

# FCC Test Report

FCC ID : RYK-WPEQ256ACN  
Equipment : 802.11ac/b/g/n Mini PCIe Module  
Brand Name : Sparklan  
Model Name : WPEQ-256ACNRBI ,WPEQ-256ACN  
Applicant/  
Manufacturer : SparkLAN Communications, Inc.  
8F., No. 257, Sec. 2, Tiding Blvd., Neihu District,  
Taipei City 11493, Taiwan  
Standard : 47 CFR FCC Part 15.247

The product was received on Dec. 10, 2018, and testing was started from Dec. 29, 2018 and completed on Jan. 08, 2019. . We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, 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 report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

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



Approved by: Allen Lin

**SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory**

No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)



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## History of this test report

| Report No. | Version | Description             | Issued Date   |
|------------|---------|-------------------------|---------------|
| FR8D0605AC | 01      | Initial issue of report | Feb. 21, 2019 |
|            |         |                         |               |
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|            |         |                         |               |

## Summary of Test Result

| Report Clause | Ref. Std. Clause | Test Items                                  | Result (PASS/FAIL) | Remark                         |
|---------------|------------------|---------------------------------------------|--------------------|--------------------------------|
| 1.1.2         | 15.203           | Antenna Requirement                         | PASS               | FCC 15.203                     |
| 3.1           | 15.207           | AC Power-line Conducted Emissions           | PASS               | FCC 15.207                     |
| 3.2           | 15.247(a)        | DTS Bandwidth                               | PASS               | ≥500kHz                        |
| 3.3           | 15.247(b)        | Maximum Conducted Output Power              | PASS               | Power [dBm]: 30                |
| 3.4           | 15.247(e)        | Power Spectral Density                      | PASS               | PSD [dBm/3kHz]: 8              |
| 3.5           | 15.247(d)        | Emissions in Non-restricted Frequency Bands | PASS               | Non-Restricted Bands: > 30 dBc |
| 3.6           | 15.247(d)        | Emissions in Restricted Frequency Bands     | PASS               | Restricted Bands: FCC 15.209   |

**Declaration of Conformity:**

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

**Comments and explanations:**

None

**Reviewed by: Jackson Tsai**

**Report Producer: Michelle Tsai**

# 1 General Description

## 1.1 Information

### 1.1.1 RF General Information

| Frequency Range (MHz) | IEEE Std. 802.11 | Ch. Frequency (MHz) | Channel Number |
|-----------------------|------------------|---------------------|----------------|
| 2400-2483.5           | b, g, n (HT20)   | 2412-2462           | 1-11 [11]      |
| 2400-2483.5           | n (HT40)         | 2422-2452           | 3-9 [7]        |

| Band          | Mode         | BWch (MHz) | Nant |
|---------------|--------------|------------|------|
| 2.4-2.4835GHz | 802.11b      | 20         | 2TX  |
| 2.4-2.4835GHz | 802.11g      | 20         | 2TX  |
| 2.4-2.4835GHz | 802.11n HT20 | 20         | 2TX  |
| 2.4-2.4835GHz | 802.11n HT40 | 40         | 2TX  |

**Note:**

- ♦ 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.

**1.1.2 Antenna Information**

| Ant. | Brand    | Model    | Antenna Type | Connector |
|------|----------|----------|--------------|-----------|
| 1    | SparkLAN | AD-103AG | Dipole       | I-Pex     |
| 2    | SparkLAN | AD-301N  | Dipole       | I-Pex     |
| 3    | SparkLAN | AD-302N  | Dipole       | I-Pex     |
| 4    | SparkLAN | AD-303N  | Dipole       | I-Pex     |
| 5    | SparkLAN | AD-305N  | Dipole       | I-Pex     |
| 6    | SparkLAN | AD-300N  | Dipole       | I-Pex     |

| Ant. | Gain (dBi) |         |          |          |         |
|------|------------|---------|----------|----------|---------|
|      | 2.4G       | 5G      |          |          |         |
|      |            | U-NII-1 | U-NII-2A | U-NII-2C | U-NII-3 |
| 1    | 2.02       | 2.03    |          |          |         |
| 2    | 4.4        | 5.2     |          | 5.8      |         |
| 3    | 3.14       | 2.87    |          |          |         |
| 4    | 3.14       | 3.45    |          |          |         |
| 5    | 5          | 5.53    |          |          |         |
| 6    | 3          | 5       |          |          |         |

Note 1: EUT can match with above antennas for using. The higher gain (Ant. 2/5) was used to perform the worst configuration and result of that was recorded as the final test result.

**For 2.4 GHz function:**

For IEEE 802.11b/g/n mode (2TX/2RX)

Ant. 5 could transmit/receive simultaneously.

**For 5 GHz function:**

For IEEE 802.11a/n/ac mode (2TX/2RX)

**U-NII-1/ U-NII-2A**

Ant. 5 could transmit/receive simultaneously.

**U-NII-2C/ U-NII-3**

Ant. 2 could transmit/receive simultaneously.

**1.1.3 EUT Information**

| Operational Condition               |                                                                               |                     |                                     |                     |
|-------------------------------------|-------------------------------------------------------------------------------|---------------------|-------------------------------------|---------------------|
| <b>EUT Power Type</b>               | From Host System                                                              |                     |                                     |                     |
| <b>EUT Function</b>                 | <input checked="" type="checkbox"/>                                           | Point-to-multipoint | <input type="checkbox"/>            | Point-to-point      |
| <b>Beamforming Function</b>         | <input type="checkbox"/>                                                      | With beamforming    | <input checked="" type="checkbox"/> | Without beamforming |
| Type of EUT                         |                                                                               |                     |                                     |                     |
| <input checked="" type="checkbox"/> | Stand-alone                                                                   |                     |                                     |                     |
| <input type="checkbox"/>            | Combined (EUT where the radio part is fully integrated within another device) |                     |                                     |                     |
|                                     | Combined Equipment - Brand Name / Model No.:                                  |                     | ...                                 |                     |
| <input type="checkbox"/>            | Plug-in radio (EUT intended for a variety of host systems)                    |                     |                                     |                     |
|                                     | Host System - Brand Name / Model No.:                                         |                     | ...                                 |                     |
| <input type="checkbox"/>            | Other:                                                                        |                     |                                     |                     |

**1.1.4 Mode Test Duty Cycle**

| Mode         | DC    | DCF(dB) | T(s)                 | VBW(Hz) $\geq 1/T$   |
|--------------|-------|---------|----------------------|----------------------|
| 802.11b      | 0.998 | 0.009   | n/a (DC $\geq$ 0.98) | n/a (DC $\geq$ 0.98) |
| 802.11g      | 0.998 | 0.009   | n/a (DC $\geq$ 0.98) | n/a (DC $\geq$ 0.98) |
| 802.11n HT20 | 0.998 | 0.009   | n/a (DC $\geq$ 0.98) | n/a (DC $\geq$ 0.98) |
| 802.11n HT40 | 0.997 | 0.013   | n/a (DC $\geq$ 0.98) | n/a (DC $\geq$ 0.98) |

Note. If DC < 0.98, the DCF was added while measuring Output power and PSD.

**1.1.5 Table for Multiple Listing**

| Model Name     | Description                                                             |
|----------------|-------------------------------------------------------------------------|
| WPEQ-256ACNRBI | Differences between all models are for different marketing requirement. |
| WPEQ-256ACN    |                                                                         |

## 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
- ♦ KDB 558074 D01 v05r01
- ♦ KDB 662911 D01 v02r01

## 1.3 Testing Location Information

| Testing Location                           |        |                                                                              |                      |
|--------------------------------------------|--------|------------------------------------------------------------------------------|----------------------|
| <input checked="" type="checkbox"/>        | HWA YA | ADD : No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)    |                      |
|                                            |        | TEL : 886-3-327-3456                                                         | FAX : 886-3-327-0973 |
| Test site Designation No. TW1190 with FCC. |        |                                                                              |                      |
| <input type="checkbox"/>                   | JHUBEI | ADD : No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County, Taiwan (R.O.C.) |                      |
|                                            |        | TEL : 886-3-656-9065                                                         | FAX : 886-3-656-9085 |
| Test site Designation No. TW0006 with FCC. |        |                                                                              |                      |

| Test Condition | Test Site No. | Test Engineer | Test Environment | Test Date   |
|----------------|---------------|---------------|------------------|-------------|
| RF Conducted   | TH01-HY       | Gary          | 22.5°C / 63%     | 08/Jan/2019 |
| Radiated       | 03CH02-HY     | Patrick       | 24.1°C / 52.3%   | 08/Jan/2019 |
| AC Conduction  | CO04-HY       | Daniel        | 22.1°C / 55%     | 02/Jan/2019 |

## 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))

| Test Items                           | Uncertainty | Remark                   |
|--------------------------------------|-------------|--------------------------|
| Conducted Emission (150kHz ~ 30MHz)  | 3.54 dB     | Confidence levels of 95% |
| Radiated Emission (9kHz ~ 30MHz)     | 1.6 dB      | Confidence levels of 95% |
| Radiated Emission (30MHz ~ 1,000MHz) | 4.3 dB      | Confidence levels of 95% |
| Radiated Emission (1GHz ~ 18GHz)     | 3.9 dB      | Confidence levels of 95% |
| Radiated Emission (18GHz ~ 40GHz)    | 3.5 dB      | Confidence levels of 95% |
| Conducted Emission                   | 1.3 dB      | Confidence levels of 95% |
| Temperature                          | 0.7 °C      | Confidence levels of 95% |
| Humidity                             | 4 %         | Confidence levels of 95% |



## 2 Test Configuration of EUT

### 2.1 Test Condition

| RF Conducted | Abbreviation | Remark |
|--------------|--------------|--------|
| TnomVnom     | Tnom         | 20°C   |
| -            | Vnom         | 3.3V   |

### 2.2 Test Channel Mode

|                       |             |
|-----------------------|-------------|
| Test Software Version | ART-GUI 2.3 |
|-----------------------|-------------|

| Mode                         | PowerSetting |
|------------------------------|--------------|
| 802.11b_Nss1,(1Mbps)_2TX     | -            |
| 2412MHz                      | 22           |
| 2417MHz                      | 22.5         |
| 2437MHz                      | 22.5         |
| 2462MHz                      | 23.5         |
| 802.11g_Nss1,(6Mbps)_2TX     | -            |
| 2412MHz                      | 17           |
| 2417MHz                      | 18           |
| 2422MHz                      | 19.5         |
| 2427MHz                      | 21           |
| 2432MHz                      | 22.5         |
| 2437MHz                      | 23           |
| 2442MHz                      | 22.5         |
| 2447MHz                      | 22           |
| 2452MHz                      | 20.5         |
| 2457MHz                      | 19           |
| 2462MHz                      | 18           |
| 802.11n HT20_Nss1,(MCS0)_2TX | -            |
| 2412MHz                      | 17.5         |
| 2417MHz                      | 18           |
| 2422MHz                      | 19           |
| 2427MHz                      | 21           |
| 2432MHz                      | 21.5         |
| 2437MHz                      | 23           |
| 2442MHz                      | 22.5         |
| 2447MHz                      | 21.5         |



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| Mode                         | PowerSetting |
|------------------------------|--------------|
| 2452MHz                      | 20           |
| 2457MHz                      | 19           |
| 2462MHz                      | 18.5         |
| 802.11n HT40_Nss1,(MCS0)_2TX | -            |
| 2422MHz                      | 16           |
| 2427MHz                      | 16           |
| 2432MHz                      | 16.5         |
| 2437MHz                      | 17.5         |
| 2442MHz                      | 16.5         |
| 2447MHz                      | 16.5         |
| 2452MHz                      | 16           |

## 2.3 The Worst Case Measurement Configuration

| The Worst Case Mode for Following Conformance Tests |                                                          |
|-----------------------------------------------------|----------------------------------------------------------|
| <b>Tests Item</b>                                   | AC power-line conducted emissions                        |
| <b>Condition</b>                                    | AC power-line conducted measurement for line and neutral |
| <b>Operating Mode</b>                               | CTX                                                      |
| 1                                                   | Test fixture mode                                        |

| The Worst Case Mode for Following Conformance Tests |                                                                                                                          |
|-----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| <b>Tests Item</b>                                   | DTS Bandwidth<br>Maximum Conducted Output Power<br>Power Spectral Density<br>Emissions in Non-restricted Frequency Bands |
| <b>Test Condition</b>                               | Conducted measurement at transmit chains                                                                                 |

| The Worst Case Mode for Following Conformance Tests |                                                                                                                                                                                                                                                     |                                                                                     |                                                                                       |
|-----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| <b>Tests Item</b>                                   | Emissions in Restricted Frequency Bands                                                                                                                                                                                                             |                                                                                     |                                                                                       |
| <b>Test Condition</b>                               | 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. |                                                                                     |                                                                                       |
| <b>Operating Mode &lt; 1GHz</b>                     | CTX                                                                                                                                                                                                                                                 |                                                                                     |                                                                                       |
| 1                                                   | Test fixture mode                                                                                                                                                                                                                                   |                                                                                     |                                                                                       |
| <b>Operating Mode &gt; 1GHz</b>                     | CTX                                                                                                                                                                                                                                                 |                                                                                     |                                                                                       |
| <b>Orthogonal Planes of EUT</b>                     | <b>X Plane</b>                                                                                                                                                                                                                                      | <b>Y Plane</b>                                                                      | <b>Z Plane</b>                                                                        |
|                                                     |                                                                                                                                                                  |  |  |
| <b>Worst Planes of EUT</b>                          |                                                                                                                                                                                                                                                     |                                                                                     | V                                                                                     |

## 2.4 Support Equipment

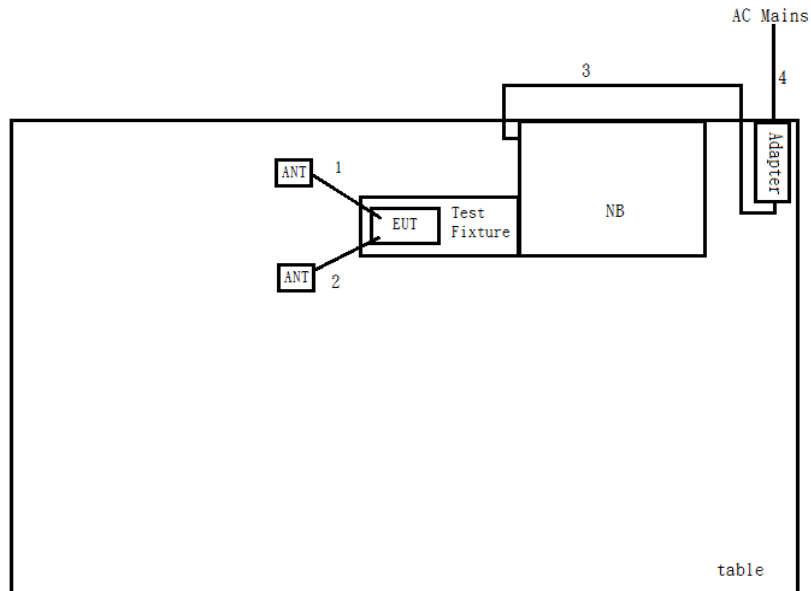
| Support Equipment – AC Conduction |              |            |            |        |
|-----------------------------------|--------------|------------|------------|--------|
| No.                               | Equipment    | Brand Name | Model Name | FCC ID |
| 1                                 | Notebook     | DELL       | E5410      | DOC    |
| 2                                 | Adapter      | DELL       | AA90PM111  | DOC    |
| 3                                 | Test fixture | -          | -          | -      |

| Support Equipment – RF Conducted |                |            |            |        |
|----------------------------------|----------------|------------|------------|--------|
| No.                              | Equipment      | Brand Name | Model Name | FCC ID |
| 1                                | Notebook       | DELL       | E5410      | DOC    |
| 2                                | Adapter for NB | DELL       | HA65NM130  | DOC    |
| 3                                | Test fixture   | -          | -          | -      |

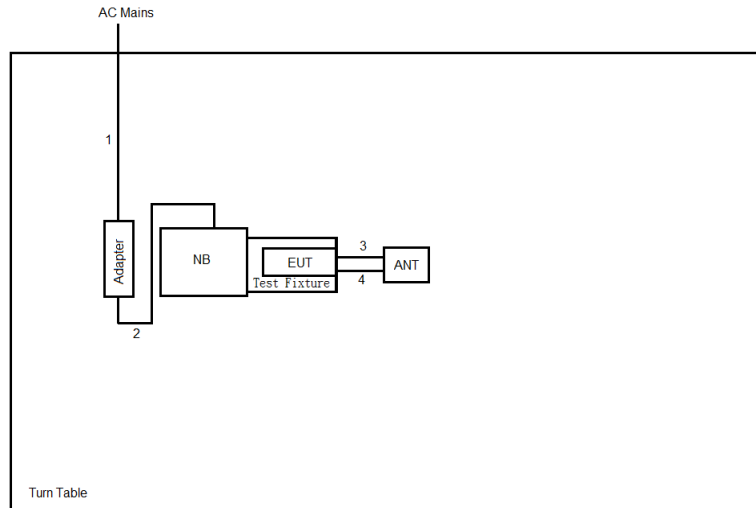
| Support Equipment – Radiated Emission |              |            |            |        |
|---------------------------------------|--------------|------------|------------|--------|
| No.                                   | Equipment    | Brand Name | Model Name | FCC ID |
| 1                                     | Notebook     | DELL       | PP13S      | -      |
| 2                                     | AC Adapter   | DELL       | LA90PM111  | -      |
| 3                                     | Test Fixture | -          | -          | -      |

## 2.5 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test



| Item | Connection    | Shielded | Length(m) | Remark |
|------|---------------|----------|-----------|--------|
| 1    | RF Cable      | No       | 0.15      | -      |
| 2    | RF Cable      | No       | 0.15      | -      |
| 3    | DC power line | No       | 1.8       | -      |
| 4    | AC power line | No       | 1.8       | -      |

**Test Setup Diagram - Radiated Test**


| Item | Connection    | Shielded | Length(m) | Remark |
|------|---------------|----------|-----------|--------|
| 1    | AC Power line | No       | 1.8       | -      |
| 2    | DC Power line | No       | 1.8       | -      |
| 3    | RF cable      | No       | 0.15      | -      |
| 4    | RF cable      | No       | 0.15      | -      |

### 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.

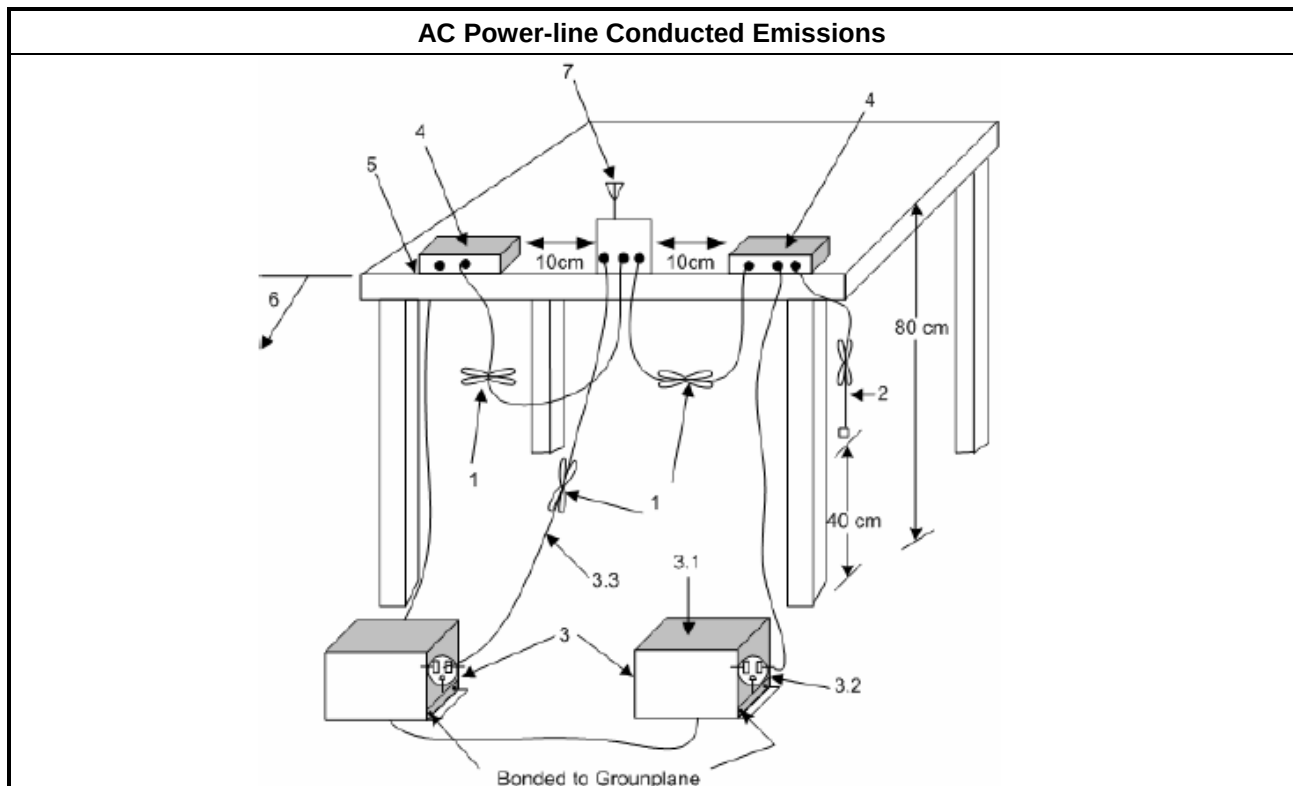
##### 3.1.2 Measuring Instruments

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

##### 3.1.3 Test Procedures

| Test Method                                                                                                      |
|------------------------------------------------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> Refer as ANSI C63.10-2013, clause 6.2 for AC power-line conducted emissions. |

##### 3.1.4 Test Setup



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

Refer as Appendix A

## 3.2 DTS Bandwidth

### 3.2.1 6dB Bandwidth Limit

| 6dB Bandwidth Limit                                 |                                |
|-----------------------------------------------------|--------------------------------|
| <b>Systems using digital modulation techniques:</b> |                                |
| ▪                                                   | 6 dB bandwidth $\geq$ 500 kHz. |

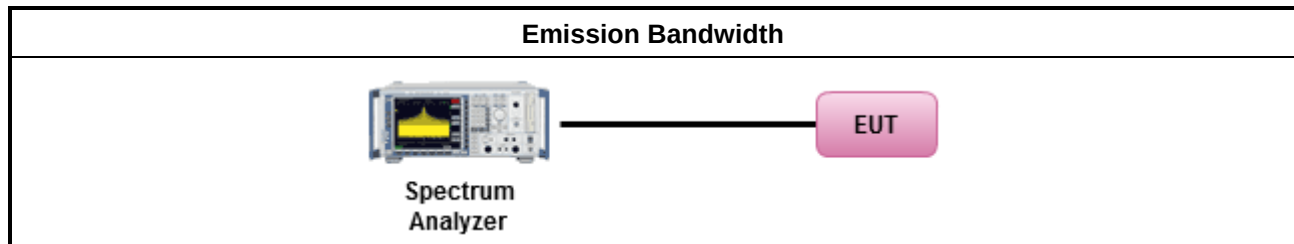
### 3.2.2 Measuring Instruments

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:     |
| <input checked="" type="checkbox"/> | Refer as KDB 558074. clause 8.2 (11.8 of ANSI C63.10) DTS bandwidth measurement. |
| <input type="checkbox"/>            | Refer as RSS-Gen, clause 6.7 for occupied bandwidth testing.                     |
| <input type="checkbox"/>            | Refer as ANSI C63.10, clause 6.9.3 for occupied bandwidth testing.               |

### 3.2.4 Test Setup



### 3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B



### 3.3 Maximum Conducted Output Power

#### 3.3.1 Maximum Conducted Output Power Limit

| Maximum Conducted Output Power Limit                                                                                                                              |                                                                                                                                                                           |                                                                                                    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
|                                                                                                                                                                   | <ul style="list-style-type: none"> <li>If <math>G_{TX} \leq 6</math> dBi, then <math>P_{Out} \leq 30</math> dBm (1 W)</li> </ul>                                          |                                                                                                    |
|                                                                                                                                                                   | <ul style="list-style-type: none"> <li>Point-to-multipoint systems (P2M): If <math>G_{TX} &gt; 6</math> dBi, then <math>P_{Out} = 30 - (G_{TX} - 6)</math> dBm</li> </ul> |                                                                                                    |
|                                                                                                                                                                   | <ul style="list-style-type: none"> <li>Point-to-point systems (P2P): If <math>G_{TX} &gt; 6</math> dBi, then <math>P_{Out} = 30 - (G_{TX} - 6)/3</math> dBm</li> </ul>    |                                                                                                    |
|                                                                                                                                                                   | <ul style="list-style-type: none"> <li>Smart antenna system (SAS):</li> </ul>                                                                                             |                                                                                                    |
|                                                                                                                                                                   | -                                                                                                                                                                         | 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:                                                                                                                                             |                                                                                                                                                                           |                                                                                                    |
|                                                                                                                                                                   | <ul style="list-style-type: none"> <li>2400-2483.5 MHz Band</li> </ul>                                                                                                    |                                                                                                    |
|                                                                                                                                                                   | <ul style="list-style-type: none"> <li>Point-to-multipoint systems (P2M): <math>P_{eirp} \leq 36</math> dBm (4 W)</li> </ul>                                              |                                                                                                    |
|                                                                                                                                                                   | <ul style="list-style-type: none"> <li>Point-to-point systems (P2P): <math>P_{eirp} \leq \text{MAX}(36, [P_{Out} + G_{TX}])</math> dBm</li> </ul>                         |                                                                                                    |
|                                                                                                                                                                   | <ul style="list-style-type: none"> <li>Smart antenna system (SAS)</li> </ul>                                                                                              |                                                                                                    |
|                                                                                                                                                                   | -                                                                                                                                                                         | Single beam: $P_{eirp} \leq \text{MAX}(36, P_{Out} + G_{TX})$ dBm                                  |
|                                                                                                                                                                   | -                                                                                                                                                                         | Overlap beam: $P_{eirp} \leq \text{MAX}(36, P_{Out} + G_{TX})$ dBm                                 |
|                                                                                                                                                                   | -                                                                                                                                                                         | Aggregate power on all beams: $P_{eirp} \leq \text{MAX}(36, [P_{Out} + G_{TX} + 8])$ 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. |                                                                                                                                                                           |                                                                                                    |

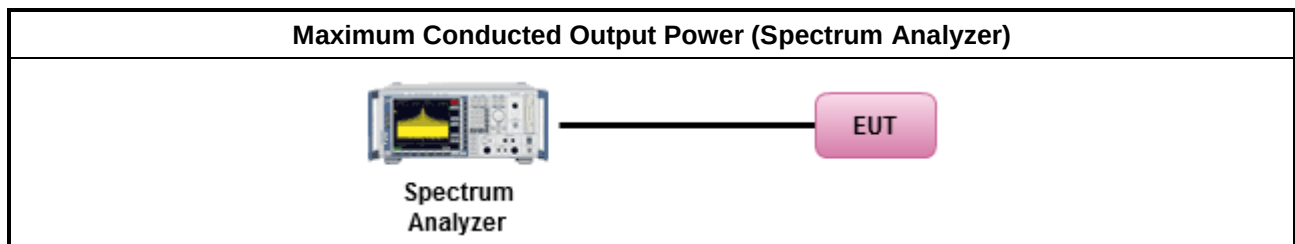
#### 3.3.2 Measuring Instruments

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

### 3.3.3 Test Procedures

| Test Method                                                                                                                                                                                                                                                                                                                                                        |                                                                                             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>Maximum Peak Conducted Output Power</li> </ul>                                                                                                                                                                                                                                                                              |                                                                                             |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                           | Refer as KDB 558074, clause 8.3.1.1 (11.9.1.1 of ANSI C63.10) RBW ≥ EBW method.             |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                           | Refer as KDB 558074, clause 8.3.1.2 (11.9.1.2 of ANSI C63.10) integrated band power method. |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                           | Refer as KDB 558074, clause 8.3.1.3 (11.9.1.3 of ANSI C63.10) peak power meter.             |
| <ul style="list-style-type: none"> <li>Maximum Average Conducted Output Power</li> </ul>                                                                                                                                                                                                                                                                           |                                                                                             |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                           | Refer as KDB 558074, clause 8.3.2.2 (11.9.2.2 of ANSI C63.10) using a spectrum analyzer.    |
| <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                | Refer as KDB 558074, clause 8.3.2.3 (11.9.2.3 of ANSI C63.10) using a power meter.          |
| <ul style="list-style-type: none"> <li>For conducted measurement.</li> </ul>                                                                                                                                                                                                                                                                                       |                                                                                             |
| <ul style="list-style-type: none"> <li>If the EUT supports multiple transmit chains using options given below:<br/>Refer as 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.</li> </ul> |                                                                                             |
| <ul style="list-style-type: none"> <li>If multiple transmit chains, EIRP calculation could be following as methods:<br/> <math display="block">P_{total} = P_1 + P_2 + \dots + P_n</math> (calculated in linear unit [mW] and transfer to log unit [dBm])<br/> <math display="block">EIRP_{total} = P_{total} + DG</math> </li> </ul>                              |                                                                                             |

### 3.3.4 Test Setup



### 3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C

### 3.4 Power Spectral Density

#### 3.4.1 Power Spectral Density Limit

| Power Spectral Density Limit |                                                |
|------------------------------|------------------------------------------------|
| ▪                            | Power Spectral Density (PSD) $\leq 8$ dBm/3kHz |

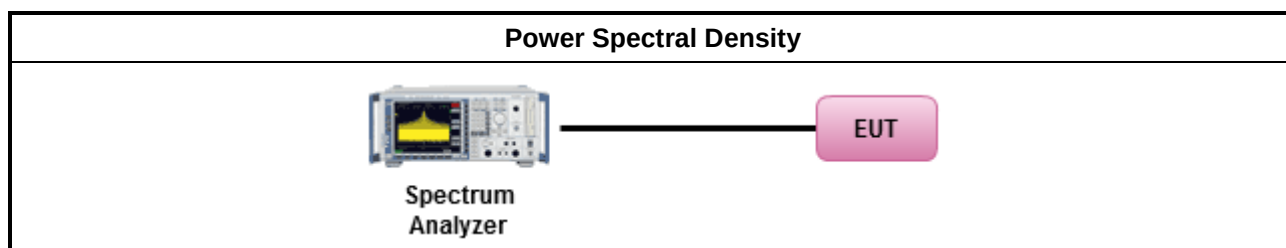
#### 3.4.2 Measuring Instruments

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).                                                                                                         |
| <input checked="" type="checkbox"/> | Refer as KDB 558074, clause 8.4 (11.10 of ANSI C63.10) Method PKPSD.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| ▪                                   | For conducted measurement.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| ▪                                   | If The EUT supports multiple transmit chains using options given below:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| ▪                                   | Measure and sum the spectra across the outputs. Refer as 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 NTX 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. |

#### 3.4.4 Test Setup



#### 3.4.5 Test Result of Power Spectral Density

Refer as Appendix D

### 3.5 Emissions in Non-restricted Frequency Bands

#### 3.5.1 Emissions in Non-restricted Frequency Bands Limit

| Un-restricted Band Emissions Limit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |            |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| RF output power procedure                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Limit (dB) |
| Peak output power procedure                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 20         |
| Average output power procedure                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 30         |
| <p>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.</p> <p>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.</p> |            |

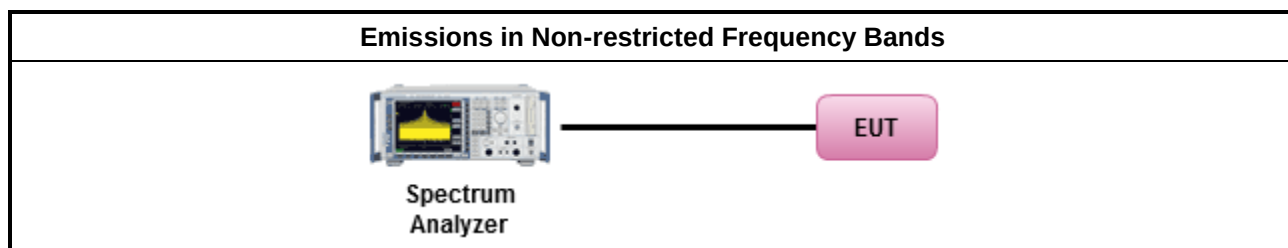
#### 3.5.2 Measuring Instruments

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

#### 3.5.3 Test Procedures

| Test Method                                                                                                                                  |
|----------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>Refer as KDB 558074, clause 8.5 (11.11 of ANSI C63.10) for non-restricted frequency bands.</li> </ul> |

#### 3.5.4 Test Setup



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

Refer as Appendix E

### 3.6 Emissions in Restricted Frequency Bands

#### 3.6.1 Emissions in Restricted Frequency Bands 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.

Note 3: Using the distance of 1m during the test for above 18 GHz, and the test value to correct for the distance factor at 3m.

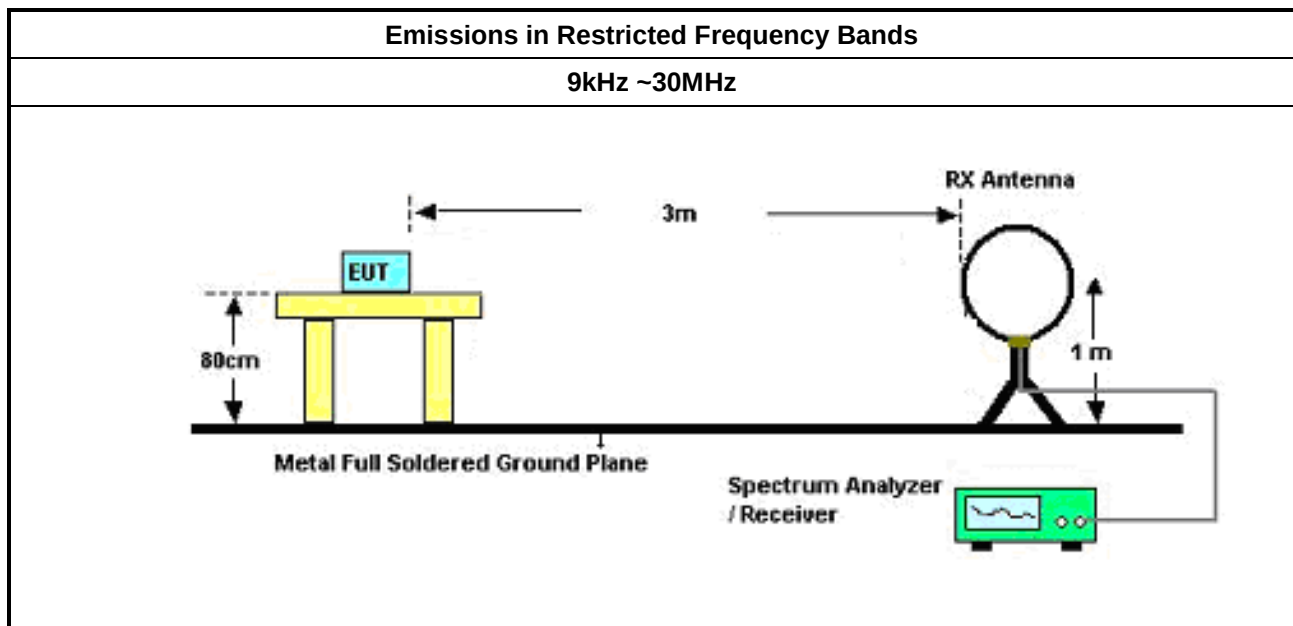
#### 3.6.2 Measuring Instruments

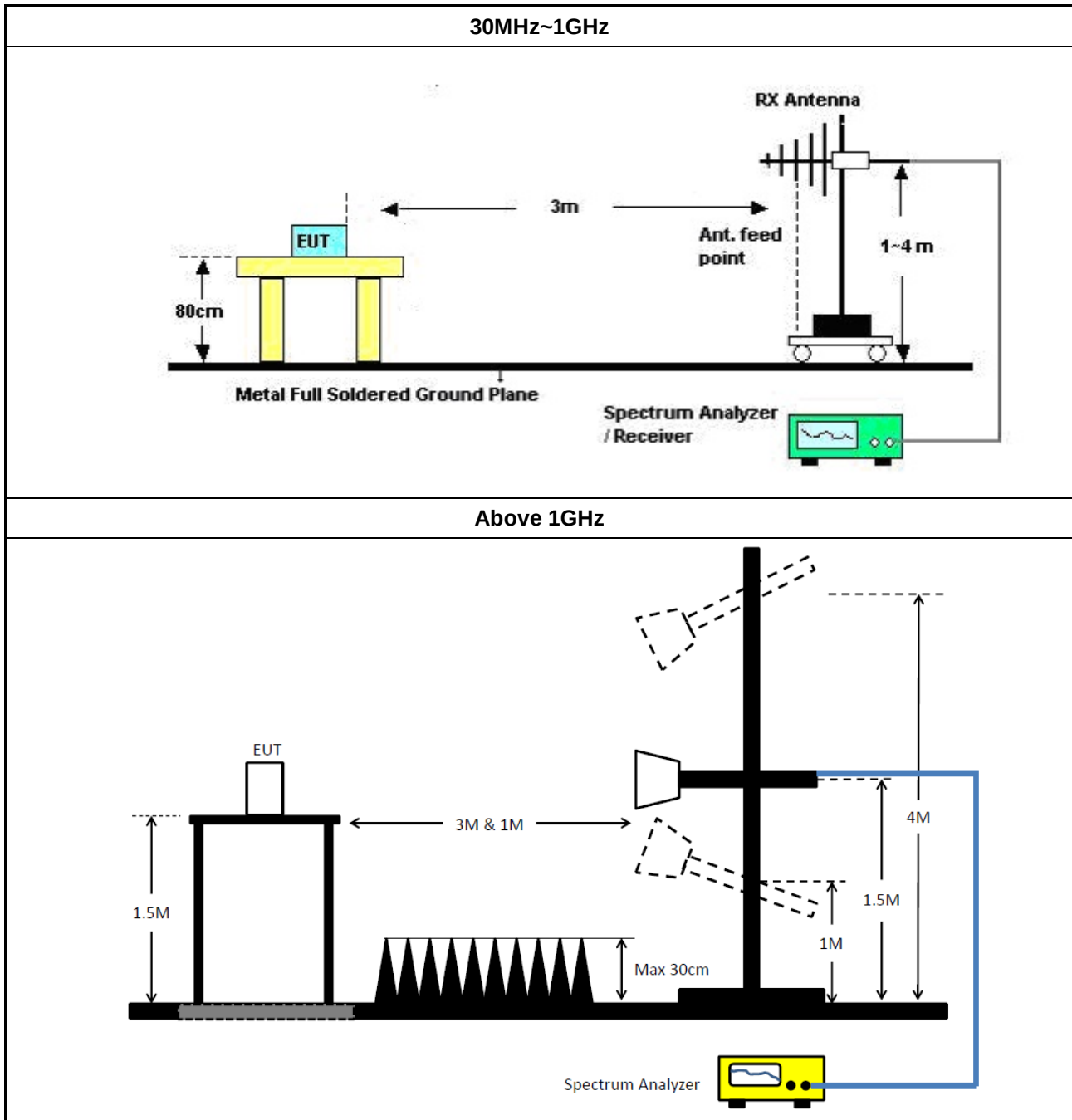
Refer a test equipment and calibration data table in this test report.

