341M |
| 2.4G;HT40;40;1,(M0-7);1;2422;L;TN,VN | Pass | 500k | 31.25M | 35.832M |
| 2.4G;HT40;40;1,(M0-7);1;2437;M;TN,VN | Pass | 500k | 32.6M | 35.782M |
| 2.4G;HT40;40;1,(M0-7);1;2452;H;TN,VN | Pass | 500k | 33.7M | 35.882M |

EBW;Band:2.4G;11b;BWch:20MHz;Nss:1;Nant:1;Ch:2412MHz;TN,VN



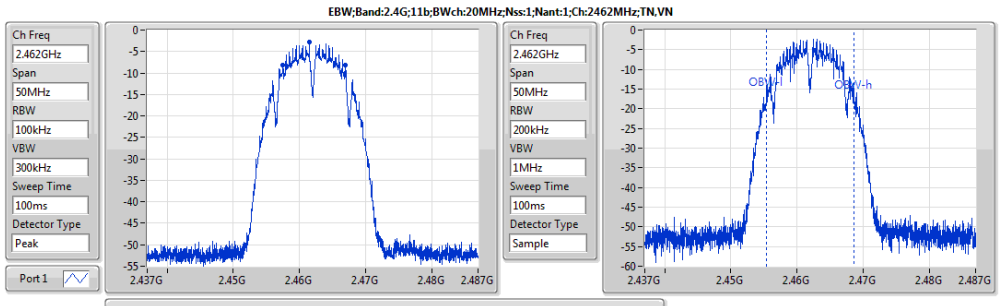

| 6dB(Hz) | Fl-6dB(Hz) | Fh-6dB(Hz) | OBW(Hz) | Fl-OBW(Hz) | Fh-OBW(Hz) | Limit(Hz) | Port |
|---|---|---|---|---|---|---|---|
| 10.025M | 2.407G | 2.417025G | 13.443M | 2.405278G | 2.418722G | 500k | 1 |

EBW;Band:2.4G;11b;BWch:20MHz;Nss:1;Nant:1;Ch:2437MHz;TN,VN



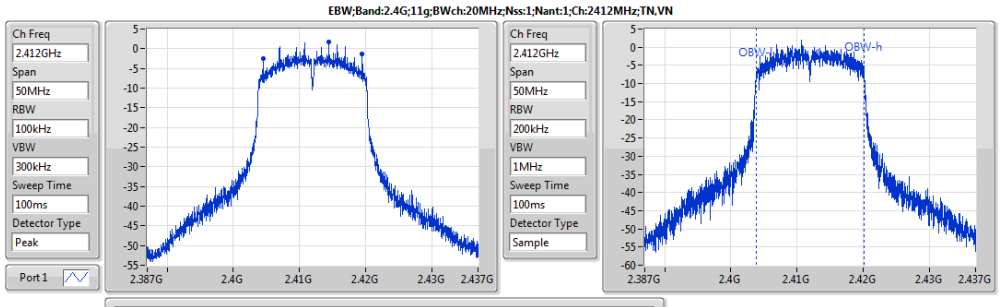

| 6dB(Hz) | Fl-6dB(Hz) | Fh-6dB(Hz) | OBW(Hz) | Fl-OBW(Hz) | Fh-OBW(Hz) | Limit(Hz) | Port |
|---|---|---|---|---|---|---|---|
| 9.55M | 2.432G | 2.44155G | 13.343M | 2.430353G | 2.443697G | 500k | 1 |

EBW;Band:2.4G;11b;BWch:20MHz;Nss:1;Nant:1;Ch:2462MHz;TN,VN



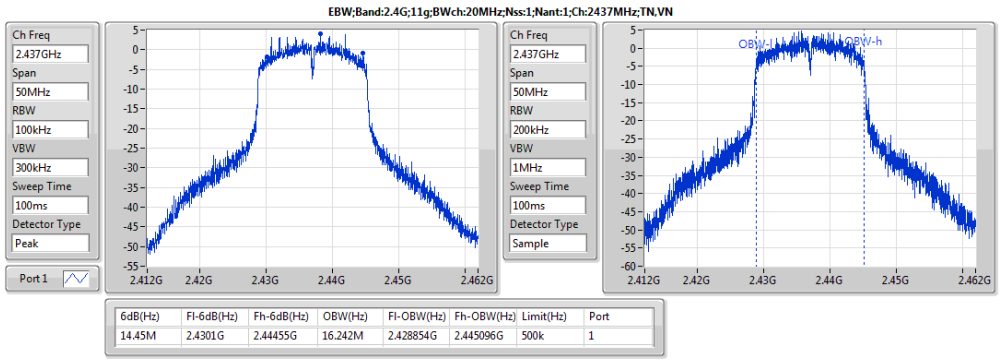

| 6dB(Hz) | Fl-6dB(Hz) | Fh-6dB(Hz) | OBW(Hz) | Fl-OBW(Hz) | Fh-OBW(Hz) | Limit(Hz) | Port |
|---|---|---|---|---|---|---|---|
| 9.525M | 2.457475G | 2.467G | 13.318M | 2.455353G | 2.468672G | 500k | 1 |

EBW;Band:2.4G;11g;BWch:20MHz;Nss:1;Nant:1;Ch:2412MHz;TN,VN



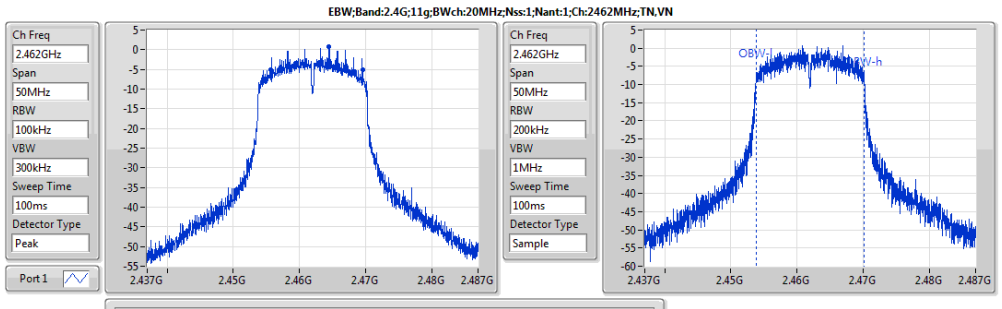

| 6dB(Hz) | Fl-6dB(Hz) | Fh-6dB(Hz) | OBW(Hz) | Fl-OBW(Hz) | Fh-OBW(Hz) | Limit(Hz) | Port |
|---|---|---|---|---|---|---|---|
| 14.975M | 2.404525G | 2.4195G | 16.217M | 2.403879G | 2.420096G | 500k | 1 |

EBW;Band:2.4G;11g;BWch:20MHz;Nss:1;Nant:1;Ch:2437MHz;TN,VN



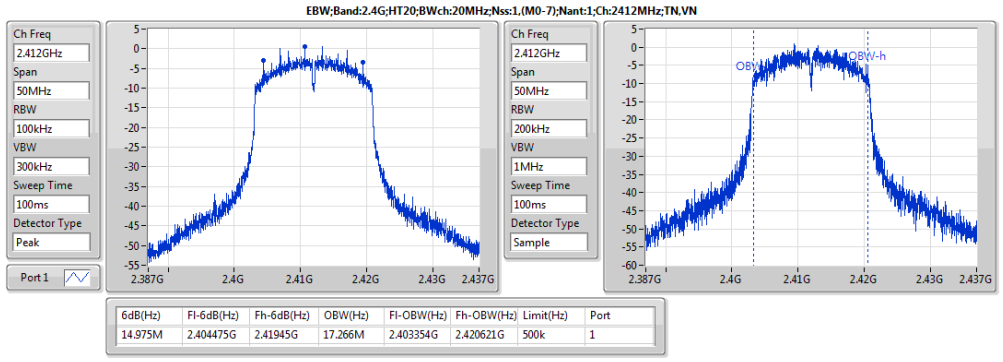

| 6dB(Hz) | Fl-6dB(Hz) | Fh-6dB(Hz) | OBW(Hz) | Fl-OBW(Hz) | Fh-OBW(Hz) | Limit(Hz) | Port |
|---|---|---|---|---|---|---|---|
| 14.45M | 2.4301G | 2.44455G | 16.242M | 2.428854G | 2.445096G | 500k | 1 |

EBW;Band:2.4G;11g;BWch:20MHz;Nss:1;Nant:1;Ch:2462MHz;TN,VN



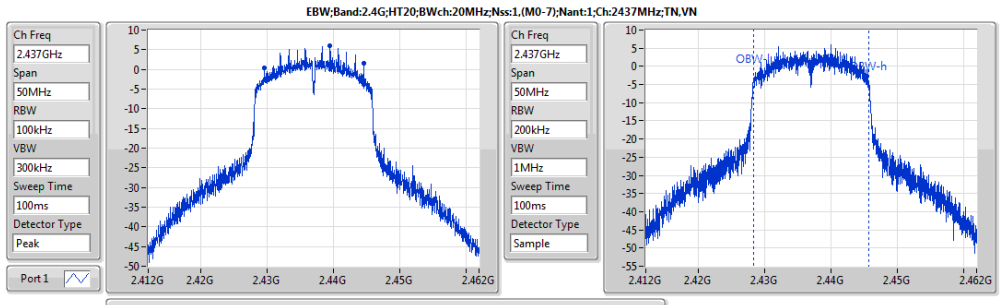

| 6dB(Hz) | Fl-6dB(Hz) | Fh-6dB(Hz) | OBW(Hz) | Fl-OBW(Hz) | Fh-OBW(Hz) | Limit(Hz) | Port |
|---|---|---|---|---|---|---|---|
| 13.85M | 2.4557G | 2.46955G | 16.217M | 2.453879G | 2.470096G | 500k | 1 |

EBW;Band:2.4G;HT20;BWch:20MHz;Nss:1,(M0-7);Nant:1;Ch:2412MHz;TN,VN



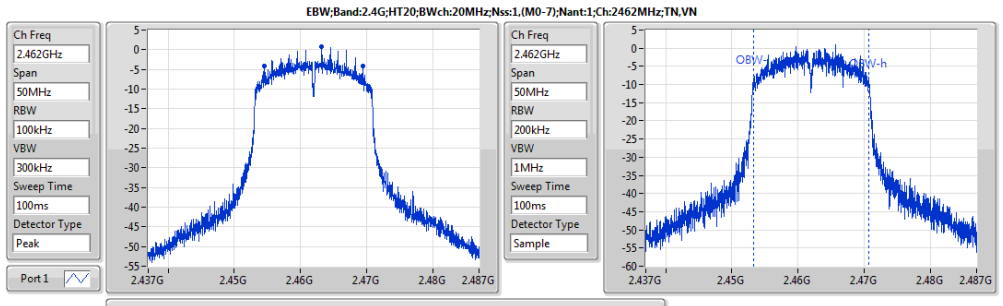

| 6dB(Hz) | Fl-6dB(Hz) | Fh-6dB(Hz) | OBW(Hz) | Fl-OBW(Hz) | Fh-OBW(Hz) | Limit(Hz) | Port |
|---|---|---|---|---|---|---|---|
| 14.975M | 2.404475G | 2.41945G | 17.266M | 2.403354G | 2.420621G | 500k | 1 |

EBW;Band:2.4G;HT20;BWch:20MHz;Nss:1,(M0-7);Nant:1;Ch:2437MHz;TN,VN



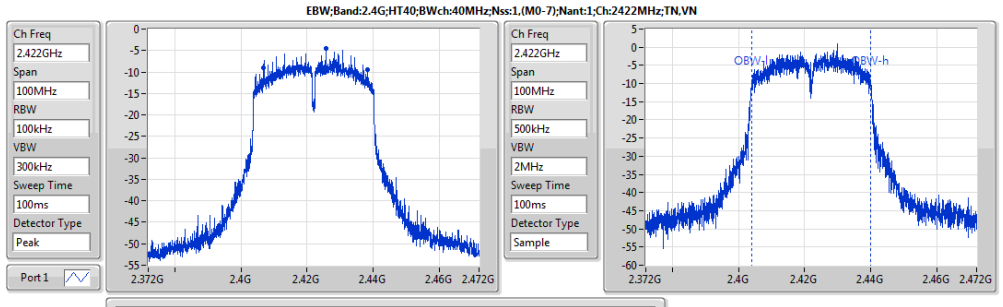

| 6dB(Hz) | Fl-6dB(Hz) | Fh-6dB(Hz) | OBW(Hz) | Fl-OBW(Hz) | Fh-OBW(Hz) | Limit(Hz) | Port |
|---|---|---|---|---|---|---|---|
| 15M | 2.42955G | 2.44455G | 17.366M | 2.428279G | 2.445646G | 500k | 1 |

EBW;Band:2.4G;HT20;BWch:20MHz;Nss:1,(M0-7);Nant:1;Ch:2462MHz;TN,VN



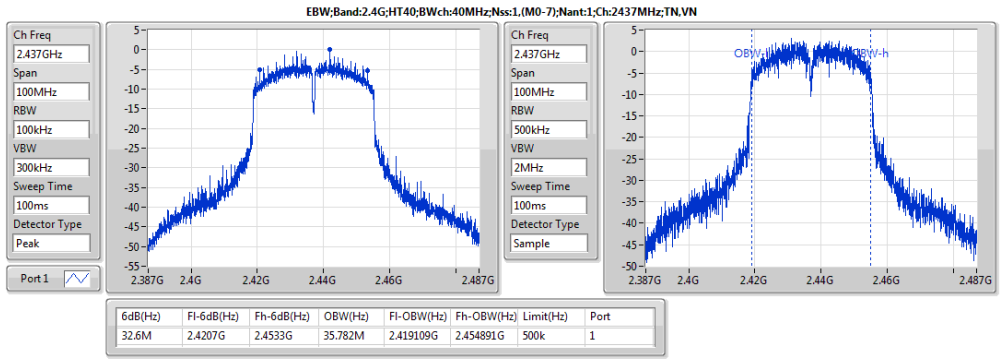

| 6dB(Hz) | Fl-6dB(Hz) | Fh-6dB(Hz) | OBW(Hz) | Fl-OBW(Hz) | Fh-OBW(Hz) | Limit(Hz) | Port |
|---|---|---|---|---|---|---|---|
| 14.9M | 2.45455G | 2.46945G | 17.341M | 2.453329G | 2.470671G | 500k | 1 |

EBW;Band:2.4G;HT40;BWch:40MHz;Nss:1,(M0-7);Nant:1;Ch:2422MHz;TN,VN



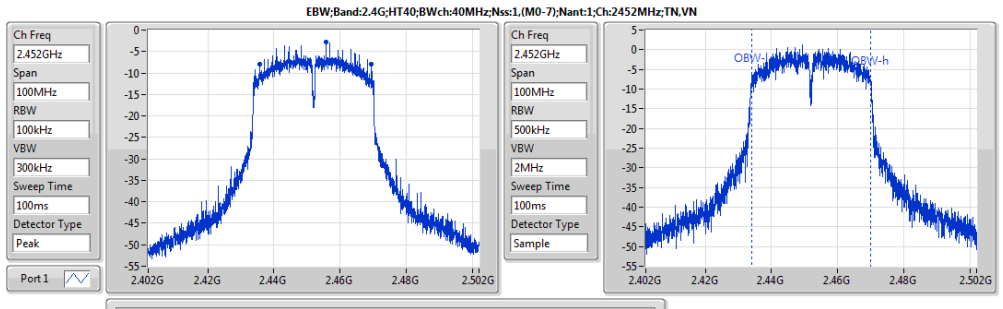

| 6dB(Hz) | Fl-6dB(Hz) | Fh-6dB(Hz) | OBW(Hz) | Fl-OBW(Hz) | Fh-OBW(Hz) | Limit(Hz) | Port |
|---|---|---|---|---|---|---|---|
| 31.25M | 2.40695G | 2.4382G | 35.832M | 2.404109G | 2.439941G | 500k | 1 |

EBW;Band:2.4G;HT40;BWch:40MHz;Nss:1,(M0-7);Nant:1;Ch:2437MHz;TN,VN




| 6dB(Hz) | Fl-6dB(Hz) | Fh-6dB(Hz) | OBW(Hz) | Fl-OBW(Hz) | Fh-OBW(Hz) | Limit(Hz) | Port |
|---|---|---|---|---|---|---|---|
| 32.6M | 2.4207G | 2.4533G | 35.782M | 2.419109G | 2.454891G | 500k | 1 |

EBW;Band:2.4G;HT40;BWch:40MHz;Nss:1,(M0-7);Nant:1;Ch:2452MHz;TN,VN




| 6dB(Hz) | Fl-6dB(Hz) | Fh-6dB(Hz) | OBW(Hz) | Fl-OBW(Hz) | Fh-OBW(Hz) | Limit(Hz) | Port |
|---|---|---|---|---|---|---|---|
| 33.7M | 2.4358G | 2.4695G | 35.882M | 2.434059G | 2.469941G | 500k | 1 |

## Summary

| Mode | Sum (dBm) | Sum (W) | EIRP (dBm) | EIRP (W) |
|---|---|---|---|---|
| 2.4G;11b;20;1;1 | 12.41 | 0.01742 | 14.81 | 0.03027 |
| 2.4G;11g;20;1;1 | 21.38 | 0.1374 | 23.78 | 0.23878 |
| 2.4G;HT20;20;1,(M0-7);1 | 22.03 | 0.15959 | 24.43 | 0.27733 |
| 2.4G;HT40;40;1,(M0-7);1 | 19.08 | 0.08091 | 21.48 | 0.1406 |

## Result

| Mode | Result | DG (dBi) | EIRP (dBm) | EIRP Lim. (dBm) | Sum (dBm) | Sum Lim. (dBm) | P1 (dBm) |
|---|---|---|---|---|---|---|---|
| 2.4G;11b;20;1;1;2412;L;TN,VN | Pass | 2.40 | 14.02 | 36.00 | 11.62 | 30.00 | 11.62 |
| 2.4G;11b;20;1;1;2437;M;TN,VN | Pass | 2.40 | 14.32 | 36.00 | 11.92 | 30.00 | 11.92 |
| 2.4G;11b;20;1;1;2462;H;TN,VN | Pass | 2.40 | 14.81 | 36.00 | 12.41 | 30.00 | 12.41 |
| 2.4G;11g;20;1;1;2412;L;TN,VN | Pass | 2.40 | 22.16 | 36.00 | 19.76 | 30.00 | 19.76 |
| 2.4G;11g;20;1;1;2437;M;TN,VN | Pass | 2.40 | 23.78 | 36.00 | 21.38 | 30.00 | 21.38 |
| 2.4G;11g;20;1;1;2462;H;TN,VN | Pass | 2.40 | 22.30 | 36.00 | 19.90 | 30.00 | 19.90 |
| 2.4G;HT20;20;1,(M0-7);1;2412;L;TN,VN | Pass | 2.40 | 21.92 | 36.00 | 19.52 | 30.00 | 19.52 |
| 2.4G;HT20;20;1,(M0-7);1;2437;M;TN,VN | Pass | 2.40 | 24.43 | 36.00 | 22.03 | 30.00 | 22.03 |
| 2.4G;HT20;20;1,(M0-7);1;2462;H;TN,VN | Pass | 2.40 | 22.30 | 36.00 | 19.90 | 30.00 | 19.90 |
| 2.4G;HT40;40;1,(M0-7);1;2422;L;TN,VN | Pass | 2.40 | 18.42 | 36.00 | 16.02 | 30.00 | 16.02 |
| 2.4G;HT40;40;1,(M0-7);1;2437;M;TN,VN | Pass | 2.40 | 21.48 | 36.00 | 19.08 | 30.00 | 19.08 |
| 2.4G;HT40;40;1,(M0-7);1;2452;H;TN,VN | Pass | 2.40 | 19.16 | 36.00 | 16.76 | 30.00 | 16.76 |

## Summary

| Mode | Sum (dBm) | Sum (W) | EIRP (dBm) | EIRP (W) |
|---|---|---|---|---|
| 2.4G;11b;20;1;1 | 10.11 | 0.01026 | 12.51 | 0.01782 |
| 2.4G;11g;20;1;1 | 15.02 | 0.03177 | 17.42 | 0.05521 |
| 2.4G;HT20;20;1,(M0-7);1 | 15.90 | 0.0389 | 18.30 | 0.06761 |
| 2.4G;HT40;40;1,(M0-7);1 | 12.89 | 0.01945 | 15.29 | 0.03381 |