### 3.6.3 Test Procedures

| Test Method                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>The average emission levels shall be measured in [duty cycle <math>\geq 98</math> or duty factor].</li> </ul>                                                                        |                                                                                                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>Refer as ANSI C63.10, clause 6.10.3 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band.</li> </ul> |                                                                                                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>For the transmitter unwanted emissions shall be measured using following options below:</li> </ul>                                                                                   |                                                                                                                                                                                                                                                                  |
|                                                                                                                                                                                                                             | <ul style="list-style-type: none"> <li>Refer as KDB 558074, clause 8.6 (11.12 of ANSI C63.10) for restricted frequency bands.</li> </ul>                                                                                                                         |
| <ul style="list-style-type: none"> <li>For the transmitter band-edge emissions shall be measured using following options below:</li> </ul>                                                                                  |                                                                                                                                                                                                                                                                  |
|                                                                                                                                                                                                                             | <ul style="list-style-type: none"> <li>Refer as KDB 558074 clause 8.7.1, When the performing peak or average radiated measurements, emissions within 2 MHz of the authorized band edge may be measured using the marker-delta method described below.</li> </ul> |
|                                                                                                                                                                                                                             | <ul style="list-style-type: none"> <li>Refer as KDB 558074, clause 8.7.2 (6.10.6 of ANSI C63.10) for marker-delta method for band-edge measurements.</li> </ul>                                                                                                  |
|                                                                                                                                                                                                                             | <ul style="list-style-type: none"> <li>Refer as KDB 558074, clause 8.7.3 for narrower resolution bandwidth (100kHz) using the band power and summing the spectral levels (i.e., 1 MHz).</li> </ul>                                                               |
| <ul style="list-style-type: none"> <li>Use the following spectrum analyzer settings:</li> </ul>                                                                                                                             |                                                                                                                                                                                                                                                                  |
|                                                                                                                                                                                                                             | <ul style="list-style-type: none"> <li>Set RBW=100 kHz for <math>f &lt; 1</math> GHz; VBW=3 * RBW; Sweep = auto; Detector function = peak; Trace = max hold.</li> </ul>                                                                                          |
|                                                                                                                                                                                                                             | <ul style="list-style-type: none"> <li>Set RBW = 1 MHz, VBW= 3MHz for <math>f \geq 1</math> GHz for peak measurement.<br/>For average measurement, refer as 1.1.4.</li> </ul>                                                                                    |

### 3.6.4 Test Setup





### 3.6.5 Test Result of Emissions in Restricted Frequency Bands (Below 30MHz)

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

### 3.6.6 Test Result of Emissions in Restricted Frequency Bands

Refer as Appendix F

## 4 Test Equipment and Calibration Data

### Instrument for AC Conduction

| Instrument                           | Manufacturer | Model No.   | Serial No. | Spec.               | Calibration Date | Calibration Due Date |
|--------------------------------------|--------------|-------------|------------|---------------------|------------------|----------------------|
| EMC Receiver                         | R&S          | ESR         | 102051     | 9KHz ~ 3.6GHz       | 03/May/2018      | 02/May/2019          |
| LISN                                 | R&S          | ENV216      | 101295     | 9kHz ~ 30MHz        | 08/Nov/2018      | 07/Nov/2019          |
| RF Cable-CON                         | MTJ          | RG142       | CB002-CO   | 9kHz ~ 200MHz       | 17/Sep/2018      | 16/Sep/2019          |
| AC POWER                             | APC          | AFC-11005G  | F310050055 | 47Hz~63Hz<br>5~300V | NCR              | NCR                  |
| Impuls<br>Begrenzer<br>Pulse Limiter | SCHWARZBECK  | VTSD 9561-F | 9561-F041  | 9 kHz ~ 30 MHz      | 12/Oct/2018      | 11/Oct/2019          |

**NCR : Non-Calibration Require**

### Instrument for Radiated Test

| Instrument                             | Manufacturer   | Model No.   | Serial No.           | Spec.              | Calibration Date | Calibration Due Date |
|----------------------------------------|----------------|-------------|----------------------|--------------------|------------------|----------------------|
| 3m Semi<br>Anechoic<br>Chamber         | SIDT FRANKONIA | SAC-3M      | 03CH02-HY            | 30MHz ~ 1GHz<br>3m | 25/Oct/2018      | 24/Oct/2019          |
| 3m Semi<br>Anechoic<br>Chamber         | SIDT FRANKONIA | SAC-3M      | 03CH02-HY            | 1GHz ~ 18GHz<br>3m | 25/Oct/2018      | 24/Oct/2019          |
| Amplifier                              | Agilent        | 8447D       | 2944A11149           | 100kHz ~ 1.3GHz    | 27Jul/2018       | 02/Jul/2019          |
| Microwave<br>Preamplifier              | Agilent        | 8449B       | 3008A02373           | 1GHz ~ 26.5GHz     | 23/Oct/2018      | 22/Oct/2019          |
| Signal Analyzer                        | R&S            | FSV40       | 101500               | 10Hz ~ 40GHz       | 18/Jul/2018      | 17/Jul/2019          |
| EMI Test<br>Receiver                   | R&S            | ESR3        | 102052               | 9kHz ~ 3.6GHz      | 10/Apr/2018      | 09/Apr/2019          |
| RF Cable-R03m                          | Jye Bao        | RG142       | CB017                | 9kHz ~ 1GHz        | 19/Jan/2018      | 18/Jan/2019          |
| RF Cable-high                          | SUHNER         | SUCOFLEX104 | MY34918/4            | 1GHz ~ 40GHz       | 19/Jan/2018      | 18/Jan/2019          |
| Bilog Antenna                          | SCHAFFNER      | CBL 6112B   | 2723                 | 30MHz ~ 1GHz       | 13/Oct/2018      | 12/Oct/2019          |
| Loop Antenna                           | TESEQ          | HLA 6120    | 31244                | 9k-30MHz           | 29/Mar/2018      | 28/Mar/2019          |
| Broadband Horn<br>Antenna              | SCHWARZBECK    | BBHA 9170   | BBHA 9170221         | 15GHz ~ 40GHz      | 12/Mar/2018      | 11/Mar/2019          |
| Double Ridged<br>Guide Horn<br>Antenna | SCHWARZBECK    | BBHA 9120 D | BBHA 9120 D<br>01543 | 1GHz ~ 18GHz       | 11/May/2018      | 10/May/2019          |



**Instrument for Conducted Test**

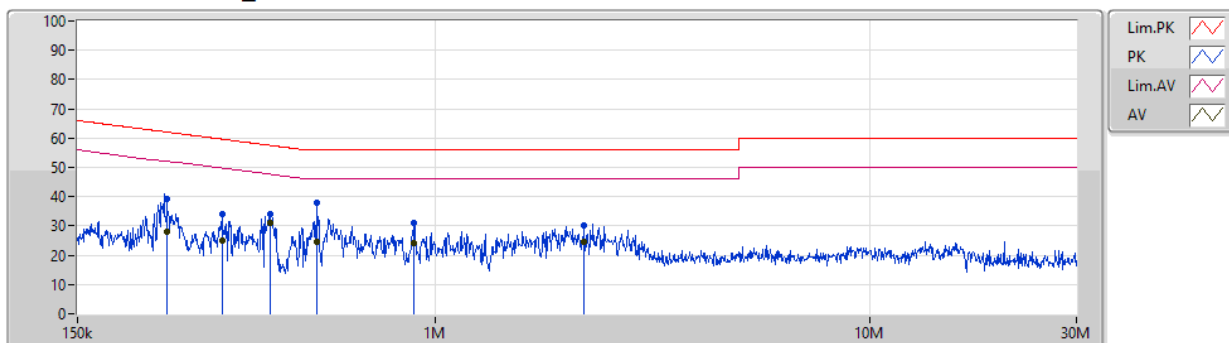
| Instrument               | Manufacturer | Model No. | Serial No.    | Spec.          | Calibration Date | Calibration Due Date |
|--------------------------|--------------|-----------|---------------|----------------|------------------|----------------------|
| Spectrum Analyzer        | R&S          | FSV 40    | 101013        | 10Hz~40GHz     | 05/Feb/2018      | 04/Feb/2019          |
| SMB100A Signal Generator | R&S          | SMB100A03 | 181147        | 100kHz~40GHz   | 12/Nov/2018      | 10/Nov/2020          |
| Power Sensor             | Anritsu      | MA2411B   | 0917017       | 300MHz ~ 40GHz | 05/Feb/2018      | 04/Feb/2019          |
| Power Meter              | Anritsu      | ML2495A   | 0949003       | 300MHz ~ 40GHz | 05/Feb/2018      | 04/Feb/2019          |
| CABLE 0.2m               | HUBER        | MY37960/4 | RF Cable - 17 | 1 ~ 18GHz      | 17/Jan/2018      | 16/Jan/2019          |
| CABLE 0.2m               | HUBER        | MY37960/4 | RF Cable - 17 | 30 ~ 1000MHz   | 17/Jan/2018      | 16/Jan/2019          |
| CABLE 0.5m               | HUBER        | MY37963/4 | RF Cable - 22 | 1 ~ 18GHz      | 17/Jan/2018      | 16/Jan/2019          |

## AC Power-line Conducted Emissions Result

|                    |                   |             |         |
|--------------------|-------------------|-------------|---------|
| Operating Mode     | 1                 | Power Phase | Neutral |
| Operating Function | Test fixture mode |             |         |

### AC Conduction\_Mode 1

02/01/2019



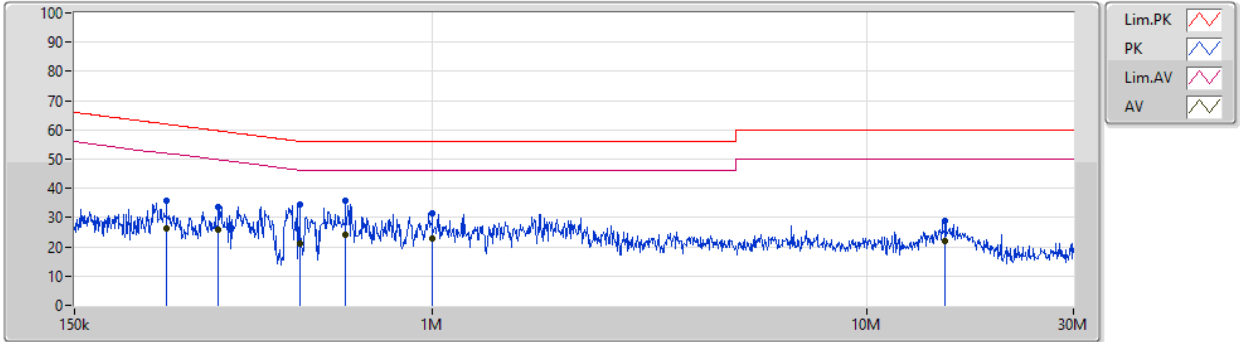
| Type | Freq<br>(Hz) | Level<br>(dBuV) | Limit<br>(dBuV) | Margin<br>(dB) | Factor<br>(dB) | Condition | Comment | Raw<br>(dBuV) | LISN<br>(dB) | CL<br>(dB) | AT<br>(dB) |  |  |  |
|------|--------------|-----------------|-----------------|----------------|----------------|-----------|---------|---------------|--------------|------------|------------|--|--|--|
| QP   | 241.59k      | 39.20           | 62.04           | -22.84         | 19.47          | Neutral   | -       | 19.73         | 9.59         | 0.01       | 9.87       |  |  |  |
| AV   | 241.59k      | 28.01           | 52.04           | -24.03         | 19.47          | Neutral   | -       | 8.54          | 9.59         | 0.01       | 9.87       |  |  |  |
| QP   | 322.644k     | 34.18           | 59.63           | -25.45         | 19.48          | Neutral   | -       | 14.70         | 9.59         | 0.01       | 9.88       |  |  |  |
| AV   | 322.644k     | 25.11           | 49.63           | -24.52         | 19.48          | Neutral   | -       | 5.63          | 9.59         | 0.01       | 9.88       |  |  |  |
| QP   | 417.737k     | 33.89           | 57.49           | -23.60         | 19.48          | Neutral   | -       | 14.41         | 9.59         | 0.01       | 9.88       |  |  |  |
| AV   | 417.737k     | 30.85           | 47.49           | -16.64         | 19.48          | Neutral   | "Worst" | 11.37         | 9.59         | 0.01       | 9.88       |  |  |  |
| QP   | 534.782k     | 37.81           | 56.00           | -18.19         | 19.48          | Neutral   | -       | 18.33         | 9.59         | 0.01       | 9.88       |  |  |  |
| AV   | 534.782k     | 24.73           | 46.00           | -21.27         | 19.48          | Neutral   | -       | 5.25          | 9.59         | 0.01       | 9.88       |  |  |  |
| QP   | 892.301k     | 30.90           | 56.00           | -25.10         | 19.49          | Neutral   | -       | 11.41         | 9.59         | 0.02       | 9.88       |  |  |  |
| AV   | 892.301k     | 24.12           | 46.00           | -21.88         | 19.49          | Neutral   | -       | 4.63          | 9.59         | 0.02       | 9.88       |  |  |  |
| QP   | 2.201M       | 30.32           | 56.00           | -25.68         | 19.53          | Neutral   | -       | 10.79         | 9.61         | 0.03       | 9.89       |  |  |  |
| AV   | 2.201M       | 24.38           | 46.00           | -21.62         | 19.53          | Neutral   | -       | 4.85          | 9.61         | 0.03       | 9.89       |  |  |  |

## AC Power-line Conducted Emissions Result

|                    |                   |             |      |
|--------------------|-------------------|-------------|------|
| Operating Mode     | 1                 | Power Phase | Line |
| Operating Function | Test fixture mode |             |      |

### AC Conduction\_Mode 1

02/01/2019



| Type | Freq<br>(Hz) | Level<br>(dBuV) | Limit<br>(dBuV) | Margin<br>(dB) | Factor<br>(dB) | Condition | Comment | Raw<br>(dBuV) | LISN<br>(dB) | CL<br>(dB) | AT<br>(dB) |  |  |  |
|------|--------------|-----------------|-----------------|----------------|----------------|-----------|---------|---------------|--------------|------------|------------|--|--|--|
| QP   | 244.365k     | 35.87           | 61.95           | -26.08         | 19.48          | Line      | -       | 16.39         | 9.60         | 0.01       | 9.87       |  |  |  |
| AV   | 244.365k     | 26.46           | 51.95           | -25.49         | 19.48          | Line      | -       | 6.98          | 9.60         | 0.01       | 9.87       |  |  |  |
| QP   | 320.923k     | 33.69           | 59.69           | -26.00         | 19.48          | Line      | -       | 14.21         | 9.59         | 0.01       | 9.88       |  |  |  |
| AV   | 320.923k     | 26.02           | 49.69           | -23.67         | 19.48          | Line      | -       | 6.54          | 9.59         | 0.01       | 9.88       |  |  |  |
| QP   | 495.252k     | 34.56           | 56.08           | -21.52         | 19.48          | Line      | -       | 15.08         | 9.59         | 0.01       | 9.88       |  |  |  |
| AV   | 495.252k     | 20.93           | 46.08           | -25.15         | 19.48          | Line      | -       | 1.45          | 9.59         | 0.01       | 9.88       |  |  |  |
| QP   | 632.97k      | 35.74           | 56.00           | -20.26         | 19.48          | Line      | "Worst" | 16.26         | 9.59         | 0.01       | 9.88       |  |  |  |
| AV   | 632.97k      | 24.32           | 46.00           | -21.68         | 19.48          | Line      | -       | 4.84          | 9.59         | 0.01       | 9.88       |  |  |  |
| QP   | 998.372k     | 31.50           | 56.00           | -24.50         | 19.50          | Line      | -       | 12.00         | 9.60         | 0.02       | 9.88       |  |  |  |
| AV   | 998.372k     | 22.98           | 46.00           | -23.02         | 19.50          | Line      | -       | 3.48          | 9.60         | 0.02       | 9.88       |  |  |  |
| QP   | 15.189M      | 28.73           | 60.00           | -31.27         | 19.64          | Line      | -       | 9.09          | 9.65         | 0.09       | 9.90       |  |  |  |
| AV   | 15.189M      | 22.04           | 50.00           | -27.96         | 19.64          | Line      | -       | 2.40          | 9.65         | 0.09       | 9.90       |  |  |  |

**Summary**

| Mode                         | Max-N dB<br>(Hz) | Max-OBW<br>(Hz) | ITU-Code | Min-N dB<br>(Hz) | Min-OBW<br>(Hz) |
|------------------------------|------------------|-----------------|----------|------------------|-----------------|
| 2.4-2.4835GHz                | -                | -               | -        | -                | -               |
| 802.11b_Nss1,(1Mbps)_2TX     | 7.55M            | 12.794M         | 12M8G1D  | 7.05M            | 12.369M         |
| 802.11g_Nss1,(6Mbps)_2TX     | 16.425M          | 19.04M          | 19M0D1D  | 16.3M            | 16.442M         |
| 802.11n HT20_Nss1,(MCS0)_2TX | 17.675M          | 19.49M          | 19M5D1D  | 17.525M          | 17.616M         |
| 802.11n HT40_Nss1,(MCS0)_2TX | 36.45M           | 36.282M         | 36M3D1D  | 35.45M           | 36.082M         |

**Max-N dB** = Maximum 6dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth;  
**Min-N dB** = Minimum 6dB down bandwidth; **Min-OBW** = Minimum 99% occupied bandwidth;

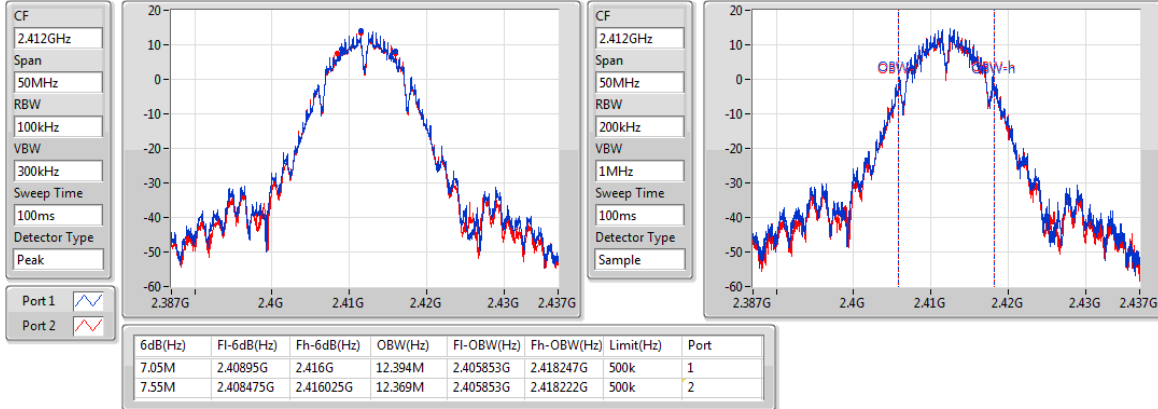
**Result**

| Mode                         | Result | Limit<br>(Hz) | Port 1-N dB<br>(Hz) | Port 1-OBW<br>(Hz) | Port 2-N dB<br>(Hz) | Port 2-OBW<br>(Hz) |
|------------------------------|--------|---------------|---------------------|--------------------|---------------------|--------------------|
| 802.11b_Nss1,(1Mbps)_2TX     | -      | -             | -                   | -                  | -                   | -                  |
| 2412MHz_TnomVnom             | Pass   | 500k          | 7.05M               | 12.394M            | 7.55M               | 12.369M            |
| 2437MHz_TnomVnom             | Pass   | 500k          | 7.525M              | 12.769M            | 7.5M                | 12.769M            |
| 2462MHz_TnomVnom             | Pass   | 500k          | 7.05M               | 12.794M            | 7.5M                | 12.769M            |
| 802.11g_Nss1,(6Mbps)_2TX     | -      | -             | -                   | -                  | -                   | -                  |
| 2412MHz_TnomVnom             | Pass   | 500k          | 16.325M             | 16.492M            | 16.425M             | 16.442M            |
| 2437MHz_TnomVnom             | Pass   | 500k          | 16.3M               | 19.04M             | 16.35M              | 18.791M            |
| 2462MHz_TnomVnom             | Pass   | 500k          | 16.35M              | 16.467M            | 16.375M             | 16.467M            |
| 802.11n HT20_Nss1,(MCS0)_2TX | -      | -             | -                   | -                  | -                   | -                  |
| 2412MHz_TnomVnom             | Pass   | 500k          | 17.675M             | 17.666M            | 17.675M             | 17.641M            |
| 2437MHz_TnomVnom             | Pass   | 500k          | 17.65M              | 19.49M             | 17.525M             | 18.941M            |
| 2462MHz_TnomVnom             | Pass   | 500k          | 17.575M             | 17.616M            | 17.55M              | 17.666M            |
| 802.11n HT40_Nss1,(MCS0)_2TX | -      | -             | -                   | -                  | -                   | -                  |
| 2422MHz_TnomVnom             | Pass   | 500k          | 36.4M               | 36.132M            | 35.45M              | 36.282M            |
| 2437MHz_TnomVnom             | Pass   | 500k          | 36.4M               | 36.132M            | 36.15M              | 36.182M            |
| 2452MHz_TnomVnom             | Pass   | 500k          | 36.45M              | 36.082M            | 35.85M              | 36.182M            |

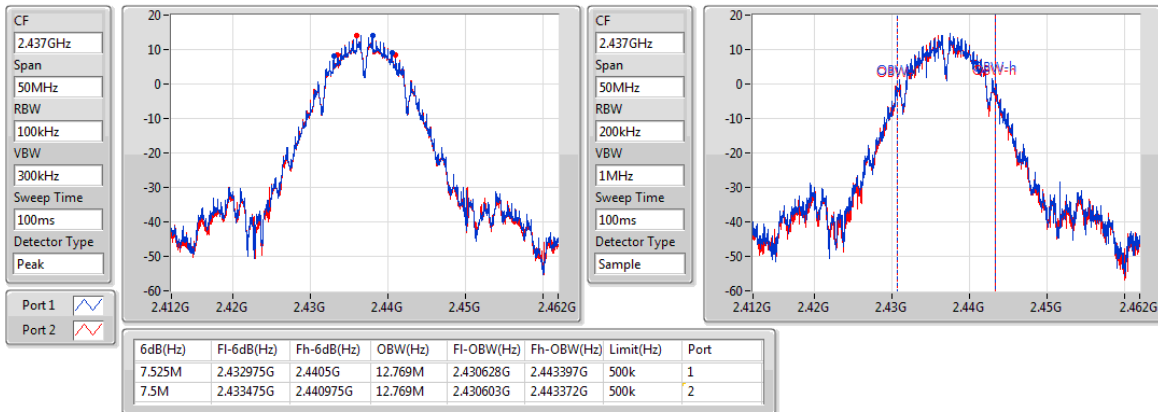
**Port X-N dB** = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;

**802.11b\_Nss1,(1Mbps)\_2TX**
**EBW**
**2412MHz**

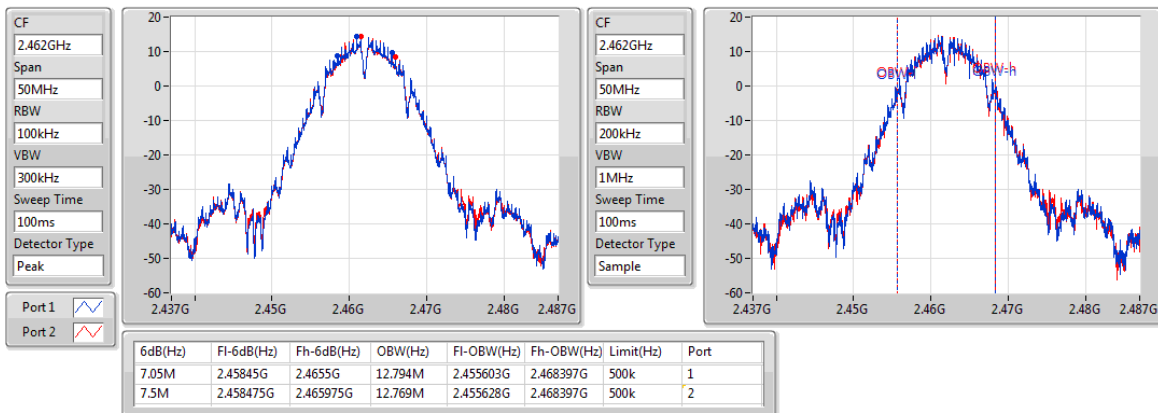
02/01/2019


**802.11b\_Nss1,(1Mbps)\_2TX**
**EBW**
**2437MHz**

02/01/2019

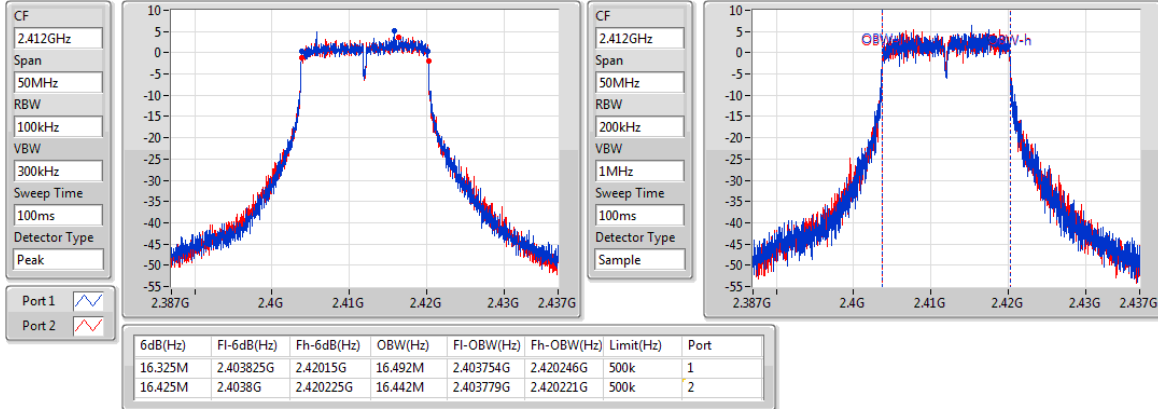

**802.11b\_Nss1,(1Mbps)\_2TX**
**EBW**
**2462MHz**

02/01/2019

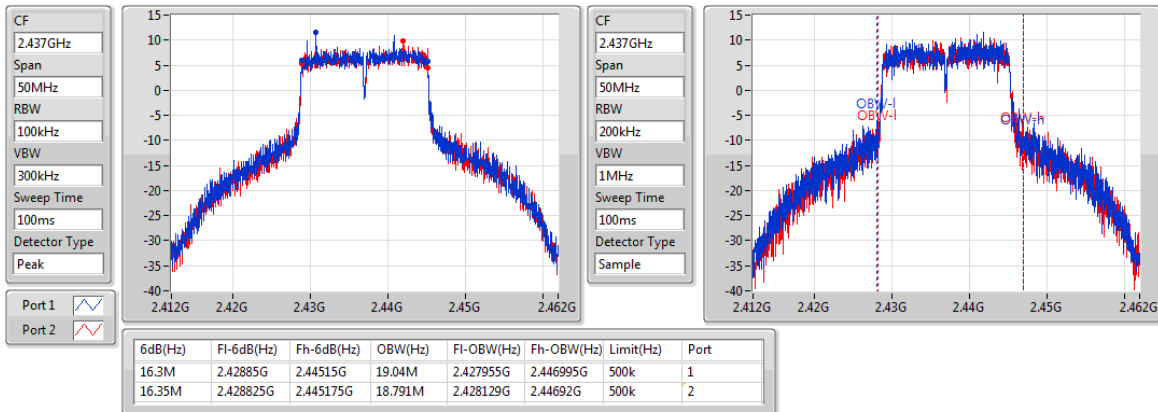


**802.11g\_Nss1,(6Mbps)\_2TX**
**EBW**
**2412MHz**

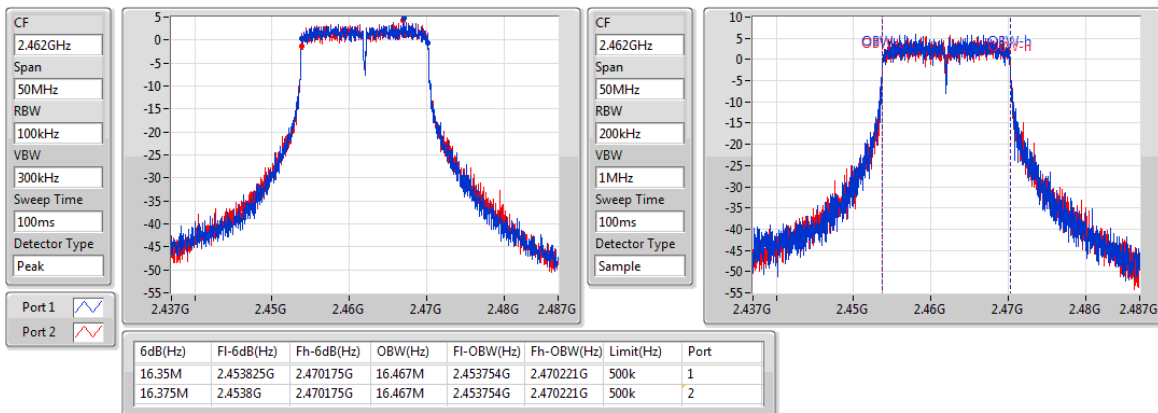
02/01/2019


**802.11g\_Nss1,(6Mbps)\_2TX**
**EBW**
**2437MHz**

02/01/2019

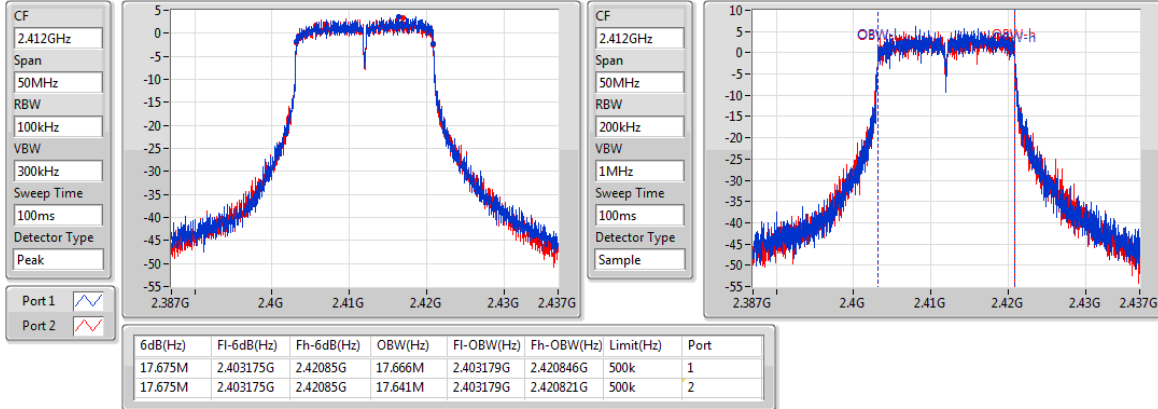

**802.11g\_Nss1,(6Mbps)\_2TX**
**EBW**
**2462MHz**

02/01/2019

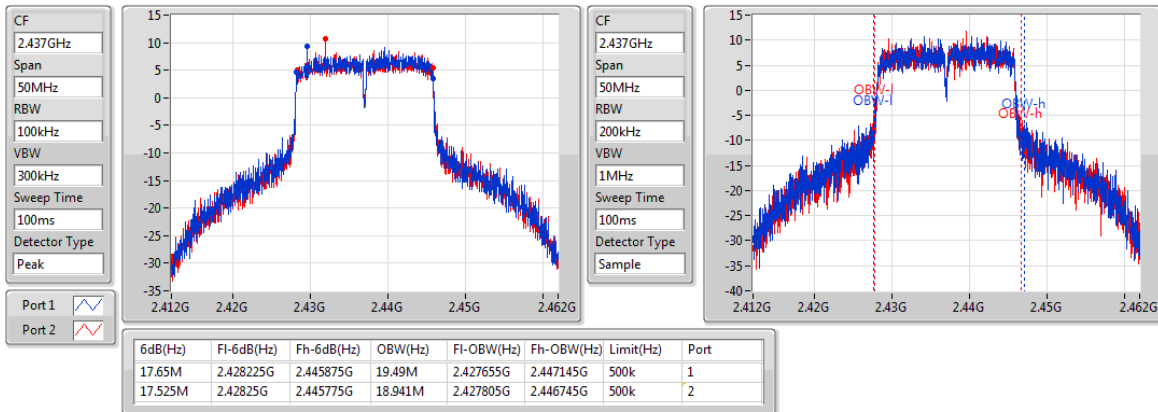


**802.11n HT20\_Nss1,(MCS0)\_2TX**
**EBW**
**2412MHz**

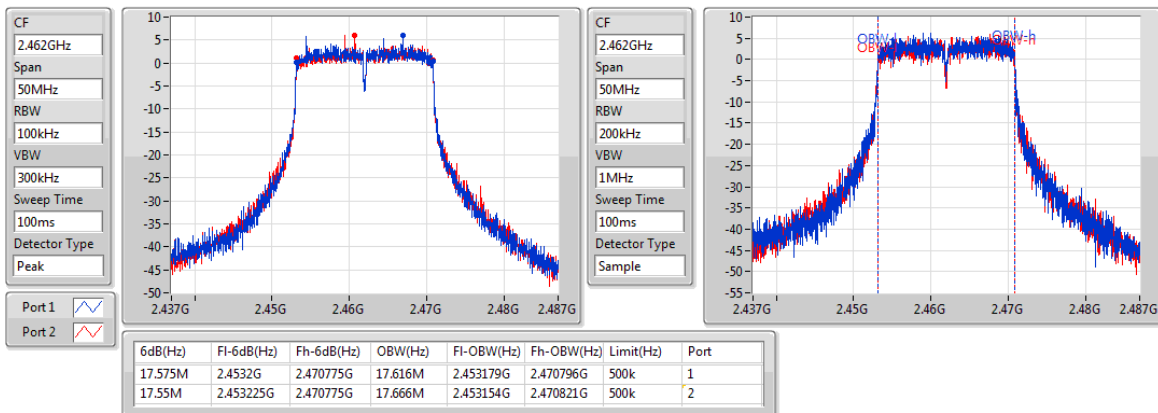
02/01/2019


**802.11n HT20\_Nss1,(MCS0)\_2TX**
**EBW**
**2437MHz**

02/01/2019

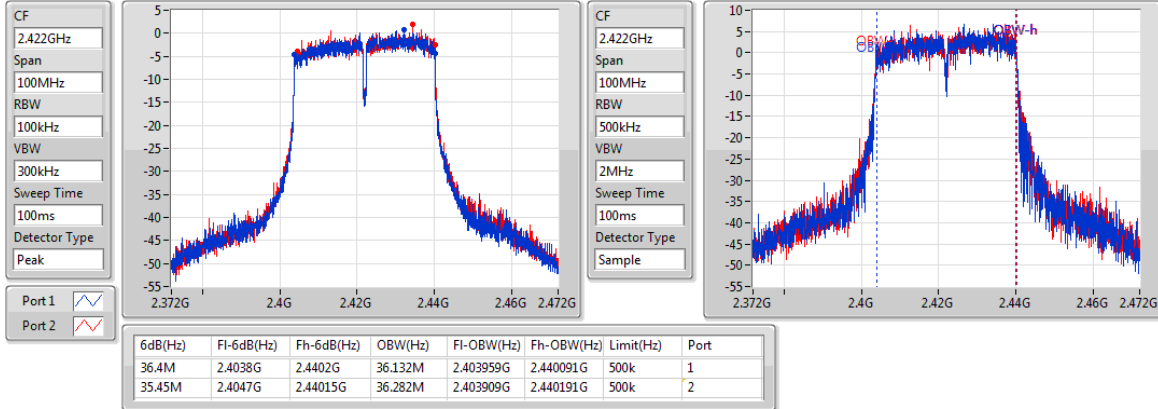

**802.11n HT20\_Nss1,(MCS0)\_2TX**
**EBW**
**2462MHz**

02/01/2019

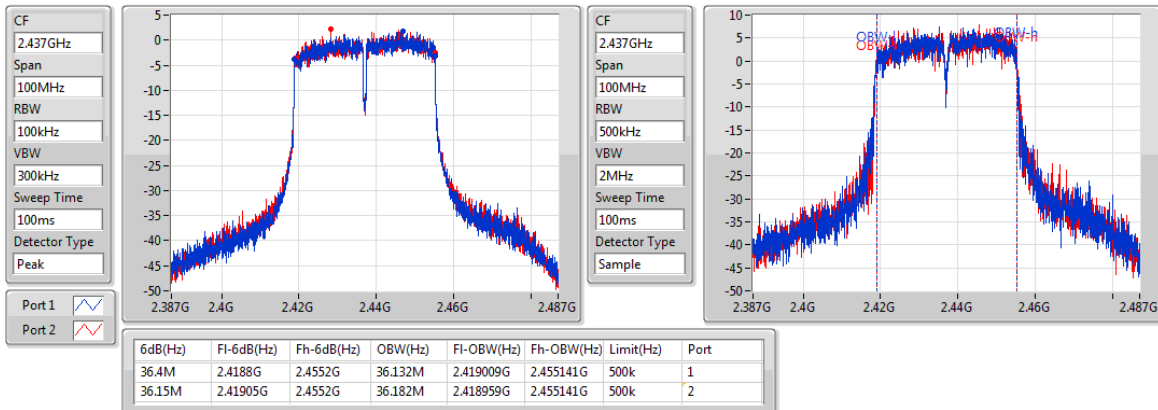


**802.11n HT40\_Nss1,(MCS0)\_2TX**
**EBW**
**2422MHz**

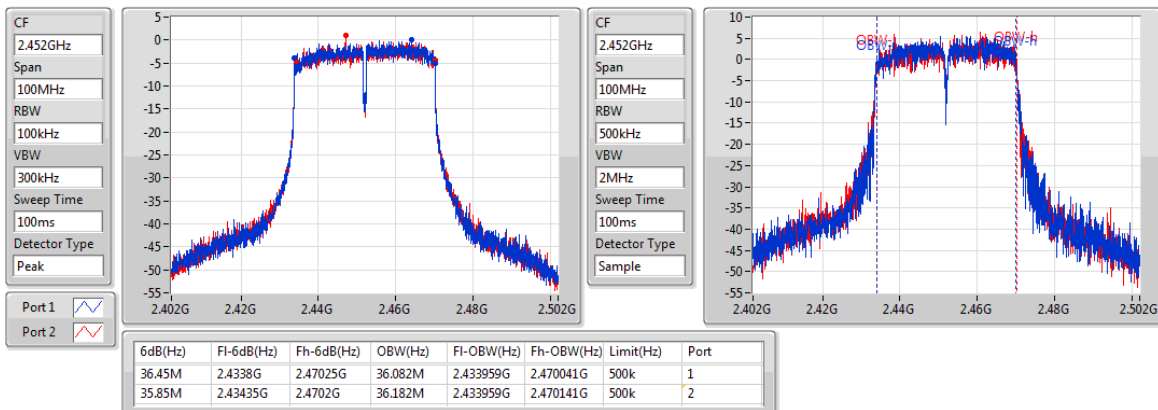
02/01/2019


**802.11n HT40\_Nss1,(MCS0)\_2TX**
**EBW**
**2437MHz**

02/01/2019


**802.11n HT40\_Nss1,(MCS0)\_2TX**
**EBW**
**2452MHz**

02/01/2019





**Summary**

| Mode                         | Total Power<br>(dBm) | Total Power<br>(W) |
|------------------------------|----------------------|--------------------|
| 2.4-2.4835GHz                | -                    | -                  |
| 802.11b_Nss1,(1Mbps)_2TX     | 25.37                | 0.34435            |
| 802.11g_Nss1,(6Mbps)_2TX     | 25.25                | 0.33497            |
| 802.11n HT20_Nss1,(MCS0)_2TX | 25.19                | 0.33037            |
| 802.11n HT40_Nss1,(MCS0)_2TX | 20.23                | 0.10544            |

**Result**

| Mode                         | Result | DG<br>(dBi) | Port 1<br>(dBm) | Port 2<br>(dBm) | Total Power<br>(dBm) | Power Limit<br>(dBm) |
|------------------------------|--------|-------------|-----------------|-----------------|----------------------|----------------------|
| 802.11b_Nss1,(1Mbps)_2TX     | -      | -           | -               | -               | -                    | -                    |
| 2412MHz                      | Pass   | 5.00        | 21.75           | 21.61           | 24.69                | 30.00                |
| 2417MHz                      | Pass   | 5.00        | 22.39           | 22.33           | 25.37                | 30.00                |
| 2437MHz                      | Pass   | 5.00        | 22.21           | 22.12           | 25.18                | 30.00                |
| 2462MHz                      | Pass   | 5.00        | 22.30           | 22.38           | 25.35                | 30.00                |
| 802.11g_Nss1,(6Mbps)_2TX     | -      | -           | -               | -               | -                    | -                    |
| 2412MHz                      | Pass   | 5.00        | 17.07           | 17.03           | 20.06                | 30.00                |
| 2417MHz                      | Pass   | 5.00        | 18.35           | 18.12           | 21.25                | 30.00                |
| 2422MHz                      | Pass   | 5.00        | 19.71           | 19.55           | 22.64                | 30.00                |
| 2427MHz                      | Pass   | 5.00        | 21.03           | 20.78           | 23.92                | 30.00                |
| 2432MHz                      | Pass   | 5.00        | 22.07           | 21.95           | 25.02                | 30.00                |
| 2437MHz                      | Pass   | 5.00        | 22.30           | 22.18           | 25.25                | 30.00                |
| 2442MHz                      | Pass   | 5.00        | 22.02           | 21.80           | 24.92                | 30.00                |
| 2447MHz                      | Pass   | 5.00        | 21.58           | 21.39           | 24.50                | 30.00                |
| 2452MHz                      | Pass   | 5.00        | 20.37           | 20.12           | 23.26                | 30.00                |
| 2457MHz                      | Pass   | 5.00        | 18.88           | 18.64           | 21.77                | 30.00                |
| 2462MHz                      | Pass   | 5.00        | 17.61           | 17.65           | 20.64                | 30.00                |
| 802.11n HT20_Nss1,(MCS0)_2TX | -      | -           | -               | -               | -                    | -                    |
| 2412MHz                      | Pass   | 5.00        | 17.53           | 17.42           | 20.49                | 30.00                |
| 2417MHz                      | Pass   | 5.00        | 18.17           | 18.10           | 21.15                | 30.00                |
| 2422MHz                      | Pass   | 5.00        | 19.00           | 18.93           | 21.98                | 30.00                |
| 2427MHz                      | Pass   | 5.00        | 20.94           | 20.76           | 23.86                | 30.00                |
| 2432MHz                      | Pass   | 5.00        | 21.19           | 21.11           | 24.16                | 30.00                |
| 2437MHz                      | Pass   | 5.00        | 22.24           | 22.12           | 25.19                | 30.00                |
| 2442MHz                      | Pass   | 5.00        | 21.90           | 21.77           | 24.85                | 30.00                |
| 2447MHz                      | Pass   | 5.00        | 21.23           | 20.96           | 24.11                | 30.00                |
| 2452MHz                      | Pass   | 5.00        | 19.90           | 19.70           | 22.81                | 30.00                |
| 2457MHz                      | Pass   | 5.00        | 18.81           | 18.61           | 21.72                | 30.00                |
| 2462MHz                      | Pass   | 5.00        | 18.07           | 17.96           | 21.03                | 30.00                |
| 802.11n HT40_Nss1,(MCS0)_2TX | -      | -           | -               | -               | -                    | -                    |
| 2422MHz                      | Pass   | 5.00        | 15.76           | 15.81           | 18.80                | 30.00                |
| 2427MHz                      | Pass   | 5.00        | 15.81           | 15.62           | 18.73                | 30.00                |
| 2432MHz                      | Pass   | 5.00        | 16.35           | 16.28           | 19.33                | 30.00                |
| 2437MHz                      | Pass   | 5.00        | 17.23           | 17.21           | 20.23                | 30.00                |
| 2442MHz                      | Pass   | 5.00        | 16.19           | 16.07           | 19.14                | 30.00                |
| 2447MHz                      | Pass   | 5.00        | 16.20           | 15.39           | 18.82                | 30.00                |



## AV Power Result

## Appendix C

| Mode    | Result | DG<br>(dBi) | Port 1<br>(dBm) | Port 2<br>(dBm) | Total Power<br>(dBm) | Power Limit<br>(dBm) |
|---------|--------|-------------|-----------------|-----------------|----------------------|----------------------|
| 2452MHz | Pass   | 5.00        | 15.59           | 15.35           | 18.48                | 30.00                |

DG = Directional Gain; Port X = Port X output power

Note : Conducted average output power is for reference only

**Summary**

| Mode                         | PD<br>(dBm/RBW) |
|------------------------------|-----------------|
| 2.4-2.4835GHz                | -               |
| 802.11b_Nss1,(1Mbps)_2TX     | 1.39            |
| 802.11g_Nss1,(6Mbps)_2TX     | -2.73           |
| 802.11n HT20_Nss1,(MCS0)_2TX | -2.86           |
| 802.11n HT40_Nss1,(MCS0)_2TX | -9.71           |

RBW=3kHz.

**Result**

| Mode                         | Result | DG<br>(dBi) | Port 1<br>(dBm/RBW) | Port 2<br>(dBm/RBW) | PD<br>(dBm/RBW) | PD Limit<br>(dBm/RBW) |
|------------------------------|--------|-------------|---------------------|---------------------|-----------------|-----------------------|
| 802.11b_Nss1,(1Mbps)_2TX     | -      | -           | -                   | -                   | -               | -                     |
| 2412MHz                      | Pass   | 8.01        | -1.31               | -0.69               | 1.39            | 5.99                  |
| 2437MHz                      | Pass   | 8.01        | -1.62               | -1.10               | 0.22            | 5.99                  |
| 2462MHz                      | Pass   | 8.01        | -0.73               | -0.45               | 0.99            | 5.99                  |
| 802.11g_Nss1,(6Mbps)_2TX     | -      | -           | -                   | -                   | -               | -                     |
| 2412MHz                      | Pass   | 8.01        | -8.42               | -7.50               | -7.09           | 5.99                  |
| 2437MHz                      | Pass   | 8.01        | -3.80               | -4.29               | -2.73           | 5.99                  |
| 2462MHz                      | Pass   | 8.01        | -8.21               | -8.44               | -6.96           | 5.99                  |
| 802.11n HT20_Nss1,(MCS0)_2TX | -      | -           | -                   | -                   | -               | -                     |
| 2412MHz                      | Pass   | 8.01        | -8.66               | -8.47               | -7.35           | 5.99                  |
| 2437MHz                      | Pass   | 8.01        | -4.15               | -3.47               | -2.86           | 5.99                  |
| 2462MHz                      | Pass   | 8.01        | -8.54               | -7.37               | -5.37           | 5.99                  |
| 802.11n HT40_Nss1,(MCS0)_2TX | -      | -           | -                   | -                   | -               | -                     |
| 2422MHz                      | Pass   | 8.01        | -12.88              | -12.60              | -11.05          | 5.99                  |
| 2437MHz                      | Pass   | 8.01        | -11.06              | -11.66              | -9.71           | 5.99                  |
| 2452MHz                      | Pass   | 8.01        | -12.62              | -13.50              | -11.73          | 5.99                  |

**DG** = Directional Gain; RBW=3kHz;

**PD** = trace bin-by-bin of each transmits port summing can be performed maximum power density; **Port X** = Port Xpower density;

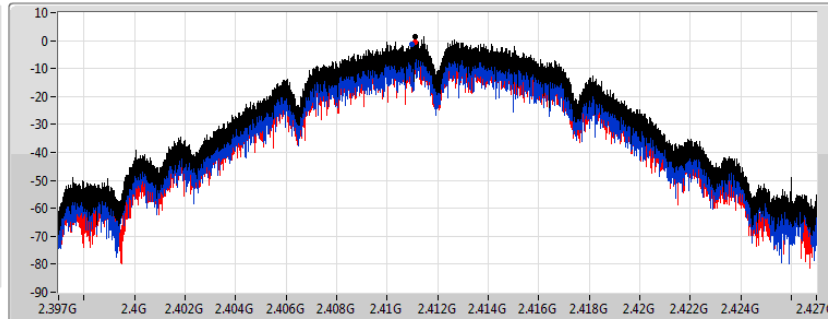
### 802.11b\_Nss1,(1Mbps)\_2TX

2412MHz

PSD

02/01/2019

CF  
2.412GHz  
Span  
30MHz  
RBW  
3kHz  
VBW  
10kHz  
Sweep Time  
334ms  
Detector Type  
Peak



Sum  
Port 1  
Port 2

| Sum       | PD        | Port 1    | Port 2    |
|-----------|-----------|-----------|-----------|
| (dBm/RBW) | (dBm/RBW) | (dBm/RBW) | (dBm/RBW) |
| 1.39      | 1.39      | -1.31     | -0.69     |

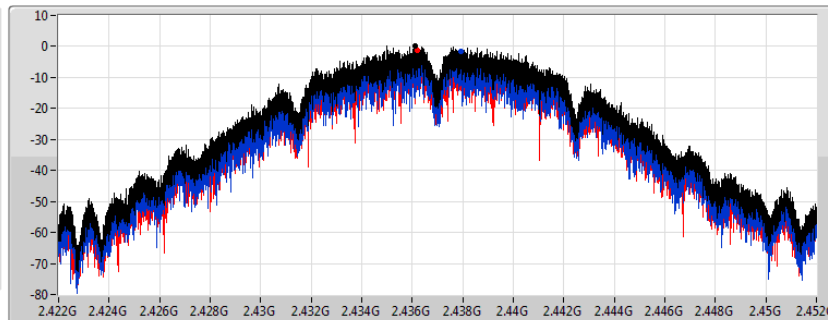
### 802.11b\_Nss1,(1Mbps)\_2TX

2437MHz

PSD

02/01/2019

CF  
2.437GHz  
Span  
30MHz  
RBW  
3kHz  
VBW  
10kHz  
Sweep Time  
334ms  
Detector Type  
Peak



Sum  
Port 1  
Port 2

| Sum       | PD        | Port 1    | Port 2    |
|-----------|-----------|-----------|-----------|
| (dBm/RBW) | (dBm/RBW) | (dBm/RBW) | (dBm/RBW) |
| 0.22      | 0.22      | -1.62     | -1.10     |

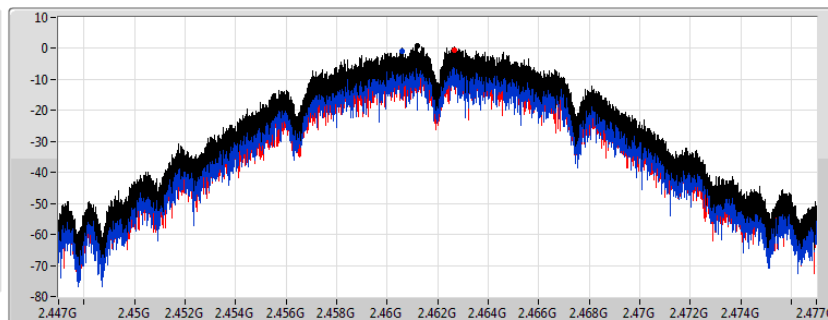
### 802.11b\_Nss1,(1Mbps)\_2TX

2462MHz

PSD

02/01/2019

CF  
2.462GHz  
Span  
30MHz  
RBW  
3kHz  
VBW  
10kHz  
Sweep Time  
334ms  
Detector Type  
Peak



Sum  
Port 1  
Port 2

| Sum       | PD        | Port 1    | Port 2    |
|-----------|-----------|-----------|-----------|
| (dBm/RBW) | (dBm/RBW) | (dBm/RBW) | (dBm/RBW) |
| 0.99      | 0.99      | -0.73     | -0.45     |

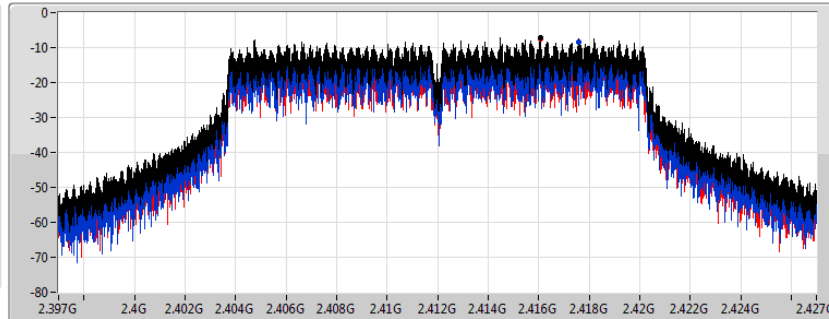
### 802.11g\_Nss1,(6Mbps)\_2TX

2412MHz

PSD

02/01/2019

CF  
2.412GHz  
Span  
30MHz  
RBW  
3kHz  
VBW  
10kHz  
Sweep Time  
334ms  
Detector Type  
Peak



Sum  
Port 1  
Port 2

| Sum      | PD       | Port 1   | Port 2   |
|----------|----------|----------|----------|
| (dBm/Hz) | (dBm/Hz) | (dBm/Hz) | (dBm/Hz) |
| -7.09    | -7.09    | -8.42    | -7.50    |

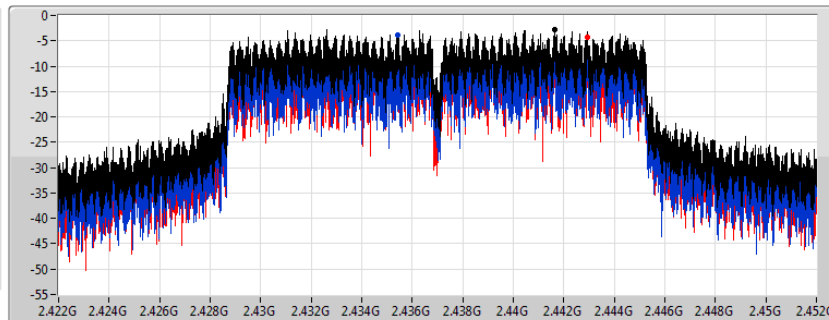
### 802.11g\_Nss1,(6Mbps)\_2TX

2437MHz

PSD

02/01/2019

CF  
2.437GHz  
Span  
30MHz  
RBW  
3kHz  
VBW  
10kHz  
Sweep Time  
334ms  
Detector Type  
Peak



Sum  
Port 1  
Port 2

| Sum      | PD       | Port 1   | Port 2   |
|----------|----------|----------|----------|
| (dBm/Hz) | (dBm/Hz) | (dBm/Hz) | (dBm/Hz) |
| -2.73    | -2.73    | -3.80    | -4.29    |

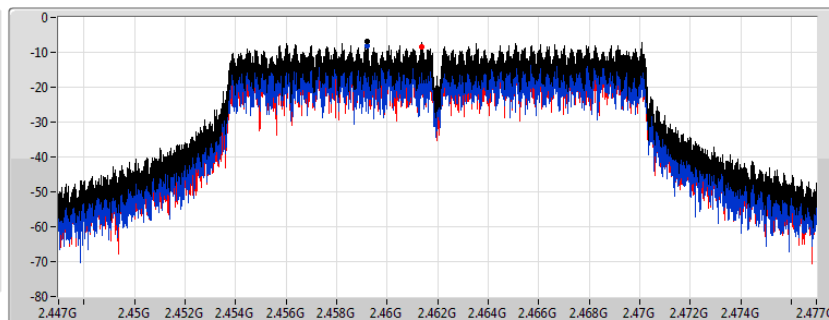
### 802.11g\_Nss1,(6Mbps)\_2TX

2462MHz

PSD

02/01/2019

CF  
2.462GHz  
Span  
30MHz  
RBW  
3kHz  
VBW  
10kHz  
Sweep Time  
334ms  
Detector Type  
Peak



Sum  
Port 1  
Port 2

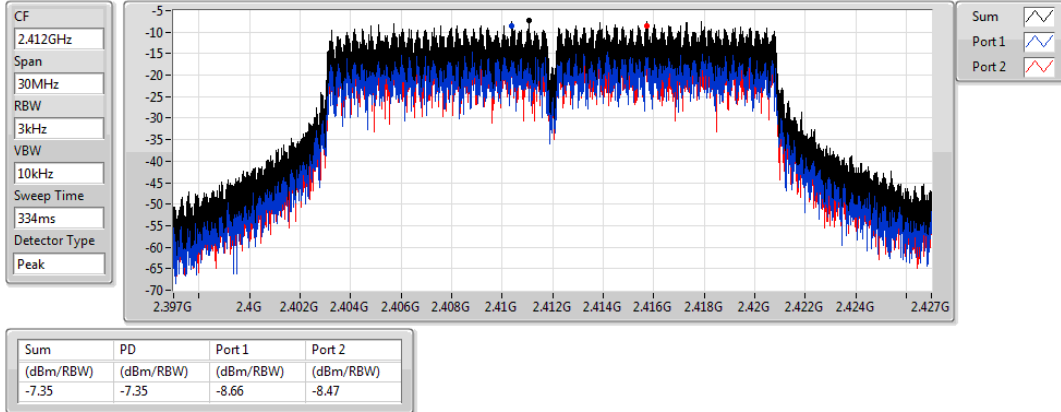
| Sum      | PD       | Port 1   | Port 2   |
|----------|----------|----------|----------|
| (dBm/Hz) | (dBm/Hz) | (dBm/Hz) | (dBm/Hz) |
| -6.96    | -6.96    | -8.21    | -8.44    |

### 802.11n HT20\_Nss1,(MCS0)\_2TX

### PSD

2412MHz

02/01/2019

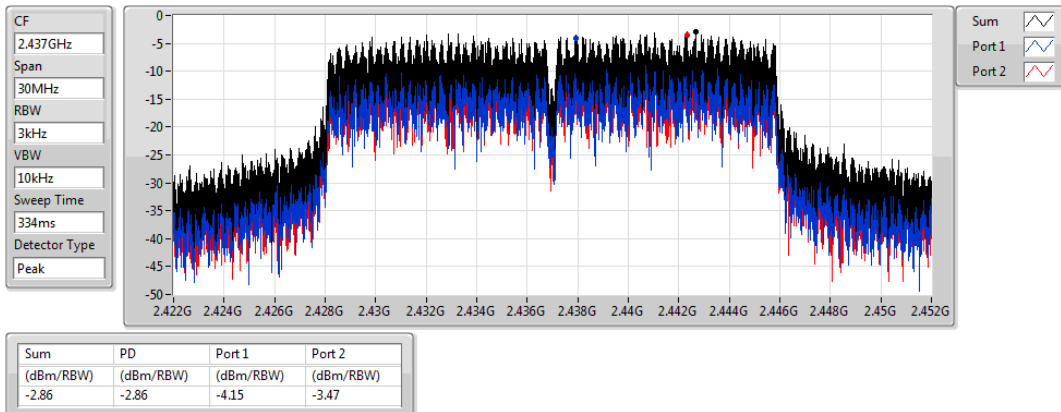


### 802.11n HT20\_Nss1,(MCS0)\_2TX

### PSD

2437MHz

02/01/2019

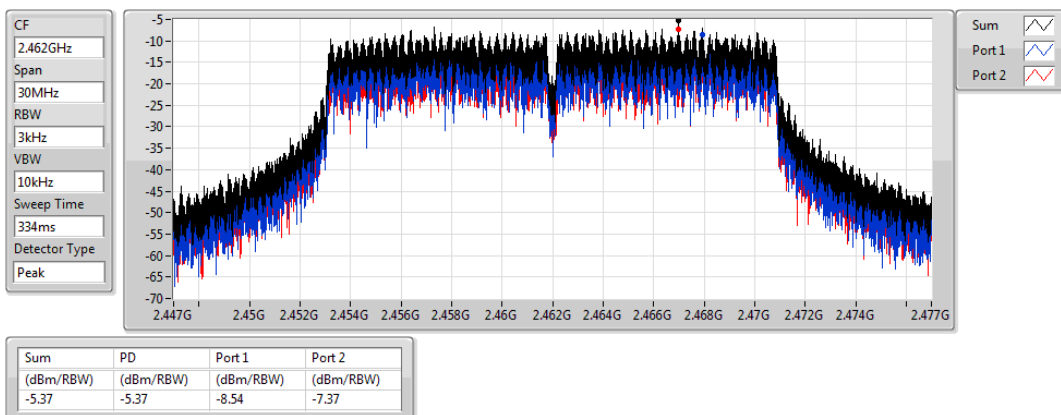


### 802.11n HT20\_Nss1,(MCS0)\_2TX

### PSD

2462MHz

02/01/2019

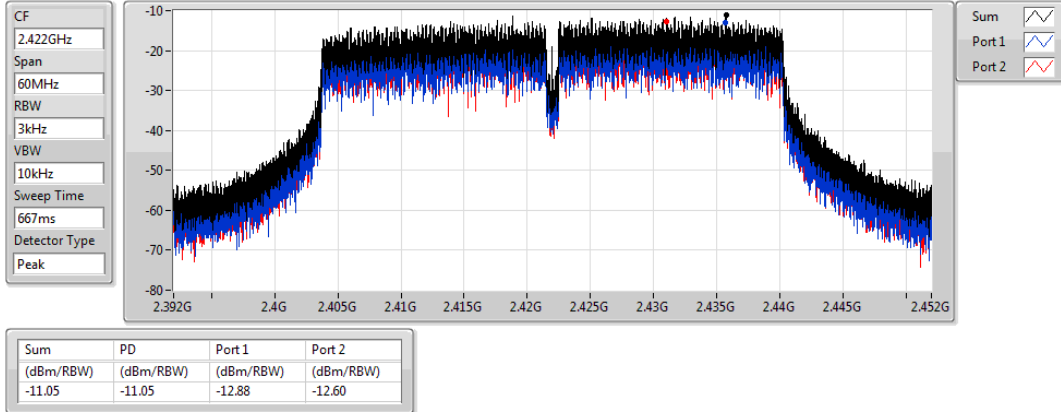


### 802.11n HT40\_Nss1,(MCS0)\_2TX

### PSD

2422MHz

02/01/2019

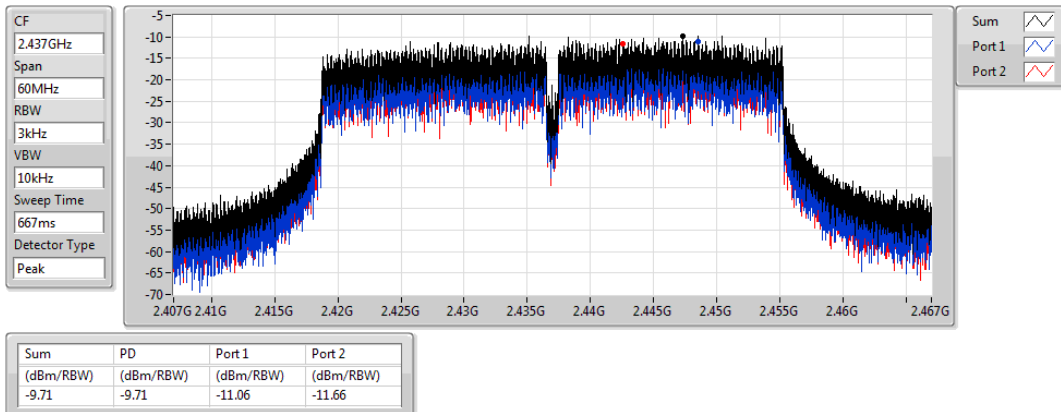


### 802.11n HT40\_Nss1,(MCS0)\_2TX

### PSD

2437MHz

02/01/2019

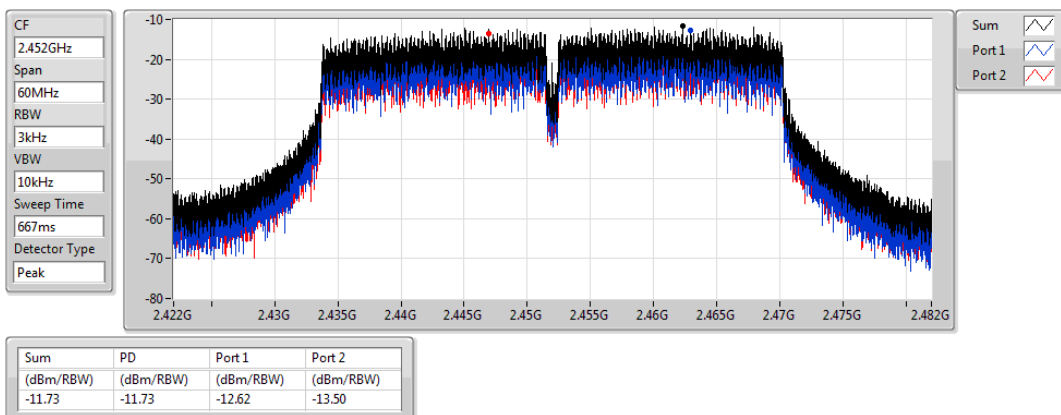


### 802.11n HT40\_Nss1,(MCS0)\_2TX

### PSD

2452MHz

02/01/2019



**Summary**

| Mode                         | Result | Ref<br>(Hz) | Ref<br>(dBm) | Limit<br>(dBm) | Freq<br>(Hz) | Level<br>(dBm) | Freq<br>(Hz) | Level<br>(dBm) | Freq<br>(Hz) | Level<br>(dBm) | Freq<br>(Hz) | Level<br>(dBm) | Port |
|------------------------------|--------|-------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|------|
| 2.4-2.4835GHz                | -      | -           | -            | -              | -            | -              | -            | -              | -            | -              | -            | -              | -    |
| 802.11b_Nss1,(1Mbps)_2TX     | Pass   | 2.4635G     | 13.45        | -16.55         | 2.30117G     | -44.90         | 2.39598G     | -29.03         | 2.52276G     | -43.58         | 24.92414G    | -30.09         | 1    |
| 802.11g_Nss1,(6Mbps)_2TX     | Pass   | 2.44175G    | 8.72         | -21.28         | 2.13661G     | -45.31         | 2.39982G     | -29.75         | 2.50922G     | -43.16         | 24.68252G    | -30.11         | 2    |
| 802.11n HT20_Nss1,(MCS0)_2TX | Pass   | 2.44451G    | 11.55        | -18.45         | 2.03467G     | -45.33         | 2.39974G     | -26.58         | 2.50876G     | -43.26         | 24.4409G     | -29.45         | 2    |
| 802.11n HT40_Nss1,(MCS0)_2TX | Pass   | 2.44542G    | 1.71         | -28.29         | 2.11991G     | -45.58         | 2.39796G     | -37.56         | 2.48538G     | -40.48         | 24.43067G    | -29.06         | 2    |

**Result**

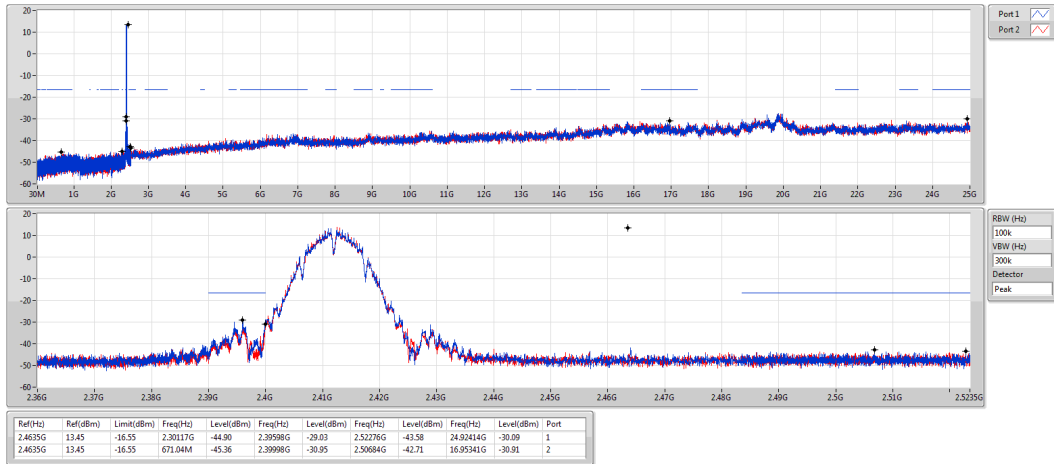
| Mode                         | Result | Ref<br>(Hz) | Ref<br>(dBm) | Limit<br>(dBm) | Freq<br>(Hz) | Level<br>(dBm) | Freq<br>(Hz) | Level<br>(dBm) | Freq<br>(Hz) | Level<br>(dBm) | Freq<br>(Hz) | Level<br>(dBm) | Port |
|------------------------------|--------|-------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|------|
| 802.11b_Nss1,(1Mbps)_2TX     | -      | -           | -            | -              | -            | -              | -            | -              | -            | -              | -            | -              | -    |
| 2412MHz_TnomVnom             | Pass   | 2.4635G     | 13.45        | -16.55         | 2.30117G     | -44.90         | 2.39598G     | -29.03         | 2.52276G     | -43.58         | 24.92414G    | -30.09         | 1    |
| 2412MHz_TnomVnom             | Pass   | 2.4635G     | 13.45        | -16.55         | 671.04M      | -45.36         | 2.39998G     | -30.95         | 2.50684G     | -42.71         | 16.95341G    | -30.91         | 2    |
| 2437MHz_TnomVnom             | Pass   | 2.4635G     | 13.45        | -16.55         | 2.037G       | -44.98         | 2.39646G     | -44.54         | 2.49382G     | -43.30         | 24.94381G    | -31.07         | 1    |
| 2437MHz_TnomVnom             | Pass   | 2.4635G     | 13.45        | -16.55         | 777.35M      | -45.29         | 2.3908G      | -44.60         | 2.51072G     | -43.18         | 24.50552G    | -30.89         | 2    |
| 2462MHz_TnomVnom             | Pass   | 2.4635G     | 13.45        | -16.55         | 2.11972G     | -45.17         | 2.39518G     | -44.69         | 2.48358G     | -40.83         | 24.92414G    | -31.26         | 1    |
| 2462MHz_TnomVnom             | Pass   | 2.4635G     | 13.45        | -16.55         | 2.00759G     | -44.73         | 2.3901G      | -44.22         | 2.48562G     | -41.72         | 17.55185G    | -30.91         | 2    |
| 802.11g_Nss1,(6Mbps)_2TX     | -      | -           | -            | -              | -            | -              | -            | -              | -            | -              | -            | -              | -    |
| 2412MHz_TnomVnom             | Pass   | 2.44175G    | 8.72         | -21.28         | 2.13865G     | -44.38         | 2.39978G     | -29.77         | 2.52132G     | -43.40         | 24.46337G    | -29.88         | 1    |
| 2412MHz_TnomVnom             | Pass   | 2.44175G    | 8.72         | -21.28         | 2.13661G     | -45.31         | 2.39982G     | -29.75         | 2.50922G     | -43.16         | 24.68252G    | -30.11         | 2    |
| 2437MHz_TnomVnom             | Pass   | 2.44175G    | 8.72         | -21.28         | 2.13108G     | -45.76         | 2.39884G     | -35.21         | 2.48666G     | -40.78         | 24.44371G    | -30.24         | 1    |
| 2437MHz_TnomVnom             | Pass   | 2.44175G    | 8.72         | -21.28         | 1.71576G     | -45.00         | 2.39976G     | -35.39         | 2.48782G     | -40.51         | 24.47461G    | -29.92         | 2    |
| 2462MHz_TnomVnom             | Pass   | 2.44175G    | 8.72         | -21.28         | 2.13661G     | -43.92         | 2.39502G     | -44.54         | 2.4851G      | -40.34         | 24.71062G    | -30.43         | 1    |
| 2462MHz_TnomVnom             | Pass   | 2.44175G    | 8.72         | -21.28         | 2.00817G     | -44.19         | 2.39658G     | -44.10         | 2.4846G      | -40.13         | 23.39574G    | -29.99         | 2    |
| 802.11n HT20_Nss1,(MCS0)_2TX | -      | -           | -            | -              | -            | -              | -            | -              | -            | -              | -            | -              | -    |
| 2412MHz_TnomVnom             | Pass   | 2.44451G    | 11.55        | -18.45         | 2.19486G     | -45.09         | 2.39986G     | -27.39         | 2.48952G     | -42.18         | 24.44652G    | -29.94         | 1    |
| 2412MHz_TnomVnom             | Pass   | 2.44451G    | 11.55        | -18.45         | 2.03467G     | -45.33         | 2.39974G     | -26.58         | 2.50876G     | -43.26         | 24.4409G     | -29.45         | 2    |
| 2437MHz_TnomVnom             | Pass   | 2.44451G    | 11.55        | -18.45         | 2.10108G     | -45.50         | 2.39824G     | -34.35         | 2.48358G     | -37.08         | 24.34537G    | -29.58         | 1    |
| 2437MHz_TnomVnom             | Pass   | 2.44451G    | 11.55        | -18.45         | 2.13749G     | -44.56         | 2.398G       | -34.44         | 2.4893G      | -40.62         | 24.51956G    | -29.48         | 2    |
| 2462MHz_TnomVnom             | Pass   | 2.44451G    | 11.55        | -18.45         | 2.12176G     | -44.51         | 2.39848G     | -44.18         | 2.4851G      | -38.20         | 24.2948G     | -29.81         | 1    |
| 2462MHz_TnomVnom             | Pass   | 2.44451G    | 11.55        | -18.45         | 2.10195G     | -45.26         | 2.39978G     | -43.22         | 2.48356G     | -37.66         | 24.16837G    | -28.85         | 2    |
| 802.11n HT40_Nss1,(MCS0)_2TX | -      | -           | -            | -              | -            | -              | -            | -              | -            | -              | -            | -              | -    |
| 2422MHz_TnomVnom             | Pass   | 2.44542G    | 1.71         | -28.29         | 2.089G       | -44.27         | 2.39996G     | -34.26         | 2.53598G     | -43.02         | 24.3858G     | -30.14         | 1    |
| 2422MHz_TnomVnom             | Pass   | 2.44542G    | 1.71         | -28.29         | 2.07583G     | -44.21         | 2.39924G     | -32.29         | 2.49194G     | -42.24         | 24.41104G    | -29.32         | 2    |
| 2437MHz_TnomVnom             | Pass   | 2.44542G    | 1.71         | -28.29         | 2.1388G      | -45.06         | 2.39824G     | -38.18         | 2.48382G     | -41.42         | 23.36774G    | -29.39         | 1    |
| 2437MHz_TnomVnom             | Pass   | 2.44542G    | 1.71         | -28.29         | 2.11991G     | -45.58         | 2.39796G     | -37.56         | 2.48538G     | -40.48         | 24.43067G    | -29.06         | 2    |
| 2452MHz_TnomVnom             | Pass   | 2.44542G    | 1.71         | -28.29         | 2.12421G     | -44.34         | 2.39208G     | -43.45         | 2.4867G      | -38.12         | 24.71393G    | -30.58         | 1    |
| 2452MHz_TnomVnom             | Pass   | 2.44542G    | 1.71         | -28.29         | 1.90093G     | -45.23         | 2.39796G     | -42.45         | 2.48506G     | -38.61         | 24.00158G    | -29.66         | 2    |