## Result

| Mode | Result | DG (dBi) | EIRP (dBm) | EIRP Lim. (dBm) | Sum (dBm) | Sum Lim. (dBm) | P1 (dBm) |
|---|---|---|---|---|---|---|---|
| 2.4G;11b;20;1;1;2412;L;TN,VN | Pass | 2.40 | 11.71 | 36.00 | 9.31 | 30.00 | 9.31 |
| 2.4G;11b;20;1;1;2437;M;TN,VN | Pass | 2.40 | 11.94 | 36.00 | 9.54 | 30.00 | 9.54 |
| 2.4G;11b;20;1;1;2462;H;TN,VN | Pass | 2.40 | 12.51 | 36.00 | 10.11 | 30.00 | 10.11 |
| 2.4G;11g;20;1;1;2412;L;TN,VN | Pass | 2.40 | 14.35 | 36.00 | 11.95 | 30.00 | 11.95 |
| 2.4G;11g;20;1;1;2437;M;TN,VN | Pass | 2.40 | 17.42 | 36.00 | 15.02 | 30.00 | 15.02 |
| 2.4G;11g;20;1;1;2462;H;TN,VN | Pass | 2.40 | 13.49 | 36.00 | 11.09 | 30.00 | 11.09 |
| 2.4G;HT20;20;1,(M0-7);1;2412;L;TN,VN | Pass | 2.40 | 13.57 | 36.00 | 11.17 | 30.00 | 11.17 |
| 2.4G;HT20;20;1,(M0-7);1;2437;M;TN,VN | Pass | 2.40 | 18.30 | 36.00 | 15.90 | 30.00 | 15.90 |
| 2.4G;HT20;20;1,(M0-7);1;2462;H;TN,VN | Pass | 2.40 | 13.12 | 36.00 | 10.72 | 30.00 | 10.72 |
| 2.4G;HT40;40;1,(M0-7);1;2422;L;TN,VN | Pass | 2.40 | 10.98 | 36.00 | 8.58 | 30.00 | 8.58 |
| 2.4G;HT40;40;1,(M0-7);1;2437;M;TN,VN | Pass | 2.40 | 15.29 | 36.00 | 12.89 | 30.00 | 12.89 |
| 2.4G;HT40;40;1,(M0-7);1;2452;H;TN,VN | Pass | 2.40 | 12.97 | 36.00 | 10.57 | 30.00 | 10.57 |

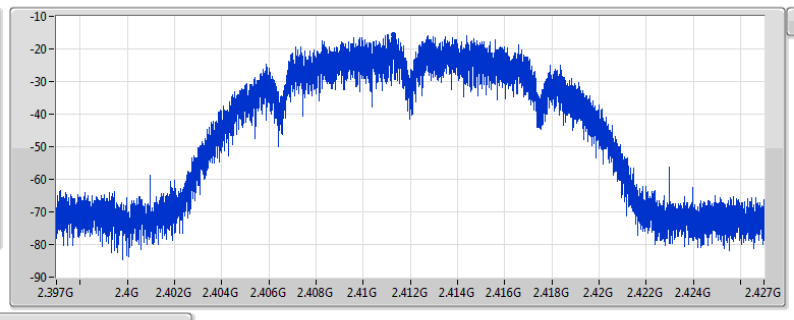
## Summary

| Mode | PD (dBm/RBW) | EIRP.PD (dBm/RBW) |
|---|---|---|
| 2.4G;11b;20;1;1 | -13.44 | -11.04 |
| 2.4G;11g;20;1;1 | -10.46 | -8.06 |
| 2.4G;HT20;20;1,(M0-7);1 | -9.53 | -7.13 |
| 2.4G;HT40;40;1,(M0-7);1 | -14.00 | -11.60 |

## Result

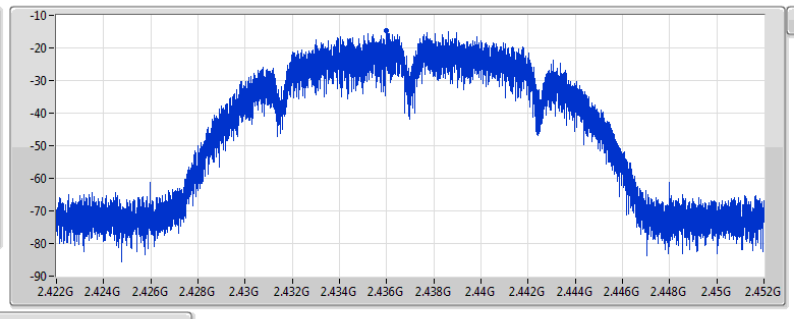
| Mode | Result | Meas.RBW (Hz) | Lim.RBW (Hz) | BWCF (dB) | DG (dBi) | Sum.Max (dBm/RBW) | PD (dBm/RBW) | PD.Limit (dBm/RBW) | EIRP.PD (dBm/RBW) | EIRP.PD.Lim (dBm/RBW) | P1 (dBm/RBW) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.4G;11b;20;1;1;2412;L;TN,VN | Pass | 3k | 3k | 0.00 | 2.40 | -15.47 | -15.47 | 8.00 | -13.07 | Inf | -15.47 |
| 2.4G;11b;20;1;1;2437;M;TN,VN | Pass | 3k | 3k | 0.00 | 2.40 | -14.61 | -14.61 | 8.00 | -12.21 | Inf | -14.61 |
| 2.4G;11b;20;1;1;2462;H;TN,VN | Pass | 3k | 3k | 0.00 | 2.40 | -13.44 | -13.44 | 8.00 | -11.04 | Inf | -13.44 |
| 2.4G;11g;20;1;1;2412;L;TN,VN | Pass | 3k | 3k | 0.00 | 2.40 | -13.44 | -13.44 | 8.00 | -11.04 | Inf | -13.44 |
| 2.4G;11g;20;1;1;2437;M;TN,VN | Pass | 3k | 3k | 0.00 | 2.40 | -10.46 | -10.46 | 8.00 | -8.06 | Inf | -10.46 |
| 2.4G;11g;20;1;1;2462;H;TN,VN | Pass | 3k | 3k | 0.00 | 2.40 | -14.71 | -14.71 | 8.00 | -12.31 | Inf | -14.71 |
| 2.4G;HT20;20;1,(M0-7);1;2412;L;TN,VN | Pass | 3k | 3k | 0.00 | 2.40 | -13.44 | -13.44 | 8.00 | -11.04 | Inf | -13.44 |
| 2.4G;HT20;20;1,(M0-7);1;2437;M;TN,VN | Pass | 3k | 3k | 0.00 | 2.40 | -9.53 | -9.53 | 8.00 | -7.13 | Inf | -9.53 |
| 2.4G;HT20;20;1,(M0-7);1;2462;H;TN,VN | Pass | 3k | 3k | 0.00 | 2.40 | -13.36 | -13.36 | 8.00 | -10.96 | Inf | -13.36 |
| 2.4G;HT40;40;1,(M0-7);1;2422;L;TN,VN | Pass | 3k | 3k | 0.00 | 2.40 | -18.44 | -18.44 | 8.00 | -16.04 | Inf | -18.44 |
| 2.4G;HT40;40;1,(M0-7);1;2437;M;TN,VN | Pass | 3k | 3k | 0.00 | 2.40 | -14.00 | -14.00 | 8.00 | -11.60 | Inf | -14.00 |
| 2.4G;HT40;40;1,(M0-7);1;2452;H;TN,VN | Pass | 3k | 3k | 0.00 | 2.40 | -17.66 | -17.66 | 8.00 | -15.26 | Inf | -17.66 |

PSD;Band:2.4G;11b;BWch:20MHz;Nss:1;Nant:1;Ch:2412MHz;TN,VN



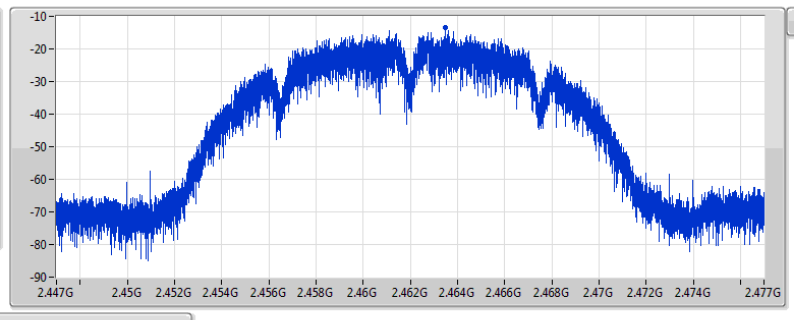

| Sum.Max | PD | P1 |
|---|---|---|
| (dBm/RBW) | (dBm/RBW) | (dBm/RBW) |
| -15.47 | -15.47 | -15.47 |

PSD;Band:2.4G;11b;BWch:20MHz;Nss:1;Nant:1;Ch:2437MHz;TN,VN



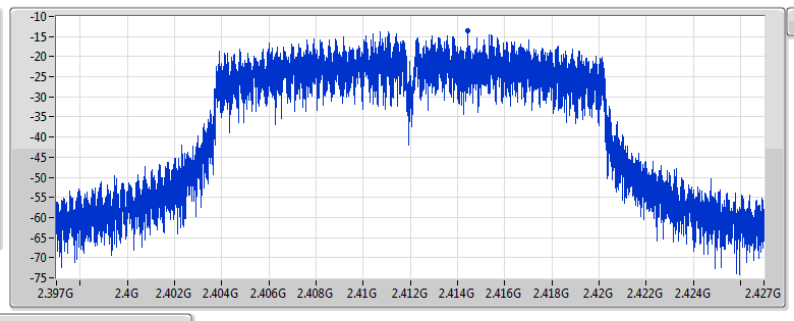

| Sum.Max | PD | P1 |
|---|---|---|
| (dBm/RBW) | (dBm/RBW) | (dBm/RBW) |
| -14.61 | -14.61 | -14.61 |

PSD;Band:2.4G;11b;BWch:20MHz;Nss:1;Nant:1;Ch:2462MHz;TN,VN



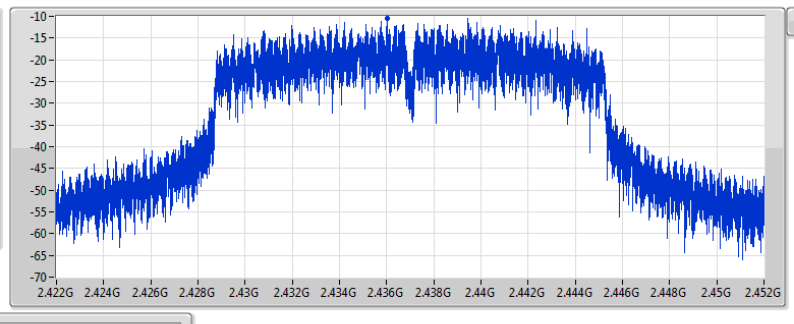

| Sum.Max | PD | P1 |
|---|---|---|
| (dBm/RBW) | (dBm/RBW) | (dBm/RBW) |
| -13.44 | -13.44 | -13.44 |

PSD;Band:2.4G;11g;BWch:20MHz;Nss:1;Nant:1;Ch:2412MHz;TN,VN



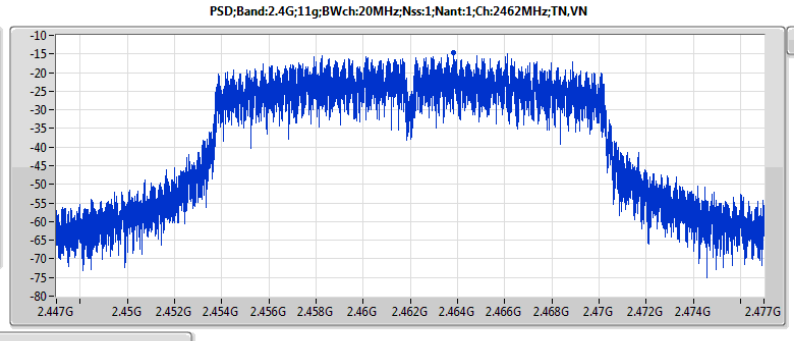

| Sum.Max | PD | P1 |
|---|---|---|
| (dBm/RBW) | (dBm/RBW) | (dBm/RBW) |
| -13.44 | -13.44 | -13.44 |

PSD;Band:2.4G;11g;BWch:20MHz;Nss:1;Nant:1;Ch:2437MHz;TN,VN



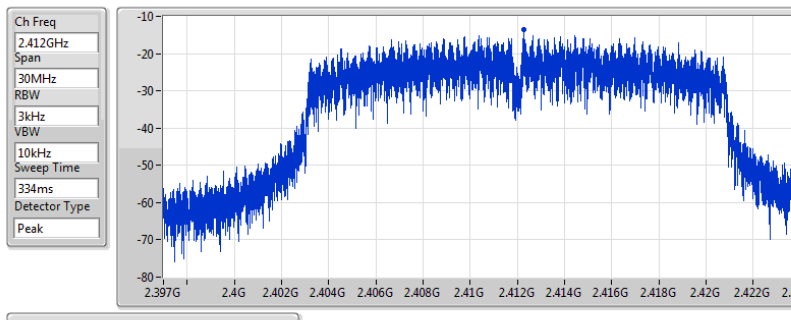

| Sum.Max | PD | P1 |
|---|---|---|
| (dBm/RBW) | (dBm/RBW) | (dBm/RBW) |
| -10.46 | -10.46 | -10.46 |

PSD;Band:2.4G;11g;BWch:20MHz;Nss:1;Nant:1;Ch:2462MHz;TN,VN



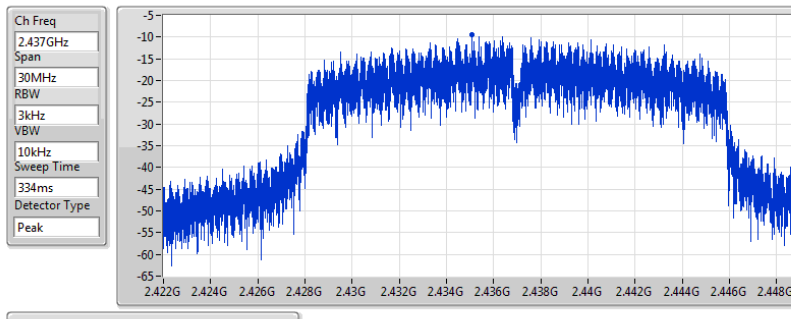

| Sum.Max | PD | P1 |
|---|---|---|
| (dBm/RBW) | (dBm/RBW) | (dBm/RBW) |
| -14.71 | -14.71 | -14.71 |

PSD;Band:2.4G;HT20;BWch:20MHz;Nss:1,(M0-7);Nant:1;Ch:2412MHz;TN,VN



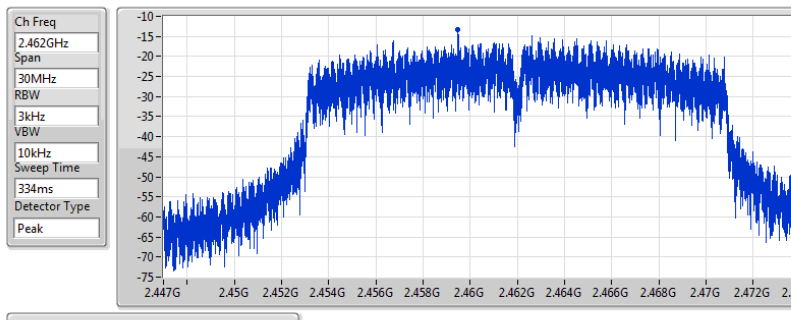

| Sum.Max | PD | P1 |
|---|---|---|
| (dBm/RBW) | (dBm/RBW) | (dBm/RBW) |
| -13.44 | -13.44 | -13.44 |

PSD;Band:2.4G;HT20;BWch:20MHz;Nss:1,(M0-7);Nant:1;Ch:2437MHz;TN,VN



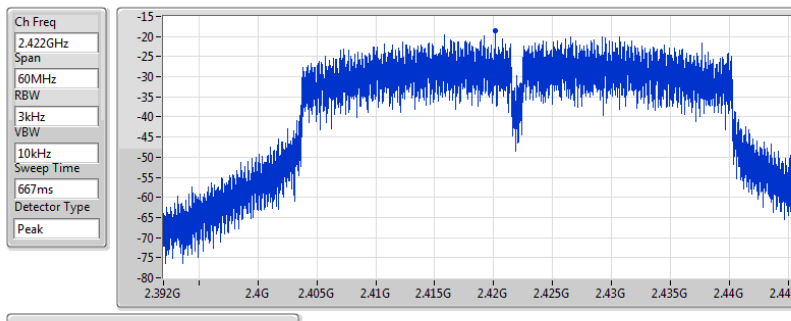

| Sum.Max | PD | P1 |
|---|---|---|
| (dBm/RBW) | (dBm/RBW) | (dBm/RBW) |
| -9.53 | -9.53 | -9.53 |

PSD;Band:2.4G;HT20;BWch:20MHz;Nss:1,(M0-7);Nant:1;Ch:2462MHz;TN,VN



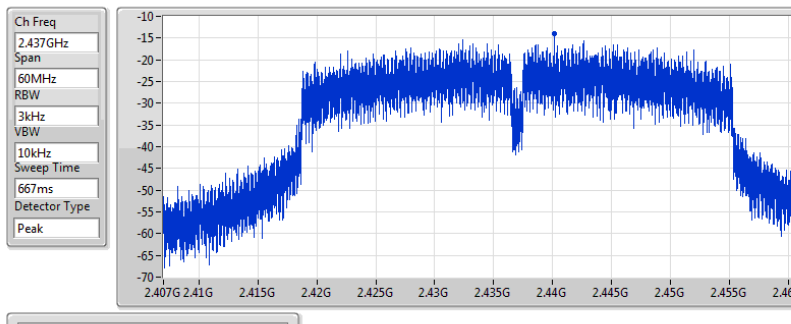

| Sum.Max | PD | P1 |
|---|---|---|
| (dBm/RBW) | (dBm/RBW) | (dBm/RBW) |
| -13.36 | -13.36 | -13.36 |

PSD;Band:2.4G;HT40;BWch:40MHz;Nss:1,(M0-7);Nant:1;Ch:2422MHz;TN,VN



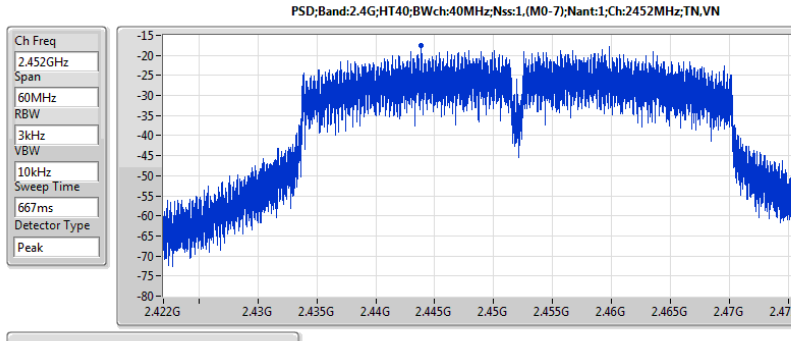

| Sum.Max | PD | P1 |
|---|---|---|
| (dBm/RBW) | (dBm/RBW) | (dBm/RBW) |
| -18.44 | -18.44 | -18.44 |

PSD;Band:2.4G;HT40;BWch:40MHz;Nss:1,(M0-7);Nant:1;Ch:2437MHz;TN,VN




| Sum.Max | PD | P1 |
|---|---|---|
| (dBm/RBW) | (dBm/RBW) | (dBm/RBW) |
| -14.00 | -14.00 | -14.00 |

PSD;Band:2.4G;HT40;BWch:40MHz;Nss:1,(M0-7);Nant:1;Ch:2452MHz;TN,VN



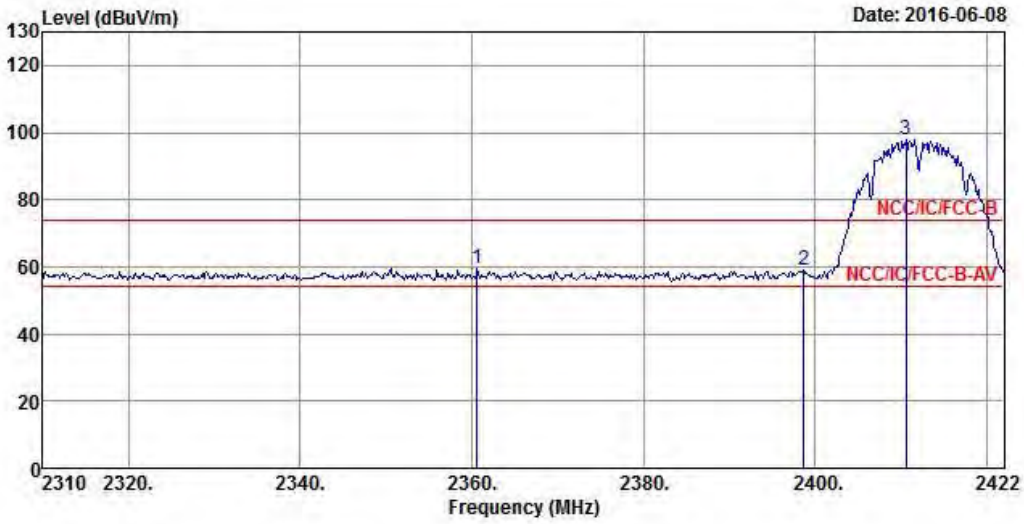

| Sum.Max | PD | P1 |
|---|---|---|
| (dBm/RBW) | (dBm/RBW) | (dBm/RBW) |
| -17.66 | -17.66 | -17.66 |

| 2400-2483.5MHz Transmitter Radiated Bandedge Emissions (Non-restricted Band) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Modulation** | **$N_{TX}$** | **Test Freq. (MHz)** | **In-band PSD [i] (dBuV/100kHz)** | **Freq. (MHz)** | **Out-band PSD [o] (dBuV/100kHz)** | **[i] – [o] (dB)** | **Limit (dB)** | **Pol.** |
| 11b | 1 | 2412 | 97.72 | 2398.704 | 58.93 | 38.79 | 20 | H |
| 11b | 1 | 2462 | 97.83 | 2530.800 | 59.74 | 38.09 | 20 | H |
| 11g | 1 | 2412 | 100.40 | 2399.260 | 72.74 | 27.66 | 20 | H |
| 11g | 1 | 2462 | 99.69 | 2507.800 | 60.33 | 39.36 | 20 | H |
| HT20 | 1 | 2412 | 100.23 | 2399.820 | 71.39 | 28.84 | 20 | H |
| HT20 | 1 | 2462 | 99.61 | 2504.000 | 60.20 | 39.41 | 20 | H |
| HT40 | 1 | 2422 | 93.11 | 2398.180 | 67.64 | 25.47 | 20 | H |
| HT40 | 1 | 2452 | 95.78 | 2514.080 | 60.08 | 35.70 | 20 | H |
| Note 1: Measurement worst emissions of receive antenna polarization | | | | | | | | |

| 2400-2483.5MHz Transmitter Radiated Bandedge Emissions (Restricted Band) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Modulation Mode** | **$N_{TX}$** | **Freq. (MHz)** | **Measure Distance (m)** | **Freq. (MHz) PK** | **Level (dBuV/m) PK** | **Limit (dBuV/m) PK** | **Freq. (MHz) AV** | **Level (dBuV/m) AV** | **Limit (dBuV/m) AV** | **Pol.** |
| 11b | 1 | 2412 | 3 | 2389.520 | 55.45 | 74 | 2359.504 | 43.25 | 54 | H |
| 11b | 1 | 2462 | 3 | 2497.200 | 55.20 | 74 | 2484.400 | 43.32 | 54 | H |
| 11g | 1 | 2412 | 3 | 2389.970 | 66.88 | 74 | 2389.970 | 50.93 | 54 | H |
| 11g | 1 | 2462 | 3 | 2483.500 | 66.00 | 74 | 2483.500 | 51.38 | 54 | H |
| HT20 | 1 | 2412 | 3 | 2389.740 | 66.40 | 74 | 2389.970 | 51.81 | 54 | H |
| HT20 | 1 | 2462 | 3 | 2483.600 | 66.36 | 74 | 2483.500 | 52.11 | 54 | H |
| HT40 | 1 | 2422 | 3 | 2389.730 | 66.77 | 74 | 2389.990 | 52.77 | 54 | H |
| HT40 | 1 | 2452 | 3 | 2484.320 | 66.98 | 74 | 2483.600 | 52.90 | 54 | H |
| Note 1: Measurement worst emissions of receive antenna polarization. | | | | | | | | | | |

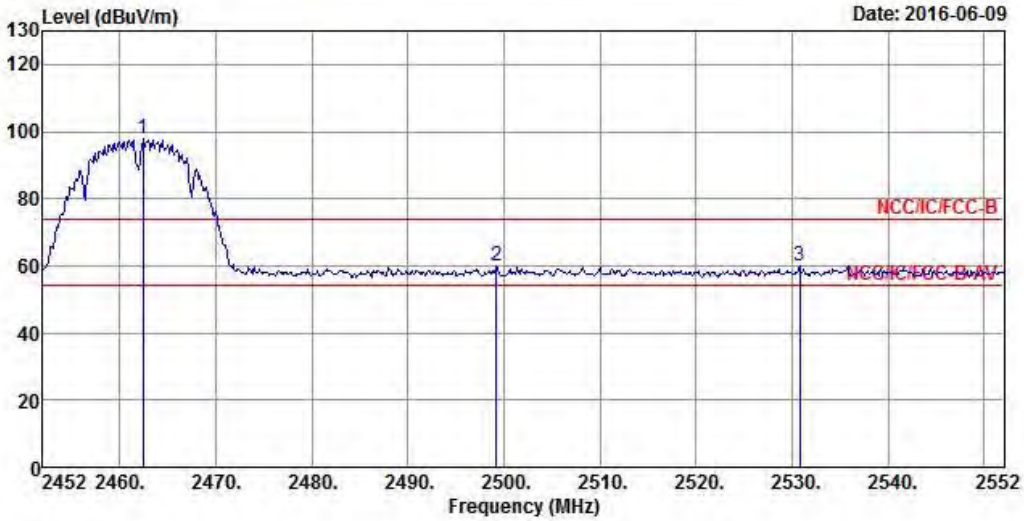
## Transmitter Radiated Bandedge Emissions (Non-restricted Band)

| Transmitter Radiated Bandedge Emissions | | | |
|---|---|---|---|
| **Modulation Mode** | 11b | **Test Freq. (MHz)** | 2412 |
| **$N_{TX}$** | 1 | **Polarization** | H |



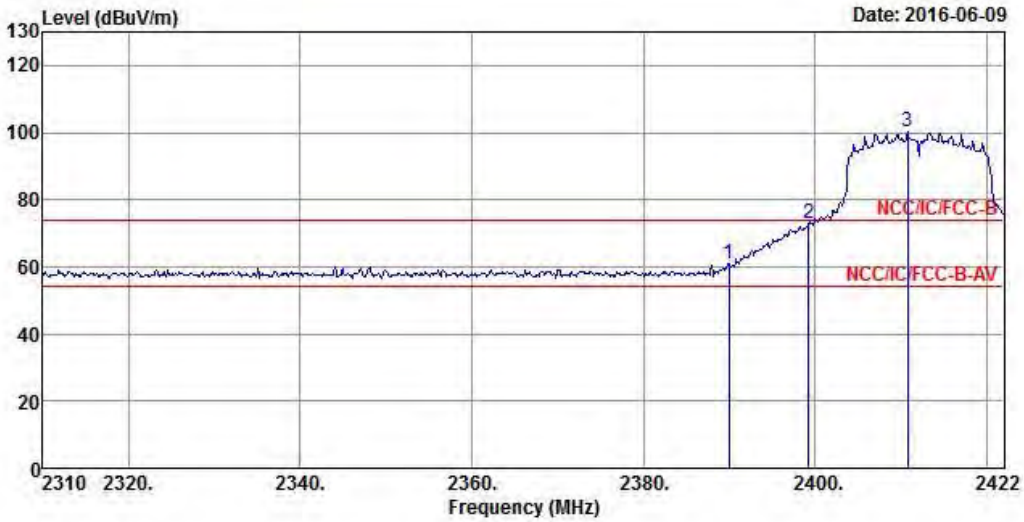

| | Freq | Level | Over Limit | Limit Line | ReadAntenna Level | Antenna Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | |
| 1 | 2360.624 | 59.60 | -14.40 | 74.00 | 28.70 | 27.09 | 3.81 | 0.00 | Peak |
| 2 | 2398.704 | 58.93 | -15.07 | 74.00 | 27.91 | 27.18 | 3.84 | 0.00 | Peak |
| 3 * | 2410.576 | 97.72 | 23.72 | 74.00 | 66.67 | 27.20 | 3.85 | 0.00 | Peak |

| Transmitter Radiated Bandedge Emissions | | | |
|---|---|---|---|
| **Modulation Mode** | 11b | **Test Freq. (MHz)** | 2462 |
| **$N_{TX}$** | 1 | **Polarization** | H |



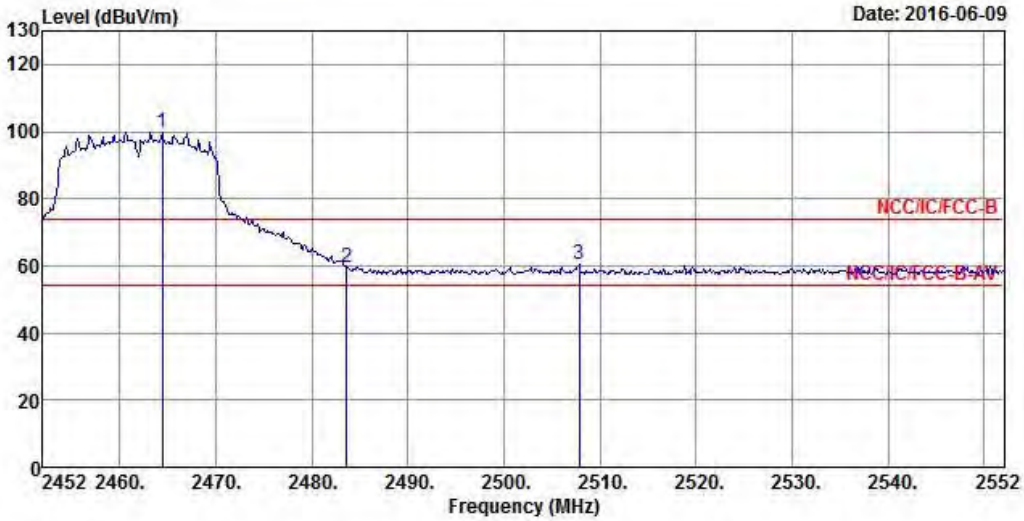

| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | |
| 1 * | 2462.400 | 97.83 | 23.83 | 74.00 | 66.62 | 27.32 | 3.89 | 0.00 | Peak |
| 2 | 2499.200 | 60.17 | -13.83 | 74.00 | 28.85 | 27.40 | 3.92 | 0.00 | Peak |
| 3 | 2530.800 | 59.74 | -14.26 | 74.00 | 28.33 | 27.47 | 3.94 | 0.00 | Peak |

| Modulation Mode | 11g | Test Freq. (MHz) | 2412 |
|---|---|---|---|
| $N_{TX}$ | 1 | Polarization | H |



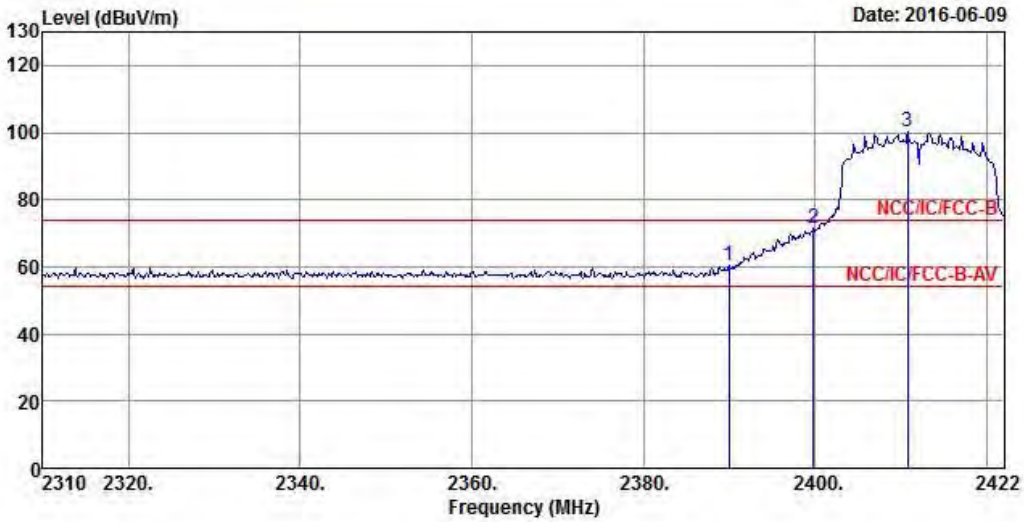

| | Freq | Level | Over Limit | Limit Line | ReadAntenna Level | Antenna Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | |
| 1 | 2389.968 | 60.92 | -13.08 | 74.00 | 29.93 | 27.16 | 3.83 | 0.00 | Peak |
| 2 | 2399.264 | 72.74 | -1.26 | 74.00 | 41.72 | 27.18 | 3.84 | 0.00 | Peak |
| 3 * | 2410.800 | 100.40 | 26.40 | 74.00 | 69.35 | 27.20 | 3.85 | 0.00 | Peak |

| Transmitter Radiated Bandedge Emissions | | | |
|---|---|---|---|
| **Modulation Mode** | 11g | **Test Freq. (MHz)** | 2462 |
| **$N_{TX}$** | 1 | **Polarization** | H |



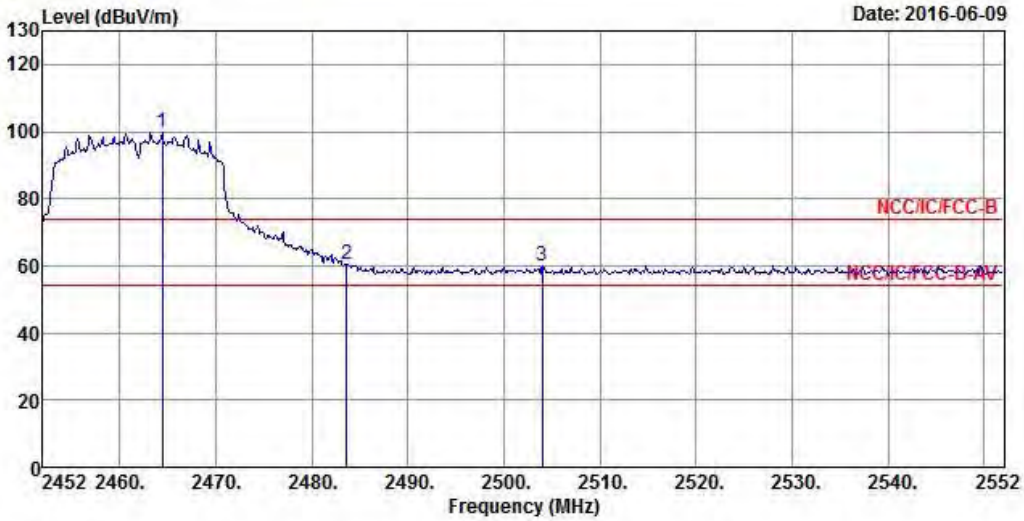

| | Freq | Level | Over Limit | Limit Line | ReadAntenna Level | Antenna Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | |
| 1 * | 2464.400 | 99.69 | 25.69 | 74.00 | 68.48 | 27.32 | 3.89 | 0.00 | Peak |
| 2 | 2483.600 | 59.70 | -14.30 | 74.00 | 28.43 | 27.36 | 3.91 | 0.00 | Peak |
| 3 | 2507.800 | 60.33 | -13.67 | 74.00 | 28.98 | 27.42 | 3.93 | 0.00 | Peak |

| Modulation Mode | HT20 | Test Freq. (MHz) | 2412 |
|---|---|---|---|
| $N_{TX}$ | 1 | Polarization | H |



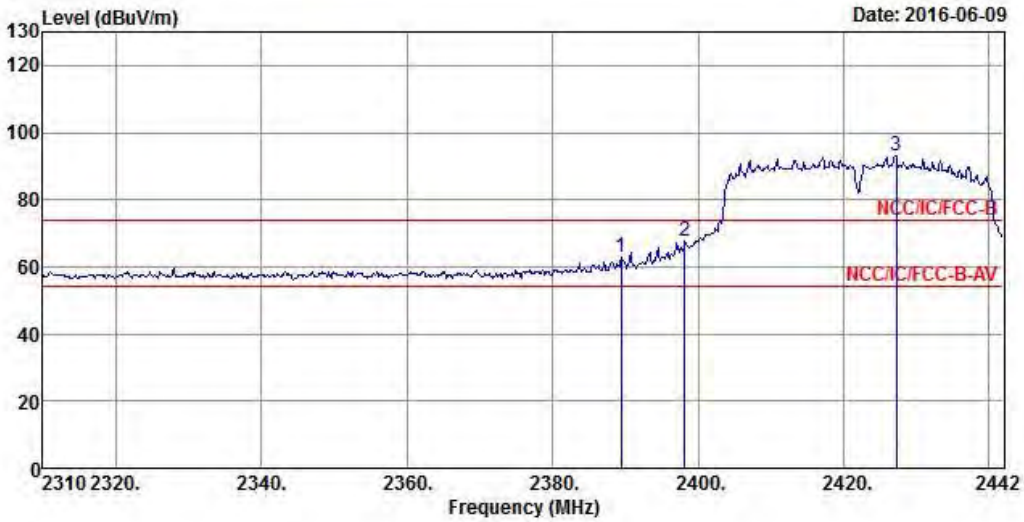

| | Freq | Level | Over Limit | Limit Line | ReadLevel | Antenna Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | |
| 1 | 2389.968 | 60.32 | -13.68 | 74.00 | 29.33 | 27.16 | 3.83 | 0.00 | Peak |
| 2 | 2399.824 | 71.39 | -2.61 | 74.00 | 40.37 | 27.18 | 3.84 | 0.00 | Peak |
| 3 * | 2410.800 | 100.23 | 26.23 | 74.00 | 69.18 | 27.20 | 3.85 | 0.00 | Peak |

| Transmitter Radiated Bandedge Emissions | | | |
|---|---|---|---|
| **Modulation Mode** | HT20 | **Test Freq. (MHz)** | 2462 |
| **$N_{TX}$** | 1 | **Polarization** | H |



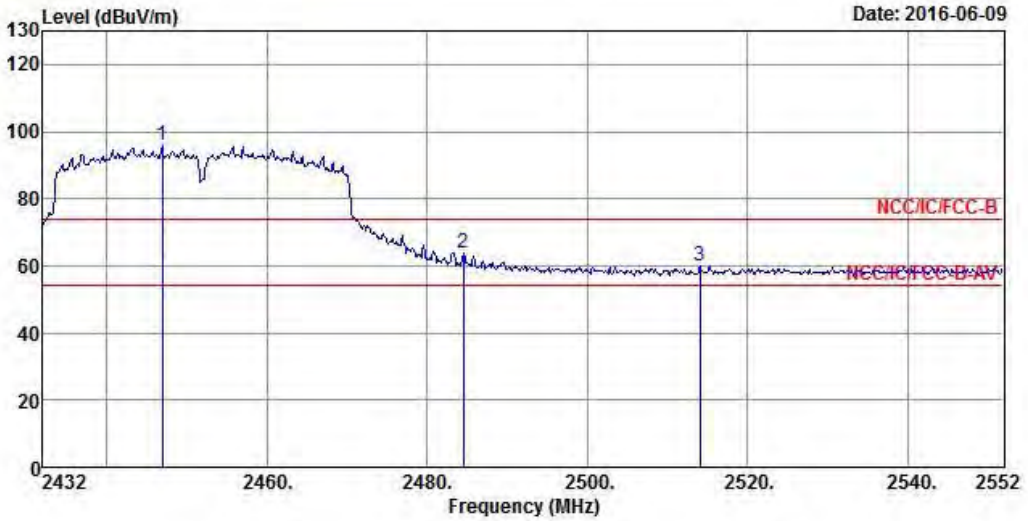

| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | |
| 1 * | 2464.400 | 99.61 | 25.61 | 74.00 | 68.40 | 27.32 | 3.89 | 0.00 | Peak |
| 2 | 2483.600 | 60.39 | -13.61 | 74.00 | 29.12 | 27.36 | 3.91 | 0.00 | Peak |
| 3 | 2504.000 | 60.20 | -13.80 | 74.00 | 28.87 | 27.41 | 3.92 | 0.00 | Peak |

| Modulation Mode | HT40 | Test Freq. (MHz) | 2422 |
|---|---|---|---|
| $N_{TX}$ | 1 | Polarization | H |




| | Freq | Level | Over Limit | Limit Line | ReadAntenna Level | Antenna Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | |
| 1 | 2389.464 | 62.81 | -11.19 | 74.00 | 31.82 | 27.16 | 3.83 | 0.00 | Peak |
| 2 | 2398.176 | 67.64 | -6.36 | 74.00 | 36.62 | 27.18 | 3.84 | 0.00 | Peak |
| 3 * | 2427.216 | 93.11 | 19.11 | 74.00 | 62.01 | 27.24 | 3.86 | 0.00 | Peak |