802.11b\_Nss1,(1Mbps)\_2TX  
2412MHz

CSE NdB

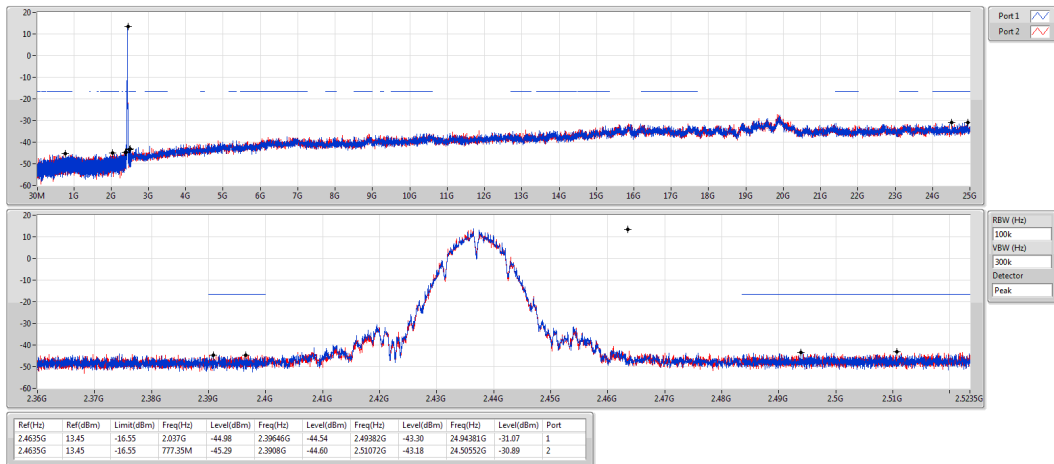
02/01/2019



802.11b\_Nss1,(1Mbps)\_2TX  
2437MHz

CSE NdB

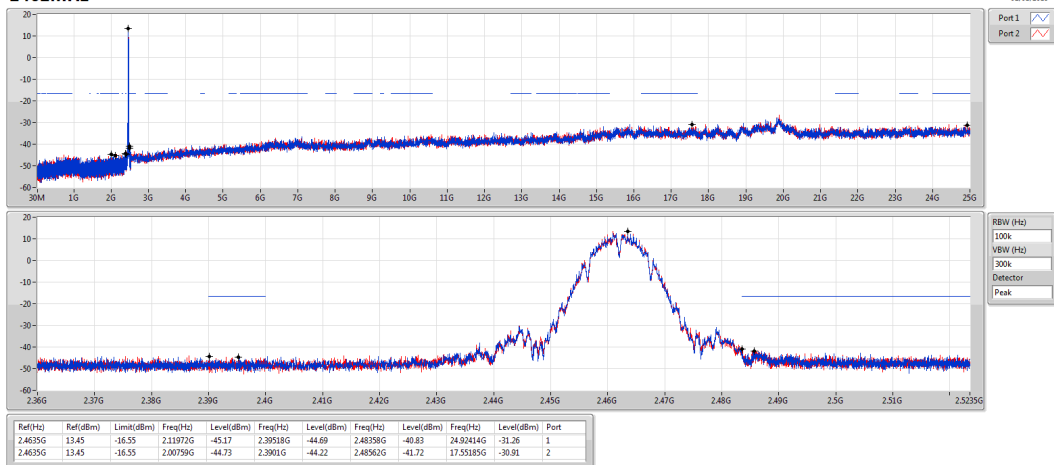
02/01/2019



802.11b\_Nss1,(1Mbps)\_2TX  
2462MHz

CSE NdB

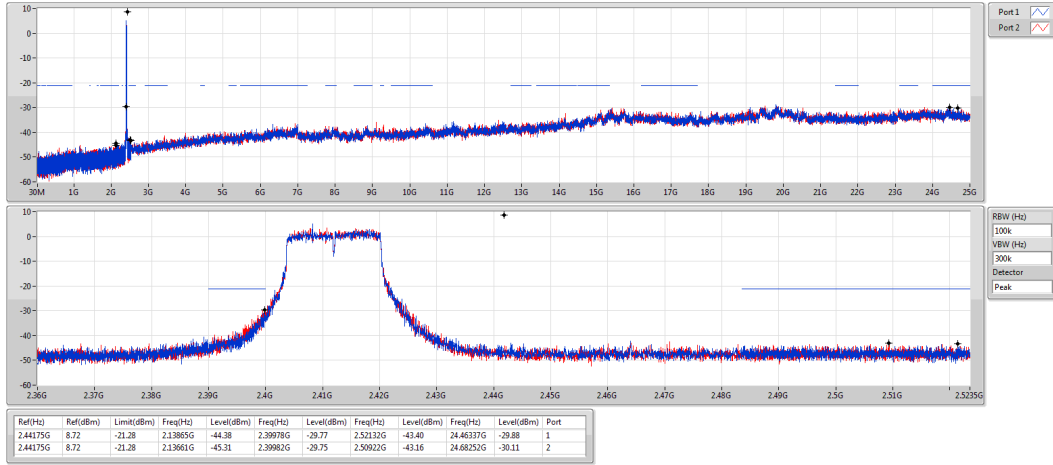
02/01/2019



802.11g\_Nss1.(6Mbps)\_2TX

CSE NdB

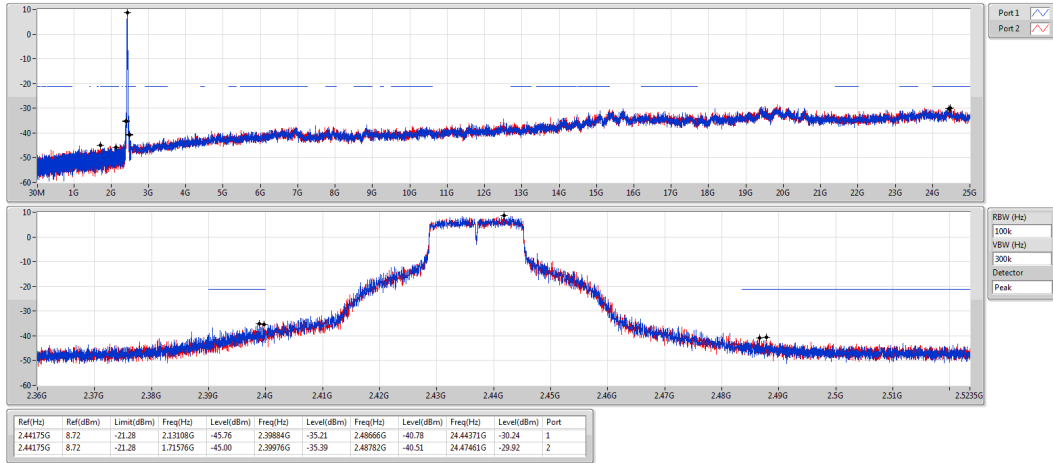
2412MHz



802.11g\_Nss1.(6Mbps)\_2TX

CSE NdB

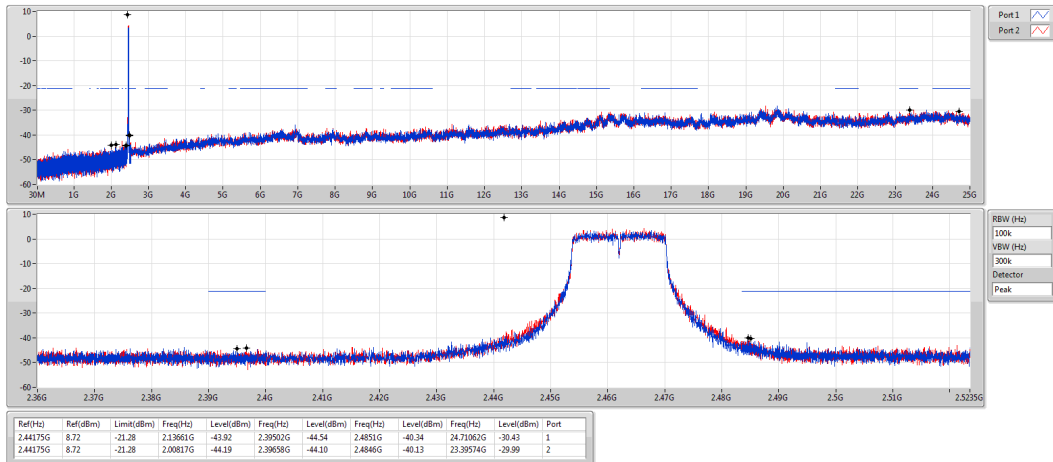
2437MHz



802.11g\_Nss1.(6Mbps)\_2TX

CSE NdB

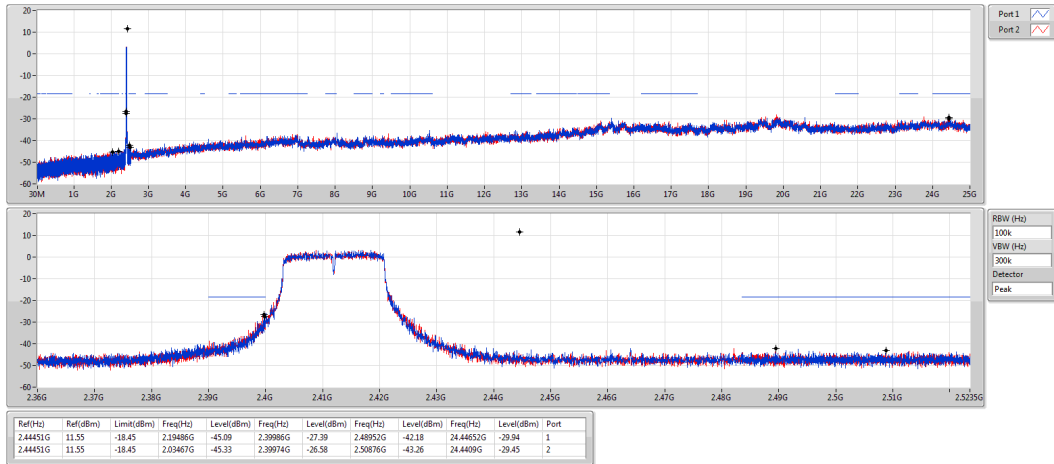
2462MHz



## 802.11n HT20\_Nss1,(MCS0)\_2TX 2412MHz

CSE NdB

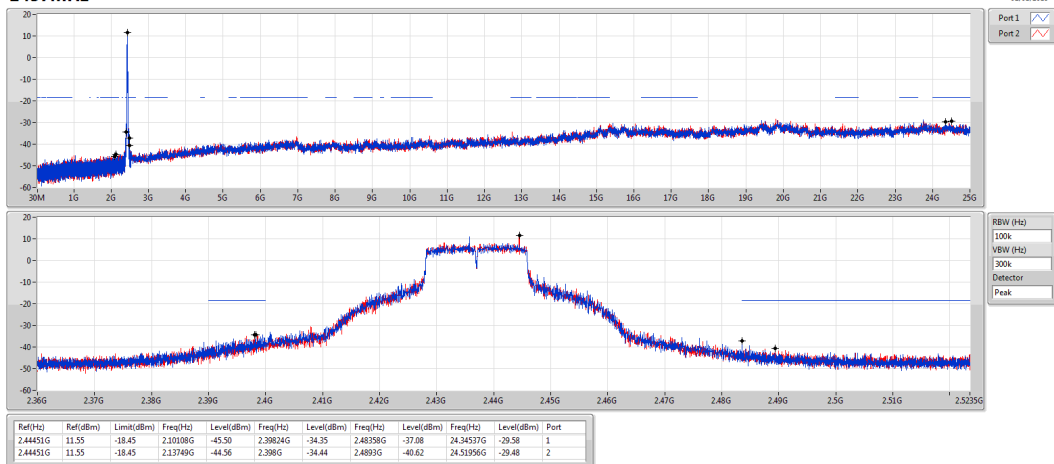
02/01/2019



## 802.11n HT20\_Nss1,(MCS0)\_2TX 2437MHz

CSE NdB

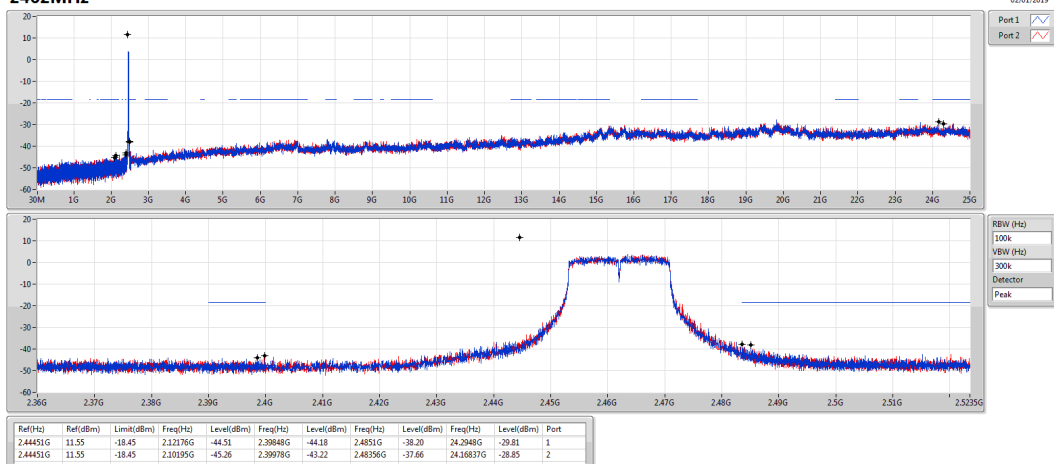
02/01/2019



## 802.11n HT20\_Nss1,(MCS0)\_2TX 2462MHz

CSE NdB

02/01/2019

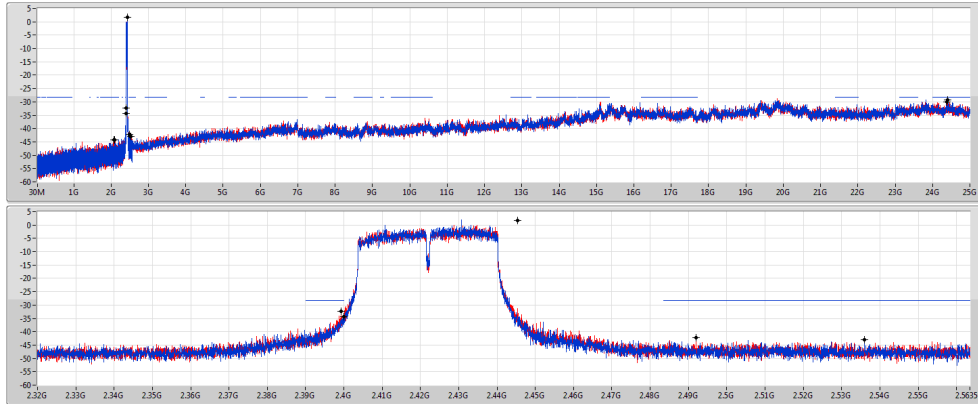


802.11n HT40\_Nss1,(MCS0)\_2TX

CSE NdB

2422MHz

02/01/2019



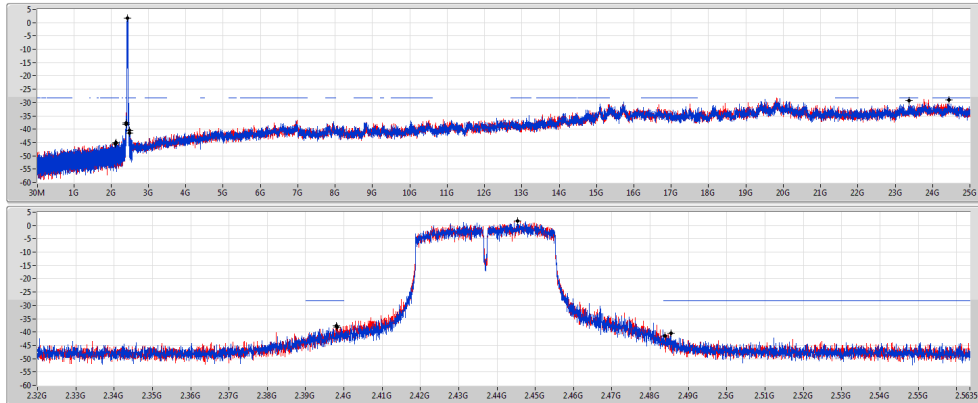
| Ref(Hz) | Ref(dBm) | Limit(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz)  | Level(dBm) | Port |
|---------|----------|------------|----------|------------|----------|------------|----------|------------|-----------|------------|------|
| 244542G | 1.71     | -28.29     | 2.089G   | -44.27     | 2.39996G | -34.26     | 2.53598G | -43.02     | 24.3859G  | -30.14     | 1    |
| 244542G | 1.71     | -28.29     | 2.07583G | -44.21     | 2.39924G | -32.29     | 2.49194G | -42.24     | 24.41104G | -29.32     | 2    |

802.11n HT40\_Nss1,(MCS0)\_2TX

CSE NdB

2437MHz

02/01/2019



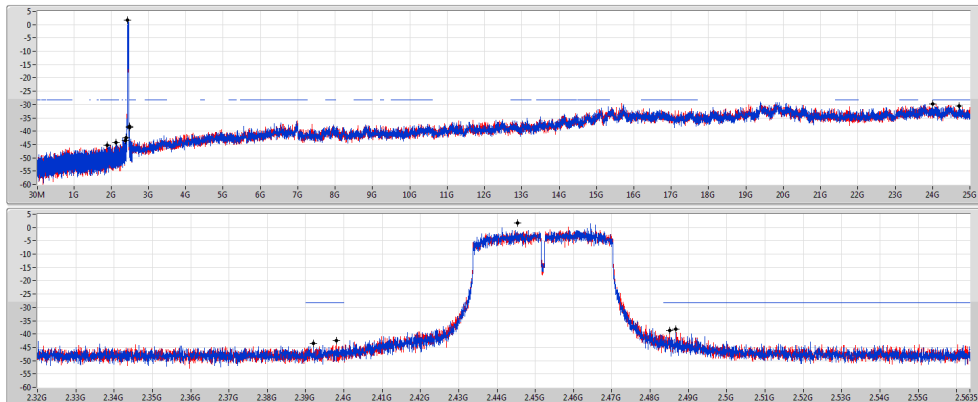
| Ref(Hz) | Ref(dBm) | Limit(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz)  | Level(dBm) | Port |
|---------|----------|------------|----------|------------|----------|------------|----------|------------|-----------|------------|------|
| 244542G | 1.71     | -28.29     | 2.1388G  | -45.06     | 2.39824G | -38.18     | 2.48382G | -41.42     | 23.36774G | -29.39     | 1    |
| 244542G | 1.71     | -28.29     | 2.11991G | -45.58     | 2.39796G | -37.56     | 2.48538G | -40.48     | 24.43067G | -29.06     | 2    |

802.11n HT40\_Nss1,(MCS0)\_2TX

CSE NdB

2452MHz

02/01/2019



| Ref(Hz) | Ref(dBm) | Limit(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz)  | Level(dBm) | Port |
|---------|----------|------------|----------|------------|----------|------------|----------|------------|-----------|------------|------|
| 244542G | 1.71     | -28.29     | 2.12421G | -44.34     | 2.39208G | -43.45     | 2.4867G  | -38.12     | 24.71393G | -30.58     | 1    |
| 244542G | 1.71     | -28.29     | 1.90093G | -45.23     | 2.39796G | -42.45     | 2.48506G | -38.61     | 24.00158G | -29.66     | 2    |

**Summary**

| Mode                         | Result | Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|------------------------------|--------|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| 2.4-2.4835GHz                | -      | -    | -            | -                 | -                 | -              | -              | -           | -          | -              | -             | -        |
| 802.11n HT40_Nss1,(MCS0)_2TX | Pass   | PK   | 299.66M      | 42.84             | 46.00             | -3.16          | -5.86          | 3           | Horizontal | 360            | 1.00          | -        |

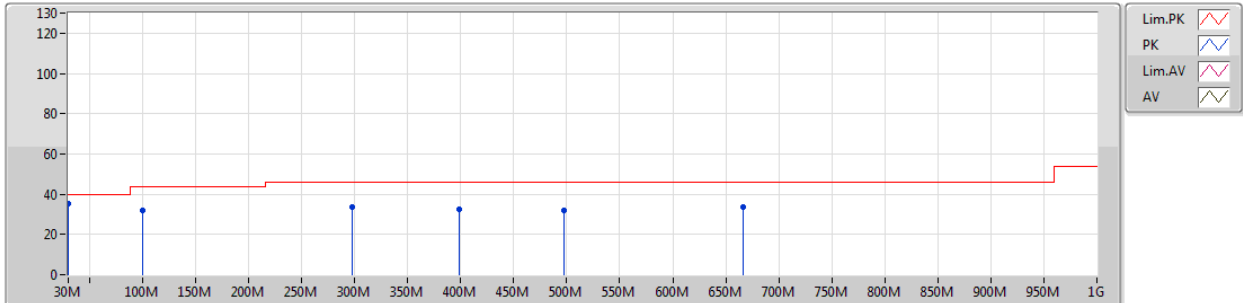
**Result**

| Mode                         | Result | Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|------------------------------|--------|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| 802.11n HT40_Nss1,(MCS0)_2TX | -      | -    | -            | -                 | -                 | -              | -              | -           | -          | -              | -             | -        |
| 2437MHz                      | Pass   | PK   | 30M          | 35.35             | 40.00             | -4.65          | -4.63          | 3           | Vertical   | 0              | 1.00          | -        |
| 2437MHz                      | Pass   | PK   | 99.84M       | 31.99             | 43.50             | -11.51         | -10.24         | 3           | Vertical   | 0              | 1.00          | -        |
| 2437MHz                      | Pass   | PK   | 297.72M      | 33.41             | 46.00             | -12.59         | -5.90          | 3           | Vertical   | 0              | 1.00          | -        |
| 2437MHz                      | Pass   | PK   | 398.6M       | 32.54             | 46.00             | -13.46         | -3.85          | 3           | Vertical   | 0              | 1.00          | -        |
| 2437MHz                      | Pass   | PK   | 497.54M      | 31.72             | 46.00             | -14.28         | -2.37          | 3           | Vertical   | 0              | 1.00          | -        |
| 2437MHz                      | Pass   | PK   | 666.32M      | 33.61             | 46.00             | -12.39         | -0.28          | 3           | Vertical   | 0              | 1.00          | -        |
| 2437MHz                      | Pass   | PK   | 99.84M       | 38.51             | 43.50             | -4.99          | -10.24         | 3           | Horizontal | 360            | 1.00          | -        |
| 2437MHz                      | Pass   | PK   | 214.3M       | 39.24             | 43.50             | -4.26          | -10.54         | 3           | Horizontal | 360            | 1.00          | -        |
| 2437MHz                      | Pass   | PK   | 299.66M      | 42.84             | 46.00             | -3.16          | -5.86          | 3           | Horizontal | 360            | 1.00          | -        |
| 2437MHz                      | Pass   | PK   | 398.6M       | 32.59             | 46.00             | -13.41         | -3.85          | 3           | Horizontal | 360            | 1.00          | -        |
| 2437MHz                      | Pass   | PK   | 497.54M      | 33.50             | 46.00             | -12.50         | -2.37          | 3           | Horizontal | 360            | 1.00          | -        |
| 2437MHz                      | Pass   | PK   | 800.18M      | 36.24             | 46.00             | -9.76          | 1.20           | 3           | Horizontal | 360            | 1.00          | -        |

## 802.11n HT40\_Nss1,(MCS0)\_2TX

## 2437MHz\_TX

08/01/2019

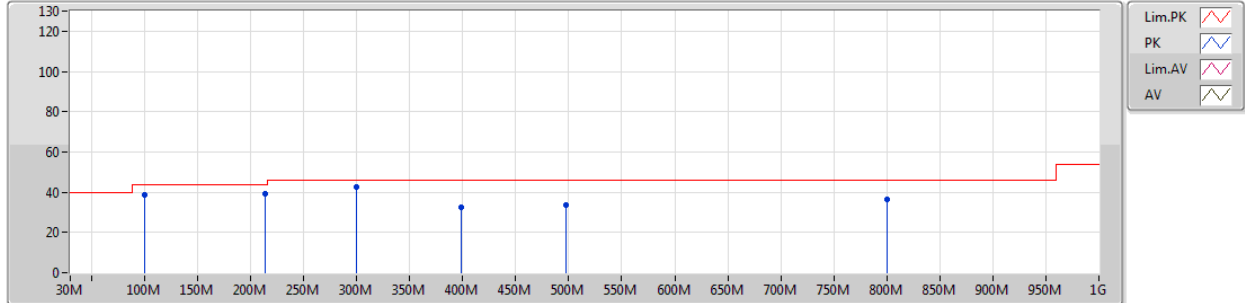


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| PK   | 30M          | 35.35             | 40.00             | -4.65          | -4.63          | 3           | Vertical  | 0              | 1.00          | -        |
| PK   | 99.84M       | 31.99             | 43.50             | -11.51         | -10.24         | 3           | Vertical  | 0              | 1.00          | -        |
| PK   | 297.72M      | 33.41             | 46.00             | -12.59         | -5.90          | 3           | Vertical  | 0              | 1.00          | -        |
| PK   | 398.6M       | 32.54             | 46.00             | -13.46         | -3.85          | 3           | Vertical  | 0              | 1.00          | -        |
| PK   | 497.54M      | 31.72             | 46.00             | -14.28         | -2.37          | 3           | Vertical  | 0              | 1.00          | -        |
| PK   | 666.32M      | 33.61             | 46.00             | -12.39         | -0.28          | 3           | Vertical  | 0              | 1.00          | -        |

## 802.11n HT40\_Nss1,(MCS0)\_2TX

08/01/2019

## 2437MHz\_TX



| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| PK   | 99.84M       | 38.51             | 43.50             | -4.99          | -10.24         | 3           | Horizontal | 360            | 1.00          | -        |
| PK   | 214.3M       | 39.24             | 43.50             | -4.26          | -10.54         | 3           | Horizontal | 360            | 1.00          | -        |
| PK   | 299.66M      | 42.84             | 46.00             | -3.16          | -5.86          | 3           | Horizontal | 360            | 1.00          | -        |
| PK   | 398.6M       | 32.59             | 46.00             | -13.41         | -3.85          | 3           | Horizontal | 360            | 1.00          | -        |
| PK   | 497.54M      | 33.50             | 46.00             | -12.50         | -2.37          | 3           | Horizontal | 360            | 1.00          | -        |
| PK   | 800.18M      | 36.24             | 46.00             | -9.76          | 1.20           | 3           | Horizontal | 360            | 1.00          | -        |



**Summary**

| Mode                         | Result | Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------------------------------|--------|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| 2.4-2.4835GHz                | -      | -    | -            | -                 | -                 | -              | -              | -           | -         | -              | -             | -        |
| 802.11b_Nss1,(1Mbps)_2TX     | Pass   | AV   | 2.3872G      | 53.61             | 54.00             | -0.39          | 32.00          | 3           | Vertical  | 142            | 1.50          | -        |
| 802.11g_Nss1,(6Mbps)_2TX     | Pass   | AV   | 2.389G       | 53.85             | 54.00             | -0.15          | 32.00          | 3           | Vertical  | 248            | 1.50          | -        |
| 802.11n HT20_Nss1,(MCS0)_2TX | Pass   | AV   | 2.39G        | 53.69             | 54.00             | -0.31          | 32.01          | 3           | Vertical  | 186            | 1.50          | -        |
| 802.11n HT40_Nss1,(MCS0)_2TX | Pass   | AV   | 2.3898G      | 53.83             | 54.00             | -0.17          | 32.01          | 3           | Vertical  | 143            | 1.50          | -        |

**Result**

| Mode                     | Result | Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|--------------------------|--------|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| 802.11b_Nss1,(1Mbps)_2TX | -      | -    | -            | -                 | -                 | -              | -              | -           | -          | -              | -             | -        |
| 2412MHz                  | Pass   | AV   | 2.3872G      | 53.61             | 54.00             | -0.39          | 32.00          | 3           | Vertical   | 142            | 1.50          | -        |
| 2412MHz                  | Pass   | AV   | 2.4136G      | 112.47            | Inf               | -Inf           | 32.08          | 3           | Vertical   | 142            | 1.50          | -        |
| 2412MHz                  | Pass   | PK   | 2.387G       | 61.63             | 74.00             | -12.37         | 32.00          | 3           | Vertical   | 142            | 1.50          | -        |
| 2412MHz                  | Pass   | PK   | 2.414G       | 115.92            | Inf               | -Inf           | 32.08          | 3           | Vertical   | 142            | 1.50          | -        |
| 2412MHz                  | Pass   | AV   | 4.82694G     | 46.83             | 54.00             | -7.17          | 3.59           | 3           | Vertical   | 194            | 2.91          | -        |
| 2412MHz                  | Pass   | PK   | 4.827G       | 51.50             | 74.00             | -22.50         | 3.59           | 3           | Vertical   | 194            | 2.91          | -        |
| 2412MHz                  | Pass   | AV   | 4.827G       | 34.16             | 54.00             | -19.84         | 3.59           | 3           | Horizontal | 291            | 1.50          | -        |
| 2412MHz                  | Pass   | PK   | 4.821G       | 45.84             | 74.00             | -28.16         | 3.58           | 3           | Horizontal | 291            | 1.50          | -        |
| 2417MHz                  | Pass   | AV   | 2.3868G      | 51.88             | 54.00             | -2.12          | 32.00          | 3           | Vertical   | 143            | 1.50          | -        |
| 2417MHz                  | Pass   | AV   | 2.4188G      | 111.31            | Inf               | -Inf           | 32.10          | 3           | Vertical   | 143            | 1.50          | -        |
| 2417MHz                  | Pass   | PK   | 2.3876G      | 60.38             | 74.00             | -13.62         | 32.00          | 3           | Vertical   | 143            | 1.50          | -        |
| 2417MHz                  | Pass   | PK   | 2.419G       | 114.83            | Inf               | -Inf           | 32.10          | 3           | Vertical   | 143            | 1.50          | -        |
| 2437MHz                  | Pass   | AV   | 2.3882G      | 45.15             | 54.00             | -8.85          | 32.00          | 3           | Vertical   | 334            | 1.50          | -        |
| 2437MHz                  | Pass   | AV   | 2.4386G      | 112.23            | Inf               | -Inf           | 32.15          | 3           | Vertical   | 334            | 1.50          | -        |
| 2437MHz                  | Pass   | AV   | 2.4842G      | 45.51             | 54.00             | -8.49          | 32.29          | 3           | Vertical   | 334            | 1.50          | -        |
| 2437MHz                  | Pass   | PK   | 2.387G       | 57.34             | 74.00             | -16.66         | 32.00          | 3           | Vertical   | 334            | 1.50          | -        |
| 2437MHz                  | Pass   | PK   | 2.4386G      | 115.57            | Inf               | -Inf           | 32.15          | 3           | Vertical   | 334            | 1.50          | -        |
| 2437MHz                  | Pass   | PK   | 2.4978G      | 57.23             | 74.00             | -16.77         | 32.33          | 3           | Vertical   | 334            | 1.50          | -        |
| 2437MHz                  | Pass   | AV   | 4.87394G     | 52.51             | 54.00             | -1.49          | 3.69           | 3           | Vertical   | 16             | 2.93          | -        |
| 2437MHz                  | Pass   | AV   | 7.3122G      | 50.74             | 54.00             | -3.26          | 8.98           | 3           | Vertical   | 185            | 2.91          | -        |
| 2437MHz                  | Pass   | PK   | 4.87394G     | 55.76             | 74.00             | -18.24         | 3.69           | 3           | Vertical   | 16             | 2.93          | -        |
| 2437MHz                  | Pass   | PK   | 7.31184G     | 57.32             | 74.00             | -16.68         | 8.98           | 3           | Vertical   | 185            | 2.91          | -        |
| 2437MHz                  | Pass   | AV   | 4.87394G     | 38.65             | 54.00             | -15.35         | 3.69           | 3           | Horizontal | 67             | 1.22          | -        |
| 2437MHz                  | Pass   | PK   | 4.87388G     | 47.08             | 74.00             | -26.92         | 3.69           | 3           | Horizontal | 67             | 1.22          | -        |
| 2462MHz                  | Pass   | AV   | 2.4632G      | 112.65            | Inf               | -Inf           | 32.23          | 3           | Vertical   | 114            | 1.50          | -        |
| 2462MHz                  | Pass   | AV   | 2.4858G      | 52.99             | 54.00             | -1.01          | 32.30          | 3           | Vertical   | 114            | 1.50          | -        |
| 2462MHz                  | Pass   | PK   | 2.463G       | 116.39            | Inf               | -Inf           | 32.23          | 3           | Vertical   | 114            | 1.50          | -        |
| 2462MHz                  | Pass   | PK   | 2.484G       | 64.96             | 74.00             | -9.04          | 32.29          | 3           | Vertical   | 114            | 1.50          | -        |
| 2462MHz                  | Pass   | AV   | 4.92394G     | 51.11             | 54.00             | -2.89          | 3.80           | 3           | Vertical   | 106            | 2.99          | -        |
| 2462MHz                  | Pass   | AV   | 7.38414G     | 46.56             | 54.00             | -7.44          | 9.08           | 3           | Vertical   | 316            | 2.38          | -        |
| 2462MHz                  | Pass   | PK   | 4.92394G     | 54.97             | 74.00             | -19.03         | 3.80           | 3           | Vertical   | 106            | 2.99          | -        |
| 2462MHz                  | Pass   | PK   | 7.3845G      | 54.67             | 74.00             | -19.33         | 9.08           | 3           | Vertical   | 316            | 2.38          | -        |
| 2462MHz                  | Pass   | AV   | 4.92694G     | 39.18             | 54.00             | -14.82         | 3.81           | 3           | Horizontal | 3              | 1.11          | -        |
| 2462MHz                  | Pass   | PK   | 4.924G       | 48.91             | 74.00             | -25.09         | 3.80           | 3           | Horizontal | 3              | 1.11          | -        |
| 802.11g_Nss1,(6Mbps)_2TX | -      | -    | -            | -                 | -                 | -              | -              | -           | -          | -              | -             | -        |
| 2412MHz                  | Pass   | AV   | 2.39G        | 52.23             | 54.00             | -1.77          | 32.01          | 3           | Vertical   | 143            | 1.50          | -        |
| 2412MHz                  | Pass   | AV   | 2.415G       | 103.11            | Inf               | -Inf           | 32.09          | 3           | Vertical   | 143            | 1.50          | -        |
| 2412MHz                  | Pass   | PK   | 2.3898G      | 68.35             | 74.00             | -5.65          | 32.01          | 3           | Vertical   | 143            | 1.50          | -        |
| 2412MHz                  | Pass   | PK   | 2.415G       | 113.74            | Inf               | -Inf           | 32.09          | 3           | Vertical   | 143            | 1.50          | -        |
| 2412MHz                  | Pass   | AV   | 4.81098G     | 31.59             | 54.00             | -22.41         | 3.55           | 3           | Vertical   | 89             | 1.29          | -        |
| 2412MHz                  | Pass   | PK   | 4.82586G     | 45.70             | 74.00             | -28.30         | 3.59           | 3           | Vertical   | 89             | 1.29          | -        |
| 2412MHz                  | Pass   | AV   | 4.81446G     | 31.61             | 54.00             | -22.39         | 3.57           | 3           | Horizontal | 296            | 1.86          | -        |
| 2412MHz                  | Pass   | PK   | 4.81644G     | 45.50             | 74.00             | -28.50         | 3.57           | 3           | Horizontal | 296            | 1.86          | -        |
| 2417MHz                  | Pass   | AV   | 2.39G        | 53.83             | 54.00             | -0.17          | 32.01          | 3           | Vertical   | 141            | 1.50          | -        |
| 2417MHz                  | Pass   | AV   | 2.4198G      | 103.91            | Inf               | -Inf           | 32.10          | 3           | Vertical   | 141            | 1.50          | -        |
| 2417MHz                  | Pass   | PK   | 2.3892G      | 70.24             | 74.00             | -3.76          | 32.00          | 3           | Vertical   | 141            | 1.50          | -        |
| 2417MHz                  | Pass   | PK   | 2.4202G      | 114.28            | Inf               | -Inf           | 32.10          | 3           | Vertical   | 141            | 1.50          | -        |