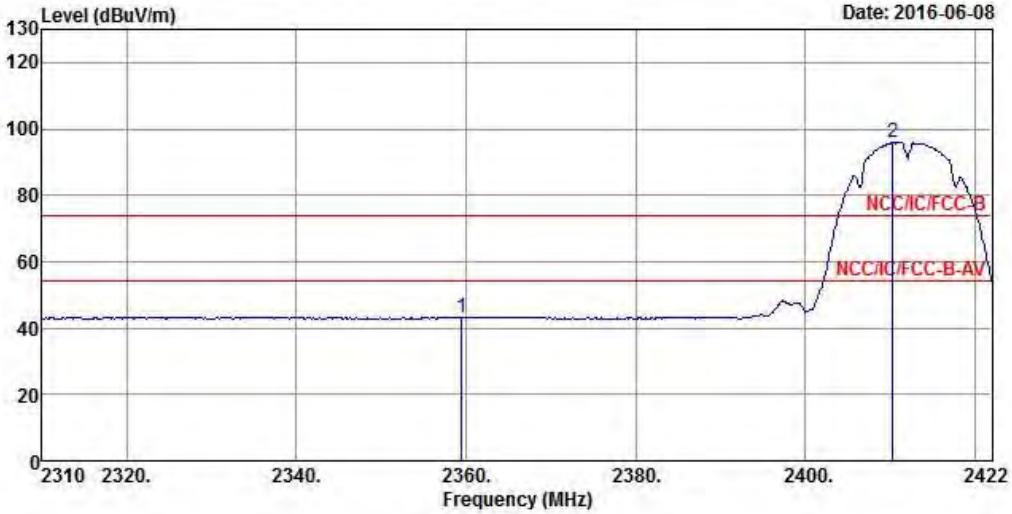
| Transmitter Radiated Bandedge Emissions | | | |
|---|---|---|---|
| **Modulation Mode** | HT40 | **Test Freq. (MHz)** | 2452 |
| **$N_{TX}$** | 1 | **Polarization** | H |




| | Freq | Level | Over Limit | Limit Line | ReadLevel | Antenna Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | |
| 1 * | 2446.880 | 95.78 | 21.78 | 74.00 | 64.62 | 27.28 | 3.88 | 0.00 | Peak |
| 2 | 2484.560 | 63.77 | -10.23 | 74.00 | 32.49 | 27.37 | 3.91 | 0.00 | Peak |
| 3 | 2514.080 | 60.08 | -13.92 | 74.00 | 28.72 | 27.43 | 3.93 | 0.00 | Peak |

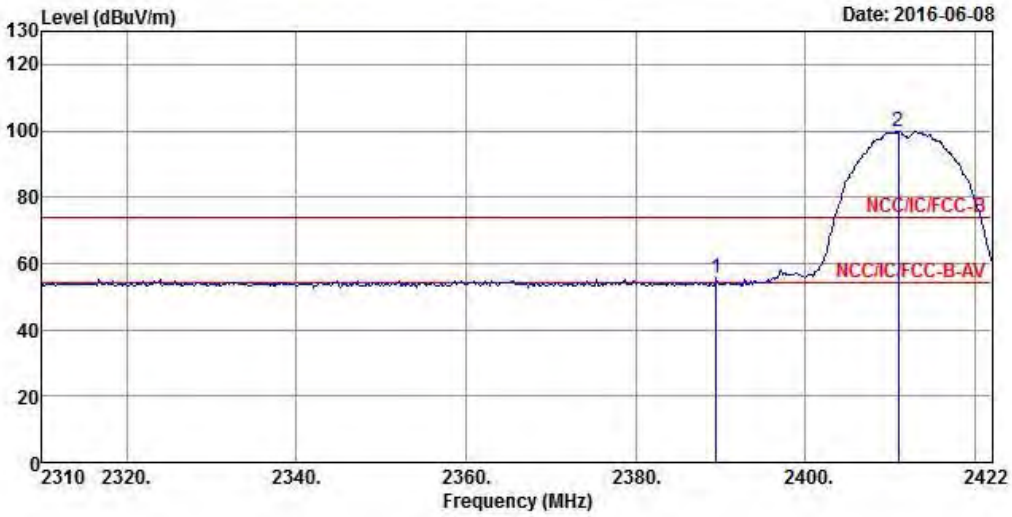
## Transmitter Radiated Bandedge Emissions (Restricted Band)

| Transmitter Radiated Bandedge Emissions | | | |
|---|---|---|---|
| **Modulation Mode** | 11b | **Test Freq. (MHz)** | 2412 |
| **$N_{TX}$** | 1 | **Polarization** | H |



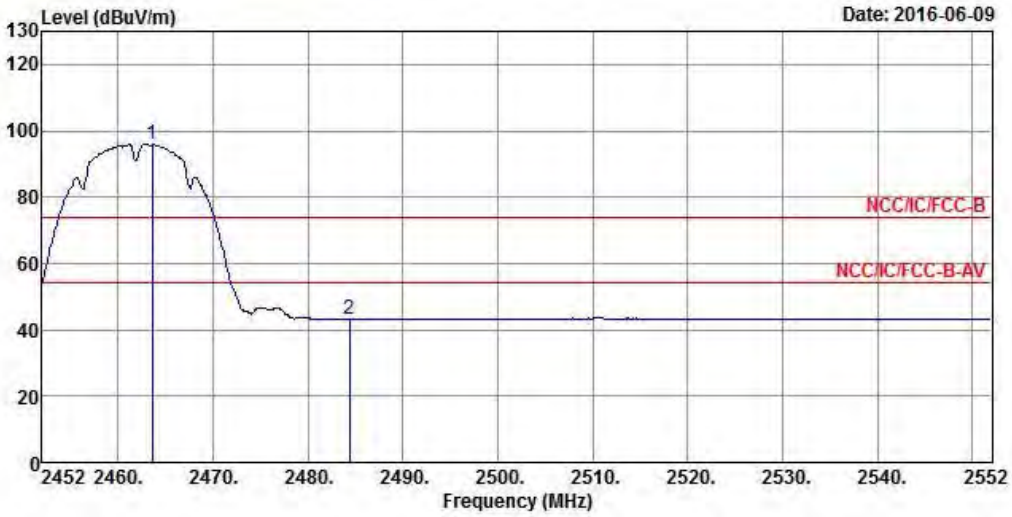

| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | |
| 1 | 2359.504 | 43.25 | -10.75 | 54.00 | 12.35 | 27.09 | 3.81 | 0.00 | Average |
| 2 * | 2410.352 | 96.11 | 42.11 | 54.00 | 65.06 | 27.20 | 3.85 | 0.00 | Average |

| Transmitter Radiated Bandedge Emissions | | | |
|---|---|---|---|
| **Modulation Mode** | 11b | **Test Freq. (MHz)** | 2412 |
| **$N_{TX}$** | 1 | **Polarization** | H |



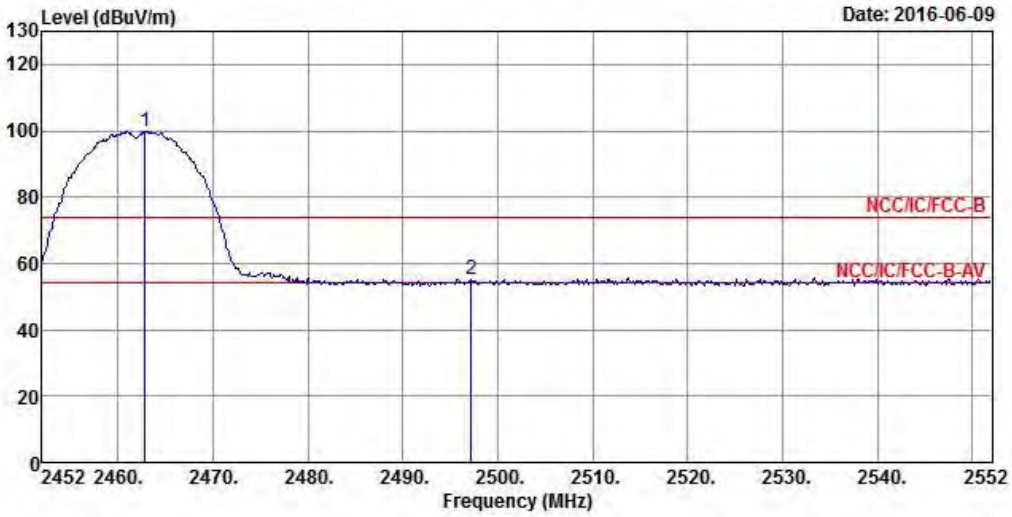

| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | |
| 1 | 2389.520 | 55.45 | -18.55 | 74.00 | 24.46 | 27.16 | 3.83 | 0.00 | Peak |
| 2 * | 2411.024 | 99.99 | 25.99 | 74.00 | 68.94 | 27.20 | 3.85 | 0.00 | Peak |

| Transmitter Radiated Bandedge Emissions | | | |
|---|---|---|---|
| **Modulation Mode** | 11b | **Test Freq. (MHz)** | 2462 |
| **$N_{TX}$** | 1 | **Polarization** | H |



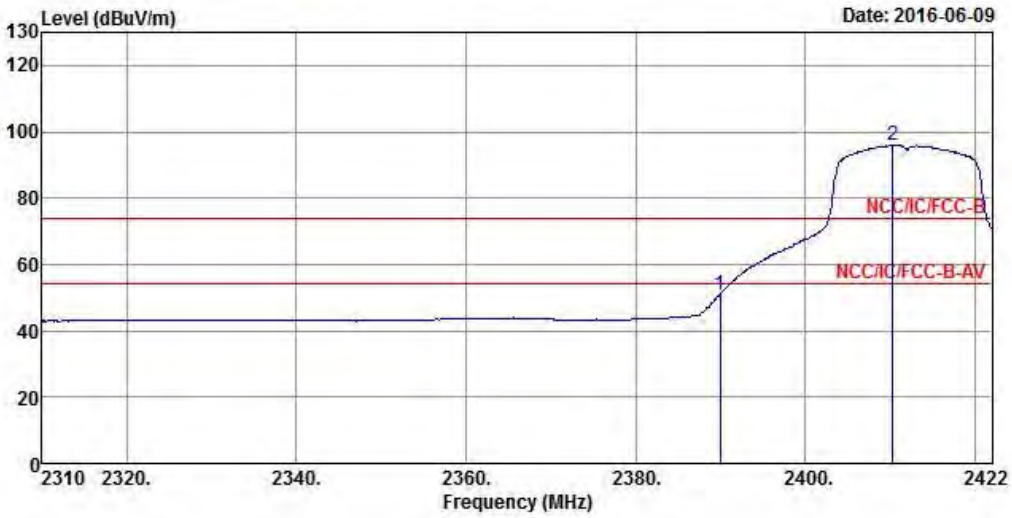

| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | |
| 1 * | 2463.600 | 95.95 | 41.95 | 54.00 | 64.74 | 27.32 | 3.89 | 0.00 | Average |
| 2 | 2484.400 | 43.32 | -10.68 | 54.00 | 12.04 | 27.37 | 3.91 | 0.00 | Average |

| Transmitter Radiated Bandedge Emissions | | | |
|---|---|---|---|
| **Modulation Mode** | 11b | **Test Freq. (MHz)** | 2462 |
| **$N_{TX}$** | 1 | **Polarization** | H |



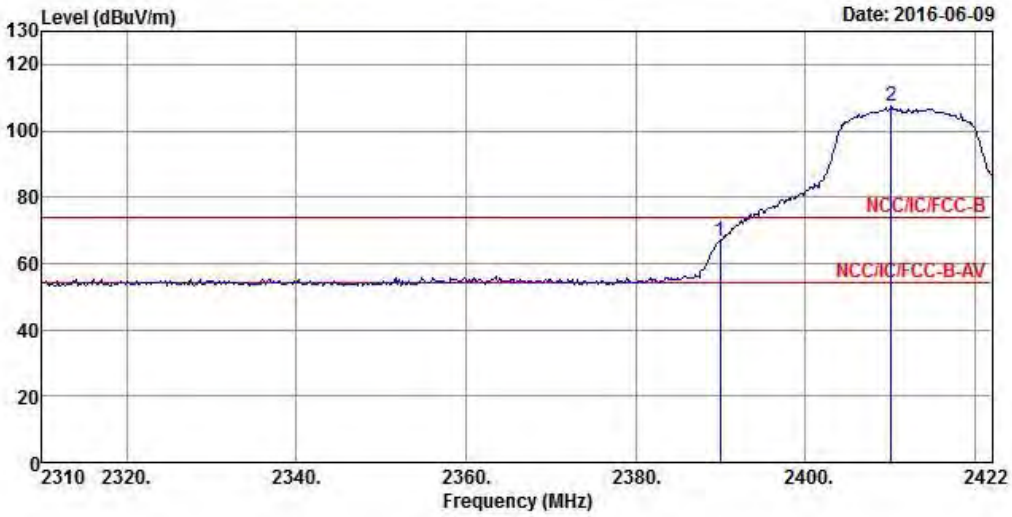

| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | |
| 1 * | 2462.800 | 99.98 | 25.98 | 74.00 | 68.77 | 27.32 | 3.89 | 0.00 | Peak |
| 2 | 2497.200 | 55.20 | -18.80 | 74.00 | 23.89 | 27.39 | 3.92 | 0.00 | Peak |

| Transmitter Radiated Bandedge Emissions | | | |
|---|---|---|---|
| **Modulation Mode** | 11g | **Test Freq. (MHz)** | 2412 |
| **$N_{TX}$** | 1 | **Polarization** | H |



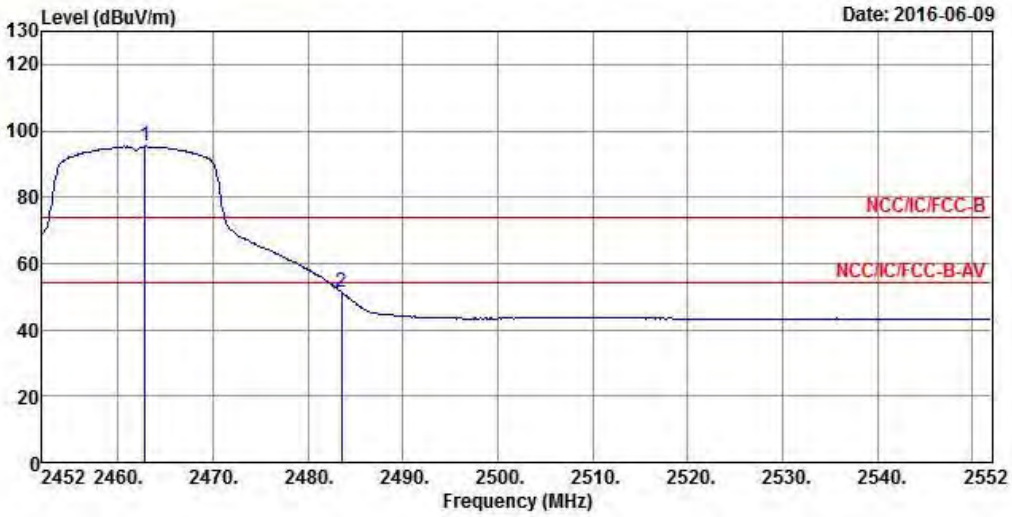

| | Freq | Level | Over Limit | Limit Line | ReadLevel | Antenna Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | |
| 1 | 2389.968 | 50.93 | -3.07 | 54.00 | 19.94 | 27.16 | 3.83 | 0.00 | Average |
| 2 * | 2410.352 | 95.98 | 41.98 | 54.00 | 64.93 | 27.20 | 3.85 | 0.00 | Average |

| Transmitter Radiated Bandedge Emissions | | | |
|---|---|---|---|
| **Modulation Mode** | 11g | **Test Freq. (MHz)** | 2412 |
| **$N_{TX}$** | 1 | **Polarization** | H |



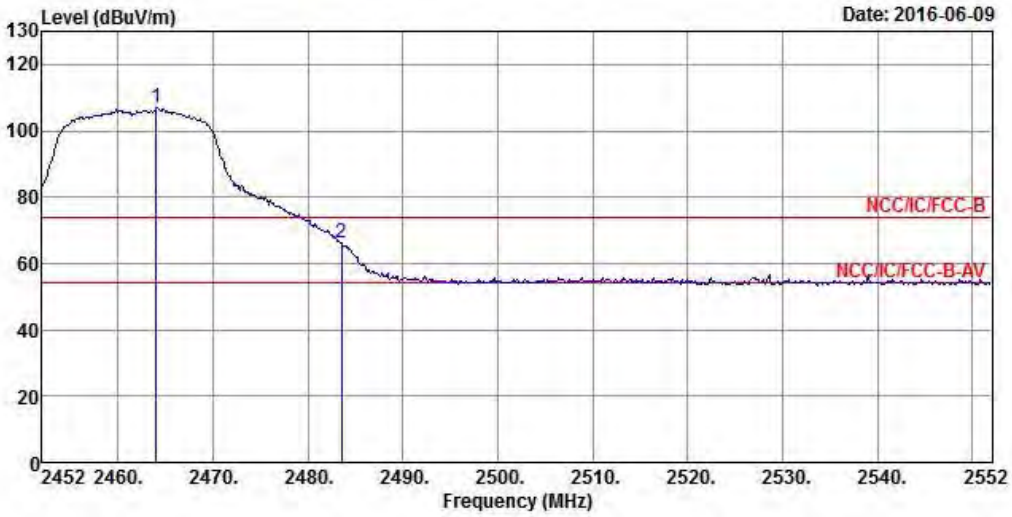

| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | |
| 1 | 2389.968 | 66.88 | -7.12 | 74.00 | 35.89 | 27.16 | 3.83 | 0.00 | Peak |
| 2 * | 2410.128 | 107.26 | 33.26 | 74.00 | 76.21 | 27.20 | 3.85 | 0.00 | Peak |

| Transmitter Radiated Bandedge Emissions | | | |
|---|---|---|---|
| **Modulation Mode** | 11g | **Test Freq. (MHz)** | 2462 |
| **$N_{TX}$** | 1 | **Polarization** | H |



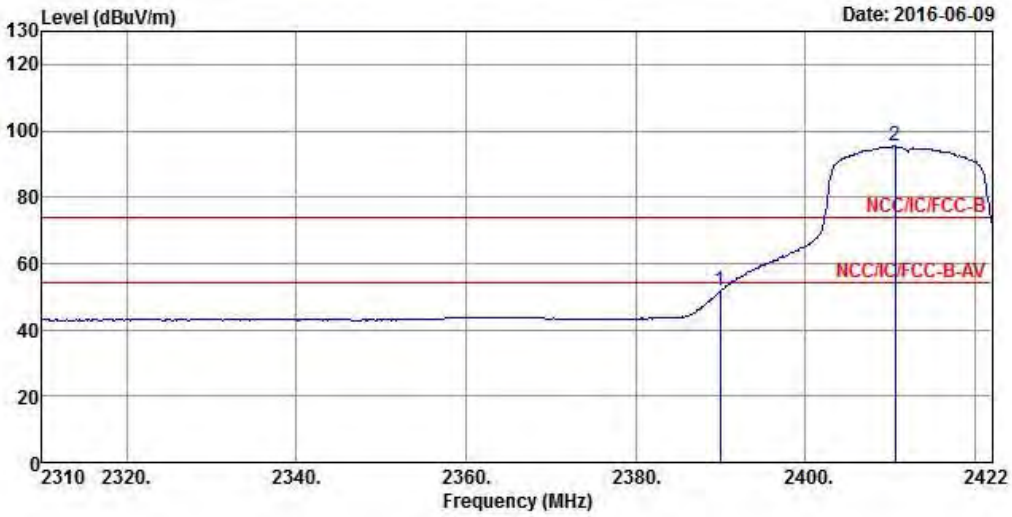

| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | |
| 1 * | 2462.800 | 95.24 | 41.24 | 54.00 | 64.03 | 27.32 | 3.89 | 0.00 | Average |
| 2 | 2483.500 | 51.38 | -2.62 | 54.00 | 20.11 | 27.36 | 3.91 | 0.00 | Average |

| Transmitter Radiated Bandedge Emissions | | | |
|---|---|---|---|
| **Modulation Mode** | 11g | **Test Freq. (MHz)** | 2462 |
| **$N_{TX}$** | 1 | **Polarization** | H |



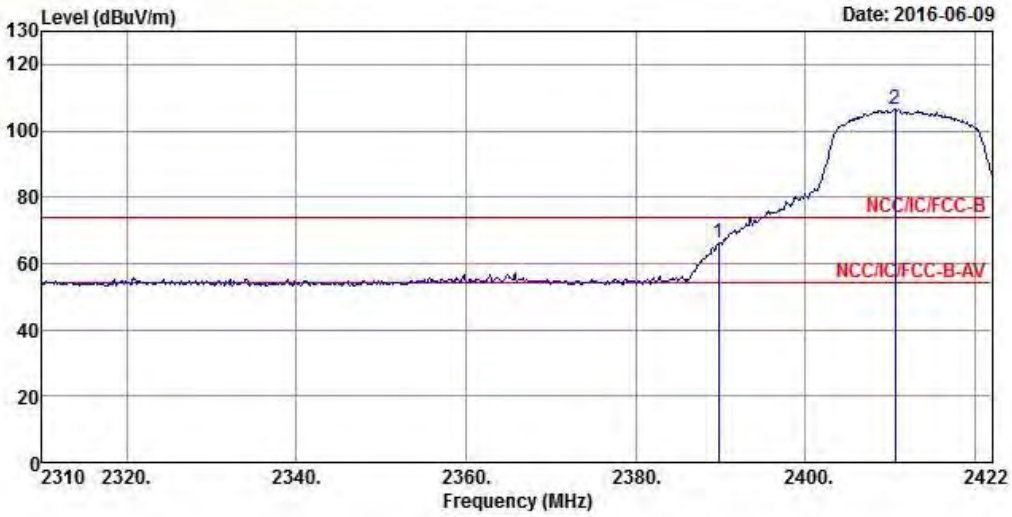

| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | |
| 1 * | 2464.000 | 106.91 | 32.91 | 74.00 | 75.70 | 27.32 | 3.89 | 0.00 | Peak |
| 2 | 2483.500 | 66.00 | -8.00 | 74.00 | 34.73 | 27.36 | 3.91 | 0.00 | Peak |

| Transmitter Radiated Bandedge Emissions | | | |
|---|---|---|---|
| **Modulation Mode** | HT20 | **Test Freq. (MHz)** | 2412 |
| **$N_{TX}$** | 1 | **Polarization** | H |



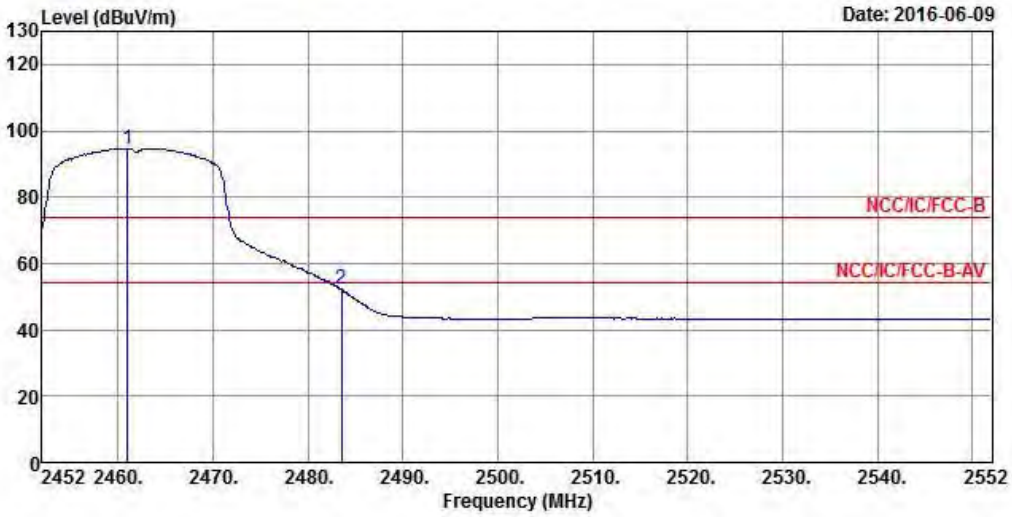

| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | |
| 1 | 2389.968 | 51.81 | -2.19 | 54.00 | 20.82 | 27.16 | 3.83 | 0.00 | Average |
| 2 * | 2410.576 | 95.40 | 41.40 | 54.00 | 64.35 | 27.20 | 3.85 | 0.00 | Average |

| Transmitter Radiated Bandedge Emissions | | | |
|---|---|---|---|
| **Modulation Mode** | HT20 | **Test Freq. (MHz)** | 2412 |
| **$N_{TX}$** | 1 | **Polarization** | H |



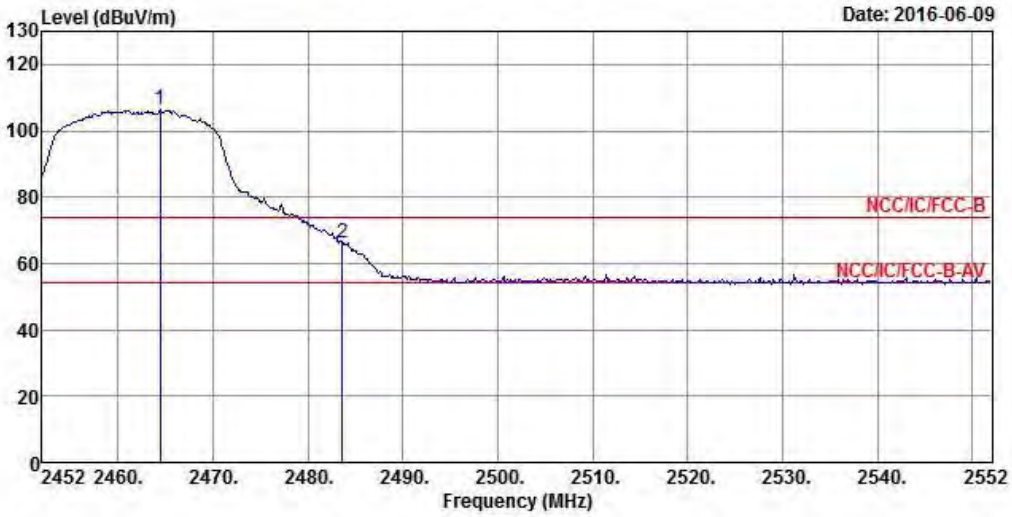

| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | |
| 1 | 2389.744 | 66.40 | -7.60 | 74.00 | 35.41 | 27.16 | 3.83 | 0.00 | Peak |
| 2 * | 2410.576 | 106.50 | 32.50 | 74.00 | 75.45 | 27.20 | 3.85 | 0.00 | Peak |

| Transmitter Radiated Bandedge Emissions | | | |
|---|---|---|---|
| **Modulation Mode** | HT20 | **Test Freq. (MHz)** | 2462 |
| **$N_{TX}$** | 1 | **Polarization** | H |



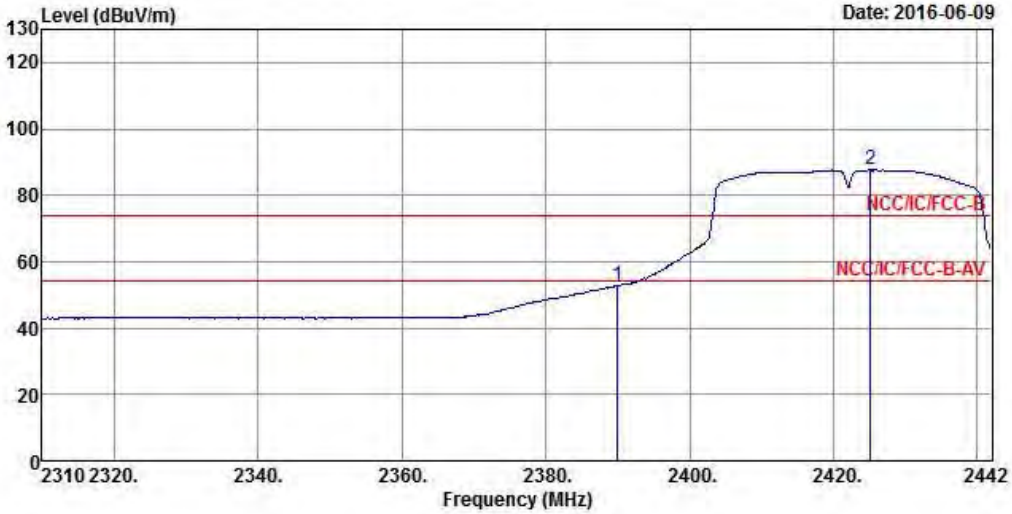

| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | |
| 1 * | 2461.000 | 94.73 | 40.73 | 54.00 | 63.53 | 27.31 | 3.89 | 0.00 | Average |
| 2 | 2483.500 | 52.11 | -1.89 | 54.00 | 20.84 | 27.36 | 3.91 | 0.00 | Average |

| Transmitter Radiated Bandedge Emissions | | | |
|---|---|---|---|
| **Modulation Mode** | HT20 | **Test Freq. (MHz)** | 2462 |
| **$N_{TX}$** | 1 | **Polarization** | H |



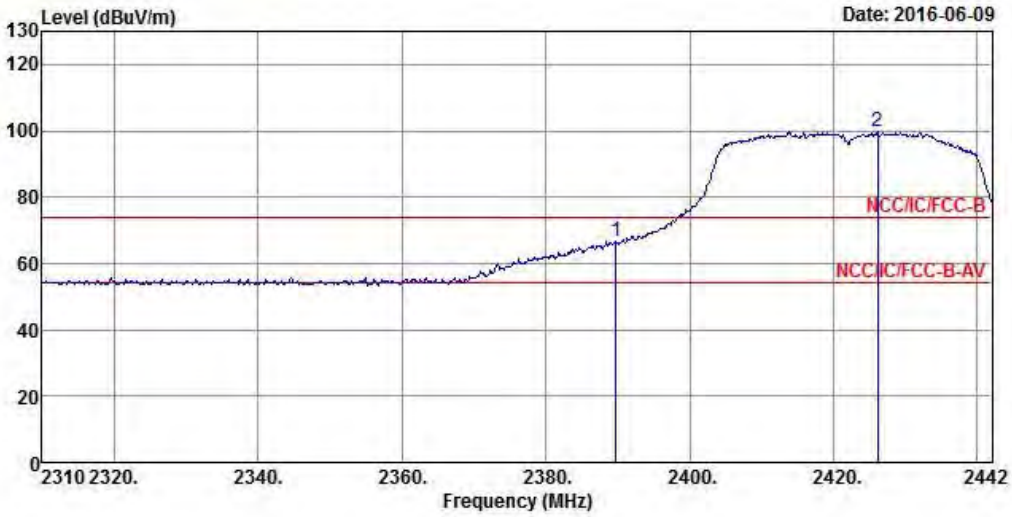

| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | |
| 1 * | 2464.400 | 106.34 | 32.34 | 74.00 | 75.13 | 27.32 | 3.89 | 0.00 | Peak |
| 2 | 2483.600 | 66.36 | -7.64 | 74.00 | 35.09 | 27.36 | 3.91 | 0.00 | Peak |

| Transmitter Radiated Bandedge Emissions | | | |
|---|---|---|---|
| **Modulation Mode** | HT40 | **Test Freq. (MHz)** | 2422 |
| **$N_{TX}$** | 1 | **Polarization** | H |



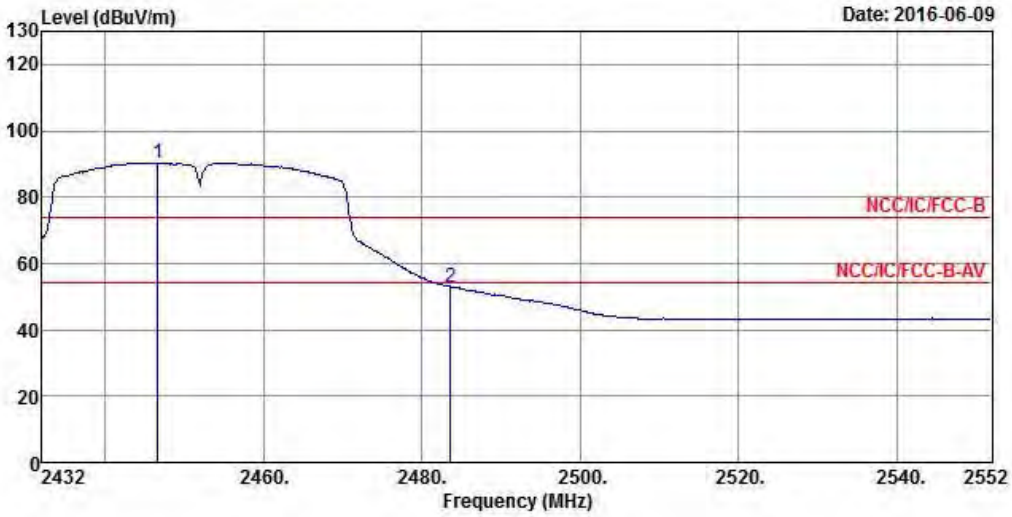

| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | |
| 1 | 2389.992 | 52.77 | -1.23 | 54.00 | 21.78 | 27.16 | 3.83 | 0.00 | Average |
| 2 * | 2425.104 | 87.78 | 33.78 | 54.00 | 56.68 | 27.24 | 3.86 | 0.00 | Average |

| Transmitter Radiated Bandedge Emissions | | | |
|---|---|---|---|
| **Modulation Mode** | HT40 | **Test Freq. (MHz)** | 2422 |
| **$N_{TX}$** | 1 | **Polarization** | H |



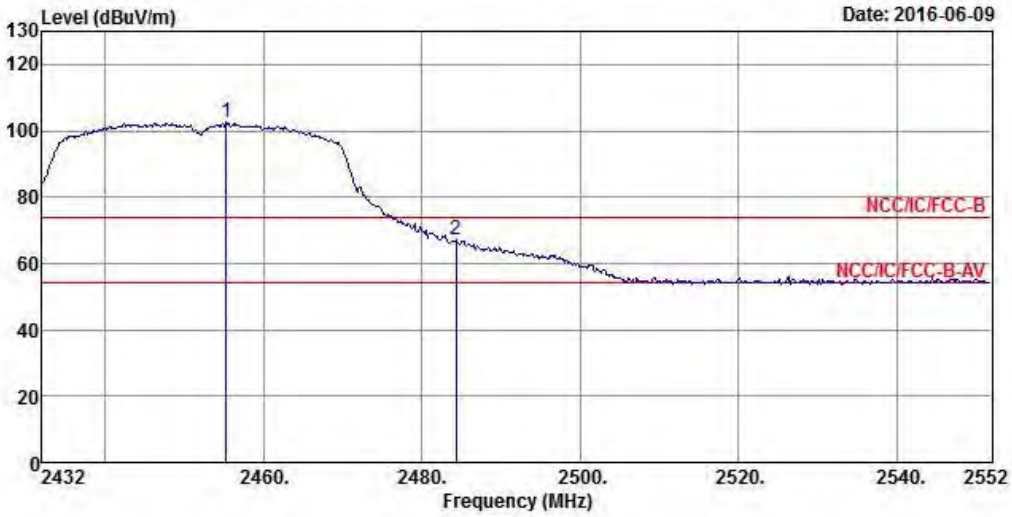

| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | |
| 1 | 2389.728 | 66.77 | -7.23 | 74.00 | 35.78 | 27.16 | 3.83 | 0.00 | Peak |
| 2 * | 2426.160 | 99.56 | 25.56 | 74.00 | 68.46 | 27.24 | 3.86 | 0.00 | Peak |

| Transmitter Radiated Bandedge Emissions | | | |
|---|---|---|---|
| **Modulation Mode** | HT40 | **Test Freq. (MHz)** | 2452 |
| **$N_{TX}$** | 1 | **Polarization** | H |




| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | |
| 1 * | 2446.640 | 90.25 | 36.25 | 54.00 | 59.09 | 27.28 | 3.88 | 0.00 | Average |
| 2 | 2483.600 | 52.90 | -1.10 | 54.00 | 21.63 | 27.36 | 3.91 | 0.00 | Average |

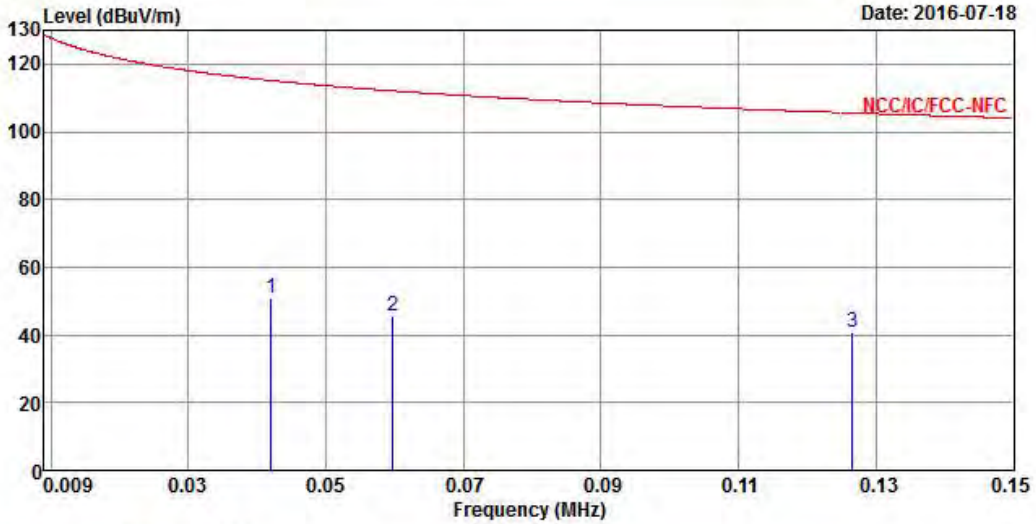
| Transmitter Radiated Bandedge Emissions | | | |
|---|---|---|---|
| **Modulation Mode** | HT40 | **Test Freq. (MHz)** | 2452 |
| **$N_{TX}$** | 1 | **Polarization** | H |




| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | |
| 1 * | 2455.280 | 102.61 | 28.61 | 74.00 | 71.43 | 27.30 | 3.88 | 0.00 | Peak |
| 2 | 2484.320 | 66.98 | -7.02 | 74.00 | 35.70 | 27.37 | 3.91 | 0.00 | Peak |

## Transmitter Radiated Unwanted Emissions (Below 1GHz)

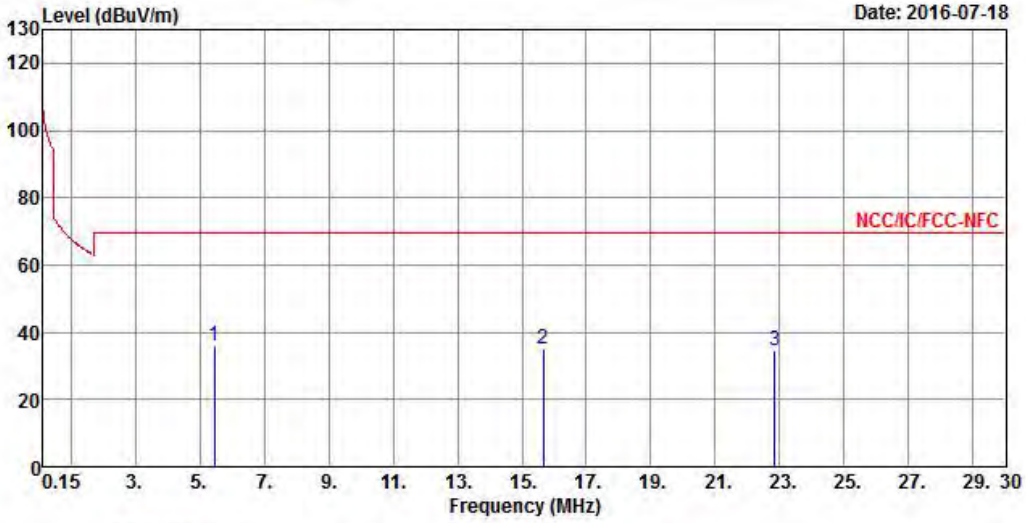
| Radiated Unwanted Emissions (Below 1GHz) | | | |
|---|---|---|---|
| **Operating Mode** | 1 | **Polarization** | H |
| **Operating Function** | Transmit Mode | | |




| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | |
| 1 | 0.042 | 50.74 | -64.40 | 115.14 | 29.69 | 20.90 | 0.15 | 0.00 | Peak |
| 2 | 0.060 | 45.54 | -66.54 | 112.08 | 24.39 | 21.00 | 0.15 | 0.00 | Peak |
| 3 | 0.127 | 40.92 | -64.64 | 105.56 | 19.70 | 21.06 | 0.16 | 0.00 | Peak |

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

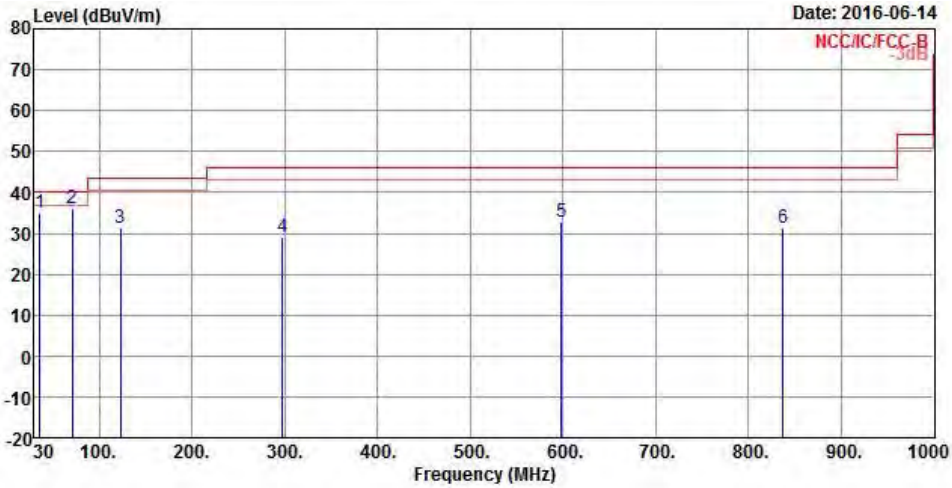
| Radiated Unwanted Emissions (Below 1GHz) | | | |
|---|---|---|---|
| **Operating Mode** | 1 | **Polarization** | H |
| **Operating Function** | Transmit Mode | | |




| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | |
| 1 | 5.463 | 36.12 | -33.42 | 69.54 | 14.80 | 20.94 | 0.38 | 0.00 | Peak |
| 2 | 15.672 | 34.87 | -34.67 | 69.54 | 12.92 | 21.41 | 0.54 | 0.00 | Peak |
| 3 | 22.836 | 34.31 | -35.23 | 69.54 | 12.04 | 21.56 | 0.71 | 0.00 | Peak |