| Mode    | Result | Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|---------|--------|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| 2422MHz | Pass   | AV   | 2.3898G      | 53.08             | 54.00             | -0.92          | 32.01          | 3           | Vertical   | 234            | 1.50          | -        |
| 2422MHz | Pass   | AV   | 2.4244G      | 105.07            | Inf               | -Inf           | 32.11          | 3           | Vertical   | 234            | 1.50          | -        |
| 2422MHz | Pass   | PK   | 2.3888G      | 71.12             | 74.00             | -2.88          | 32.00          | 3           | Vertical   | 234            | 1.50          | -        |
| 2422MHz | Pass   | PK   | 2.4288G      | 115.27            | Inf               | -Inf           | 32.13          | 3           | Vertical   | 234            | 1.50          | -        |
| 2427MHz | Pass   | AV   | 2.389G       | 53.85             | 54.00             | -0.15          | 32.00          | 3           | Vertical   | 248            | 1.50          | -        |
| 2427MHz | Pass   | AV   | 2.4334G      | 107.11            | Inf               | -Inf           | 32.14          | 3           | Vertical   | 248            | 1.50          | -        |
| 2427MHz | Pass   | AV   | 2.4838G      | 47.31             | 54.00             | -6.69          | 32.29          | 3           | Vertical   | 248            | 1.50          | -        |
| 2427MHz | Pass   | PK   | 2.3894G      | 71.25             | 74.00             | -2.75          | 32.00          | 3           | Vertical   | 248            | 1.50          | -        |
| 2427MHz | Pass   | PK   | 2.4286G      | 117.45            | Inf               | -Inf           | 32.13          | 3           | Vertical   | 248            | 1.50          | -        |
| 2427MHz | Pass   | PK   | 2.4886G      | 61.03             | 74.00             | -12.97         | 32.30          | 3           | Vertical   | 248            | 1.50          | -        |
| 2432MHz | Pass   | AV   | 2.3892G      | 53.74             | 54.00             | -0.26          | 32.00          | 3           | Vertical   | 241            | 1.50          | -        |
| 2432MHz | Pass   | AV   | 2.4388G      | 106.85            | Inf               | -Inf           | 32.15          | 3           | Vertical   | 241            | 1.50          | -        |
| 2432MHz | Pass   | AV   | 2.484G       | 49.25             | 54.00             | -4.75          | 32.29          | 3           | Vertical   | 241            | 1.50          | -        |
| 2432MHz | Pass   | PK   | 2.3896G      | 72.53             | 74.00             | -1.47          | 32.01          | 3           | Vertical   | 241            | 1.50          | -        |
| 2432MHz | Pass   | PK   | 2.4292G      | 117.64            | Inf               | -Inf           | 32.13          | 3           | Vertical   | 241            | 1.50          | -        |
| 2432MHz | Pass   | PK   | 2.4835G      | 66.08             | 74.00             | -7.92          | 32.29          | 3           | Vertical   | 241            | 1.50          | -        |
| 2437MHz | Pass   | AV   | 2.3898G      | 53.44             | 54.00             | -0.56          | 32.01          | 3           | Vertical   | 141            | 1.50          | -        |
| 2437MHz | Pass   | AV   | 2.4398G      | 107.88            | Inf               | -Inf           | 32.16          | 3           | Vertical   | 141            | 1.50          | -        |
| 2437MHz | Pass   | AV   | 2.4846G      | 52.09             | 54.00             | -1.91          | 32.29          | 3           | Vertical   | 141            | 1.50          | -        |
| 2437MHz | Pass   | PK   | 2.3898G      | 70.79             | 74.00             | -3.21          | 32.01          | 3           | Vertical   | 141            | 1.50          | -        |
| 2437MHz | Pass   | PK   | 2.4398G      | 118.14            | Inf               | -Inf           | 32.16          | 3           | Vertical   | 141            | 1.50          | -        |
| 2437MHz | Pass   | PK   | 2.4846G      | 68.07             | 74.00             | -5.93          | 32.29          | 3           | Vertical   | 141            | 1.50          | -        |
| 2437MHz | Pass   | AV   | 4.8747G      | 43.71             | 54.00             | -10.29         | 3.69           | 3           | Vertical   | 338            | 1.05          | -        |
| 2437MHz | Pass   | PK   | 4.8742G      | 58.93             | 74.00             | -15.07         | 3.69           | 3           | Vertical   | 338            | 1.05          | -        |
| 2437MHz | Pass   | AV   | 4.87958G     | 38.10             | 54.00             | -15.90         | 3.70           | 3           | Horizontal | 44             | 1.80          | -        |
| 2437MHz | Pass   | PK   | 4.87538G     | 53.65             | 74.00             | -20.35         | 3.70           | 3           | Horizontal | 44             | 1.80          | -        |
| 2442MHz | Pass   | AV   | 2.39G        | 49.49             | 54.00             | -4.51          | 32.01          | 3           | Vertical   | 142            | 1.50          | -        |
| 2442MHz | Pass   | AV   | 2.4448G      | 107.36            | Inf               | -Inf           | 32.18          | 3           | Vertical   | 142            | 1.50          | -        |
| 2442MHz | Pass   | AV   | 2.4844G      | 53.13             | 54.00             | -0.87          | 32.29          | 3           | Vertical   | 142            | 1.50          | -        |
| 2442MHz | Pass   | PK   | 2.3892G      | 66.75             | 74.00             | -7.25          | 32.00          | 3           | Vertical   | 142            | 1.50          | -        |
| 2442MHz | Pass   | PK   | 2.4448G      | 117.62            | Inf               | -Inf           | 32.18          | 3           | Vertical   | 142            | 1.50          | -        |
| 2442MHz | Pass   | PK   | 2.49G        | 70.96             | 74.00             | -3.04          | 32.31          | 3           | Vertical   | 142            | 1.50          | -        |
| 2447MHz | Pass   | AV   | 2.3886G      | 46.35             | 54.00             | -7.65          | 32.00          | 3           | Vertical   | 56             | 1.50          | -        |
| 2447MHz | Pass   | AV   | 2.4534G      | 106.74            | Inf               | -Inf           | 32.20          | 3           | Vertical   | 56             | 1.50          | -        |
| 2447MHz | Pass   | AV   | 2.4835G      | 53.42             | 54.00             | -0.58          | 32.29          | 3           | Vertical   | 56             | 1.50          | -        |
| 2447MHz | Pass   | PK   | 2.389G       | 59.27             | 74.00             | -14.73         | 32.00          | 3           | Vertical   | 56             | 1.50          | -        |
| 2447MHz | Pass   | PK   | 2.4538G      | 117.07            | Inf               | -Inf           | 32.20          | 3           | Vertical   | 56             | 1.50          | -        |
| 2447MHz | Pass   | PK   | 2.4842G      | 68.29             | 74.00             | -5.71          | 32.29          | 3           | Vertical   | 56             | 1.50          | -        |
| 2452MHz | Pass   | AV   | 2.4584G      | 105.39            | Inf               | -Inf           | 32.22          | 3           | Vertical   | 186            | 1.50          | -        |
| 2452MHz | Pass   | AV   | 2.4835G      | 53.76             | 54.00             | -0.24          | 32.29          | 3           | Vertical   | 186            | 1.50          | -        |
| 2452MHz | Pass   | PK   | 2.4582G      | 115.80            | Inf               | -Inf           | 32.21          | 3           | Vertical   | 186            | 1.50          | -        |
| 2452MHz | Pass   | PK   | 2.4836G      | 69.76             | 74.00             | -4.24          | 32.29          | 3           | Vertical   | 186            | 1.50          | -        |
| 2457MHz | Pass   | AV   | 2.4632G      | 104.61            | Inf               | -Inf           | 32.23          | 3           | Vertical   | 122            | 1.50          | -        |
| 2457MHz | Pass   | AV   | 2.4835G      | 52.45             | 54.00             | -1.55          | 32.29          | 3           | Vertical   | 122            | 1.50          | -        |
| 2457MHz | Pass   | PK   | 2.463G       | 114.69            | Inf               | -Inf           | 32.23          | 3           | Vertical   | 122            | 1.50          | -        |
| 2457MHz | Pass   | PK   | 2.4838G      | 67.90             | 74.00             | -6.10          | 32.29          | 3           | Vertical   | 122            | 1.50          | -        |
| 2462MHz | Pass   | AV   | 2.469G       | 102.30            | Inf               | -Inf           | 32.25          | 3           | Vertical   | 12             | 1.50          | -        |
| 2462MHz | Pass   | AV   | 2.484G       | 52.17             | 54.00             | -1.83          | 32.29          | 3           | Vertical   | 12             | 1.50          | -        |
| 2462MHz | Pass   | PK   | 2.4688G      | 113.23            | Inf               | -Inf           | 32.25          | 3           | Vertical   | 12             | 1.50          | -        |

| Mode                         | Result | Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|------------------------------|--------|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| 2462MHz                      | Pass   | PK   | 2.4848G      | 67.05             | 74.00             | -6.95          | 32.29          | 3           | Vertical   | 12             | 1.50          | -        |
| 2462MHz                      | Pass   | AV   | 4.9366G      | 32.42             | 54.00             | -21.58         | 3.83           | 3           | Vertical   | 241            | 2.23          | -        |
| 2462MHz                      | Pass   | PK   | 4.93228G     | 45.74             | 74.00             | -28.26         | 3.82           | 3           | Vertical   | 241            | 2.23          | -        |
| 2462MHz                      | Pass   | AV   | 4.9366G      | 32.43             | 54.00             | -21.57         | 3.83           | 3           | Horizontal | 50             | 1.86          | -        |
| 2462MHz                      | Pass   | PK   | 4.9261G      | 46.46             | 74.00             | -27.54         | 3.81           | 3           | Horizontal | 50             | 1.86          | -        |
| 802.11n HT20_Nss1,(MCS0)_2TX | -      | -    | -            | -                 | -                 | -              | -              | -           | -          | -              | -             | -        |
| 2412MHz                      | Pass   | AV   | 2.39G        | 53.69             | 54.00             | -0.31          | 32.01          | 3           | Vertical   | 186            | 1.50          | -        |
| 2412MHz                      | Pass   | AV   | 2.4076G      | 102.72            | Inf               | -Inf           | 32.06          | 3           | Vertical   | 186            | 1.50          | -        |
| 2412MHz                      | Pass   | PK   | 2.3862G      | 69.31             | 74.00             | -4.69          | 32.00          | 3           | Vertical   | 186            | 1.50          | -        |
| 2412MHz                      | Pass   | PK   | 2.407G       | 113.50            | Inf               | -Inf           | 32.06          | 3           | Vertical   | 186            | 1.50          | -        |
| 2412MHz                      | Pass   | AV   | 4.80906G     | 31.11             | 54.00             | -22.89         | 3.55           | 3           | Vertical   | 289            | 2.18          | -        |
| 2412MHz                      | Pass   | PK   | 4.82856G     | 45.54             | 74.00             | -28.46         | 3.59           | 3           | Vertical   | 289            | 2.18          | -        |
| 2412MHz                      | Pass   | AV   | 4.80918G     | 31.58             | 54.00             | -22.42         | 3.55           | 3           | Horizontal | 137            | 1.13          | -        |
| 2412MHz                      | Pass   | PK   | 4.82682G     | 45.02             | 74.00             | -28.98         | 3.59           | 3           | Horizontal | 137            | 1.13          | -        |
| 2417MHz                      | Pass   | AV   | 2.39G        | 53.48             | 54.00             | -0.52          | 32.01          | 3           | Vertical   | 248            | 1.50          | -        |
| 2417MHz                      | Pass   | AV   | 2.415G       | 102.34            | Inf               | -Inf           | 32.09          | 3           | Vertical   | 248            | 1.50          | -        |
| 2417MHz                      | Pass   | PK   | 2.3898G      | 67.88             | 74.00             | -6.12          | 32.01          | 3           | Vertical   | 248            | 1.50          | -        |
| 2417MHz                      | Pass   | PK   | 2.415G       | 113.11            | Inf               | -Inf           | 32.09          | 3           | Vertical   | 248            | 1.50          | -        |
| 2422MHz                      | Pass   | AV   | 2.3896G      | 53.44             | 54.00             | -0.56          | 32.01          | 3           | Vertical   | 47             | 1.50          | -        |
| 2422MHz                      | Pass   | AV   | 2.427G       | 104.49            | Inf               | -Inf           | 32.12          | 3           | Vertical   | 47             | 1.50          | -        |
| 2422MHz                      | Pass   | PK   | 2.389G       | 70.36             | 74.00             | -3.64          | 32.00          | 3           | Vertical   | 47             | 1.50          | -        |
| 2422MHz                      | Pass   | PK   | 2.4256G      | 114.72            | Inf               | -Inf           | 32.12          | 3           | Vertical   | 47             | 1.50          | -        |
| 2427MHz                      | Pass   | AV   | 2.389G       | 53.57             | 54.00             | -0.43          | 32.00          | 3           | Vertical   | 248            | 1.50          | -        |
| 2427MHz                      | Pass   | AV   | 2.4286G      | 106.34            | Inf               | -Inf           | 32.13          | 3           | Vertical   | 248            | 1.50          | -        |
| 2427MHz                      | Pass   | AV   | 2.4835G      | 47.11             | 54.00             | -6.89          | 32.29          | 3           | Vertical   | 248            | 1.50          | -        |
| 2427MHz                      | Pass   | PK   | 2.3886G      | 70.15             | 74.00             | -3.85          | 32.00          | 3           | Vertical   | 248            | 1.50          | -        |
| 2427MHz                      | Pass   | PK   | 2.4338G      | 116.72            | Inf               | -Inf           | 32.14          | 3           | Vertical   | 248            | 1.50          | -        |
| 2427MHz                      | Pass   | PK   | 2.491G       | 59.68             | 74.00             | -14.32         | 32.31          | 3           | Vertical   | 248            | 1.50          | -        |
| 2432MHz                      | Pass   | AV   | 2.39G        | 53.40             | 54.00             | -0.60          | 32.01          | 3           | Vertical   | 249            | 1.50          | -        |
| 2432MHz                      | Pass   | AV   | 2.4292G      | 106.51            | Inf               | -Inf           | 32.13          | 3           | Vertical   | 249            | 1.50          | -        |
| 2432MHz                      | Pass   | AV   | 2.4856G      | 47.69             | 54.00             | -6.31          | 32.30          | 3           | Vertical   | 249            | 1.50          | -        |
| 2432MHz                      | Pass   | PK   | 2.39G        | 69.54             | 74.00             | -4.46          | 32.01          | 3           | Vertical   | 249            | 1.50          | -        |
| 2432MHz                      | Pass   | PK   | 2.4288G      | 116.62            | Inf               | -Inf           | 32.13          | 3           | Vertical   | 249            | 1.50          | -        |
| 2432MHz                      | Pass   | PK   | 2.4848G      | 60.76             | 74.00             | -13.24         | 32.29          | 3           | Vertical   | 249            | 1.50          | -        |
| 2437MHz                      | Pass   | AV   | 2.3898G      | 53.37             | 54.00             | -0.63          | 32.01          | 3           | Vertical   | 53             | 1.50          | -        |
| 2437MHz                      | Pass   | AV   | 2.4334G      | 106.79            | Inf               | -Inf           | 32.14          | 3           | Vertical   | 53             | 1.50          | -        |
| 2437MHz                      | Pass   | AV   | 2.4902G      | 49.36             | 54.00             | -4.64          | 32.31          | 3           | Vertical   | 53             | 1.50          | -        |
| 2437MHz                      | Pass   | PK   | 2.3882G      | 70.21             | 74.00             | -3.79          | 32.00          | 3           | Vertical   | 53             | 1.50          | -        |
| 2437MHz                      | Pass   | PK   | 2.431G       | 117.01            | Inf               | -Inf           | 32.13          | 3           | Vertical   | 53             | 1.50          | -        |
| 2437MHz                      | Pass   | PK   | 2.4906G      | 65.04             | 74.00             | -8.96          | 32.31          | 3           | Vertical   | 53             | 1.50          | -        |
| 2437MHz                      | Pass   | AV   | 4.8756G      | 43.14             | 54.00             | -10.86         | 3.70           | 3           | Vertical   | 15             | 2.96          | -        |
| 2437MHz                      | Pass   | PK   | 4.8772G      | 58.07             | 74.00             | -15.93         | 3.70           | 3           | Vertical   | 15             | 2.96          | -        |
| 2437MHz                      | Pass   | AV   | 4.88114G     | 37.09             | 54.00             | -16.91         | 3.71           | 3           | Horizontal | 48             | 2.24          | -        |
| 2437MHz                      | Pass   | PK   | 4.87778G     | 52.48             | 74.00             | -21.52         | 3.70           | 3           | Horizontal | 48             | 2.24          | -        |
| 2442MHz                      | Pass   | AV   | 2.39G        | 50.50             | 54.00             | -3.50          | 32.01          | 3           | Vertical   | 305            | 1.49          | -        |
| 2442MHz                      | Pass   | AV   | 2.4488G      | 106.93            | Inf               | -Inf           | 32.19          | 3           | Vertical   | 305            | 1.49          | -        |
| 2442MHz                      | Pass   | AV   | 2.4848G      | 53.21             | 54.00             | -0.79          | 32.29          | 3           | Vertical   | 305            | 1.49          | -        |
| 2442MHz                      | Pass   | PK   | 2.39G        | 68.12             | 74.00             | -5.88          | 32.01          | 3           | Vertical   | 305            | 1.49          | -        |
| 2442MHz                      | Pass   | PK   | 2.4492G      | 116.74            | Inf               | -Inf           | 32.19          | 3           | Vertical   | 305            | 1.49          | -        |

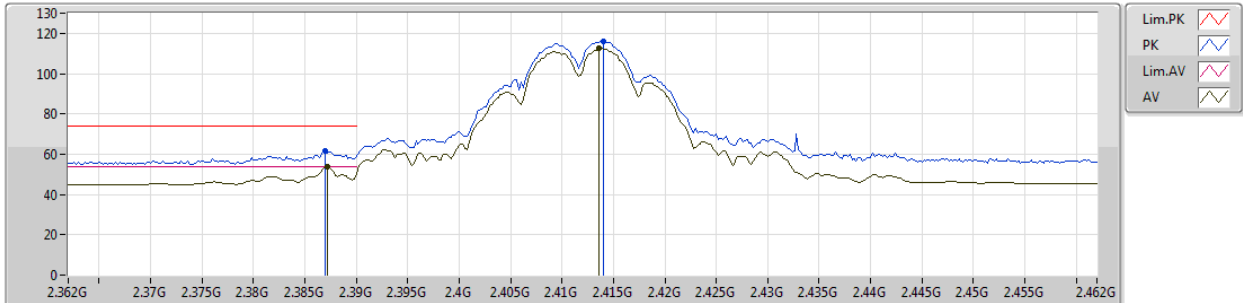
| Mode                         | Result | Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|------------------------------|--------|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| 2442MHz                      | Pass   | PK   | 2.484G       | 69.69             | 74.00             | -4.31          | 32.29          | 3           | Vertical   | 305            | 1.49          | -        |
| 2447MHz                      | Pass   | AV   | 2.3846G      | 45.92             | 54.00             | -8.08          | 31.98          | 3           | Vertical   | 51             | 1.50          | -        |
| 2447MHz                      | Pass   | AV   | 2.4422G      | 105.74            | Inf               | -Inf           | 32.17          | 3           | Vertical   | 51             | 1.50          | -        |
| 2447MHz                      | Pass   | AV   | 2.4835G      | 52.88             | 54.00             | -1.12          | 32.29          | 3           | Vertical   | 51             | 1.50          | -        |
| 2447MHz                      | Pass   | PK   | 2.3838G      | 58.81             | 74.00             | -15.19         | 31.98          | 3           | Vertical   | 51             | 1.50          | -        |
| 2447MHz                      | Pass   | PK   | 2.4426G      | 115.70            | Inf               | -Inf           | 32.17          | 3           | Vertical   | 51             | 1.50          | -        |
| 2447MHz                      | Pass   | PK   | 2.4842G      | 66.84             | 74.00             | -7.16          | 32.29          | 3           | Vertical   | 51             | 1.50          | -        |
| 2452MHz                      | Pass   | AV   | 2.449G       | 103.86            | Inf               | -Inf           | 32.19          | 3           | Vertical   | 185            | 1.50          | -        |
| 2452MHz                      | Pass   | AV   | 2.4846G      | 52.90             | 54.00             | -1.10          | 32.29          | 3           | Vertical   | 185            | 1.50          | -        |
| 2452MHz                      | Pass   | PK   | 2.4488G      | 114.49            | Inf               | -Inf           | 32.19          | 3           | Vertical   | 185            | 1.50          | -        |
| 2452MHz                      | Pass   | PK   | 2.4858G      | 70.78             | 74.00             | -3.22          | 32.30          | 3           | Vertical   | 185            | 1.50          | -        |
| 2457MHz                      | Pass   | AV   | 2.4616G      | 103.99            | Inf               | -Inf           | 32.23          | 3           | Vertical   | 121            | 1.50          | -        |
| 2457MHz                      | Pass   | AV   | 2.4835G      | 53.00             | 54.00             | -1.00          | 32.29          | 3           | Vertical   | 121            | 1.50          | -        |
| 2457MHz                      | Pass   | PK   | 2.4616G      | 114.46            | Inf               | -Inf           | 32.23          | 3           | Vertical   | 121            | 1.50          | -        |
| 2457MHz                      | Pass   | PK   | 2.4838G      | 67.87             | 74.00             | -6.13          | 32.29          | 3           | Vertical   | 121            | 1.50          | -        |
| 2462MHz                      | Pass   | AV   | 2.4666G      | 102.99            | Inf               | -Inf           | 32.24          | 3           | Vertical   | 116            | 1.50          | -        |
| 2462MHz                      | Pass   | AV   | 2.4835G      | 53.31             | 54.00             | -0.69          | 32.29          | 3           | Vertical   | 116            | 1.50          | -        |
| 2462MHz                      | Pass   | PK   | 2.4658G      | 113.11            | Inf               | -Inf           | 32.24          | 3           | Vertical   | 116            | 1.50          | -        |
| 2462MHz                      | Pass   | PK   | 2.4836G      | 68.44             | 74.00             | -5.56          | 32.29          | 3           | Vertical   | 116            | 1.50          | -        |
| 2462MHz                      | Pass   | AV   | 4.8102G      | 31.55             | 54.00             | -22.45         | 3.55           | 3           | Vertical   | 173            | 1.38          | -        |
| 2462MHz                      | Pass   | PK   | 4.80996G     | 45.57             | 74.00             | -28.43         | 3.55           | 3           | Vertical   | 173            | 1.38          | -        |
| 2462MHz                      | Pass   | AV   | 4.83762G     | 31.62             | 54.00             | -22.38         | 3.62           | 3           | Horizontal | 162            | 2.03          | -        |
| 2462MHz                      | Pass   | PK   | 4.82694G     | 45.41             | 74.00             | -28.59         | 3.59           | 3           | Horizontal | 162            | 2.03          | -        |
| 802.11n HT40_Nss1,(MCS0)_2TX | -      | -    | -            | -                 | -                 | -              | -              | -           | -          | -              | -             | -        |
| 2422MHz                      | Pass   | AV   | 2.3852G      | 53.39             | 54.00             | -0.61          | 31.99          | 3           | Vertical   | 23             | 1.50          | -        |
| 2422MHz                      | Pass   | AV   | 2.424G       | 97.54             | Inf               | -Inf           | 32.11          | 3           | Vertical   | 23             | 1.50          | -        |
| 2422MHz                      | Pass   | AV   | 2.4835G      | 45.71             | 54.00             | -8.29          | 32.29          | 3           | Vertical   | 23             | 1.50          | -        |
| 2422MHz                      | Pass   | PK   | 2.3856G      | 70.25             | 74.00             | -3.75          | 32.00          | 3           | Vertical   | 23             | 1.50          | -        |
| 2422MHz                      | Pass   | PK   | 2.4244G      | 109.19            | Inf               | -Inf           | 32.11          | 3           | Vertical   | 23             | 1.50          | -        |
| 2422MHz                      | Pass   | PK   | 2.4916G      | 57.91             | 74.00             | -16.09         | 32.31          | 3           | Vertical   | 23             | 1.50          | -        |
| 2422MHz                      | Pass   | AV   | 4.859G       | 33.68             | 54.00             | -20.32         | 3.66           | 3           | Vertical   | 248            | 1.29          | -        |
| 2422MHz                      | Pass   | PK   | 4.85006G     | 46.60             | 74.00             | -27.40         | 3.64           | 3           | Vertical   | 248            | 1.29          | -        |
| 2422MHz                      | Pass   | AV   | 4.859G       | 33.77             | 54.00             | -20.23         | 3.66           | 3           | Horizontal | 320            | 1.76          | -        |
| 2422MHz                      | Pass   | PK   | 4.85864G     | 47.29             | 74.00             | -26.71         | 3.66           | 3           | Horizontal | 320            | 1.76          | -        |
| 2427MHz                      | Pass   | AV   | 2.3898G      | 53.71             | 54.00             | -0.29          | 32.01          | 3           | Vertical   | 22             | 1.50          | -        |
| 2427MHz                      | Pass   | AV   | 2.4282G      | 98.20             | Inf               | -Inf           | 32.13          | 3           | Vertical   | 22             | 1.50          | -        |
| 2427MHz                      | Pass   | AV   | 2.4842G      | 46.21             | 54.00             | -7.79          | 32.29          | 3           | Vertical   | 22             | 1.50          | -        |
| 2427MHz                      | Pass   | PK   | 2.389G       | 68.98             | 74.00             | -5.02          | 32.00          | 3           | Vertical   | 22             | 1.50          | -        |
| 2427MHz                      | Pass   | PK   | 2.4254G      | 109.41            | Inf               | -Inf           | 32.12          | 3           | Vertical   | 22             | 1.50          | -        |
| 2427MHz                      | Pass   | PK   | 2.4842G      | 58.72             | 74.00             | -15.28         | 32.29          | 3           | Vertical   | 22             | 1.50          | -        |
| 2432MHz                      | Pass   | AV   | 2.39G        | 52.99             | 54.00             | -1.01          | 32.01          | 3           | Vertical   | 246            | 1.50          | -        |
| 2432MHz                      | Pass   | AV   | 2.4296G      | 99.10             | Inf               | -Inf           | 32.13          | 3           | Vertical   | 246            | 1.50          | -        |
| 2432MHz                      | Pass   | AV   | 2.4835G      | 48.20             | 54.00             | -5.80          | 32.29          | 3           | Vertical   | 246            | 1.50          | -        |
| 2432MHz                      | Pass   | PK   | 2.388G       | 68.22             | 74.00             | -5.78          | 32.00          | 3           | Vertical   | 246            | 1.50          | -        |
| 2432MHz                      | Pass   | PK   | 2.4284G      | 111.20            | Inf               | -Inf           | 32.13          | 3           | Vertical   | 246            | 1.50          | -        |
| 2432MHz                      | Pass   | PK   | 2.4864G      | 62.62             | 74.00             | -11.38         | 32.30          | 3           | Vertical   | 246            | 1.50          | -        |
| 2437MHz                      | Pass   | AV   | 2.3898G      | 53.83             | 54.00             | -0.17          | 32.01          | 3           | Vertical   | 143            | 1.50          | -        |
| 2437MHz                      | Pass   | AV   | 2.4478G      | 100.25            | Inf               | -Inf           | 32.18          | 3           | Vertical   | 143            | 1.50          | -        |
| 2437MHz                      | Pass   | AV   | 2.485G       | 52.00             | 54.00             | -2.00          | 32.29          | 3           | Vertical   | 143            | 1.50          | -        |

| Mode    | Result | Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|---------|--------|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| 2437MHz | Pass   | PK   | 2.389G       | 68.75             | 74.00             | -5.25          | 32.00          | 3           | Vertical   | 143            | 1.50          | -        |
| 2437MHz | Pass   | PK   | 2.4478G      | 111.43            | Inf               | -Inf           | 32.18          | 3           | Vertical   | 143            | 1.50          | -        |
| 2437MHz | Pass   | PK   | 2.487G       | 69.36             | 74.00             | -4.64          | 32.30          | 3           | Vertical   | 143            | 1.50          | -        |
| 2437MHz | Pass   | AV   | 4.8745G      | 33.94             | 54.00             | -20.06         | 3.69           | 3           | Vertical   | 251            | 1.12          | -        |
| 2437MHz | Pass   | PK   | 4.8759G      | 47.72             | 74.00             | -26.28         | 3.70           | 3           | Vertical   | 251            | 1.12          | -        |
| 2437MHz | Pass   | AV   | 4.8744G      | 33.35             | 54.00             | -20.65         | 3.69           | 3           | Horizontal | 345            | 1.57          | -        |
| 2437MHz | Pass   | PK   | 4.8794G      | 46.87             | 74.00             | -27.13         | 3.70           | 3           | Horizontal | 345            | 1.57          | -        |
| 2442MHz | Pass   | AV   | 2.3872G      | 47.18             | 54.00             | -6.82          | 32.00          | 3           | Vertical   | 143            | 1.49          | -        |
| 2442MHz | Pass   | AV   | 2.444G       | 98.33             | Inf               | -Inf           | 32.18          | 3           | Vertical   | 143            | 1.49          | -        |
| 2442MHz | Pass   | AV   | 2.4835G      | 53.26             | 54.00             | -0.74          | 32.29          | 3           | Vertical   | 143            | 1.49          | -        |
| 2442MHz | Pass   | PK   | 2.386G       | 63.25             | 74.00             | -10.75         | 32.00          | 3           | Vertical   | 143            | 1.49          | -        |
| 2442MHz | Pass   | PK   | 2.4448G      | 109.88            | Inf               | -Inf           | 32.18          | 3           | Vertical   | 143            | 1.49          | -        |
| 2442MHz | Pass   | PK   | 2.4848G      | 73.28             | 74.00             | -0.72          | 32.29          | 3           | Vertical   | 143            | 1.49          | -        |
| 2447MHz | Pass   | AV   | 2.3874G      | 46.35             | 54.00             | -7.65          | 32.00          | 3           | Vertical   | 60             | 1.50          | -        |
| 2447MHz | Pass   | AV   | 2.445G       | 97.48             | Inf               | -Inf           | 32.18          | 3           | Vertical   | 60             | 1.50          | -        |
| 2447MHz | Pass   | AV   | 2.4838G      | 53.09             | 54.00             | -0.91          | 32.29          | 3           | Vertical   | 60             | 1.50          | -        |
| 2447MHz | Pass   | PK   | 2.3874G      | 62.90             | 74.00             | -11.10         | 32.00          | 3           | Vertical   | 60             | 1.50          | -        |
| 2447MHz | Pass   | PK   | 2.443G       | 109.15            | Inf               | -Inf           | 32.17          | 3           | Vertical   | 60             | 1.50          | -        |
| 2447MHz | Pass   | PK   | 2.485G       | 72.28             | 74.00             | -1.72          | 32.29          | 3           | Vertical   | 60             | 1.50          | -        |
| 2452MHz | Pass   | AV   | 2.3848G      | 45.32             | 54.00             | -8.68          | 31.98          | 3           | Vertical   | 7              | 1.50          | -        |
| 2452MHz | Pass   | AV   | 2.4608G      | 97.56             | Inf               | -Inf           | 32.23          | 3           | Vertical   | 7              | 1.50          | -        |
| 2452MHz | Pass   | AV   | 2.4835G      | 52.65             | 54.00             | -1.35          | 32.29          | 3           | Vertical   | 7              | 1.50          | -        |
| 2452MHz | Pass   | PK   | 2.3852G      | 58.60             | 74.00             | -15.40         | 31.99          | 3           | Vertical   | 7              | 1.50          | -        |
| 2452MHz | Pass   | PK   | 2.4436G      | 108.55            | Inf               | -Inf           | 32.17          | 3           | Vertical   | 7              | 1.50          | -        |
| 2452MHz | Pass   | PK   | 2.4844G      | 73.45             | 74.00             | -0.55          | 32.29          | 3           | Vertical   | 7              | 1.50          | -        |
| 2452MHz | Pass   | AV   | 4.91798G     | 32.32             | 54.00             | -21.68         | 3.79           | 3           | Vertical   | 187            | 1.12          | -        |
| 2452MHz | Pass   | PK   | 4.90634G     | 45.99             | 74.00             | -28.01         | 3.76           | 3           | Vertical   | 187            | 1.12          | -        |
| 2452MHz | Pass   | AV   | 4.89512G     | 32.17             | 54.00             | -21.83         | 3.74           | 3           | Horizontal | 15             | 1.49          | -        |
| 2452MHz | Pass   | PK   | 4.88972G     | 48.70             | 74.00             | -25.30         | 3.73           | 3           | Horizontal | 15             | 1.49          | -        |

## 802.11b\_Nss1,(1Mbps)\_2TX

29/12/2018

## 2412MHz\_TX

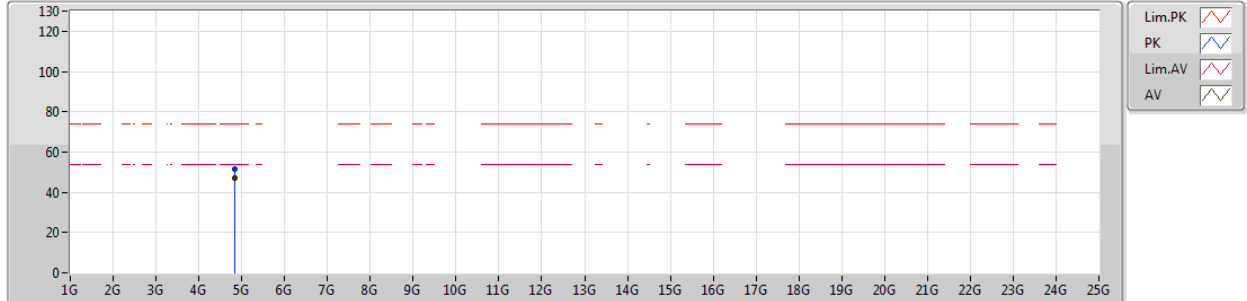


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 2.3872G      | 53.61             | 54.00             | -0.39          | 32.00          | 3           | Vertical  | 142            | 1.50          | -        |
| AV   | 2.4136G      | 112.47            | Inf               | -Inf           | 32.08          | 3           | Vertical  | 142            | 1.50          | -        |
| PK   | 2.387G       | 61.63             | 74.00             | -12.37         | 32.00          | 3           | Vertical  | 142            | 1.50          | -        |
| PK   | 2.414G       | 115.92            | Inf               | -Inf           | 32.08          | 3           | Vertical  | 142            | 1.50          | -        |

## 802.11b\_Nss1,(1Mbps)\_2TX

29/12/2018

## 2412MHz\_TX



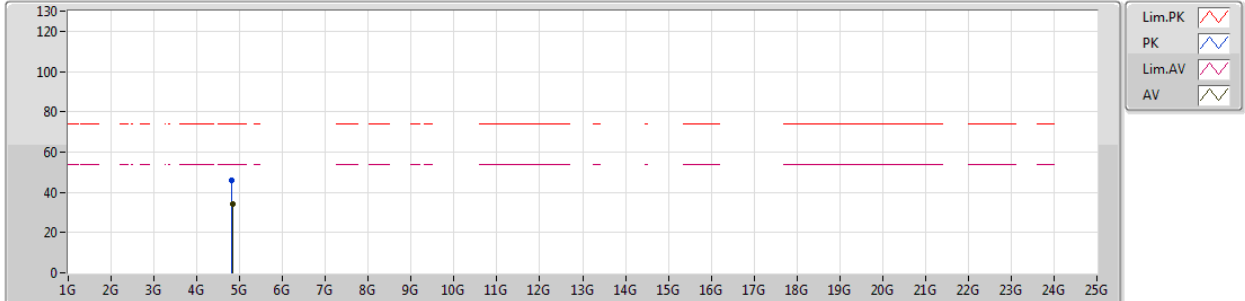
| Type | Freq     | Level    | Limit    | Margin | Factor | Dist | Condition | Azimuth | Height | Comments |  |  |  |  |  |  |  |
|------|----------|----------|----------|--------|--------|------|-----------|---------|--------|----------|--|--|--|--|--|--|--|
|      | (Hz)     | (dBuV/m) | (dBuV/m) | (dB)   | (dB)   | (m)  |           | (°)     | (m)    |          |  |  |  |  |  |  |  |
| AV   | 4.82694G | 46.83    | 54.00    | -7.17  | 3.59   | 3    | Vertical  | 194     | 2.91   | -        |  |  |  |  |  |  |  |
| PK   | 4.827G   | 51.50    | 74.00    | -22.50 | 3.59   | 3    | Vertical  | 194     | 2.91   | -        |  |  |  |  |  |  |  |