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

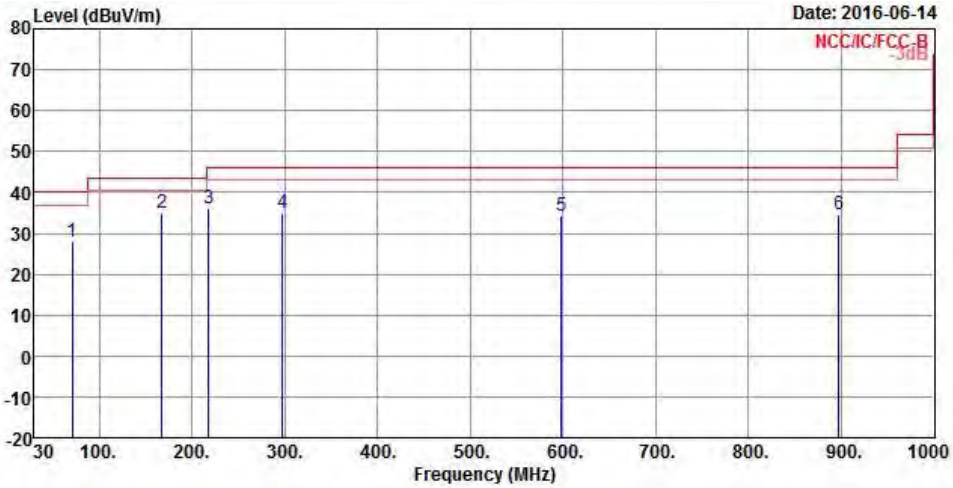
| Radiated Unwanted Emissions (Below 1GHz) | | | |
|---|---|---|---|
| **Operating Mode** | 1 | **Polarization** | V |
| **Operating Function** | Transmit Mode | | |




| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | |
| 1 | 35.820 | 35.13 | -4.87 | 40.00 | 39.81 | 22.01 | 0.85 | 27.54 | Peak |
| 2 | 70.740 | 35.93 | -4.07 | 40.00 | 49.55 | 12.58 | 1.25 | 27.45 | Peak |
| 3 | 123.120 | 31.29 | -12.21 | 43.50 | 38.08 | 18.77 | 1.72 | 27.28 | Peak |
| 4 | 297.720 | 29.06 | -16.94 | 46.00 | 33.44 | 19.73 | 2.60 | 26.71 | Peak |
| 5 | 598.420 | 32.77 | -13.23 | 46.00 | 31.90 | 24.83 | 4.06 | 28.02 | Peak |
| 6 | 837.040 | 31.29 | -14.71 | 46.00 | 27.30 | 27.01 | 4.66 | 27.68 | Peak |

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

| Radiated Unwanted Emissions (Below 1GHz) | | | |
|---|---|---|---|
| **Operating Mode** | 1 | **Polarization** | H |
| **Operating Function** | Transmit Mode | | |

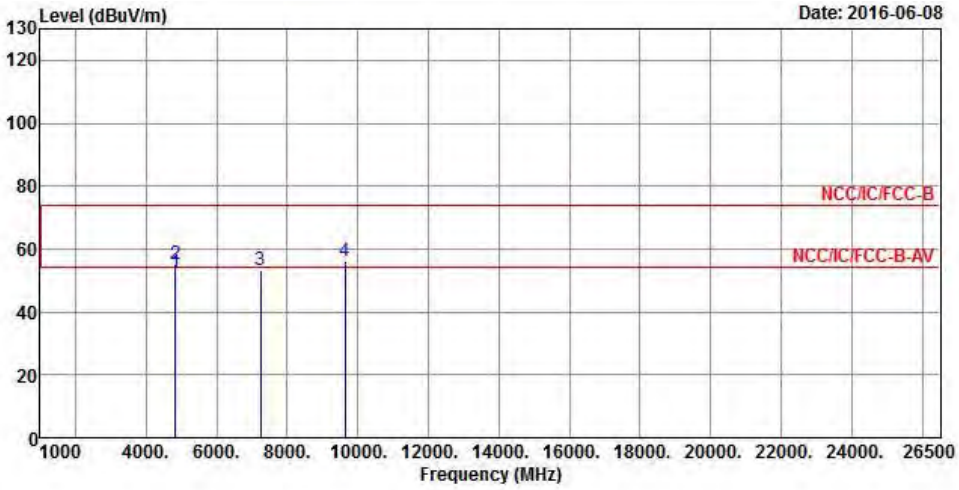



| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | |
| 1 | 70.740 | 27.84 | -12.16 | 40.00 | 41.46 | 12.58 | 1.25 | 27.45 | Peak |
| 2 | 167.740 | 35.14 | -8.36 | 43.50 | 44.11 | 16.06 | 2.04 | 27.07 | Peak |
| 3 | 218.180 | 36.25 | -9.75 | 46.00 | 44.46 | 16.32 | 2.35 | 26.88 | Peak |
| 4 | 297.720 | 34.96 | -11.04 | 46.00 | 39.34 | 19.73 | 2.60 | 26.71 | Peak |
| 5 | 598.420 | 34.22 | -11.78 | 46.00 | 33.35 | 24.83 | 4.06 | 28.02 | Peak |
| 6 | 897.180 | 34.73 | -11.27 | 46.00 | 29.82 | 27.51 | 4.93 | 27.53 | Peak |

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

## Transmitter Radiated Unwanted Emissions (Above 1GHz)

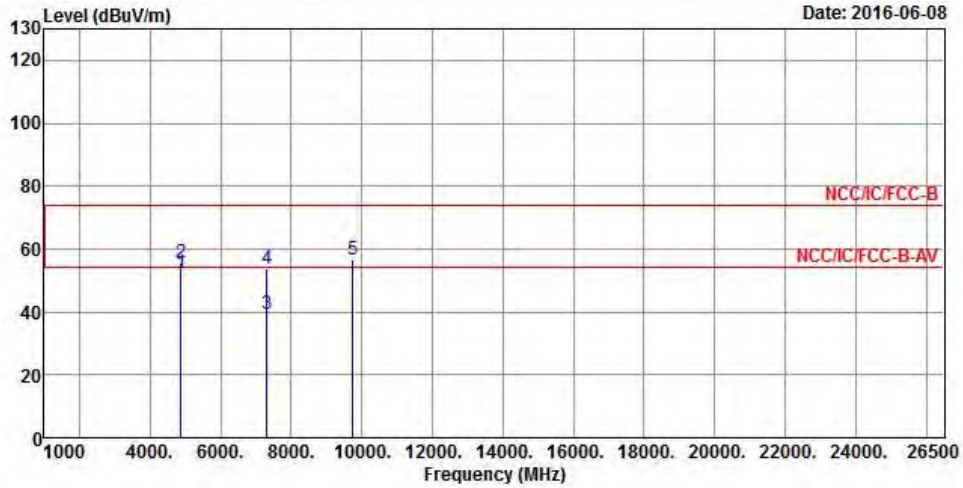
| Transmitter Radiated Unwanted Emissions (Above 1GHz) | | | |
|---|---|---|---|
| **Modulation Mode** | 11b | **Test Freq. (MHz)** | 2412 |
| **$N_{TX}$** | 1 | **Polarization** | V |




| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | |
| 1 | 4824.000 | 52.35 | -1.65 | 54.00 | 48.34 | 31.15 | 5.40 | 32.54 | Average |
| 2 | 4824.000 | 55.01 | -18.99 | 74.00 | 51.00 | 31.15 | 5.40 | 32.54 | Peak |
| 3 | 7236.000 | 53.02 | | | 43.10 | 35.67 | 7.03 | 32.78 | Peak |
| 4 | 9648.000 | 55.90 | | | 42.12 | 38.73 | 8.27 | 33.22 | Peak |

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level (99.99 dBuV/m).
Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

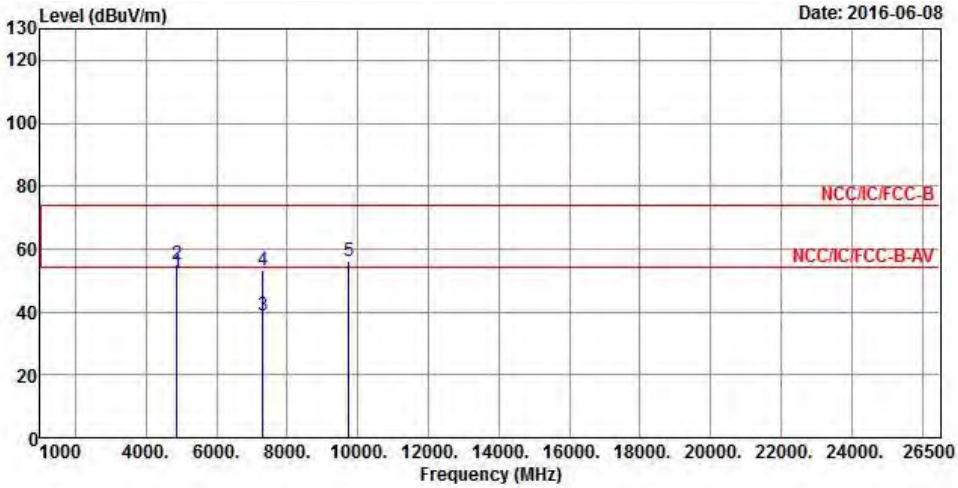
| Transmitter Radiated Unwanted Emissions (Above 1GHz) | | | |
|---|---|---|---|
| **Modulation Mode** | 11b | **Test Freq. (MHz)** | 2412 |
| **$N_{TX}$** | 1 | **Polarization** | H |




| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | |
| 1 | 4874.000 | 52.52 | -1.48 | 54.00 | 48.34 | 31.22 | 5.49 | 32.53 | Average |
| 2 | 4874.000 | 55.50 | -18.50 | 74.00 | 51.32 | 31.22 | 5.49 | 32.53 | Peak |
| 3 | 7311.000 | 39.35 | -14.65 | 54.00 | 29.28 | 35.85 | 7.02 | 32.80 | Average |
| 4 | 7311.000 | 53.67 | -20.33 | 74.00 | 43.60 | 35.85 | 7.02 | 32.80 | Peak |
| 5 | 9748.000 | 56.70 | | | 42.97 | 38.75 | 8.20 | 33.22 | Peak |

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level (99.99dBuV/m).
Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

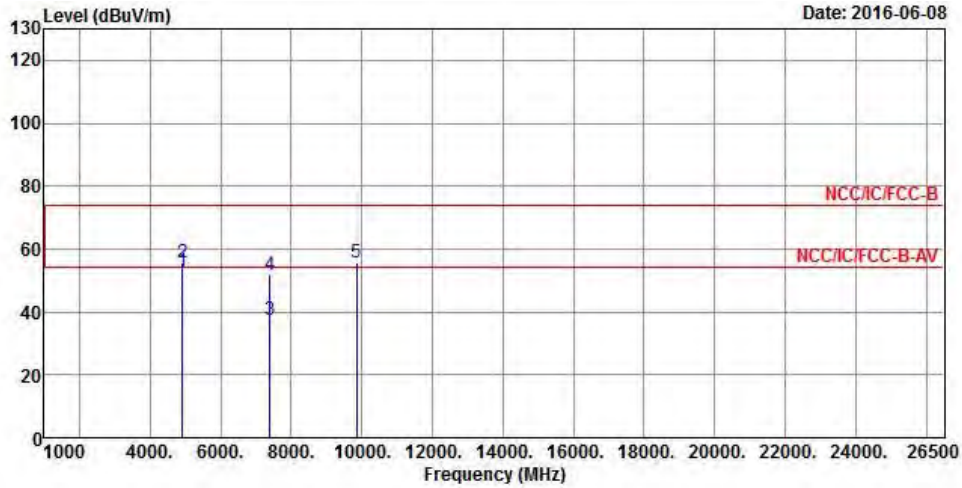
| Transmitter Radiated Unwanted Emissions (Above 1GHz) | | | |
|---|---|---|---|
| **Modulation Mode** | 11b | **Test Freq. (MHz)** | 2437 |
| **$N_{TX}$** | 1 | **Polarization** | V |




| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | |
| 1 | 4874.000 | 52.45 | -1.55 | 54.00 | 48.27 | 31.22 | 5.49 | 32.53 | Average |
| 2 | 4874.000 | 55.26 | -18.74 | 74.00 | 51.08 | 31.22 | 5.49 | 32.53 | Peak |
| 3 | 7311.000 | 39.06 | -14.94 | 54.00 | 28.99 | 35.85 | 7.02 | 32.80 | Average |
| 4 | 7311.000 | 53.18 | -20.82 | 74.00 | 43.11 | 35.85 | 7.02 | 32.80 | Peak |
| 5 | 9748.000 | 56.21 | | | 42.48 | 38.75 | 8.20 | 33.22 | Peak |

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level (98.80 dBuV/m).
Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

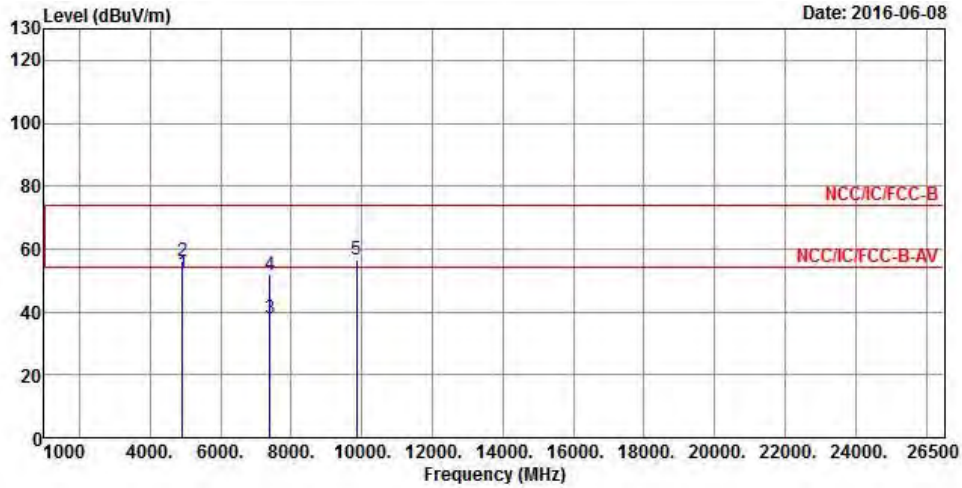
| Transmitter Radiated Unwanted Emissions (Above 1GHz) | | | |
|---|---|---|---|
| **Modulation Mode** | 11b | **Test Freq. (MHz)** | 2437 |
| **$N_{TX}$** | 1 | **Polarization** | H |




| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | |
| 1 | 4924.000 | 52.89 | -1.11 | 54.00 | 48.53 | 31.29 | 5.59 | 32.52 | Average |
| 2 | 4924.000 | 55.73 | -18.27 | 74.00 | 51.37 | 31.29 | 5.59 | 32.52 | Peak |
| 3 | 7386.000 | 37.60 | -16.40 | 54.00 | 27.38 | 36.03 | 7.01 | 32.82 | Average |
| 4 | 7386.000 | 51.74 | -22.26 | 74.00 | 41.52 | 36.03 | 7.01 | 32.82 | Peak |
| 5 | 9848.000 | 55.76 | | | 42.02 | 38.77 | 8.18 | 33.21 | Peak |

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level (98.80 dBuV/m).
Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

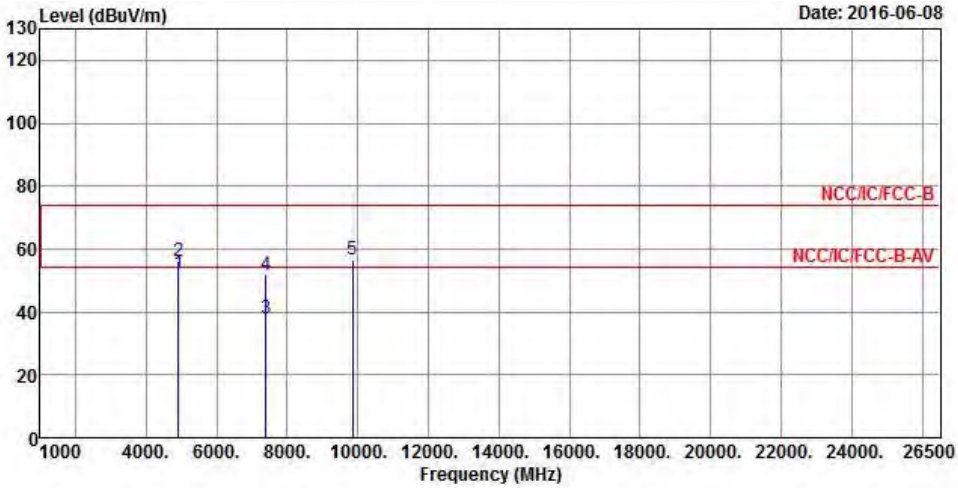
| Transmitter Radiated Unwanted Emissions (Above 1GHz) | | | |
|---|---|---|---|
| **Modulation Mode** | 11b | **Test Freq. (MHz)** | 2462 |
| **$N_{TX}$** | 1 | **Polarization** | V |




| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | |
| 1 | 4924.000 | 52.11 | -1.89 | 54.00 | 47.75 | 31.29 | 5.59 | 32.52 | Average |
| 2 | 4924.000 | 56.04 | -17.96 | 74.00 | 51.68 | 31.29 | 5.59 | 32.52 | Peak |
| 3 | 7386.000 | 37.69 | -16.31 | 54.00 | 27.47 | 36.03 | 7.01 | 32.82 | Average |
| 4 | 7386.000 | 51.64 | -22.36 | 74.00 | 41.42 | 36.03 | 7.01 | 32.82 | Peak |
| 5 | 9848.000 | 56.58 | | | 42.84 | 38.77 | 8.18 | 33.21 | Peak |

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands, unwanted emissions shall be attenuated by at least **20** dB relative to the maximum measured in-band level (99.98 dBuV/m).
Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

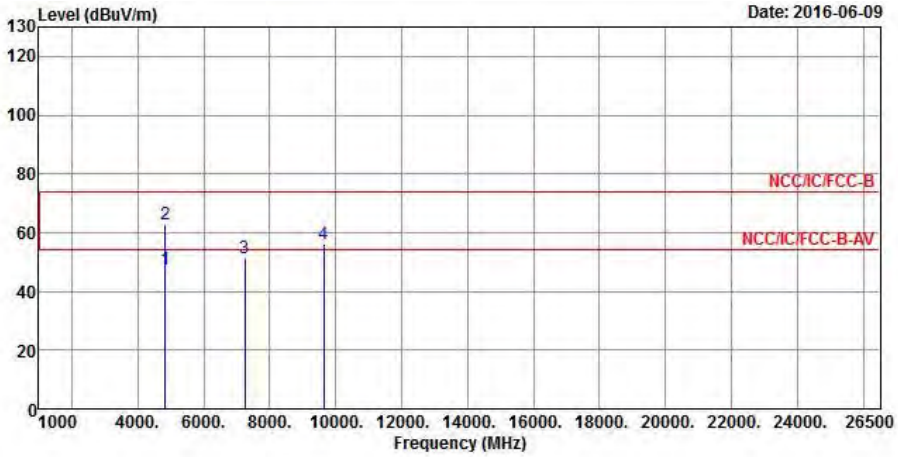
| Transmitter Radiated Unwanted Emissions (Above 1GHz) | | | |
|---|---|---|---|
| **Modulation Mode** | 11b | **Test Freq. (MHz)** | 2462 |
| **$N_{TX}$** | 1 | **Polarization** | H |




| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | |
| 1 | 4924.000 | 52.11 | -1.89 | 54.00 | 47.75 | 31.29 | 5.59 | 32.52 | Average |
| 2 | 4924.000 | 56.04 | -17.96 | 74.00 | 51.68 | 31.29 | 5.59 | 32.52 | Peak |
| 3 | 7386.000 | 37.69 | -16.31 | 54.00 | 27.47 | 36.03 | 7.01 | 32.82 | Average |
| 4 | 7386.000 | 51.64 | -22.36 | 74.00 | 41.42 | 36.03 | 7.01 | 32.82 | Peak |
| 5 | 9848.000 | 56.58 | | | 42.84 | 38.77 | 8.18 | 33.21 | Peak |

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level (99.98dBuV/m).
Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