### 802.11b\_Nss1,(1Mbps)\_2TX

29/12/2018

### 2412MHz\_TX

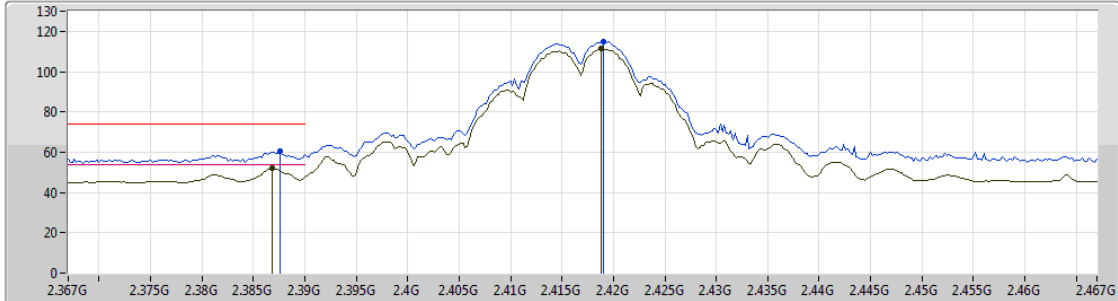


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| AV   | 4.827G       | 34.16             | 54.00             | -19.84         | 3.59           | 3           | Horizontal | 291            | 1.50          | -        |
| PK   | 4.821G       | 45.84             | 74.00             | -28.16         | 3.58           | 3           | Horizontal | 291            | 1.50          | -        |

## 802.11b\_Nss1,(1Mbps)\_2TX

## 2417MHz\_TX

29/12/2018

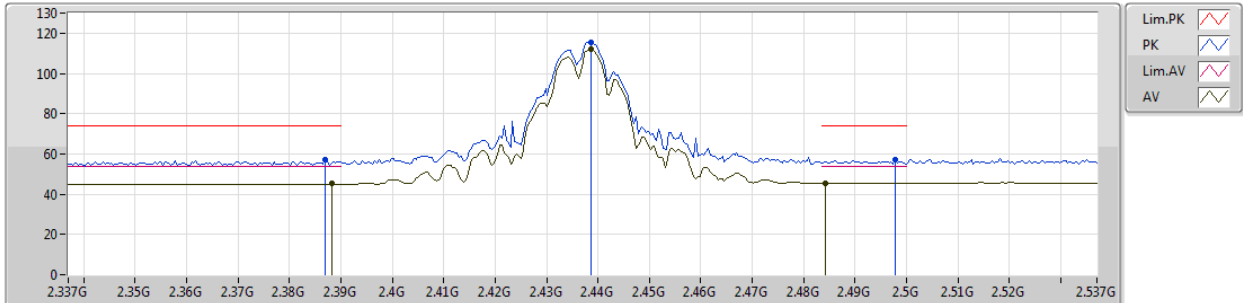


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |  |  |  |  |  |  |  |  |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|--|--|--|--|--|--|--|--|
| AV   | 2.3868G      | 51.88             | 54.00             | -2.12          | 32.00          | 3           | Vertical  | 143            | 1.50          | -        |  |  |  |  |  |  |  |  |
| AV   | 2.4188G      | 111.31            | Inf               | -Inf           | 32.10          | 3           | Vertical  | 143            | 1.50          | -        |  |  |  |  |  |  |  |  |
| PK   | 2.3876G      | 60.38             | 74.00             | -13.62         | 32.00          | 3           | Vertical  | 143            | 1.50          | -        |  |  |  |  |  |  |  |  |
| PK   | 2.419G       | 114.83            | Inf               | -Inf           | 32.10          | 3           | Vertical  | 143            | 1.50          | -        |  |  |  |  |  |  |  |  |

### 802.11b\_Nss1,(1Mbps)\_2TX

29/12/2018

### 2437MHz\_TX

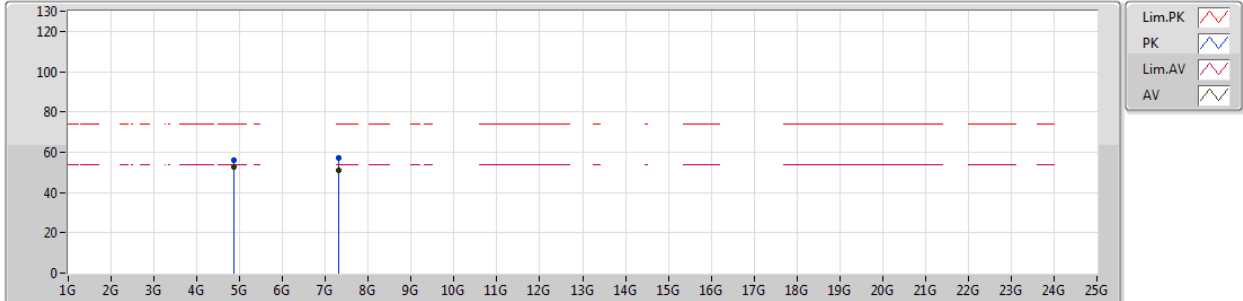


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 2.3882G      | 45.15             | 54.00             | -8.85          | 32.00          | 3           | Vertical  | 334            | 1.50          | -        |
| AV   | 2.4386G      | 112.23            | Inf               | -Inf           | 32.15          | 3           | Vertical  | 334            | 1.50          | -        |
| AV   | 2.4842G      | 45.51             | 54.00             | -8.49          | 32.29          | 3           | Vertical  | 334            | 1.50          | -        |
| PK   | 2.387G       | 57.34             | 74.00             | -16.66         | 32.00          | 3           | Vertical  | 334            | 1.50          | -        |
| PK   | 2.4386G      | 115.57            | Inf               | -Inf           | 32.15          | 3           | Vertical  | 334            | 1.50          | -        |
| PK   | 2.4978G      | 57.23             | 74.00             | -16.77         | 32.33          | 3           | Vertical  | 334            | 1.50          | -        |

## 802.11b\_Nss1,(1Mbps)\_2TX

29/12/2018

## 2437MHz\_TX

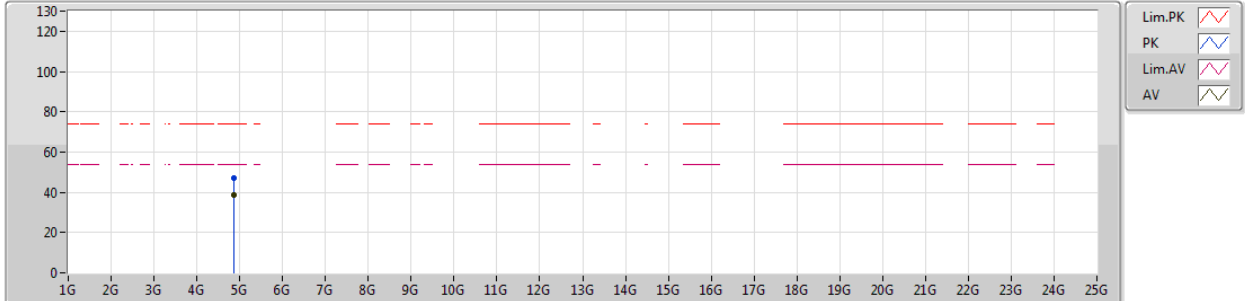


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 4.87394G     | 52.51             | 54.00             | -1.49          | 3.69           | 3           | Vertical  | 16             | 2.93          | -        |
| AV   | 7.3122G      | 50.74             | 54.00             | -3.26          | 8.98           | 3           | Vertical  | 185            | 2.91          | -        |
| PK   | 4.87394G     | 55.76             | 74.00             | -18.24         | 3.69           | 3           | Vertical  | 16             | 2.93          | -        |
| PK   | 7.31184G     | 57.32             | 74.00             | -16.68         | 8.98           | 3           | Vertical  | 185            | 2.91          | -        |

### 802.11b\_Nss1,(1Mbps)\_2TX

29/12/2018

### 2437MHz\_TX

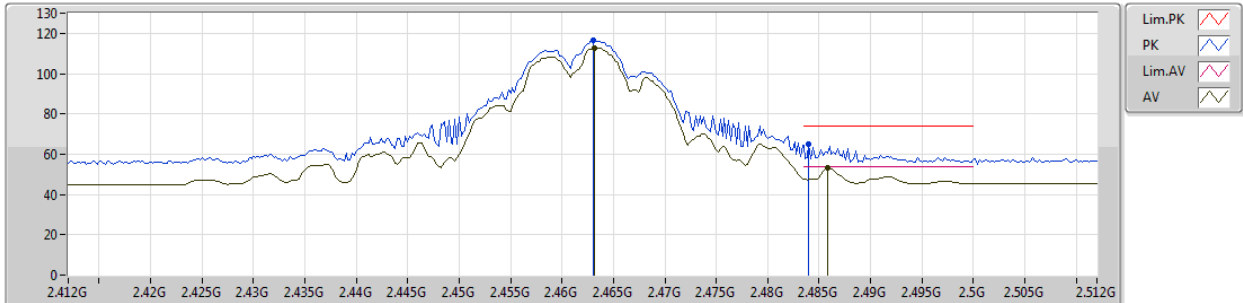


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |  |  |  |  |  |  |  |  |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|--|--|--|--|--|--|--|--|
| AV   | 4.87394G     | 38.65             | 54.00             | -15.35         | 3.69           | 3           | Horizontal | 67             | 1.22          | -        |  |  |  |  |  |  |  |  |
| PK   | 4.87388G     | 47.08             | 74.00             | -26.92         | 3.69           | 3           | Horizontal | 67             | 1.22          | -        |  |  |  |  |  |  |  |  |

## 802.11b\_Nss1,(1Mbps)\_2TX

29/12/2018

## 2462MHz\_TX

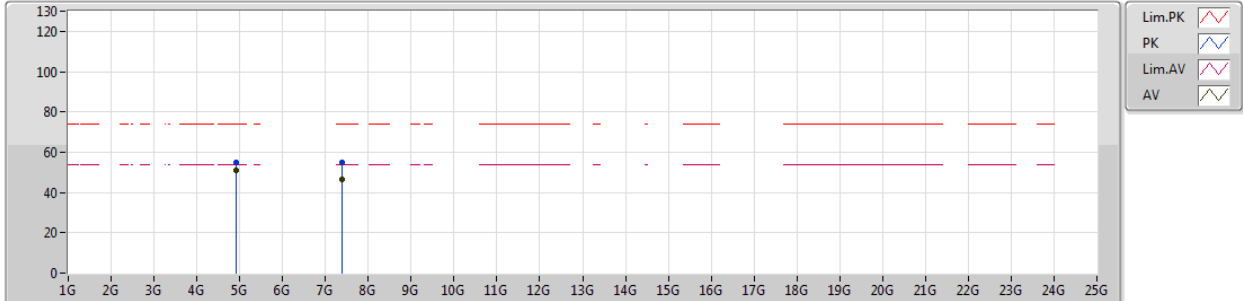


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 2.4632G      | 112.65            | Inf               | -Inf           | 32.23          | 3           | Vertical  | 114            | 1.50          | -        |
| AV   | 2.4858G      | 52.99             | 54.00             | -1.01          | 32.30          | 3           | Vertical  | 114            | 1.50          | -        |
| PK   | 2.463G       | 116.39            | Inf               | -Inf           | 32.23          | 3           | Vertical  | 114            | 1.50          | -        |
| PK   | 2.484G       | 64.96             | 74.00             | -9.04          | 32.29          | 3           | Vertical  | 114            | 1.50          | -        |

## 802.11b\_Nss1,(1Mbps)\_2TX

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## 2462MHz\_TX

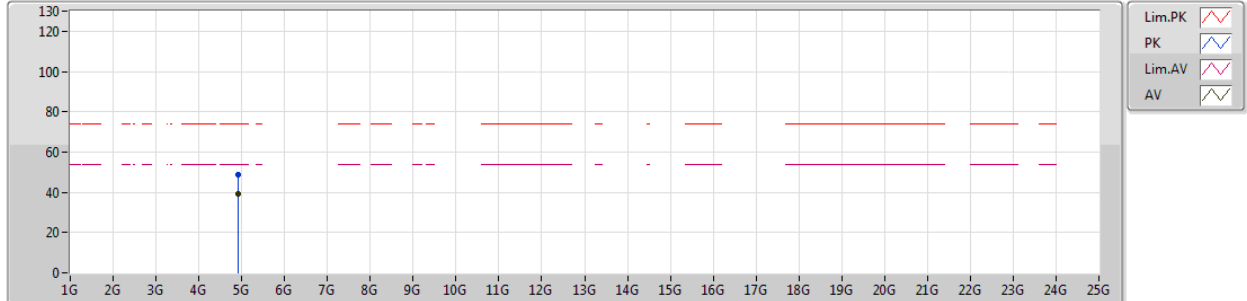


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 4.92394G     | 51.11             | 54.00             | -2.89          | 3.80           | 3           | Vertical  | 106            | 2.99          | -        |
| AV   | 7.38414G     | 46.56             | 54.00             | -7.44          | 9.08           | 3           | Vertical  | 316            | 2.38          | -        |
| PK   | 4.92394G     | 54.97             | 74.00             | -19.03         | 3.80           | 3           | Vertical  | 106            | 2.99          | -        |
| PK   | 7.3845G      | 54.67             | 74.00             | -19.33         | 9.08           | 3           | Vertical  | 316            | 2.38          | -        |

## 802.11b\_Nss1,(1Mbps)\_2TX

29/12/2018

## 2462MHz\_TX



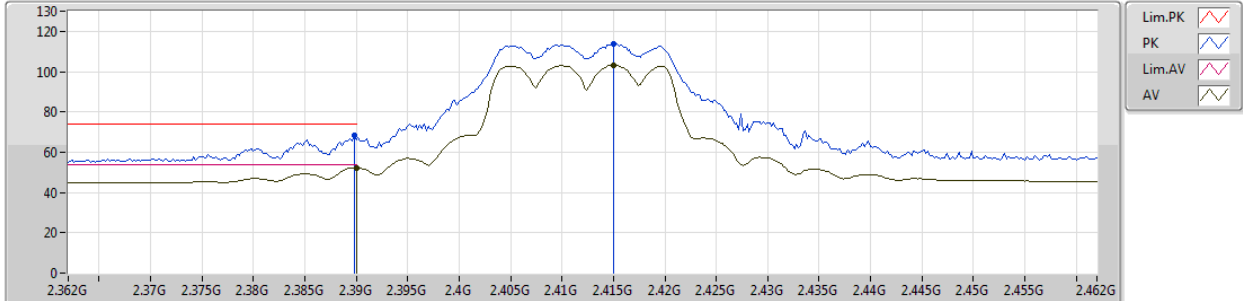
| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |  |  |  |  |  |  |  |  |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|--|--|--|--|--|--|--|--|
| AV   | 4.92694G     | 39.18             | 54.00             | -14.82         | 3.81           | 3           | Horizontal | 3              | 1.11          | -        |  |  |  |  |  |  |  |  |
| PK   | 4.924G       | 48.91             | 74.00             | -25.09         | 3.80           | 3           | Horizontal | 3              | 1.11          | -        |  |  |  |  |  |  |  |  |



## 802.11g\_Nss1,(6Mbps)\_2TX

29/12/2018

## 2412MHz\_TX

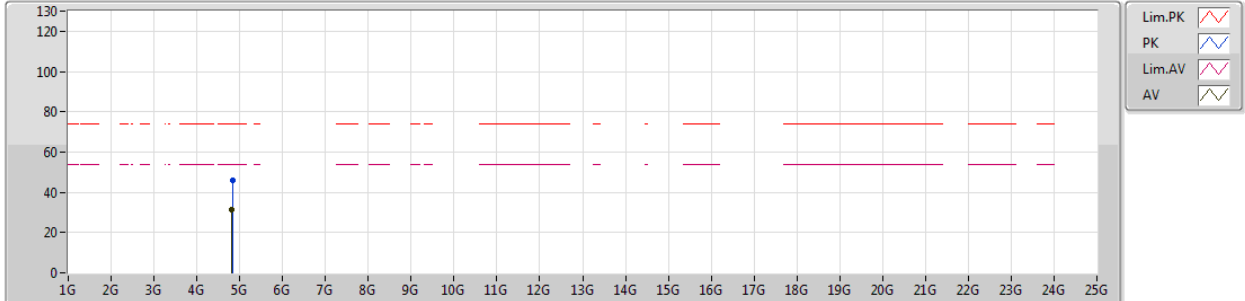


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 2.39G        | 52.23             | 54.00             | -1.77          | 32.01          | 3           | Vertical  | 143            | 1.50          | -        |
| AV   | 2.415G       | 103.11            | Inf               | -Inf           | 32.09          | 3           | Vertical  | 143            | 1.50          | -        |
| PK   | 2.3898G      | 68.35             | 74.00             | -5.65          | 32.01          | 3           | Vertical  | 143            | 1.50          | -        |
| PK   | 2.415G       | 113.74            | Inf               | -Inf           | 32.09          | 3           | Vertical  | 143            | 1.50          | -        |

### 802.11g\_Nss1,(6Mbps)\_2TX

29/12/2018

### 2412MHz\_TX

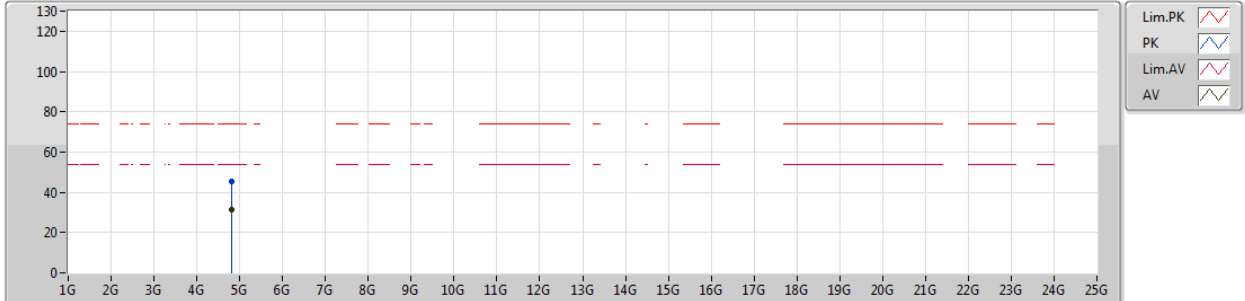


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |  |  |  |  |  |  |  |  |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|--|--|--|--|--|--|--|--|
| AV   | 4.81098G     | 31.59             | 54.00             | -22.41         | 3.55           | 3           | Vertical  | 89             | 1.29          | -        |  |  |  |  |  |  |  |  |
| PK   | 4.82586G     | 45.70             | 74.00             | -28.30         | 3.59           | 3           | Vertical  | 89             | 1.29          | -        |  |  |  |  |  |  |  |  |

## 802.11g\_Nss1,(6Mbps)\_2TX

29/12/2018

## 2412MHz\_TX

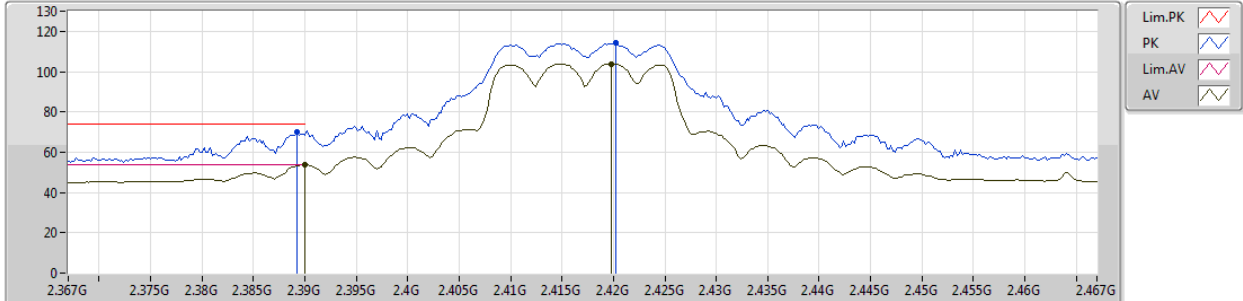


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| AV   | 4.81446G     | 31.61             | 54.00             | -22.39         | 3.57           | 3           | Horizontal | 296            | 1.86          | -        |
| PK   | 4.81644G     | 45.50             | 74.00             | -28.50         | 3.57           | 3           | Horizontal | 296            | 1.86          | -        |

### 802.11g\_Nss1,(6Mbps)\_2TX

29/12/2018

### 2417MHz\_TX

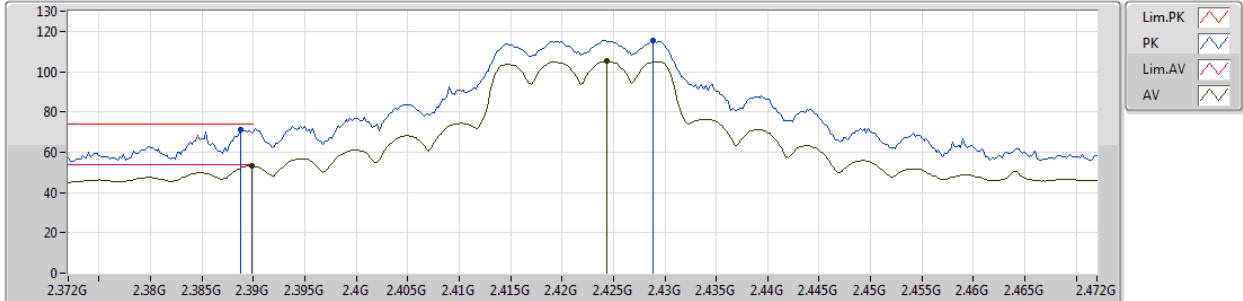


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 2.39G        | 53.83             | 54.00             | -0.17          | 32.01          | 3           | Vertical  | 141            | 1.50          | -        |
| AV   | 2.4198G      | 103.91            | Inf               | -Inf           | 32.10          | 3           | Vertical  | 141            | 1.50          | -        |
| PK   | 2.3892G      | 70.24             | 74.00             | -3.76          | 32.00          | 3           | Vertical  | 141            | 1.50          | -        |
| PK   | 2.4202G      | 114.28            | Inf               | -Inf           | 32.10          | 3           | Vertical  | 141            | 1.50          | -        |

## 802.11g\_Nss1,(6Mbps)\_2TX

29/12/2018

## 2422MHz\_TX

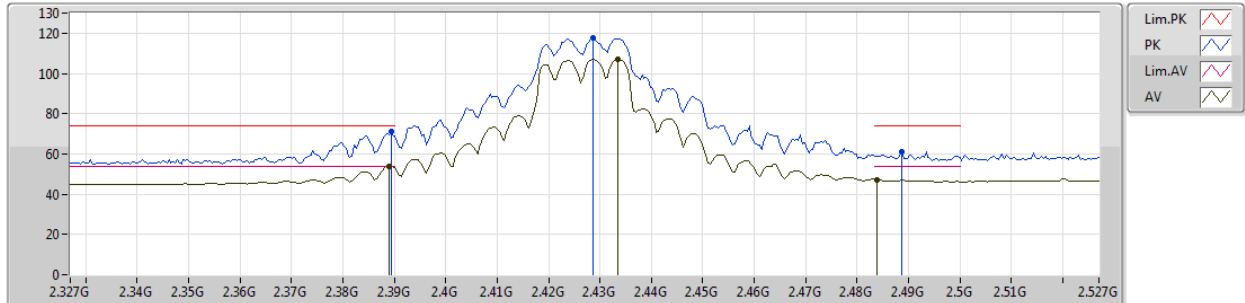


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 2.3898G      | 53.08             | 54.00             | -0.92          | 32.01          | 3           | Vertical  | 234            | 1.50          | -        |
| AV   | 2.4244G      | 105.07            | Inf               | -Inf           | 32.11          | 3           | Vertical  | 234            | 1.50          | -        |
| PK   | 2.3888G      | 71.12             | 74.00             | -2.88          | 32.00          | 3           | Vertical  | 234            | 1.50          | -        |
| PK   | 2.4288G      | 115.27            | Inf               | -Inf           | 32.13          | 3           | Vertical  | 234            | 1.50          | -        |

### 802.11g\_Nss1,(6Mbps)\_2TX

29/12/2018

### 2427MHz\_TX

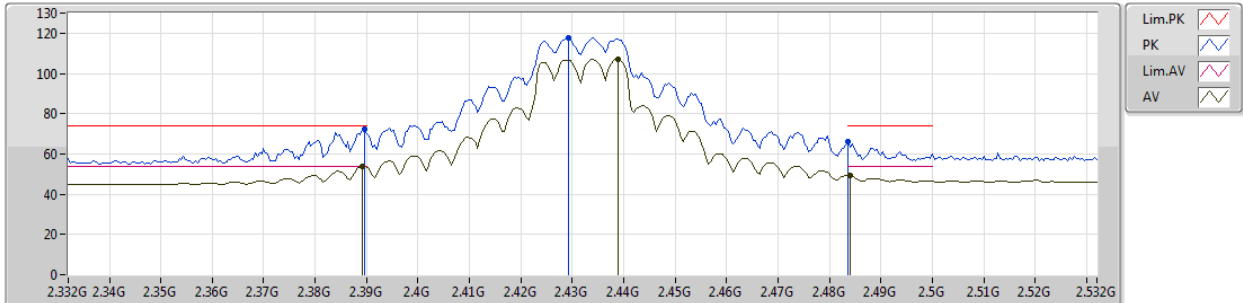


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 2.389G       | 53.85             | 54.00             | -0.15          | 32.00          | 3           | Vertical  | 248            | 1.50          | -        |
| AV   | 2.4334G      | 107.11            | Inf               | -Inf           | 32.14          | 3           | Vertical  | 248            | 1.50          | -        |
| AV   | 2.4838G      | 47.31             | 54.00             | -6.69          | 32.29          | 3           | Vertical  | 248            | 1.50          | -        |
| PK   | 2.3894G      | 71.25             | 74.00             | -2.75          | 32.00          | 3           | Vertical  | 248            | 1.50          | -        |
| PK   | 2.4286G      | 117.45            | Inf               | -Inf           | 32.13          | 3           | Vertical  | 248            | 1.50          | -        |
| PK   | 2.4886G      | 61.03             | 74.00             | -12.97         | 32.30          | 3           | Vertical  | 248            | 1.50          | -        |

## 802.11g\_Nss1,(6Mbps)\_2TX

29/12/2018

## 2432MHz\_TX

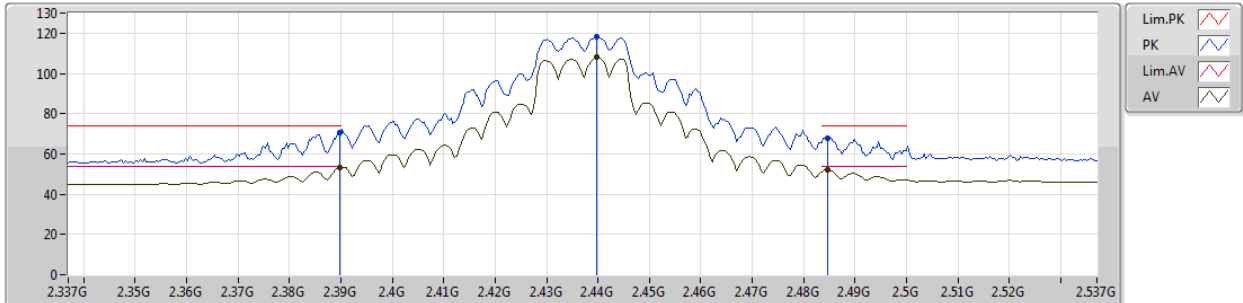


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 2.3892G      | 53.74             | 54.00             | -0.26          | 32.00          | 3           | Vertical  | 241            | 1.50          | -        |
| AV   | 2.4388G      | 106.85            | Inf               | -Inf           | 32.15          | 3           | Vertical  | 241            | 1.50          | -        |
| AV   | 2.484G       | 49.25             | 54.00             | -4.75          | 32.29          | 3           | Vertical  | 241            | 1.50          | -        |
| PK   | 2.3896G      | 72.53             | 74.00             | -1.47          | 32.01          | 3           | Vertical  | 241            | 1.50          | -        |
| PK   | 2.4292G      | 117.64            | Inf               | -Inf           | 32.13          | 3           | Vertical  | 241            | 1.50          | -        |
| PK   | 2.4835G      | 66.08             | 74.00             | -7.92          | 32.29          | 3           | Vertical  | 241            | 1.50          | -        |

## 802.11g\_Nss1,(6Mbps)\_2TX

29/12/2018

## 2437MHz\_TX



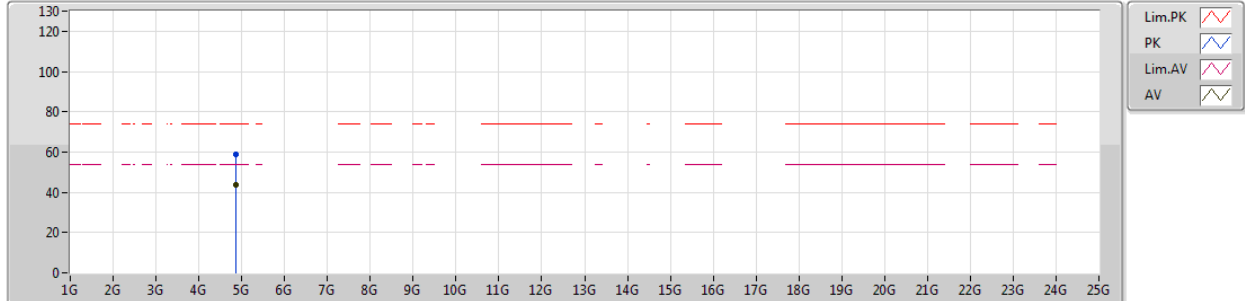
| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 2.3898G      | 53.44             | 54.00             | -0.56          | 32.01          | 3           | Vertical  | 141            | 1.50          | -        |
| AV   | 2.4398G      | 107.88            | Inf               | -Inf           | 32.16          | 3           | Vertical  | 141            | 1.50          | -        |
| AV   | 2.4846G      | 52.09             | 54.00             | -1.91          | 32.29          | 3           | Vertical  | 141            | 1.50          | -        |
| PK   | 2.3898G      | 70.79             | 74.00             | -3.21          | 32.01          | 3           | Vertical  | 141            | 1.50          | -        |
| PK   | 2.4398G      | 118.14            | Inf               | -Inf           | 32.16          | 3           | Vertical  | 141            | 1.50          | -        |
| PK   | 2.4846G      | 68.07             | 74.00             | -5.93          | 32.29          | 3           | Vertical  | 141            | 1.50          | -        |



### 802.11g\_Nss1,(6Mbps)\_2TX

29/12/2018

### 2437MHz\_TX

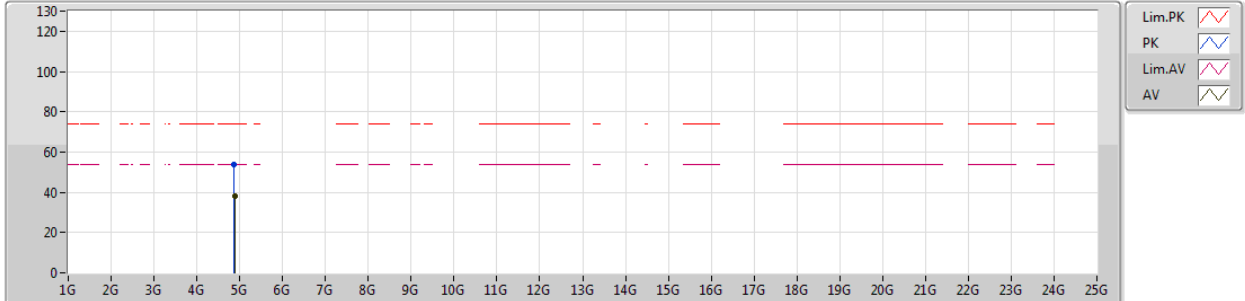


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 4.8747G      | 43.71             | 54.00             | -10.29         | 3.69           | 3           | Vertical  | 338            | 1.05          | -        |
| PK   | 4.8742G      | 58.93             | 74.00             | -15.07         | 3.69           | 3           | Vertical  | 338            | 1.05          | -        |

### 802.11g\_Nss1,(6Mbps)\_2TX

29/12/2018

### 2437MHz\_TX

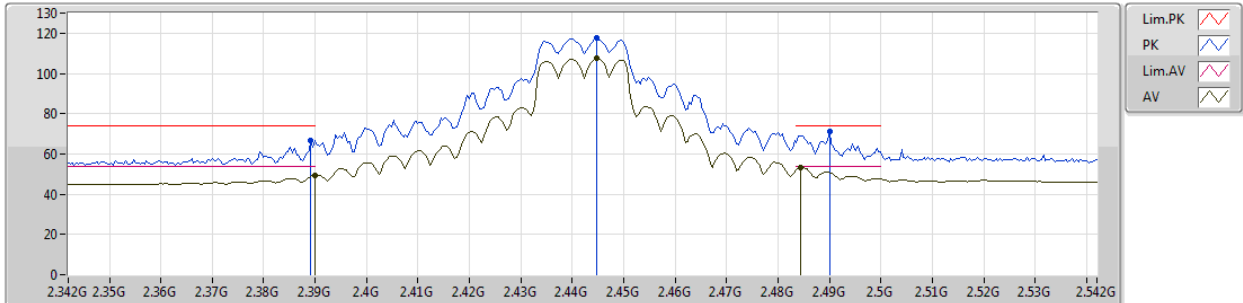


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| AV   | 4.87958G     | 38.10             | 54.00             | -15.90         | 3.70           | 3           | Horizontal | 44             | 1.80          | -        |
| PK   | 4.87538G     | 53.65             | 74.00             | -20.35         | 3.70           | 3           | Horizontal | 44             | 1.80          | -        |

## 802.11g\_Nss1,(6Mbps)\_2TX

29/12/2018

## 2442MHz\_TX

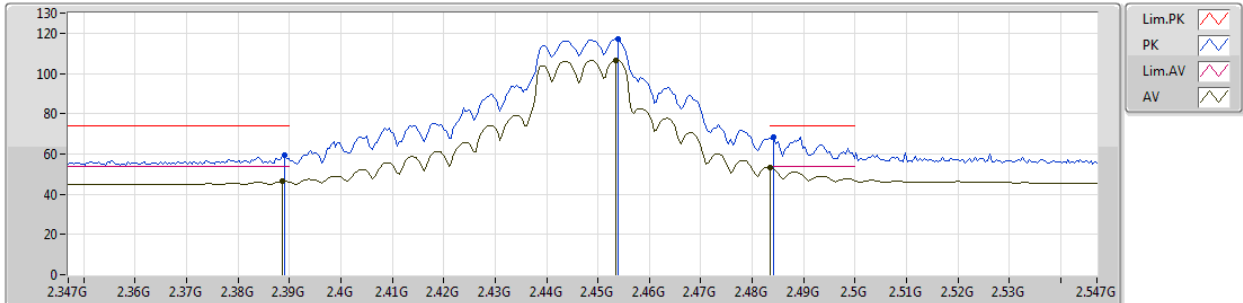


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 2.39G        | 49.49             | 54.00             | -4.51          | 32.01          | 3           | Vertical  | 142            | 1.50          | -        |
| AV   | 2.4448G      | 107.36            | Inf               | -Inf           | 32.18          | 3           | Vertical  | 142            | 1.50          | -        |
| AV   | 2.4844G      | 53.13             | 54.00             | -0.87          | 32.29          | 3           | Vertical  | 142            | 1.50          | -        |
| PK   | 2.3892G      | 66.75             | 74.00             | -7.25          | 32.00          | 3           | Vertical  | 142            | 1.50          | -        |
| PK   | 2.4448G      | 117.62            | Inf               | -Inf           | 32.18          | 3           | Vertical  | 142            | 1.50          | -        |
| PK   | 2.49G        | 70.96             | 74.00             | -3.04          | 32.31          | 3           | Vertical  | 142            | 1.50          | -        |

### 802.11g\_Nss1,(6Mbps)\_2TX

29/12/2018

### 2447MHz\_TX

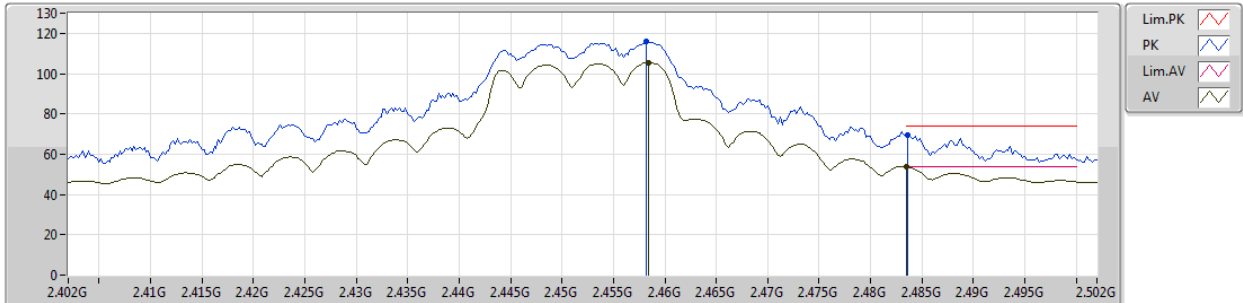


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 2.3886G      | 46.35             | 54.00             | -7.65          | 32.00          | 3           | Vertical  | 56             | 1.50          | -        |
| AV   | 2.4534G      | 106.74            | Inf               | -Inf           | 32.20          | 3           | Vertical  | 56             | 1.50          | -        |
| AV   | 2.4835G      | 53.42             | 54.00             | -0.58          | 32.29          | 3           | Vertical  | 56             | 1.50          | -        |
| PK   | 2.389G       | 59.27             | 74.00             | -14.73         | 32.00          | 3           | Vertical  | 56             | 1.50          | -        |
| PK   | 2.4538G      | 117.07            | Inf               | -Inf           | 32.20          | 3           | Vertical  | 56             | 1.50          | -        |
| PK   | 2.4842G      | 68.29             | 74.00             | -5.71          | 32.29          | 3           | Vertical  | 56             | 1.50          | -        |