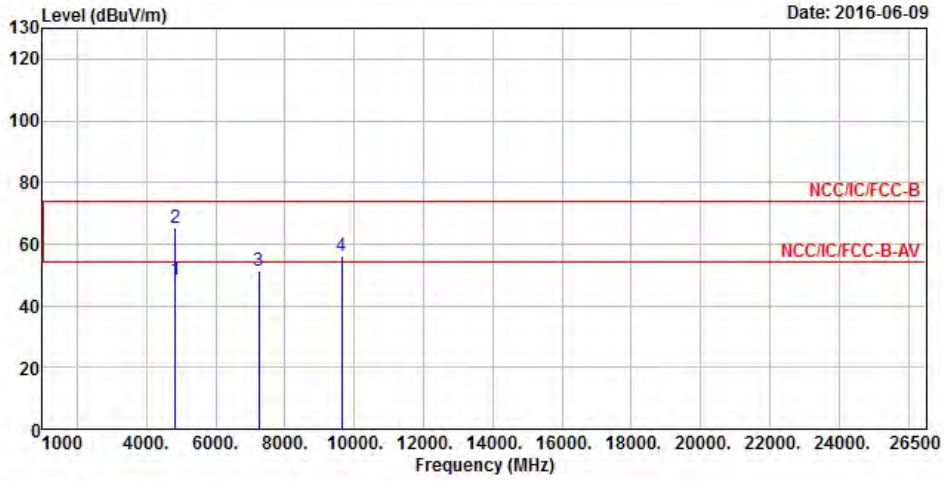
| Transmitter Radiated Unwanted Emissions (Above 1GHz) | | | |
|---|---|---|---|
| **Modulation Mode** | 11g | **Test Freq. (MHz)** | 2412 |
| **$N_{TX}$** | 1 | **Polarization** | V |




| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | |
| 1 | 4824.000 | 47.48 | -6.52 | 54.00 | 43.47 | 31.15 | 5.40 | 32.54 | Average |
| 2 | 4824.000 | 62.72 | -11.28 | 74.00 | 58.71 | 31.15 | 5.40 | 32.54 | Peak |
| 3 | 7236.000 | 51.31 | -22.69 | 74.00 | 41.39 | 35.67 | 7.03 | 32.78 | Peak |
| 4 | 9648.000 | 56.16 | | | 42.38 | 38.73 | 8.27 | 33.22 | Peak |

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level (107.26dBuV/m).
Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

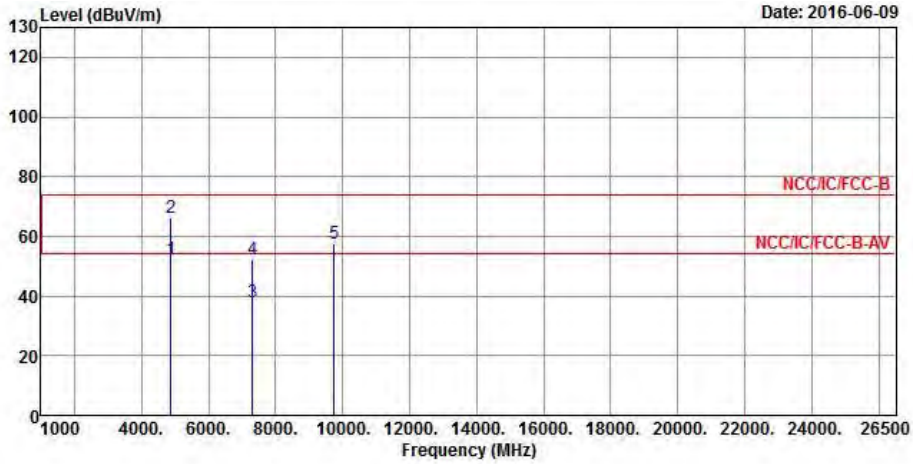
| Transmitter Radiated Unwanted Emissions (Above 1GHz) | | | |
|---|---|---|---|
| **Modulation Mode** | 11g | **Test Freq. (MHz)** | 2412 |
| **$N_{TX}$** | 1 | **Polarization** | H |




| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | |
| 1 | 4824.000 | 48.38 | -5.62 | 54.00 | 44.37 | 31.15 | 5.40 | 32.54 | Average |
| 2 | 4824.000 | 65.20 | -8.80 | 74.00 | 61.19 | 31.15 | 5.40 | 32.54 | Peak |
| 3 | 7236.000 | 51.51 | | | 41.59 | 35.67 | 7.03 | 32.78 | Peak |
| 4 | 9648.000 | 55.99 | | | 42.21 | 38.73 | 8.27 | 33.22 | Peak |

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level (107.26 dBuV/m).
Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

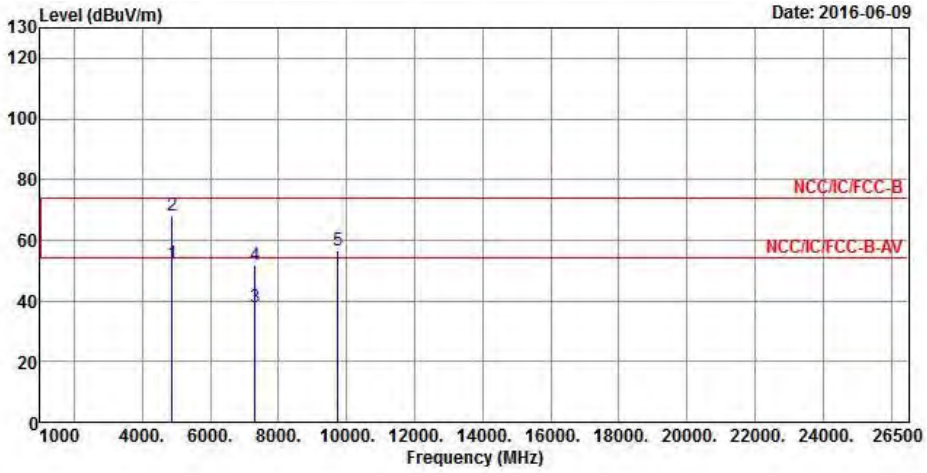
| Transmitter Radiated Unwanted Emissions (Above 1GHz) | | | |
|---|---|---|---|
| **Modulation Mode** | 11g | **Test Freq. (MHz)** | 2437 |
| **$N_{TX}$** | 1 | **Polarization** | V |




| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | |
| 1 | 4874.000 | 52.09 | -1.91 | 54.00 | 47.91 | 31.22 | 5.49 | 32.53 | Average |
| 2 | 4874.000 | 66.16 | -7.84 | 74.00 | 61.98 | 31.22 | 5.49 | 32.53 | Peak |
| 3 | 7311.000 | 37.93 | -16.07 | 54.00 | 27.86 | 35.85 | 7.02 | 32.80 | Average |
| 4 | 7311.000 | 52.09 | -21.91 | 74.00 | 42.02 | 35.85 | 7.02 | 32.80 | Peak |
| 5 | 9748.000 | 57.38 | | | 43.65 | 38.75 | 8.20 | 33.22 | Peak |

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level (109.61 dBuV/m).
Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

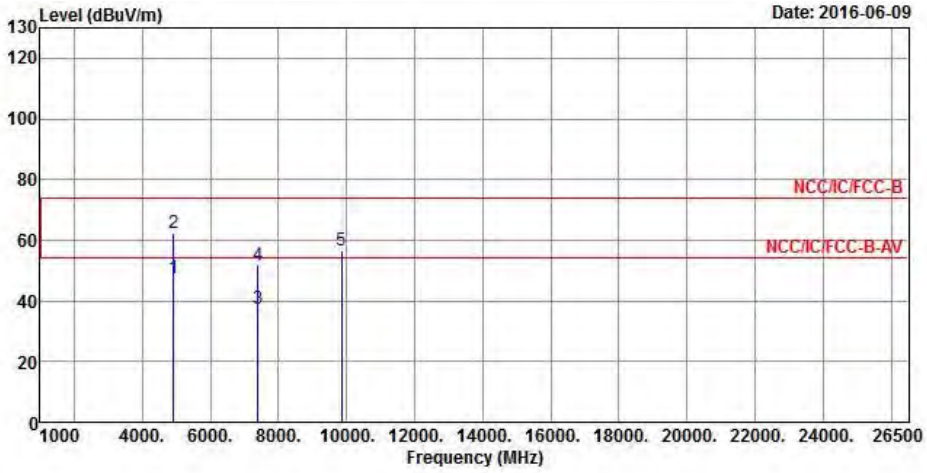
| Transmitter Radiated Unwanted Emissions (Above 1GHz) | | | |
|---|---|---|---|
| **Modulation Mode** | 11g | **Test Freq. (MHz)** | 2437 |
| **$N_{TX}$** | 1 | **Polarization** | H |




| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | |
| 1 | 4874.000 | 52.29 | -1.71 | 54.00 | 48.11 | 31.22 | 5.49 | 32.53 | Average |
| 2 | 4874.000 | 67.92 | -6.08 | 74.00 | 63.74 | 31.22 | 5.49 | 32.53 | Peak |
| 3 | 7311.000 | 37.94 | -16.06 | 54.00 | 27.87 | 35.85 | 7.02 | 32.80 | Average |
| 4 | 7311.000 | 51.57 | -22.43 | 74.00 | 41.50 | 35.85 | 7.02 | 32.80 | Peak |
| 5 | 9748.000 | 56.64 | | | 42.91 | 38.75 | 8.20 | 33.22 | Peak |

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level (109.61 dBuV/m).
Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

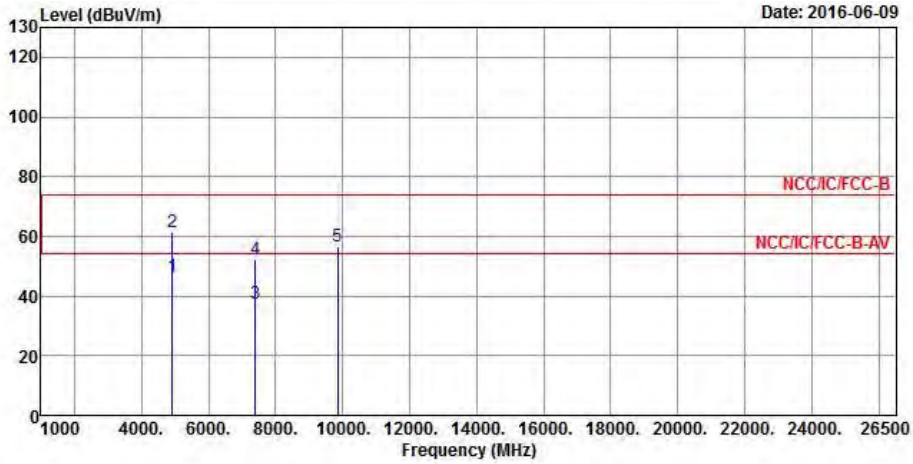
| Transmitter Radiated Unwanted Emissions (Above 1GHz) | | | |
|---|---|---|---|
| **Modulation Mode** | 11g | **Test Freq. (MHz)** | 2462 |
| **$N_{TX}$** | 1 | **Polarization** | V |




| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | |
| 1 | 4924.000 | 47.26 | -6.74 | 54.00 | 42.90 | 31.29 | 5.59 | 32.52 | Average |
| 2 | 4924.000 | 62.25 | -11.75 | 74.00 | 57.89 | 31.29 | 5.59 | 32.52 | Peak |
| 3 | 7386.000 | 37.65 | -16.35 | 54.00 | 27.43 | 36.03 | 7.01 | 32.82 | Average |
| 4 | 7386.000 | 51.60 | -22.40 | 74.00 | 41.38 | 36.03 | 7.01 | 32.82 | Peak |
| 5 | 9848.000 | 56.62 | | | 42.88 | 38.77 | 8.18 | 33.21 | Peak |

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level (106.91 dBuV/m).
Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

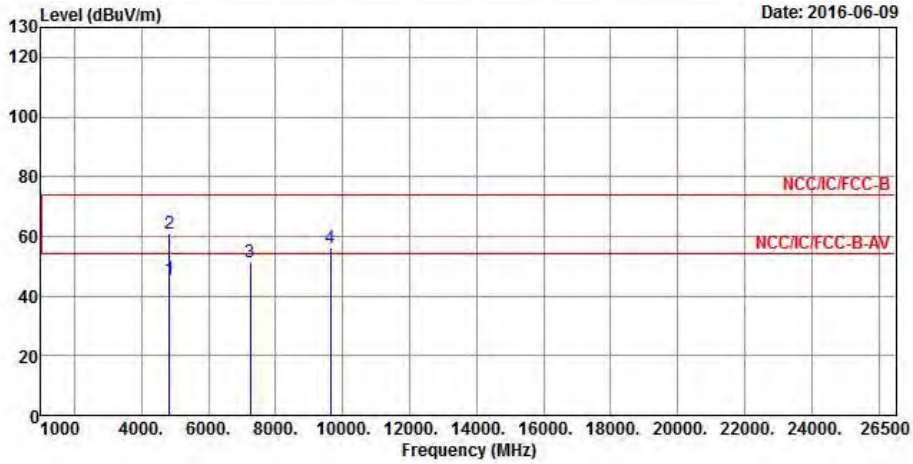
| Transmitter Radiated Unwanted Emissions (Above 1GHz) | | | |
|---|---|---|---|
| **Modulation Mode** | 11g | **Test Freq. (MHz)** | 2462 |
| **$N_{TX}$** | 1 | **Polarization** | H |




| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | |
| 1 | 4924.000 | 46.43 | -7.57 | 54.00 | 42.07 | 31.29 | 5.59 | 32.52 | Average |
| 2 | 4924.000 | 61.42 | -12.58 | 74.00 | 57.06 | 31.29 | 5.59 | 32.52 | Peak |
| 3 | 7386.000 | 37.57 | -16.43 | 54.00 | 27.35 | 36.03 | 7.01 | 32.82 | Average |
| 4 | 7386.000 | 52.42 | -21.58 | 74.00 | 42.20 | 36.03 | 7.01 | 32.82 | Peak |
| 5 | 9848.000 | 56.51 | | | 42.77 | 38.77 | 8.18 | 33.21 | Peak |

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level ((106.91 dBuV/m).
Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

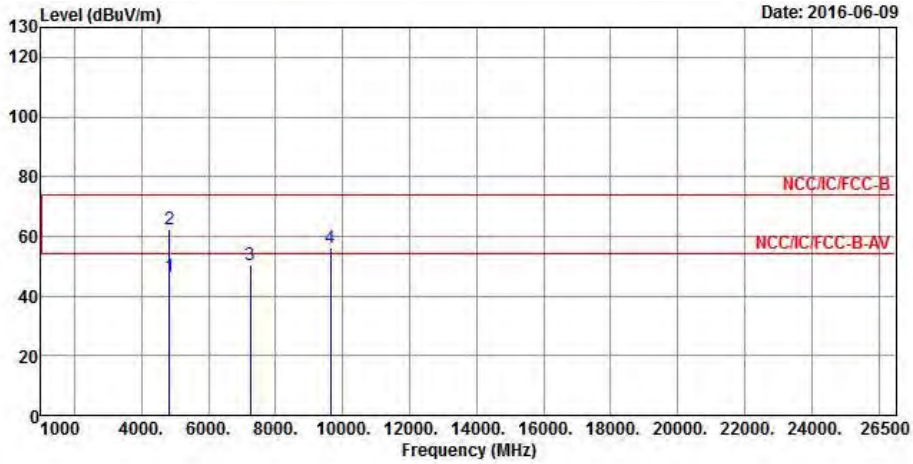
| Transmitter Radiated Unwanted Emissions (Above 1GHz) | | | |
|---|---|---|---|
| **Modulation Mode** | HT20 | **Test Freq. (MHz)** | 2412 |
| **$N_{TX}$** | 1 | **Polarization** | V |




| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | |
| 1 | 4824.000 | 45.63 | -8.37 | 54.00 | 41.62 | 31.15 | 5.40 | 32.54 | Average |
| 2 | 4824.000 | 60.84 | -13.16 | 74.00 | 56.83 | 31.15 | 5.40 | 32.54 | Peak |
| 3 | 7236.000 | 51.22 | | | 41.30 | 35.67 | 7.03 | 32.78 | Peak |
| 4 | 9648.000 | 55.91 | | | 42.13 | 38.73 | 8.27 | 33.22 | Peak |

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level (106.50 dBuV/m).
Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

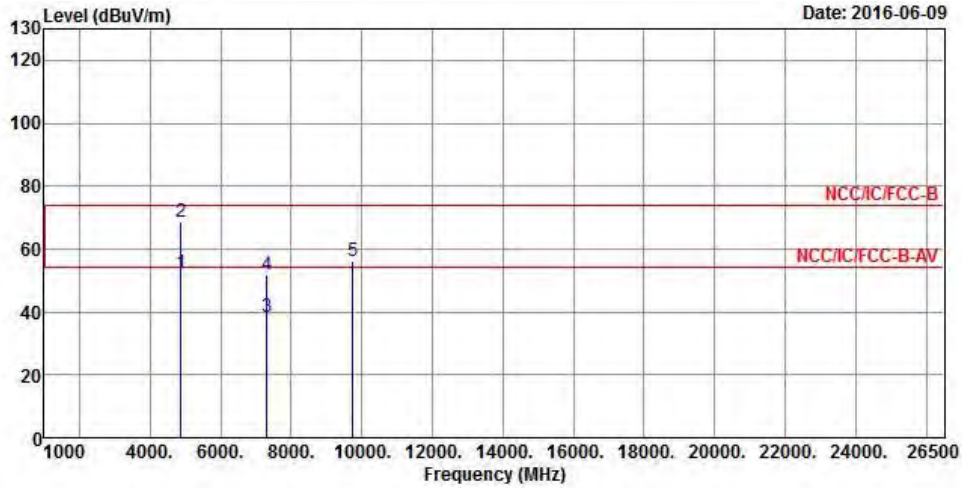
| Transmitter Radiated Unwanted Emissions (Above 1GHz) | | | |
|---|---|---|---|
| **Modulation Mode** | HT20 | **Test Freq. (MHz)** | 2412 |
| **$N_{TX}$** | 1 | **Polarization** | H |




| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | |
| 1 | 4824.000 | 46.36 | -7.64 | 54.00 | 42.35 | 31.15 | 5.40 | 32.54 | Average |
| 2 | 4824.000 | 62.43 | -11.57 | 74.00 | 58.42 | 31.15 | 5.40 | 32.54 | Peak |
| 3 | 7236.000 | 50.53 | | | 40.61 | 35.67 | 7.03 | 32.78 | Peak |
| 4 | 9648.000 | 55.89 | | | 42.11 | 38.73 | 8.27 | 33.22 | Peak |

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level (106.50 dBuV/m).
Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

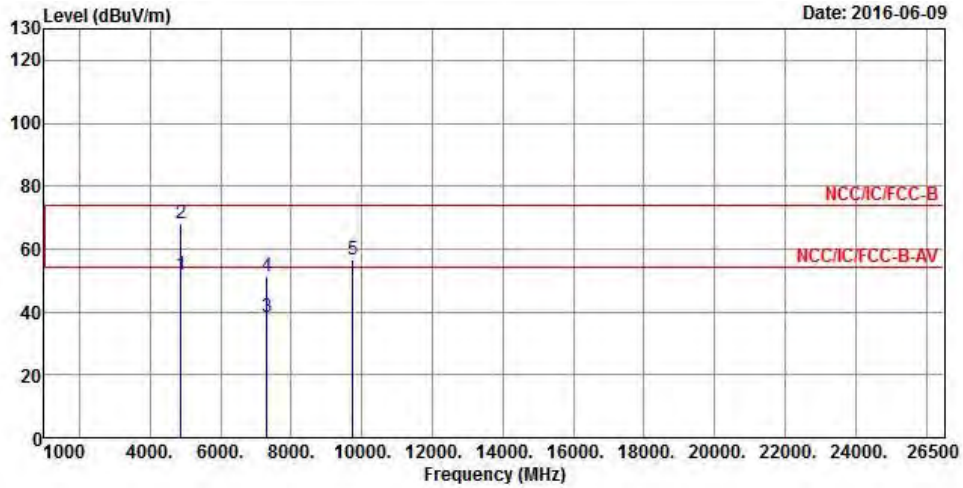
| Transmitter Radiated Unwanted Emissions (Above 1GHz) | | | |
|---|---|---|---|
| **Modulation Mode** | HT20 | **Test Freq. (MHz)** | 2437 |
| **$N_{TX}$** | 1 | **Polarization** | V |




| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | |
| 1 | 4874.000 | 52.50 | -1.50 | 54.00 | 48.32 | 31.22 | 5.49 | 32.53 | Average |
| 2 | 4874.000 | 68.54 | -5.46 | 74.00 | 64.36 | 31.22 | 5.49 | 32.53 | Peak |
| 3 | 7311.000 | 38.16 | -15.84 | 54.00 | 28.09 | 35.85 | 7.02 | 32.80 | Average |
| 4 | 7311.000 | 51.60 | -22.40 | 74.00 | 41.53 | 35.85 | 7.02 | 32.80 | Peak |
| 5 | 9748.000 | 56.01 | | | 42.28 | 38.75 | 8.20 | 33.22 | Peak |

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level (109.30 dBuV/m).
Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

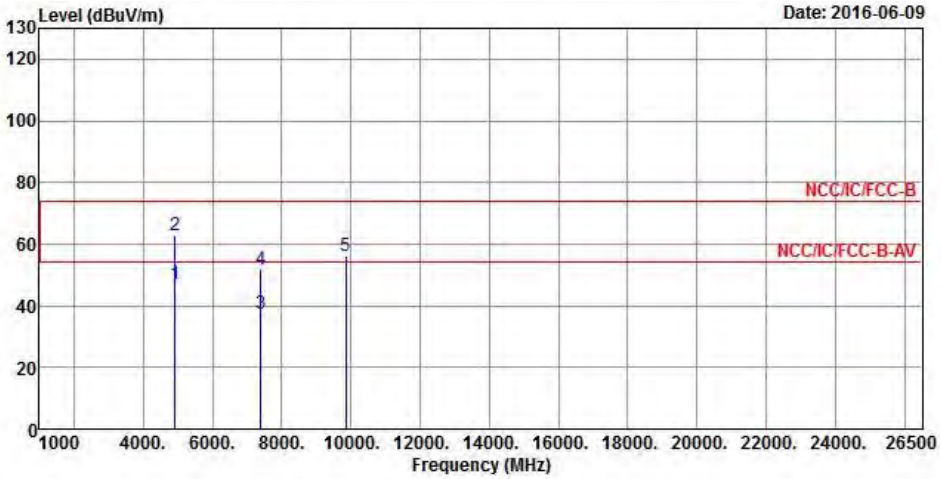
| Transmitter Radiated Unwanted Emissions (Above 1GHz) | | | |
|---|---|---|---|
| **Modulation Mode** | HT20 | **Test Freq. (MHz)** | 2437 |
| **$N_{TX}$** | 1 | **Polarization** | H |




| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | |
| 1 | 4874.000 | 51.79 | -2.21 | 54.00 | 47.61 | 31.22 | 5.49 | 32.53 | Average |
| 2 | 4874.000 | 68.30 | -5.70 | 74.00 | 64.12 | 31.22 | 5.49 | 32.53 | Peak |
| 3 | 7311.000 | 38.21 | -15.79 | 54.00 | 28.14 | 35.85 | 7.02 | 32.80 | Average |
| 4 | 7311.000 | 51.13 | -22.87 | 74.00 | 41.06 | 35.85 | 7.02 | 32.80 | Peak |
| 5 | 9748.000 | 56.69 | | | 42.96 | 38.75 | 8.20 | 33.22 | Peak |

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level (109.30 dBuV/m).
Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

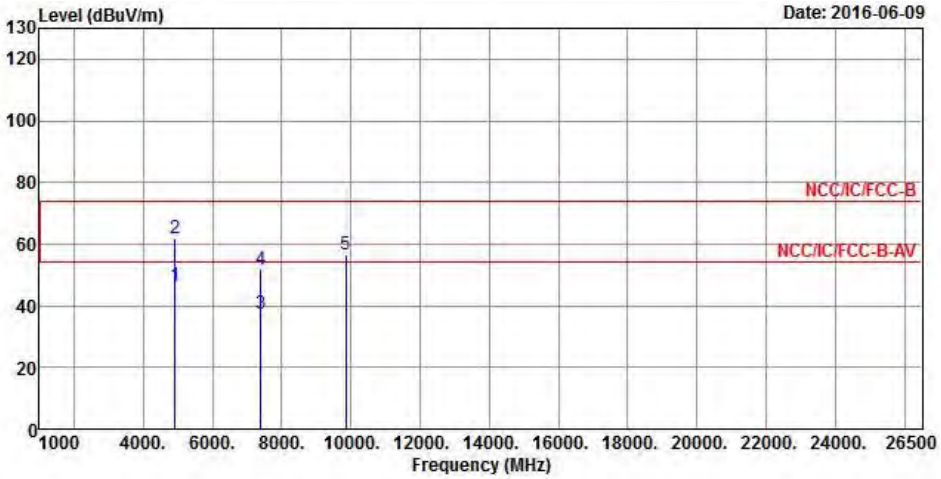
| Transmitter Radiated Unwanted Emissions (Above 1GHz) | | | |
|---|---|---|---|
| **Modulation Mode** | HT20 | **Test Freq. (MHz)** | 2462 |
| **$N_{TX}$** | 1 | **Polarization** | V |




| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | |
| 1 | 4924.000 | 47.15 | -6.85 | 54.00 | 42.79 | 31.29 | 5.59 | 32.52 | Average |
| 2 | 4924.000 | 62.88 | -11.12 | 74.00 | 58.52 | 31.29 | 5.59 | 32.52 | Peak |
| 3 | 7386.000 | 37.57 | -16.43 | 54.00 | 27.35 | 36.03 | 7.01 | 32.82 | Average |
| 4 | 7386.000 | 51.66 | -22.34 | 74.00 | 41.44 | 36.03 | 7.01 | 32.82 | Peak |
| 5 | 9848.000 | 55.97 | | | 42.23 | 38.77 | 8.18 | 33.21 | Peak |

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level (106.34 dBuV/m).
Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

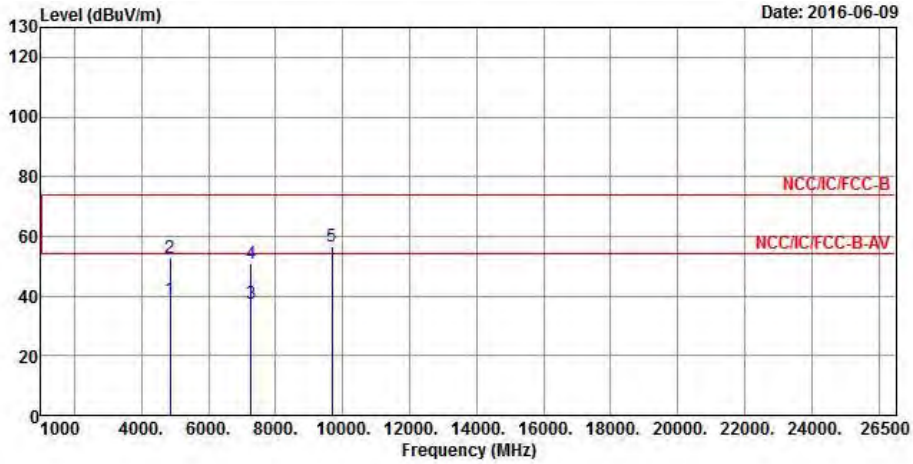
| Transmitter Radiated Unwanted Emissions (Above 1GHz) | | | |
|---|---|---|---|
| **Modulation Mode** | HT20 | **Test Freq. (MHz)** | 2462 |
| **$N_{TX}$** | 1 | **Polarization** | H |




| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | |
| 1 | 4924.000 | 46.48 | -7.52 | 54.00 | 42.12 | 31.29 | 5.59 | 32.52 | Average |
| 2 | 4924.000 | 62.00 | -12.00 | 74.00 | 57.64 | 31.29 | 5.59 | 32.52 | Peak |
| 3 | 7386.000 | 37.51 | -16.49 | 54.00 | 27.29 | 36.03 | 7.01 | 32.82 | Average |
| 4 | 7386.000 | 51.90 | -22.10 | 74.00 | 41.68 | 36.03 | 7.01 | 32.82 | Peak |
| 5 | 9848.000 | 56.83 | | | 43.09 | 38.77 | 8.18 | 33.21 | Peak |

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level (106.34 dBuV/m).
Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

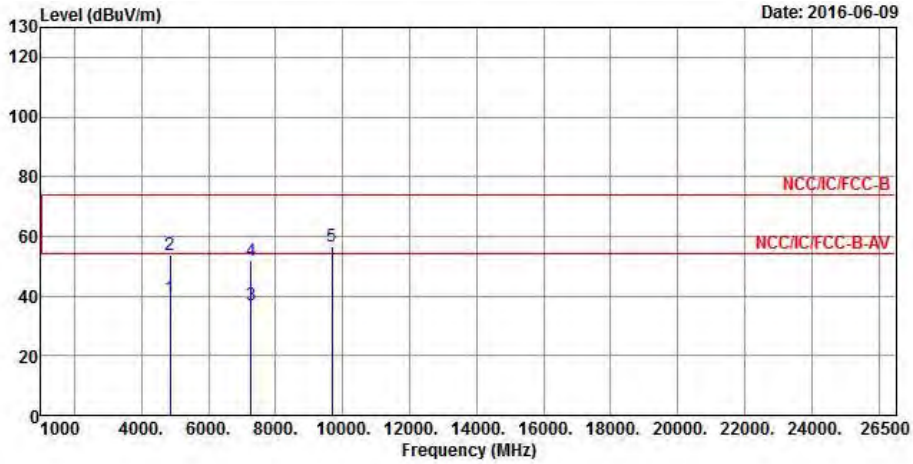
| Transmitter Radiated Unwanted Emissions (Above 1GHz) | | | |
|---|---|---|---|
| **Modulation Mode** | HT40 | **Test Freq. (MHz)** | 2422 |
| **$N_{TX}$** | 1 | **Polarization** | V |




| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | |
| 1 | 4844.000 | 38.64 | -15.36 | 54.00 | 34.56 | 31.18 | 5.44 | 32.54 | Average |
| 2 | 4844.000 | 52.77 | -21.23 | 74.00 | 48.69 | 31.18 | 5.44 | 32.54 | Peak |
| 3 | 7266.000 | 37.21 | -16.79 | 54.00 | 27.23 | 35.74 | 7.03 | 32.79 | Average |
| 4 | 7266.000 | 50.69 | -23.31 | 74.00 | 40.71 | 35.74 | 7.03 | 32.79 | Peak |
| 5 | 9688.000 | 56.52 | | | 42.76 | 38.74 | 8.24 | 33.22 | Peak |

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level (99.56dBuV/m).
Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

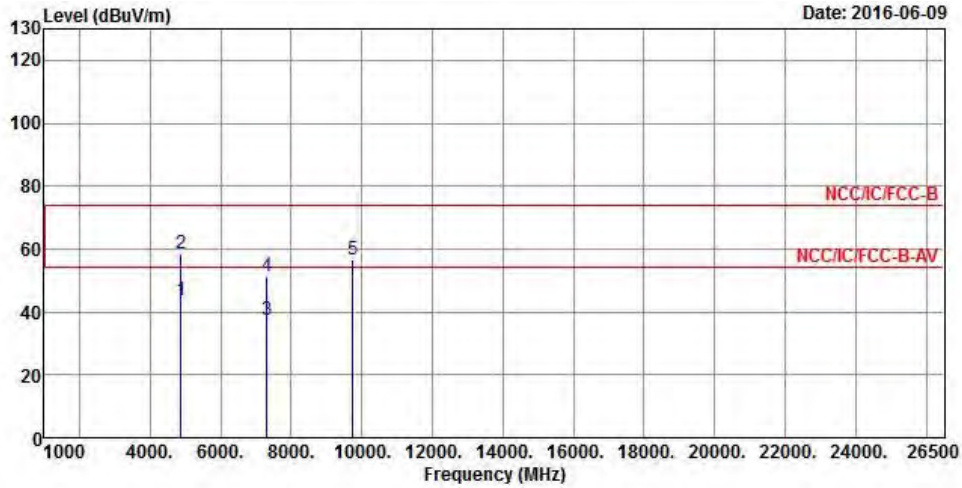
| Transmitter Radiated Unwanted Emissions (Above 1GHz) | | | |
|---|---|---|---|
| **Modulation Mode** | HT40 | **Test Freq. (MHz)** | 2422 |
| **$N_{TX}$** | 1 | **Polarization** | H |




| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | |
| 1 | 4844.000 | 39.14 | -14.86 | 54.00 | 35.06 | 31.18 | 5.44 | 32.54 | Average |
| 2 | 4844.000 | 53.93 | -20.07 | 74.00 | 49.85 | 31.18 | 5.44 | 32.54 | Peak |
| 3 | 7266.000 | 37.16 | -16.84 | 54.00 | 27.18 | 35.74 | 7.03 | 32.79 | Average |
| 4 | 7266.000 | 51.95 | -22.05 | 74.00 | 41.97 | 35.74 | 7.03 | 32.79 | Peak |
| 5 | 9688.000 | 56.69 | | | 42.93 | 38.74 | 8.24 | 33.22 | Peak |

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level (99.56 dBuV/m).
Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

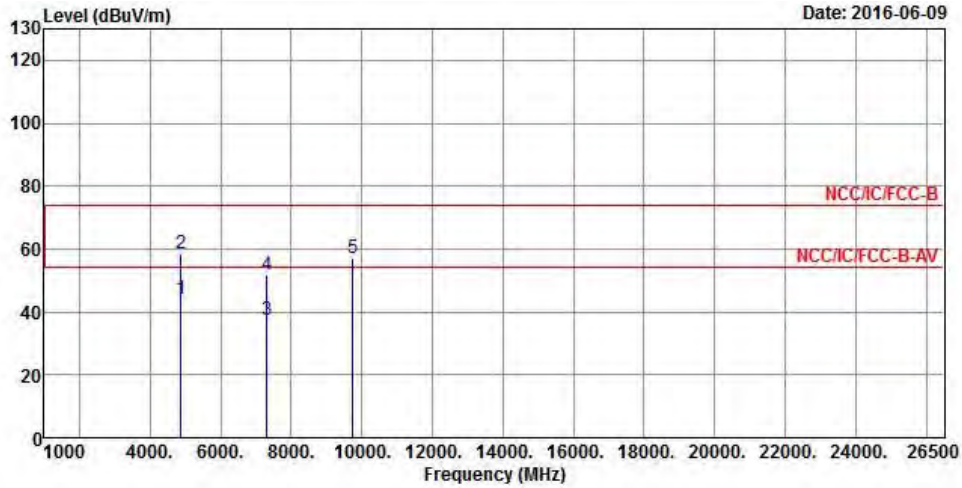
| Transmitter Radiated Unwanted Emissions (Above 1GHz) | | | |
|---|---|---|---|
| **Modulation Mode** | HT40 | **Test Freq. (MHz)** | 2437 |
| **$N_{TX}$** | 1 | **Polarization** | V |




| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | |
| 1 | 4874.000 | 43.57 | -10.43 | 54.00 | 39.39 | 31.22 | 5.49 | 32.53 | Average |
| 2 | 4874.000 | 58.40 | -15.60 | 74.00 | 54.22 | 31.22 | 5.49 | 32.53 | Peak |
| 3 | 7311.000 | 37.64 | -16.36 | 54.00 | 27.57 | 35.85 | 7.02 | 32.80 | Average |
| 4 | 7311.000 | 51.37 | -22.63 | 74.00 | 41.30 | 35.85 | 7.02 | 32.80 | Peak |
| 5 | 9748.000 | 56.52 | | | 42.79 | 38.75 | 8.20 | 33.22 | Peak |

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level (105.32dBuV/m).
Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

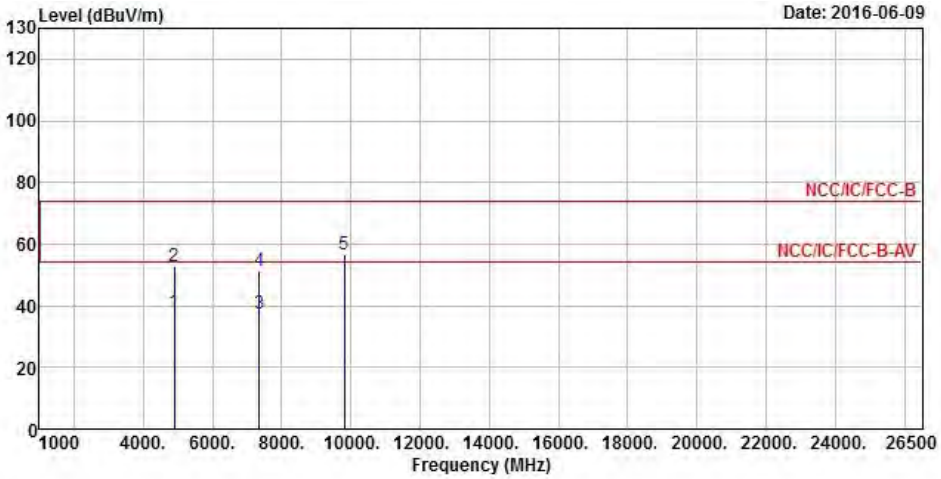
| Transmitter Radiated Unwanted Emissions (Above 1GHz) | | | |
|---|---|---|---|
| **Modulation Mode** | HT40 | **Test Freq. (MHz)** | 2437 |
| **$N_{TX}$** | 1 | **Polarization** | H |




| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | |
| 1 | 4874.000 | 44.15 | -9.85 | 54.00 | 39.97 | 31.22 | 5.49 | 32.53 | Average |
| 2 | 4874.000 | 58.33 | -15.67 | 74.00 | 54.15 | 31.22 | 5.49 | 32.53 | Peak |
| 3 | 7311.000 | 37.56 | -16.44 | 54.00 | 27.49 | 35.85 | 7.02 | 32.80 | Average |
| 4 | 7311.000 | 51.77 | -22.23 | 74.00 | 41.70 | 35.85 | 7.02 | 32.80 | Peak |
| 5 | 9748.000 | 57.01 | | | 43.28 | 38.75 | 8.20 | 33.22 | Peak |

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level (105.32 dBuV/m).
Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

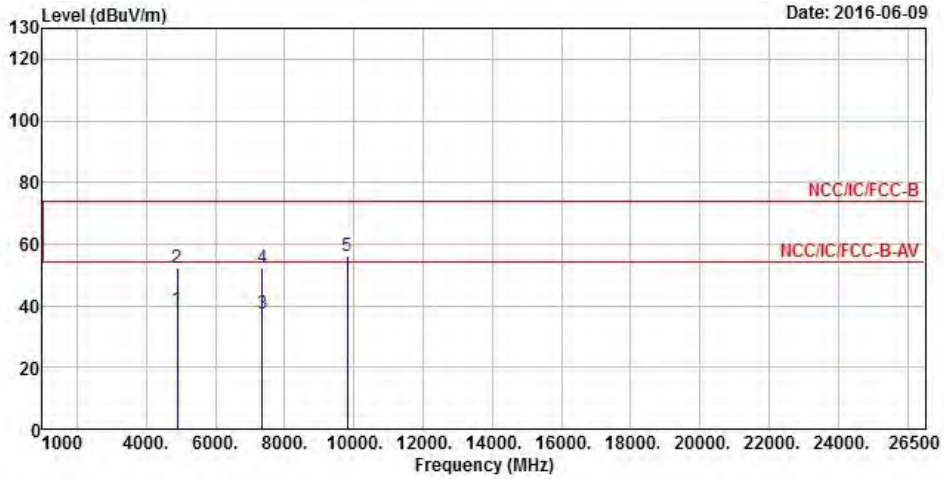
| Transmitter Radiated Unwanted Emissions (Above 1GHz) | | | |
|---|---|---|---|
| **Modulation Mode** | HT40 | **Test Freq. (MHz)** | 2452 |
| **$N_{TX}$** | 1 | **Polarization** | V |




| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | |
| 1 | 4904.000 | 38.03 | -15.97 | 54.00 | 33.74 | 31.27 | 5.55 | 32.53 | Average |
| 2 | 4904.000 | 52.90 | -21.10 | 74.00 | 48.61 | 31.27 | 5.55 | 32.53 | Peak |
| 3 | 7356.000 | 37.46 | -16.54 | 54.00 | 27.30 | 35.95 | 7.02 | 32.81 | Average |
| 4 | 7356.000 | 51.44 | -22.56 | 74.00 | 41.28 | 35.95 | 7.02 | 32.81 | Peak |
| 5 | 9808.000 | 56.55 | | | 42.83 | 38.76 | 8.17 | 33.21 | Peak |

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level (102.61 dBuV/m).
Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

| Transmitter Radiated Unwanted Emissions (Above 1GHz) | | | |
|---|---|---|---|
| **Modulation Mode** | HT40 | **Test Freq. (MHz)** | 2452 |
| **$N_{TX}$** | 1 | **Polarization** | H |




| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | |
| 1 | 4904.000 | 38.66 | -15.34 | 54.00 | 34.37 | 31.27 | 5.55 | 32.53 | Average |
| 2 | 4904.000 | 52.24 | -21.76 | 74.00 | 47.95 | 31.27 | 5.55 | 32.53 | Peak |
| 3 | 7356.000 | 37.51 | -16.49 | 54.00 | 27.35 | 35.95 | 7.02 | 32.81 | Average |
| 4 | 7356.000 | 52.25 | -21.75 | 74.00 | 42.09 | 35.95 | 7.02 | 32.81 | Peak |
| 5 | 9808.000 | 56.33 | | | 42.61 | 38.76 | 8.17 | 33.21 | Peak |

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level (102.61 dBuV/m).
Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.