## 802.11g\_Nss1,(6Mbps)\_2TX

29/12/2018

## 2452MHz\_TX

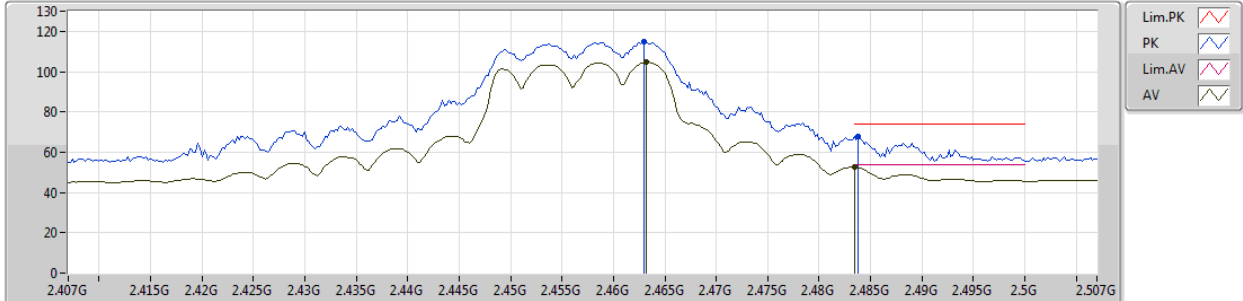


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 2.4584G      | 105.39            | Inf               | -Inf           | 32.22          | 3           | Vertical  | 186            | 1.50          | -        |
| AV   | 2.4835G      | 53.76             | 54.00             | -0.24          | 32.29          | 3           | Vertical  | 186            | 1.50          | -        |
| PK   | 2.4582G      | 115.80            | Inf               | -Inf           | 32.21          | 3           | Vertical  | 186            | 1.50          | -        |
| PK   | 2.4836G      | 69.76             | 74.00             | -4.24          | 32.29          | 3           | Vertical  | 186            | 1.50          | -        |

## 802.11g\_Nss1,(6Mbps)\_2TX

29/12/2018

## 2457MHz\_TX

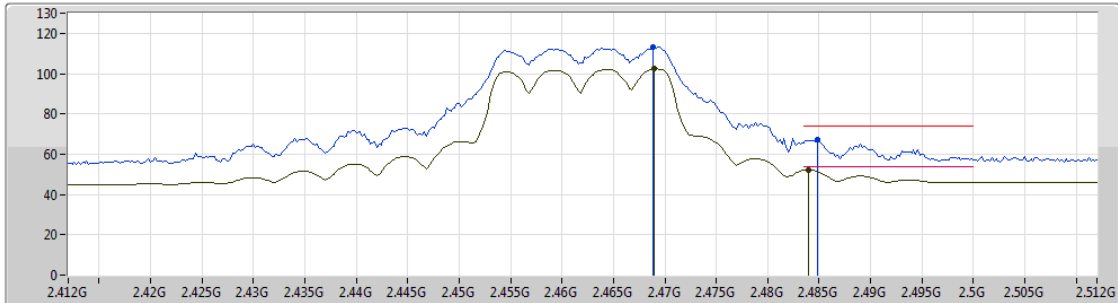


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 2.4632G      | 104.61            | Inf               | -Inf           | 32.23          | 3           | Vertical  | 122            | 1.50          | -        |
| AV   | 2.4835G      | 52.45             | 54.00             | -1.55          | 32.29          | 3           | Vertical  | 122            | 1.50          | -        |
| PK   | 2.463G       | 114.69            | Inf               | -Inf           | 32.23          | 3           | Vertical  | 122            | 1.50          | -        |
| PK   | 2.4838G      | 67.90             | 74.00             | -6.10          | 32.29          | 3           | Vertical  | 122            | 1.50          | -        |

## 802.11g\_Nss1,(6Mbps)\_2TX

29/12/2018

## 2462MHz\_TX

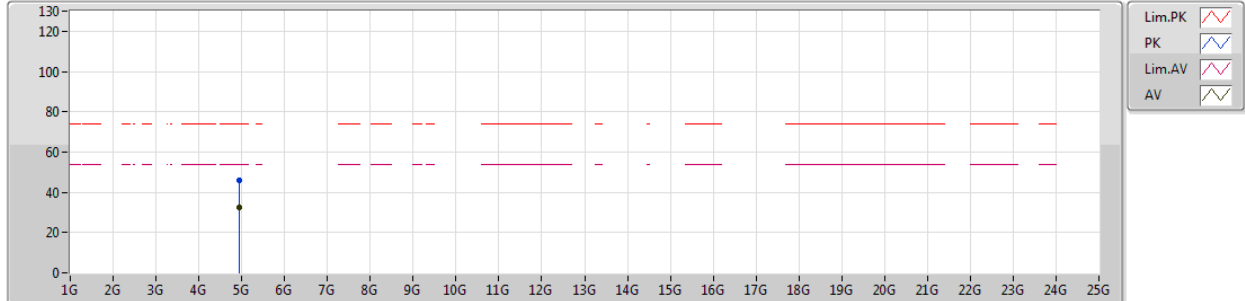


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 2.469G       | 102.30            | Inf               | -Inf           | 32.25          | 3           | Vertical  | 12             | 1.50          | -        |
| AV   | 2.484G       | 52.17             | 54.00             | -1.83          | 32.29          | 3           | Vertical  | 12             | 1.50          | -        |
| PK   | 2.4688G      | 113.23            | Inf               | -Inf           | 32.25          | 3           | Vertical  | 12             | 1.50          | -        |
| PK   | 2.4848G      | 67.05             | 74.00             | -6.95          | 32.29          | 3           | Vertical  | 12             | 1.50          | -        |

## 802.11g\_Nss1,(6Mbps)\_2TX

29/12/2018

## 2462MHz\_TX



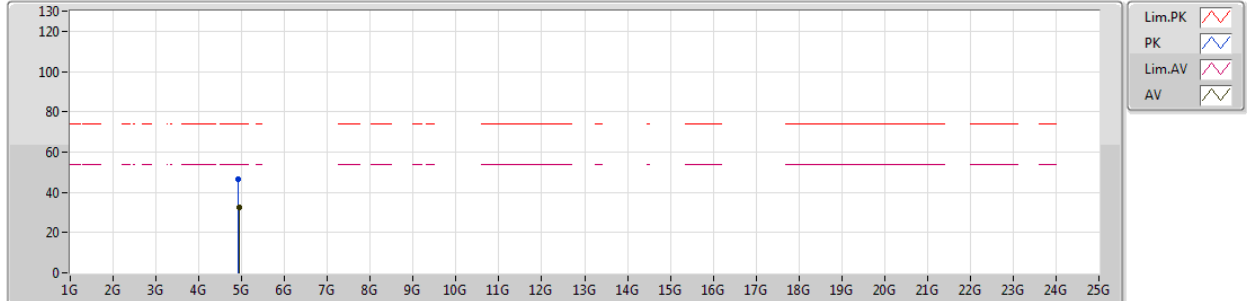
| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 4.9366G      | 32.42             | 54.00             | -21.58         | 3.83           | 3           | Vertical  | 241            | 2.23          | -        |
| PK   | 4.93228G     | 45.74             | 74.00             | -28.26         | 3.82           | 3           | Vertical  | 241            | 2.23          | -        |



### 802.11g\_Nss1,(6Mbps)\_2TX

29/12/2018

### 2462MHz\_TX

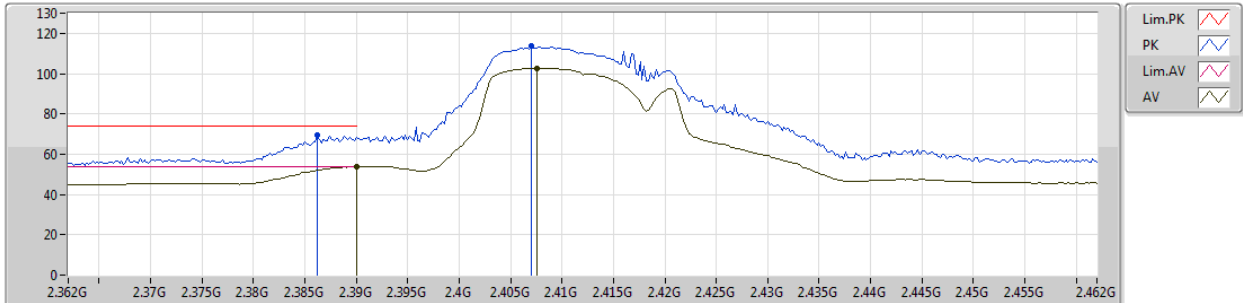


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| AV   | 4.9366G      | 32.43             | 54.00             | -21.57         | 3.83           | 3           | Horizontal | 50             | 1.86          | -        |
| PK   | 4.9261G      | 46.46             | 74.00             | -27.54         | 3.81           | 3           | Horizontal | 50             | 1.86          | -        |

## 802.11n HT20\_Nss1,(MCS0)\_2TX

29/12/2018

## 2412MHz\_TX

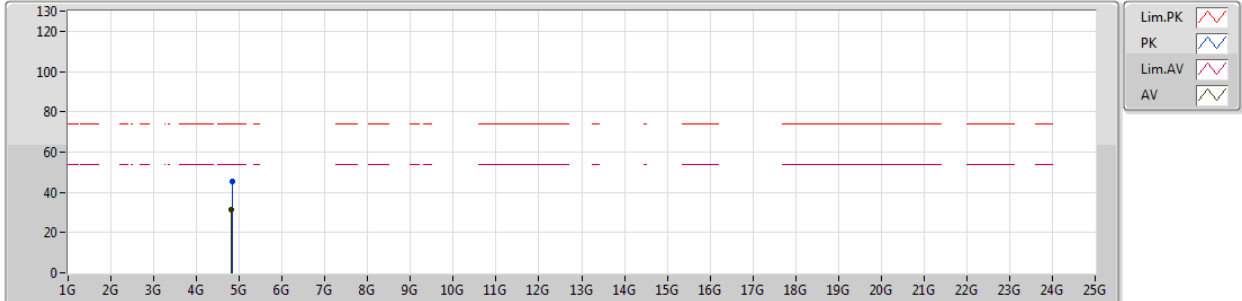


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 2.39G        | 53.69             | 54.00             | -0.31          | 32.01          | 3           | Vertical  | 186            | 1.50          | -        |
| AV   | 2.4076G      | 102.72            | Inf               | -Inf           | 32.06          | 3           | Vertical  | 186            | 1.50          | -        |
| PK   | 2.3862G      | 69.31             | 74.00             | -4.69          | 32.00          | 3           | Vertical  | 186            | 1.50          | -        |
| PK   | 2.407G       | 113.50            | Inf               | -Inf           | 32.06          | 3           | Vertical  | 186            | 1.50          | -        |

### 802.11n HT20\_Nss1,(MCS0)\_2TX

29/12/2018

### 2412MHz\_TX

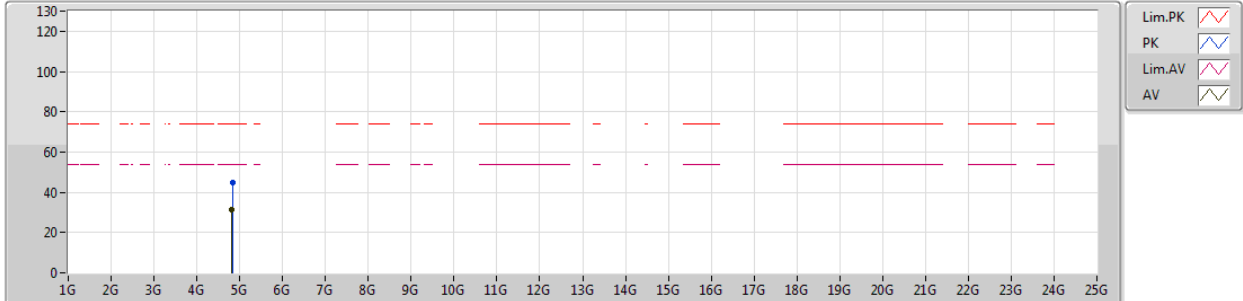


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |  |  |  |  |  |  |  |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|--|--|--|--|--|--|--|
| AV   | 4.80906G     | 31.11             | 54.00             | -22.89         | 3.55           | 3           | Vertical  | 289            | 2.18          | -        |  |  |  |  |  |  |  |
| PK   | 4.82856G     | 45.54             | 74.00             | -28.46         | 3.59           | 3           | Vertical  | 289            | 2.18          | -        |  |  |  |  |  |  |  |

## 802.11n HT20\_Nss1,(MCS0)\_2TX

29/12/2018

## 2412MHz\_TX

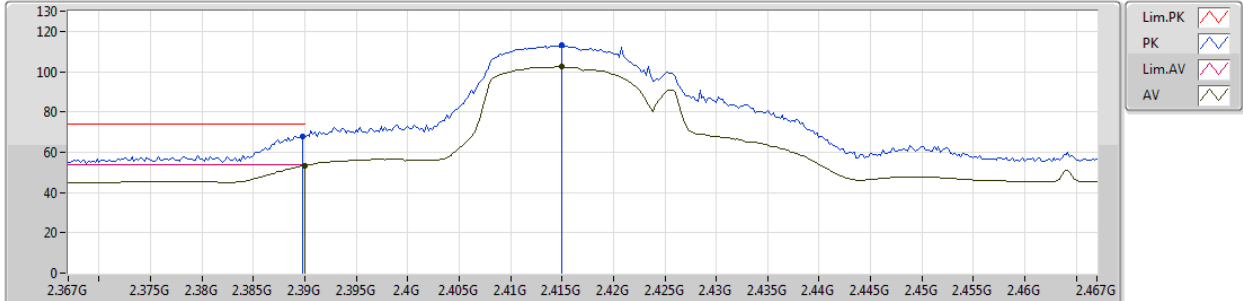


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| AV   | 4.80918G     | 31.58             | 54.00             | -22.42         | 3.55           | 3           | Horizontal | 137            | 1.13          | -        |
| PK   | 4.82682G     | 45.02             | 74.00             | -28.98         | 3.59           | 3           | Horizontal | 137            | 1.13          | -        |

## 802.11n HT20\_Nss1,(MCS0)\_2TX

29/12/2018

## 2417MHz\_TX

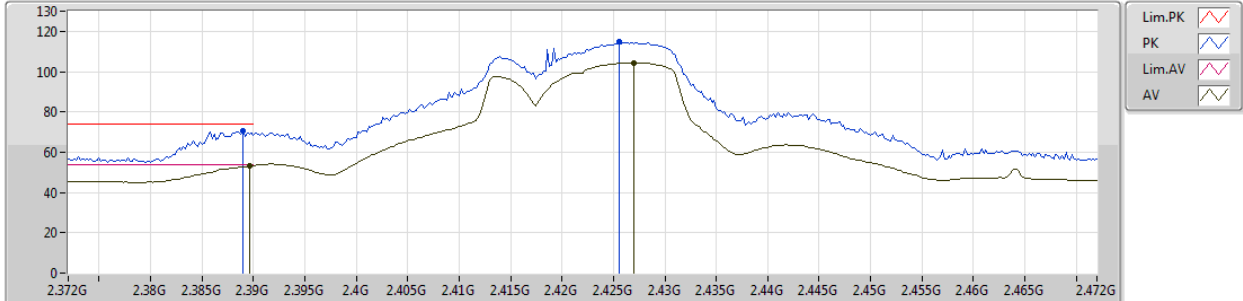


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 2.39G        | 53.48             | 54.00             | -0.52          | 32.01          | 3           | Vertical  | 248            | 1.50          | -        |
| AV   | 2.415G       | 102.34            | Inf               | -Inf           | 32.09          | 3           | Vertical  | 248            | 1.50          | -        |
| PK   | 2.3898G      | 67.88             | 74.00             | -6.12          | 32.01          | 3           | Vertical  | 248            | 1.50          | -        |
| PK   | 2.415G       | 113.11            | Inf               | -Inf           | 32.09          | 3           | Vertical  | 248            | 1.50          | -        |

## 802.11n HT20\_Nss1,(MCS0)\_2TX

29/12/2018

## 2422MHz\_TX

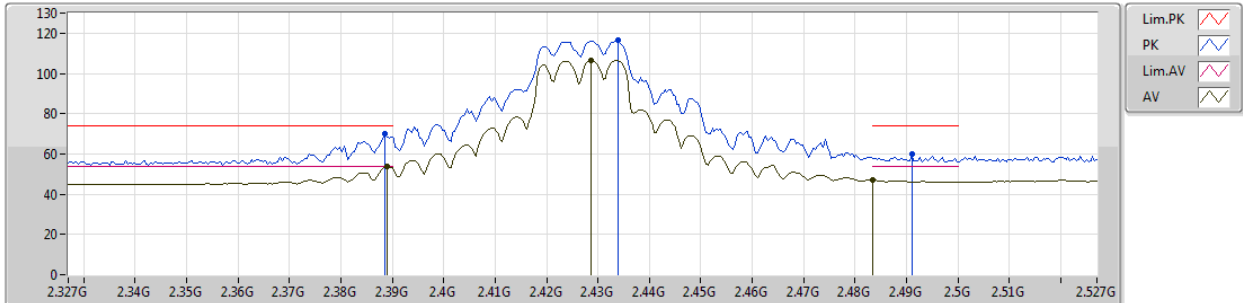


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 2.3896G      | 53.44             | 54.00             | -0.56          | 32.01          | 3           | Vertical  | 47             | 1.50          | -        |
| AV   | 2.427G       | 104.49            | Inf               | -Inf           | 32.12          | 3           | Vertical  | 47             | 1.50          | -        |
| PK   | 2.389G       | 70.36             | 74.00             | -3.64          | 32.00          | 3           | Vertical  | 47             | 1.50          | -        |
| PK   | 2.4256G      | 114.72            | Inf               | -Inf           | 32.12          | 3           | Vertical  | 47             | 1.50          | -        |

## 802.11n HT20\_Nss1,(MCS0)\_2TX

## 2427MHz\_TX

29/12/2018

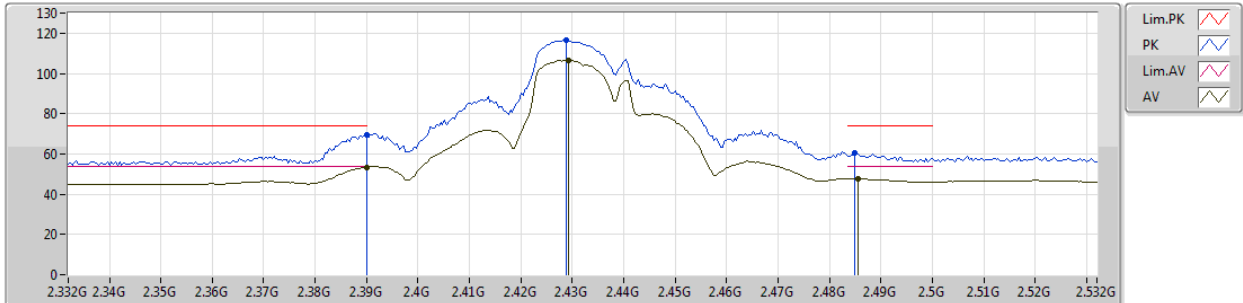


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 2.389G       | 53.57             | 54.00             | -0.43          | 32.00          | 3           | Vertical  | 248            | 1.50          | -        |
| AV   | 2.4286G      | 106.34            | Inf               | -Inf           | 32.13          | 3           | Vertical  | 248            | 1.50          | -        |
| AV   | 2.4835G      | 47.11             | 54.00             | -6.89          | 32.29          | 3           | Vertical  | 248            | 1.50          | -        |
| PK   | 2.3886G      | 70.15             | 74.00             | -3.85          | 32.00          | 3           | Vertical  | 248            | 1.50          | -        |
| PK   | 2.4338G      | 116.72            | Inf               | -Inf           | 32.14          | 3           | Vertical  | 248            | 1.50          | -        |
| PK   | 2.491G       | 59.68             | 74.00             | -14.32         | 32.31          | 3           | Vertical  | 248            | 1.50          | -        |

## 802.11n HT20\_Nss1,(MCS0)\_2TX

29/12/2018

## 2432MHz\_TX



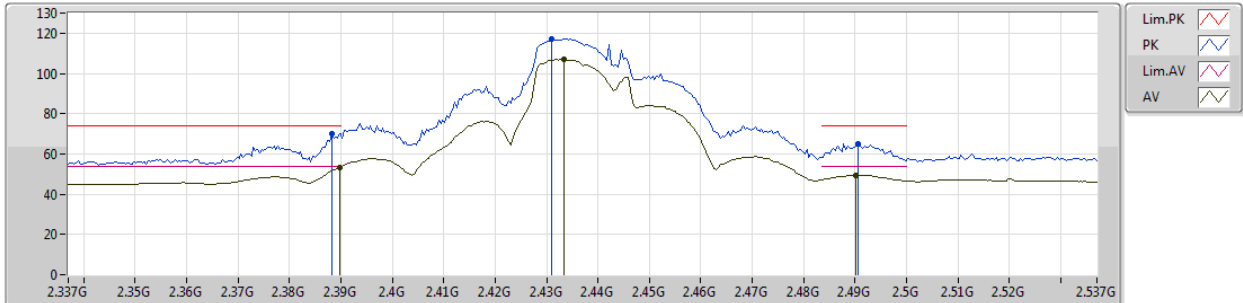
| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 2.39G        | 53.40             | 54.00             | -0.60          | 32.01          | 3           | Vertical  | 249            | 1.50          | -        |
| AV   | 2.4292G      | 106.51            | Inf               | -Inf           | 32.13          | 3           | Vertical  | 249            | 1.50          | -        |
| AV   | 2.4856G      | 47.69             | 54.00             | -6.31          | 32.30          | 3           | Vertical  | 249            | 1.50          | -        |
| PK   | 2.39G        | 69.54             | 74.00             | -4.46          | 32.01          | 3           | Vertical  | 249            | 1.50          | -        |
| PK   | 2.4288G      | 116.62            | Inf               | -Inf           | 32.13          | 3           | Vertical  | 249            | 1.50          | -        |
| PK   | 2.4848G      | 60.76             | 74.00             | -13.24         | 32.29          | 3           | Vertical  | 249            | 1.50          | -        |



## 802.11n HT20\_Nss1,(MCS0)\_2TX

29/12/2018

## 2437MHz\_TX

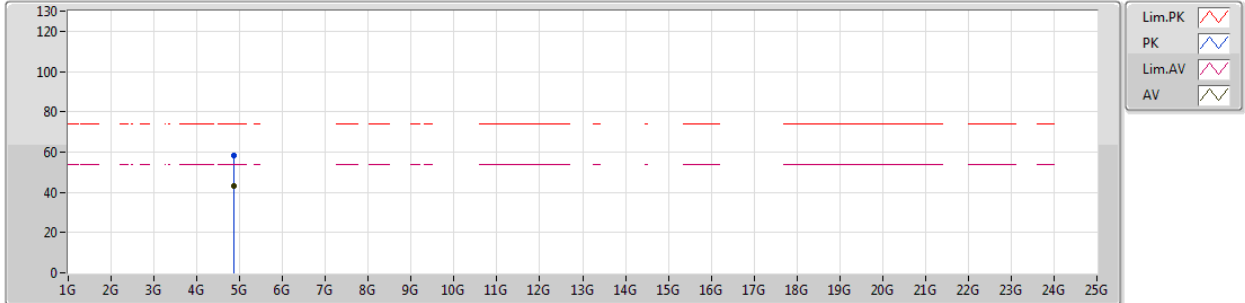


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 2.3898G      | 53.37             | 54.00             | -0.63          | 32.01          | 3           | Vertical  | 53             | 1.50          | -        |
| AV   | 2.4334G      | 106.79            | Inf               | -Inf           | 32.14          | 3           | Vertical  | 53             | 1.50          | -        |
| AV   | 2.4902G      | 49.36             | 54.00             | -4.64          | 32.31          | 3           | Vertical  | 53             | 1.50          | -        |
| PK   | 2.3882G      | 70.21             | 74.00             | -3.79          | 32.00          | 3           | Vertical  | 53             | 1.50          | -        |
| PK   | 2.431G       | 117.01            | Inf               | -Inf           | 32.13          | 3           | Vertical  | 53             | 1.50          | -        |
| PK   | 2.4906G      | 65.04             | 74.00             | -8.96          | 32.31          | 3           | Vertical  | 53             | 1.50          | -        |

### 802.11n HT20\_Nss1,(MCS0)\_2TX

29/12/2018

### 2437MHz\_TX

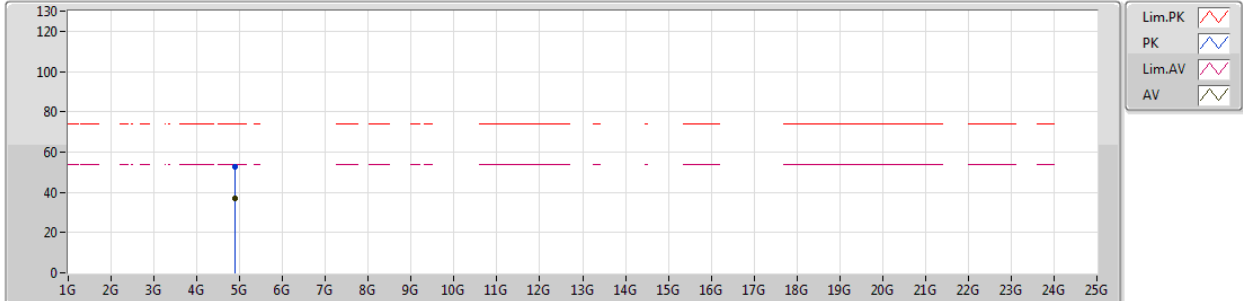


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 4.8756G      | 43.14             | 54.00             | -10.86         | 3.70           | 3           | Vertical  | 15             | 2.96          | -        |
| PK   | 4.8772G      | 58.07             | 74.00             | -15.93         | 3.70           | 3           | Vertical  | 15             | 2.96          | -        |

## 802.11n HT20\_Nss1,(MCS0)\_2TX

29/12/2018

## 2437MHz\_TX

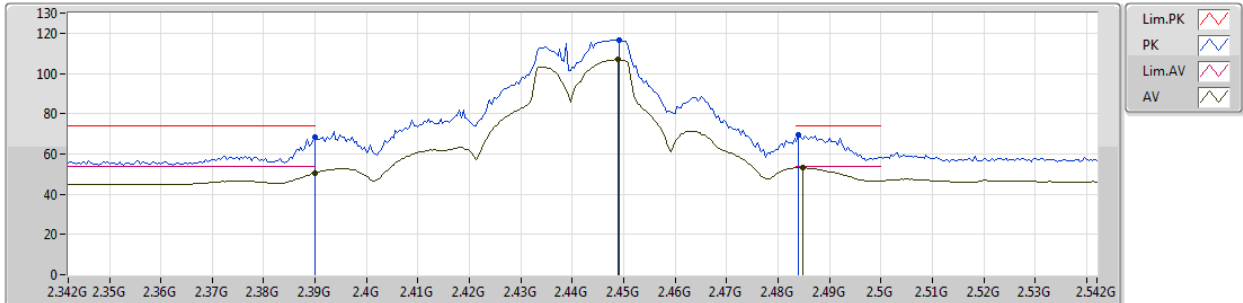


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| AV   | 4.88114G     | 37.09             | 54.00             | -16.91         | 3.71           | 3           | Horizontal | 48             | 2.24          | -        |
| PK   | 4.87778G     | 52.48             | 74.00             | -21.52         | 3.70           | 3           | Horizontal | 48             | 2.24          | -        |

## 802.11n HT20\_Nss1,(MCS0)\_2TX

29/12/2018

## 2442MHz\_TX

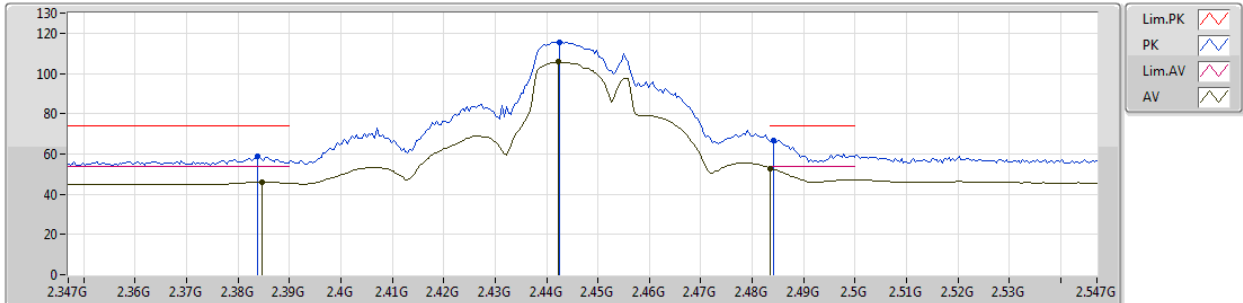


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 2.39G        | 50.50             | 54.00             | -3.50          | 32.01          | 3           | Vertical  | 305            | 1.49          | -        |
| AV   | 2.4488G      | 106.93            | Inf               | -Inf           | 32.19          | 3           | Vertical  | 305            | 1.49          | -        |
| AV   | 2.4848G      | 53.21             | 54.00             | -0.79          | 32.29          | 3           | Vertical  | 305            | 1.49          | -        |
| PK   | 2.39G        | 68.12             | 74.00             | -5.88          | 32.01          | 3           | Vertical  | 305            | 1.49          | -        |
| PK   | 2.4492G      | 116.74            | Inf               | -Inf           | 32.19          | 3           | Vertical  | 305            | 1.49          | -        |
| PK   | 2.484G       | 69.69             | 74.00             | -4.31          | 32.29          | 3           | Vertical  | 305            | 1.49          | -        |

## 802.11n HT20\_Nss1,(MCS0)\_2TX

29/12/2018

## 2447MHz\_TX

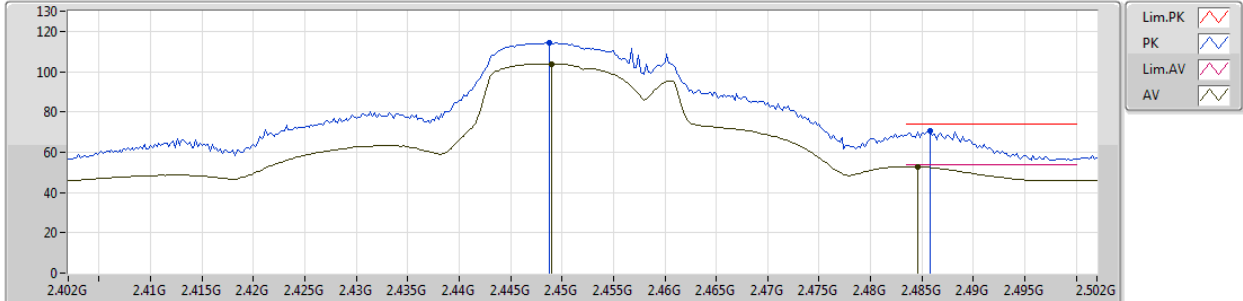


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 2.3846G      | 45.92             | 54.00             | -8.08          | 31.98          | 3           | Vertical  | 51             | 1.50          | -        |
| AV   | 2.4422G      | 105.74            | Inf               | -Inf           | 32.17          | 3           | Vertical  | 51             | 1.50          | -        |
| AV   | 2.4835G      | 52.88             | 54.00             | -1.12          | 32.29          | 3           | Vertical  | 51             | 1.50          | -        |
| PK   | 2.3838G      | 58.81             | 74.00             | -15.19         | 31.98          | 3           | Vertical  | 51             | 1.50          | -        |
| PK   | 2.4426G      | 115.70            | Inf               | -Inf           | 32.17          | 3           | Vertical  | 51             | 1.50          | -        |
| PK   | 2.4842G      | 66.84             | 74.00             | -7.16          | 32.29          | 3           | Vertical  | 51             | 1.50          | -        |

## 802.11n HT20\_Nss1,(MCS0)\_2TX

29/12/2018

## 2452MHz\_TX

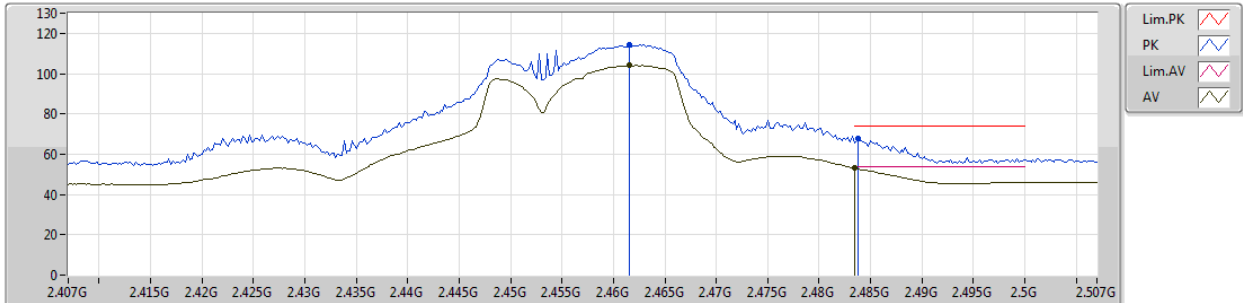


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 2.449G       | 103.86            | Inf               | -Inf           | 32.19          | 3           | Vertical  | 185            | 1.50          | -        |
| AV   | 2.4846G      | 52.90             | 54.00             | -1.10          | 32.29          | 3           | Vertical  | 185            | 1.50          | -        |
| PK   | 2.4488G      | 114.49            | Inf               | -Inf           | 32.19          | 3           | Vertical  | 185            | 1.50          | -        |
| PK   | 2.4858G      | 70.78             | 74.00             | -3.22          | 32.30          | 3           | Vertical  | 185            | 1.50          | -        |

## 802.11n HT20\_Nss1,(MCS0)\_2TX

29/12/2018

## 2457MHz\_TX

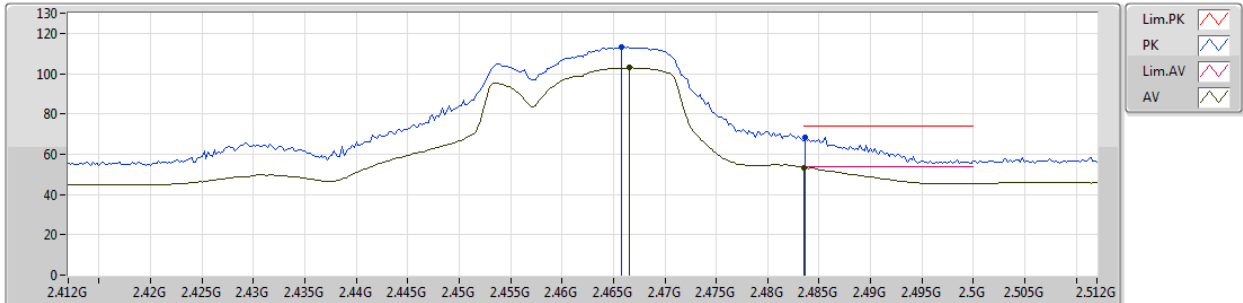


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 2.4616G      | 103.99            | Inf               | -Inf           | 32.23          | 3           | Vertical  | 121            | 1.50          | -        |
| AV   | 2.4835G      | 53.00             | 54.00             | -1.00          | 32.29          | 3           | Vertical  | 121            | 1.50          | -        |
| PK   | 2.4616G      | 114.46            | Inf               | -Inf           | 32.23          | 3           | Vertical  | 121            | 1.50          | -        |
| PK   | 2.4838G      | 67.87             | 74.00             | -6.13          | 32.29          | 3           | Vertical  | 121            | 1.50          | -        |

## 802.11n HT20\_Nss1,(MCS0)\_2TX

29/12/2018

## 2462MHz\_TX



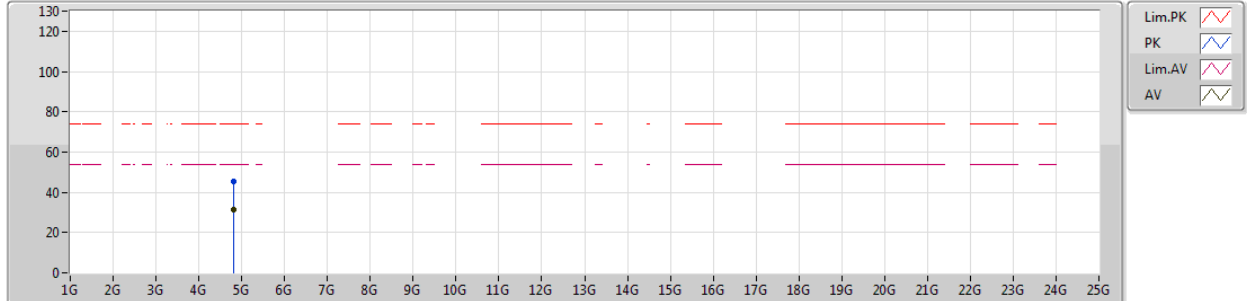
| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 2.4666G      | 102.99            | Inf               | -Inf           | 32.24          | 3           | Vertical  | 116            | 1.50          | -        |
| AV   | 2.4835G      | 53.31             | 54.00             | -0.69          | 32.29          | 3           | Vertical  | 116            | 1.50          | -        |
| PK   | 2.4658G      | 113.11            | Inf               | -Inf           | 32.24          | 3           | Vertical  | 116            | 1.50          | -        |
| PK   | 2.4836G      | 68.44             | 74.00             | -5.56          | 32.29          | 3           | Vertical  | 116            | 1.50          | -        |



## 802.11n HT20\_Nss1,(MCS0)\_2TX

29/12/2018

## 2462MHz\_TX

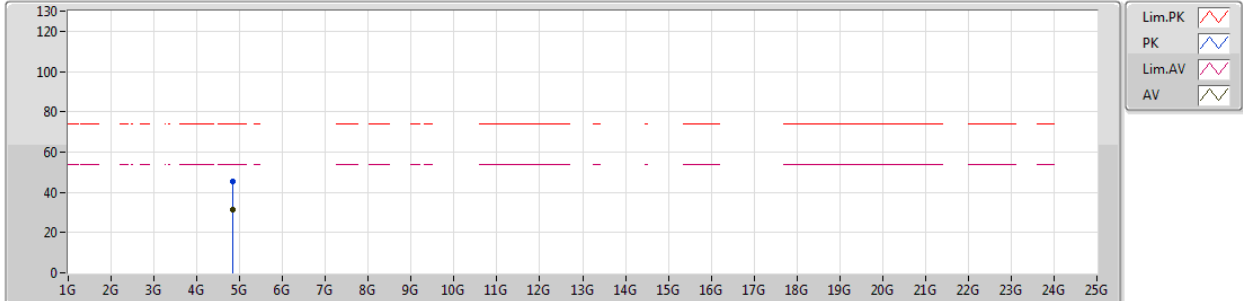


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 4.8102G      | 31.55             | 54.00             | -22.45         | 3.55           | 3           | Vertical  | 173            | 1.38          | -        |
| PK   | 4.80996G     | 45.57             | 74.00             | -28.43         | 3.55           | 3           | Vertical  | 173            | 1.38          | -        |

## 802.11n HT20\_Nss1,(MCS0)\_2TX

29/12/2018

## 2462MHz\_TX

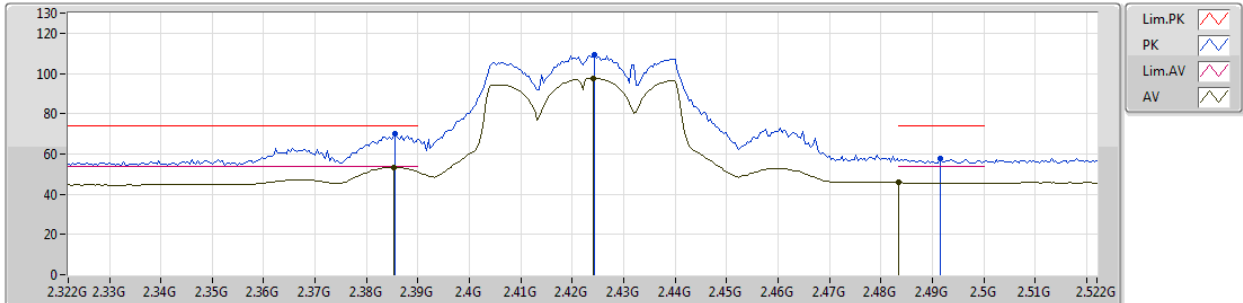


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| AV   | 4.83762G     | 31.62             | 54.00             | -22.38         | 3.62           | 3           | Horizontal | 162            | 2.03          | -        |
| PK   | 4.82694G     | 45.41             | 74.00             | -28.59         | 3.59           | 3           | Horizontal | 162            | 2.03          | -        |

## 802.11n HT40\_Nss1,(MCS0)\_2TX

29/12/2018

## 2422MHz\_TX

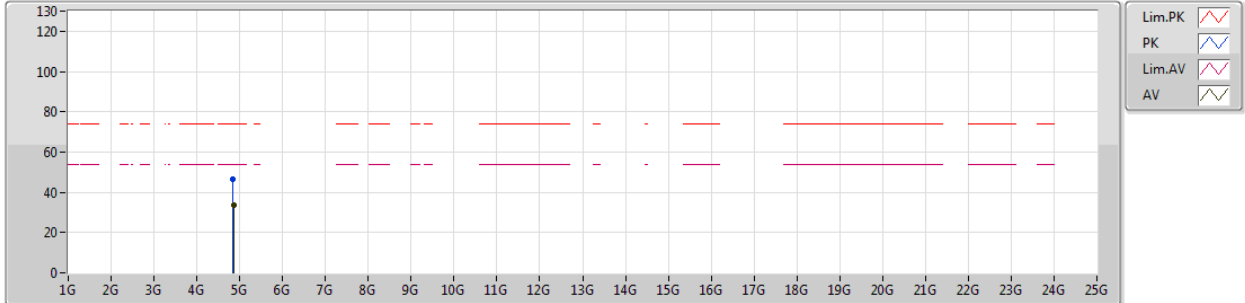


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 2.3852G      | 53.39             | 54.00             | -0.61          | 31.99          | 3           | Vertical  | 23             | 1.50          | -        |
| AV   | 2.424G       | 97.54             | Inf               | -Inf           | 32.11          | 3           | Vertical  | 23             | 1.50          | -        |
| AV   | 2.4835G      | 45.71             | 54.00             | -8.29          | 32.29          | 3           | Vertical  | 23             | 1.50          | -        |
| PK   | 2.3856G      | 70.25             | 74.00             | -3.75          | 32.00          | 3           | Vertical  | 23             | 1.50          | -        |
| PK   | 2.4244G      | 109.19            | Inf               | -Inf           | 32.11          | 3           | Vertical  | 23             | 1.50          | -        |
| PK   | 2.4916G      | 57.91             | 74.00             | -16.09         | 32.31          | 3           | Vertical  | 23             | 1.50          | -        |

## 802.11n HT40\_Nss1,(MCS0)\_2TX

29/12/2018

## 2422MHz\_TX

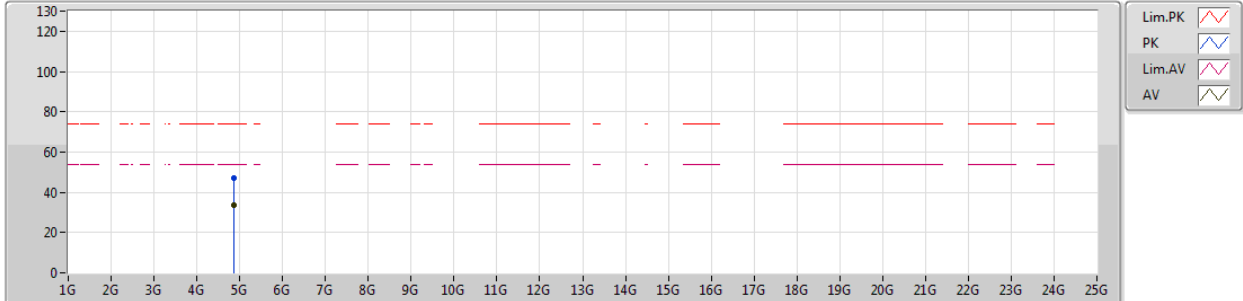


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 4.859G       | 33.68             | 54.00             | -20.32         | 3.66           | 3           | Vertical  | 248            | 1.29          | -        |
| PK   | 4.85006G     | 46.60             | 74.00             | -27.40         | 3.64           | 3           | Vertical  | 248            | 1.29          | -        |

## 802.11n HT40\_Nss1,(MCS0)\_2TX

29/12/2018

## 2422MHz\_TX

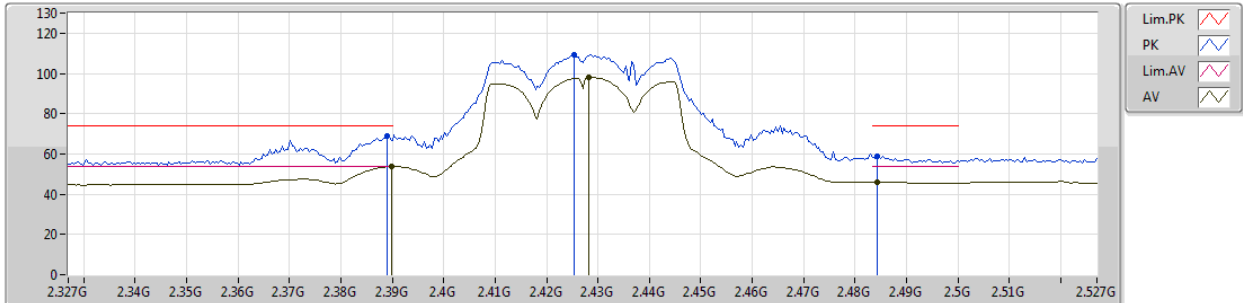


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| AV   | 4.859G       | 33.77             | 54.00             | -20.23         | 3.66           | 3           | Horizontal | 320            | 1.76          | -        |
| PK   | 4.85864G     | 47.29             | 74.00             | -26.71         | 3.66           | 3           | Horizontal | 320            | 1.76          | -        |

## 802.11n HT40\_Nss1,(MCS0)\_2TX

29/12/2018

## 2427MHz\_TX

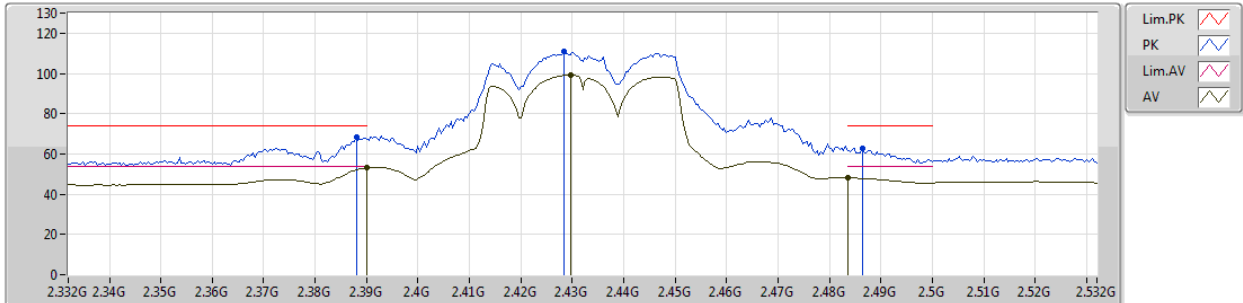


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 2.3898G      | 53.71             | 54.00             | -0.29          | 32.01          | 3           | Vertical  | 22             | 1.50          | -        |
| AV   | 2.4282G      | 98.20             | Inf               | -Inf           | 32.13          | 3           | Vertical  | 22             | 1.50          | -        |
| AV   | 2.4842G      | 46.21             | 54.00             | -7.79          | 32.29          | 3           | Vertical  | 22             | 1.50          | -        |
| PK   | 2.389G       | 68.98             | 74.00             | -5.02          | 32.00          | 3           | Vertical  | 22             | 1.50          | -        |
| PK   | 2.4254G      | 109.41            | Inf               | -Inf           | 32.12          | 3           | Vertical  | 22             | 1.50          | -        |
| PK   | 2.4842G      | 58.72             | 74.00             | -15.28         | 32.29          | 3           | Vertical  | 22             | 1.50          | -        |

## 802.11n HT40\_Nss1,(MCS0)\_2TX

29/12/2018

## 2432MHz\_TX

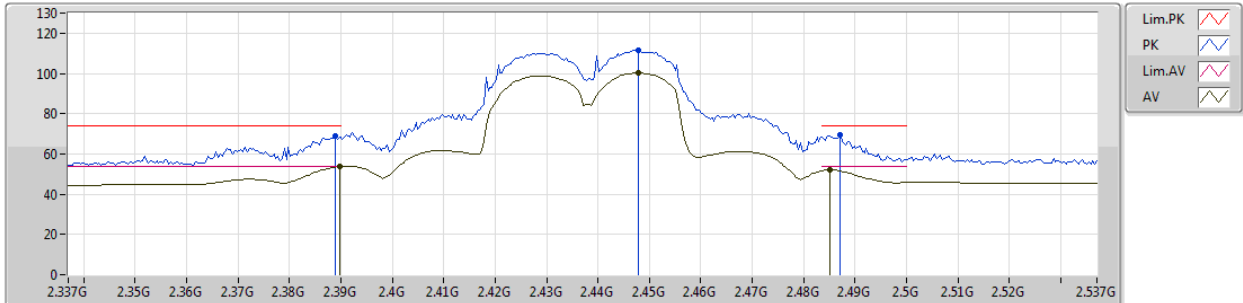


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 2.39G        | 52.99             | 54.00             | -1.01          | 32.01          | 3           | Vertical  | 246            | 1.50          | -        |
| AV   | 2.4296G      | 99.10             | Inf               | -Inf           | 32.13          | 3           | Vertical  | 246            | 1.50          | -        |
| AV   | 2.4835G      | 48.20             | 54.00             | -5.80          | 32.29          | 3           | Vertical  | 246            | 1.50          | -        |
| PK   | 2.388G       | 68.22             | 74.00             | -5.78          | 32.00          | 3           | Vertical  | 246            | 1.50          | -        |
| PK   | 2.4284G      | 111.20            | Inf               | -Inf           | 32.13          | 3           | Vertical  | 246            | 1.50          | -        |
| PK   | 2.4864G      | 62.62             | 74.00             | -11.38         | 32.30          | 3           | Vertical  | 246            | 1.50          | -        |

## 802.11n HT40\_Nss1,(MCS0)\_2TX

29/12/2018

## 2437MHz\_TX



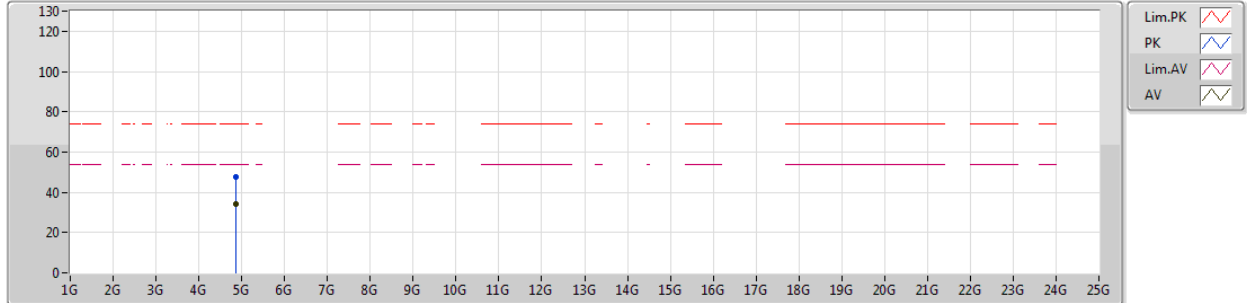
| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 2.3898G      | 53.83             | 54.00             | -0.17          | 32.01          | 3           | Vertical  | 143            | 1.50          | -        |
| AV   | 2.4478G      | 100.25            | Inf               | -Inf           | 32.18          | 3           | Vertical  | 143            | 1.50          | -        |
| AV   | 2.485G       | 52.00             | 54.00             | -2.00          | 32.29          | 3           | Vertical  | 143            | 1.50          | -        |
| PK   | 2.389G       | 68.75             | 74.00             | -5.25          | 32.00          | 3           | Vertical  | 143            | 1.50          | -        |
| PK   | 2.4478G      | 111.43            | Inf               | -Inf           | 32.18          | 3           | Vertical  | 143            | 1.50          | -        |
| PK   | 2.487G       | 69.36             | 74.00             | -4.64          | 32.30          | 3           | Vertical  | 143            | 1.50          | -        |



## 802.11n HT40\_Nss1,(MCS0)\_2TX

29/12/2018

## 2437MHz\_TX

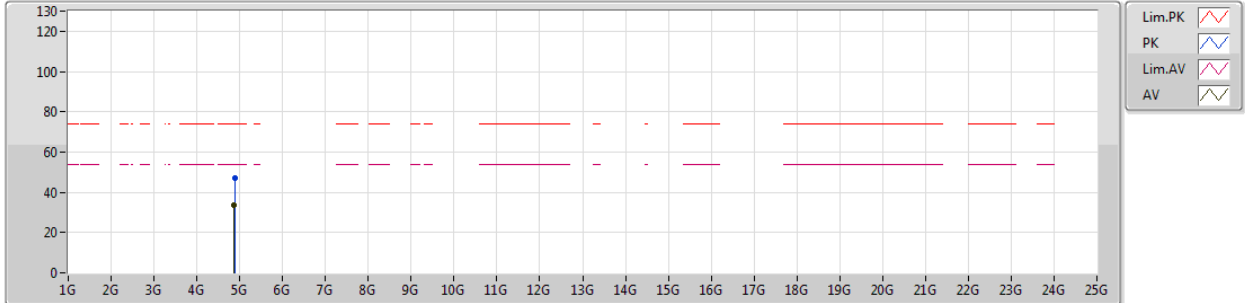


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 4.8745G      | 33.94             | 54.00             | -20.06         | 3.69           | 3           | Vertical  | 251            | 1.12          | -        |
| PK   | 4.8759G      | 47.72             | 74.00             | -26.28         | 3.70           | 3           | Vertical  | 251            | 1.12          | -        |

## 802.11n HT40\_Nss1,(MCS0)\_2TX

29/12/2018

## 2437MHz\_TX

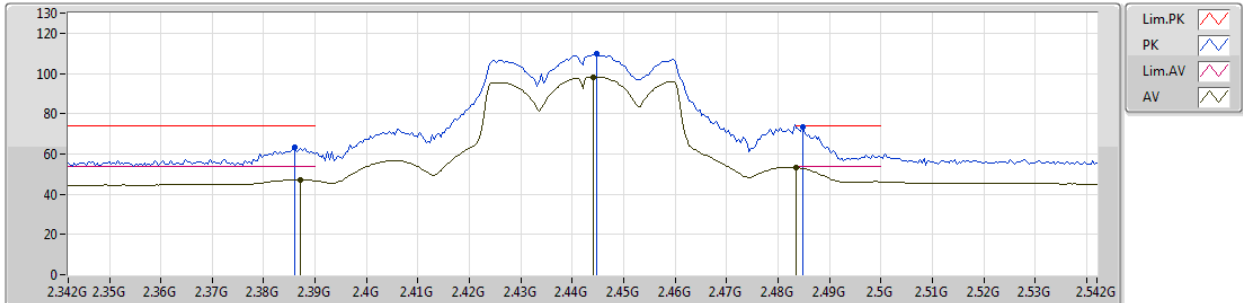


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| AV   | 4.8744G      | 33.35             | 54.00             | -20.65         | 3.69           | 3           | Horizontal | 345            | 1.57          | -        |
| PK   | 4.8794G      | 46.87             | 74.00             | -27.13         | 3.70           | 3           | Horizontal | 345            | 1.57          | -        |

## 802.11n HT40\_Nss1,(MCS0)\_2TX

29/12/2018

## 2442MHz\_TX

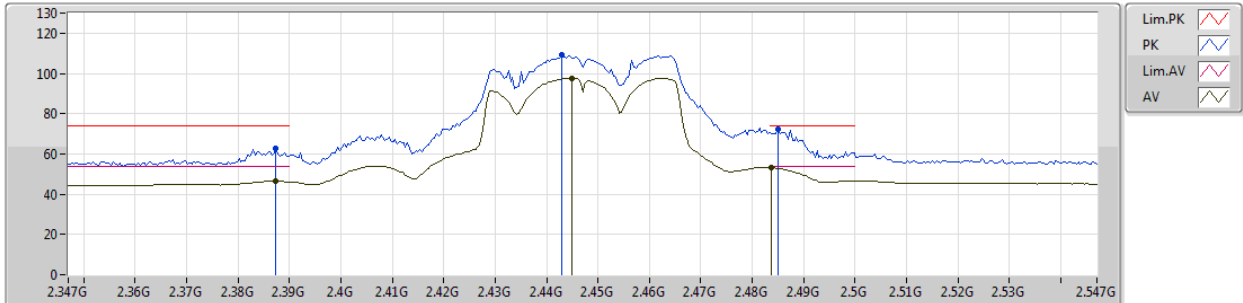


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 2.3872G      | 47.18             | 54.00             | -6.82          | 32.00          | 3           | Vertical  | 143            | 1.49          | -        |
| AV   | 2.444G       | 98.33             | Inf               | -Inf           | 32.18          | 3           | Vertical  | 143            | 1.49          | -        |
| AV   | 2.4835G      | 53.26             | 54.00             | -0.74          | 32.29          | 3           | Vertical  | 143            | 1.49          | -        |
| PK   | 2.386G       | 63.25             | 74.00             | -10.75         | 32.00          | 3           | Vertical  | 143            | 1.49          | -        |
| PK   | 2.4448G      | 109.88            | Inf               | -Inf           | 32.18          | 3           | Vertical  | 143            | 1.49          | -        |
| PK   | 2.4848G      | 73.28             | 74.00             | -0.72          | 32.29          | 3           | Vertical  | 143            | 1.49          | -        |

## 802.11n HT40\_Nss1,(MCS0)\_2TX

29/12/2018

## 2447MHz\_TX

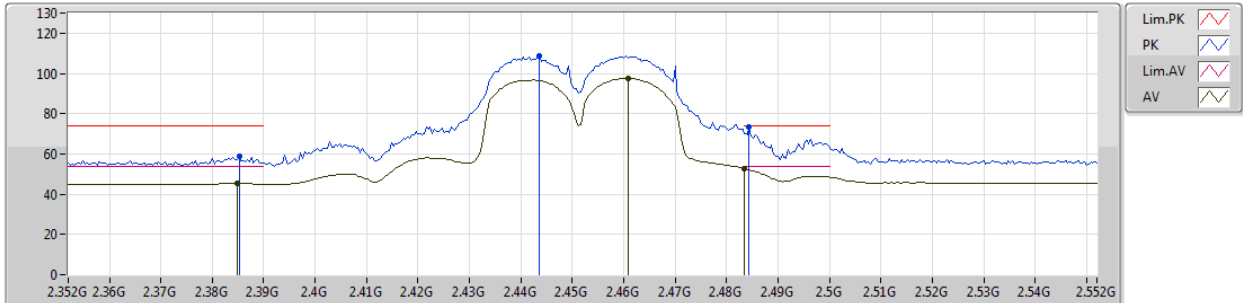


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 2.3874G      | 46.35             | 54.00             | -7.65          | 32.00          | 3           | Vertical  | 60             | 1.50          | -        |
| AV   | 2.445G       | 97.48             | Inf               | -Inf           | 32.18          | 3           | Vertical  | 60             | 1.50          | -        |
| AV   | 2.4838G      | 53.09             | 54.00             | -0.91          | 32.29          | 3           | Vertical  | 60             | 1.50          | -        |
| PK   | 2.3874G      | 62.90             | 74.00             | -11.10         | 32.00          | 3           | Vertical  | 60             | 1.50          | -        |
| PK   | 2.443G       | 109.15            | Inf               | -Inf           | 32.17          | 3           | Vertical  | 60             | 1.50          | -        |
| PK   | 2.485G       | 72.28             | 74.00             | -1.72          | 32.29          | 3           | Vertical  | 60             | 1.50          | -        |

## 802.11n HT40\_Nss1,(MCS0)\_2TX

29/12/2018

## 2452MHz\_TX

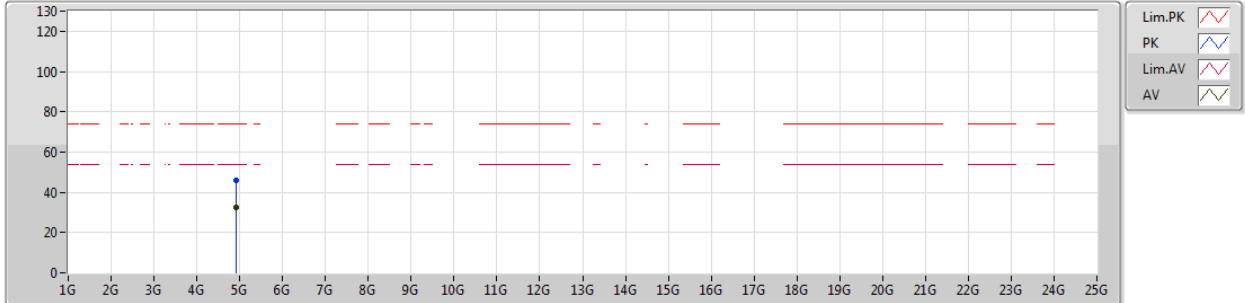


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 2.3848G      | 45.32             | 54.00             | -8.68          | 31.98          | 3           | Vertical  | 7              | 1.50          | -        |
| AV   | 2.4608G      | 97.56             | Inf               | -Inf           | 32.23          | 3           | Vertical  | 7              | 1.50          | -        |
| AV   | 2.4835G      | 52.65             | 54.00             | -1.35          | 32.29          | 3           | Vertical  | 7              | 1.50          | -        |
| PK   | 2.3852G      | 58.60             | 74.00             | -15.40         | 31.99          | 3           | Vertical  | 7              | 1.50          | -        |
| PK   | 2.4436G      | 108.55            | Inf               | -Inf           | 32.17          | 3           | Vertical  | 7              | 1.50          | -        |
| PK   | 2.4844G      | 73.45             | 74.00             | -0.55          | 32.29          | 3           | Vertical  | 7              | 1.50          | -        |

## 802.11n HT40\_Nss1,(MCS0)\_2TX

29/12/2018

## 2452MHz\_TX

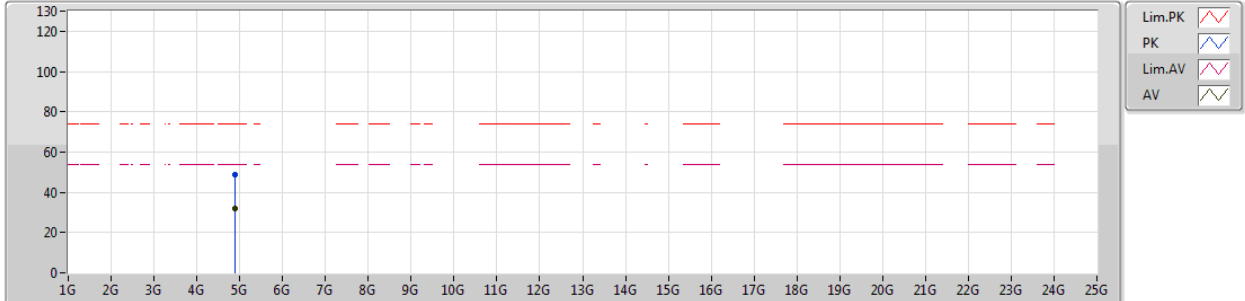


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 4.91798G     | 32.32             | 54.00             | -21.68         | 3.79           | 3           | Vertical  | 187            | 1.12          | -        |
| PK   | 4.90634G     | 45.99             | 74.00             | -28.01         | 3.76           | 3           | Vertical  | 187            | 1.12          | -        |

## 802.11n HT40\_Nss1,(MCS0)\_2TX

29/12/2018

## 2452MHz\_TX



| Type | Freq     | Level    | Limit    | Margin | Factor | Dist | Condition  | Azimuth | Height | Comments |  |  |  |  |  |  |  |
|------|----------|----------|----------|--------|--------|------|------------|---------|--------|----------|--|--|--|--|--|--|--|
|      | (Hz)     | (dBuV/m) | (dBuV/m) | (dB)   | (dB)   | (m)  |            | (°)     | (m)    |          |  |  |  |  |  |  |  |
| AV   | 4.89512G | 32.17    | 54.00    | -21.83 | 3.74   | 3    | Horizontal | 15      | 1.49   | -        |  |  |  |  |  |  |  |
| PK   | 4.88972G | 48.70    | 74.00    | -25.30 | 3.73   | 3    | Horizontal | 15      | 1.49   | -        |  |  |  |  |  |  |  |

## 1. Photographs of Conducted Emissions Test Configuration

Front view

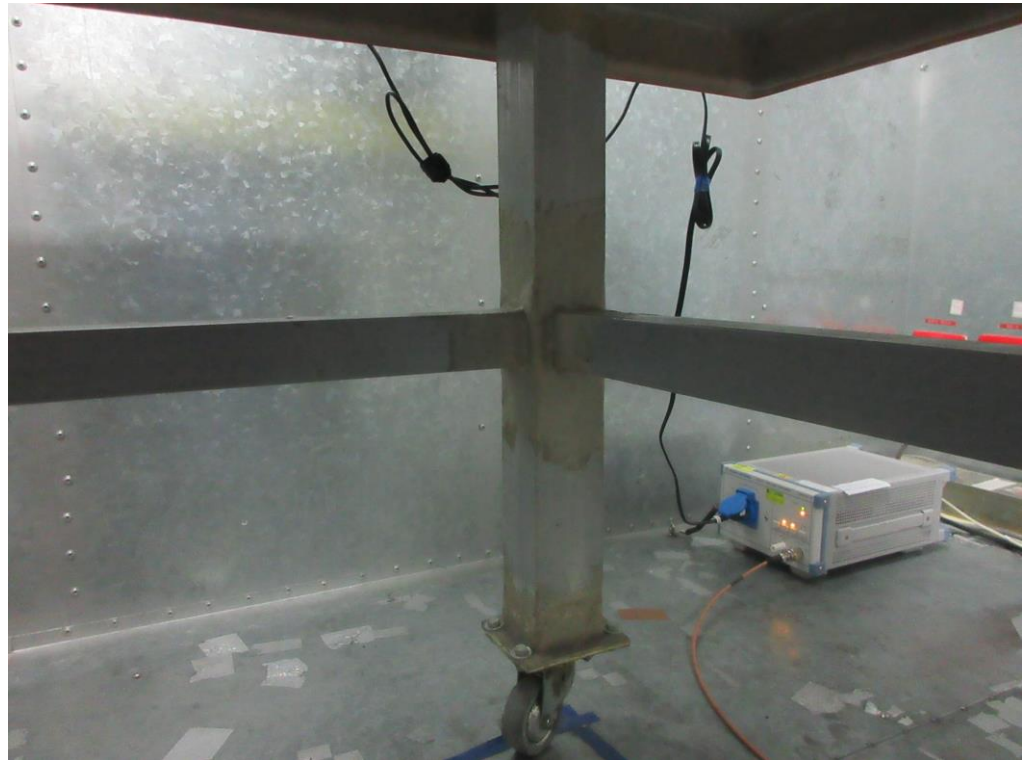


Side view





Under table view



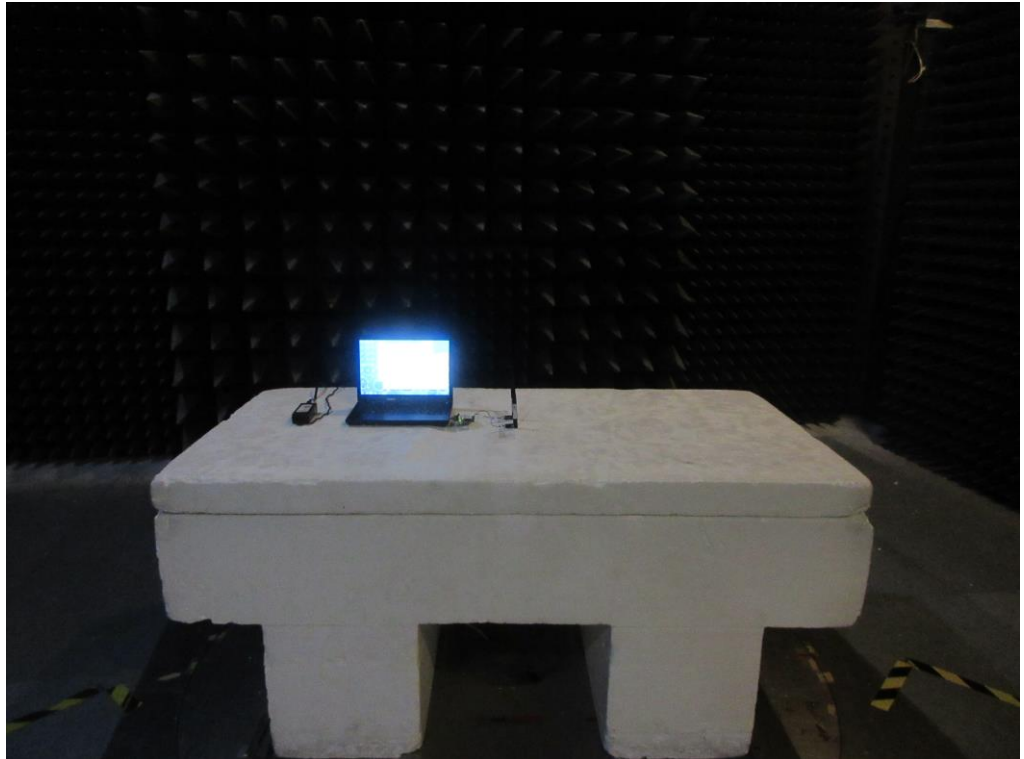
EUT close-up photo



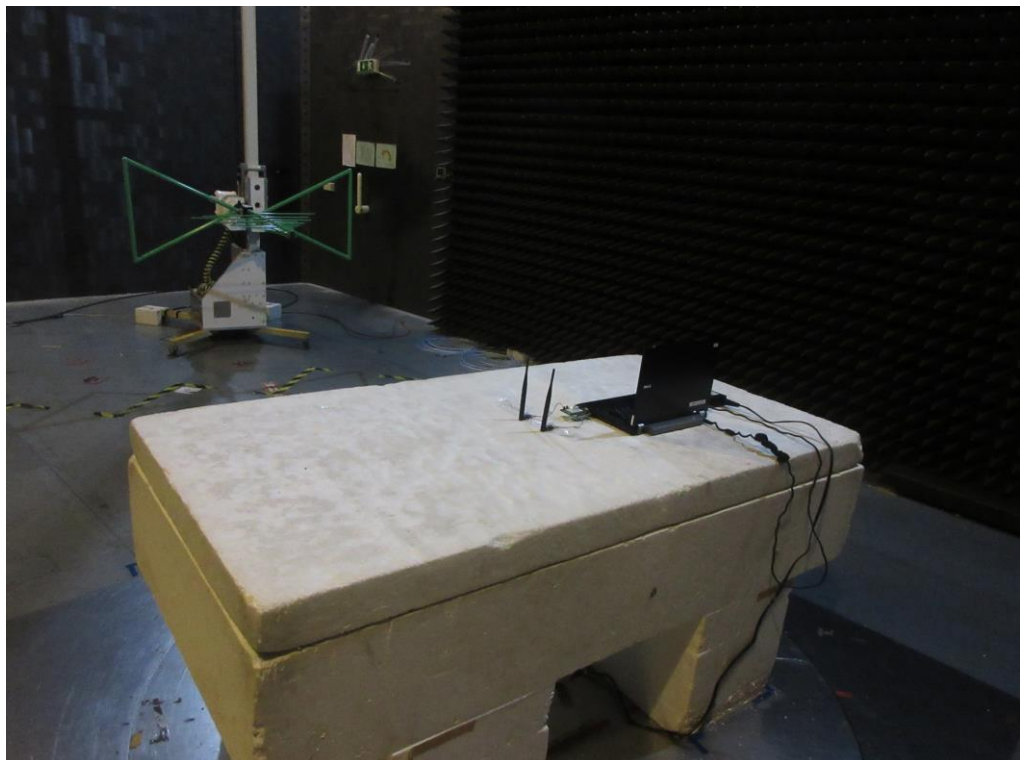
## 2. Photographs of Radiated Emissions Test Configuration

For radiated emissions 30MHz~1GHz

Front view

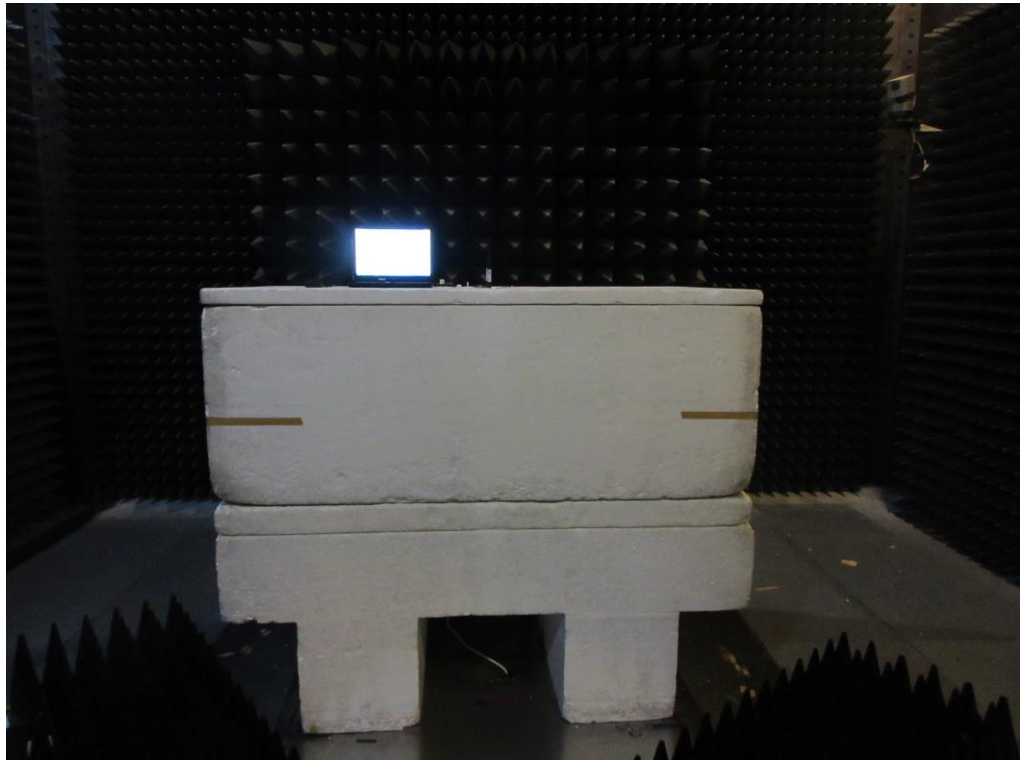


Rear view



For radiated emissions above 1GHz

Front view



Rear view



————THE END————