

# FCC Test Report

FCC ID : COFHOOKREV3  
Equipment : 802.11b/g/n + BT 5.0 IOT Module  
Brand Name : USI  
Model Name : HOOK-REV3.0  
Applicant : Universal Global Scientific Industrial Co., Ltd  
141, Lane 351, Sec. 1, Taiping Road.,  
Tsaotuen, Nantou 54261, Taiwan  
Manufacturer : Universal Global Scientific Industrial Co., Ltd  
141, Lane 351, Sec. 1, Taiping Road.,  
Tsaotuen, Nantou 54261, Taiwan  
Standard : 47 CFR FCC Part 15.247

The product was received on Nov. 15, 2018, and testing was started from Jan. 24, 2019 and completed on Mar. 11, 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   |
|------------|---------|--------------------------------------------------------------------------------------|---------------|
| FR8N1407AC | 01      | Initial issue of report                                                              | Mar. 29, 2019 |
| FR8N1407AC | 02      | 1. AC Conduction and channel 11 were evaluated<br>2. KDB 594280 D01 v02r01 was added | Apr. 02, 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: Sam Tsai**

**Report Producer: Debby Hung**

# 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)   | 2412-2472           | 1-13 [13]      |

| Band          | Mode         | BWch (MHz) | Nant |
|---------------|--------------|------------|------|
| 2.4-2.4835GHz | 802.11b      | 20         | 1TX  |
| 2.4-2.4835GHz | 802.11g      | 20         | 1TX  |
| 2.4-2.4835GHz | 802.11n HT20 | 20         | 1TX  |

Note:

- ♦ 11b mode uses a combination of DSSS-DBPSK, DQPSK, CCK modulation.
- ♦ 11g, HT20 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- ♦ BWch is the nominal channel bandwidth.

### 1.1.2 Antenna Information

| Ant. | Brand | Model Name     | Antenna Type     | Connector    |
|------|-------|----------------|------------------|--------------|
| 1    | Linx  | ANT-2.4-CW-RAH | Monopole Antenna | Reversed-SMA |

| Ant. | Port | Gain (dBi) |      |
|------|------|------------|------|
|      |      | 2.4G       | BT   |
| 1    | 1    | -2.4       | -2.4 |

#### For 2.4 GHz function:

For IEEE 802.11b/g/n mode (1TX/1RX)

Ant. 1 (port 1) could transmit/receive simultaneously.

#### For Bluetooth function:

For Bluetooth mode (1TX/1RX)

Ant. 1 (port 1) could transmit/receive simultaneously.

**1.1.3 EUT Information**

| Operational Condition               |                                                                               |                     |                                     |                     |
|-------------------------------------|-------------------------------------------------------------------------------|---------------------|-------------------------------------|---------------------|
| <b>EUT Power Type</b>               | DC Power Source                                                               |                     |                                     |                     |
| <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) ≥ 1/T |
|--------------|-------|---------|---------------|---------------|
| 802.11b      | 0.992 | 0.035   | n/a (DC≥0.98) | n/a (DC≥0.98) |
| 802.11g      | 0.954 | 0.205   | 2.067m        | 1k            |
| 802.11n HT20 | 0.95  | 0.223   | 1.923m        | 1k            |

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

## 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 594280 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               |
|----------------|---------------|---------------|--------------------------|-------------------------|
| AC Conduction  | CO04-HY       | Lego          | 23°C / 54%               | 25/Jan/2019             |
| RF Conducted   | TH01-HY       | Clara         | 22.5~22.9°C / 65~69%     | 24/Jan/2019~11/Mar/2019 |
| Radiated       | 03CH09-HY     | Kevin         | 21.4~23.5°C / 50.1~53.2% | 24/Jan/2019~08/Mar/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

| Condition Item | Abbreviation/Remark | Remark |
|----------------|---------------------|--------|
| RF Conducted   | Abbreviation        | Remark |
| TnomVnom       | Tnom                | 20°C   |
| -              | Vnom                | 3.8V   |

### 2.2 Test Channel Mode

|               |     |
|---------------|-----|
| Test Software | cmd |
|---------------|-----|

| Mode                         | PowerSetting |
|------------------------------|--------------|
| 802.11b_Nss1,(1Mbps)_1TX     | -            |
| 2412MHz                      | 20           |
| 2437MHz                      | 20           |
| 2462MHz                      | 20           |
| 2467MHz                      | 19           |
| 2472MHz                      | 18           |
| 802.11g_Nss1,(6Mbps)_1TX     | -            |
| 2412MHz                      | 19           |
| 2417MHz                      | 20           |
| 2437MHz                      | 20           |
| 2457MHz                      | 20           |
| 2462MHz                      | 19           |
| 2467MHz                      | 14           |
| 2472MHz                      | 7            |
| 802.11n HT20_Nss1,(MCS0)_1TX | -            |
| 2412MHz                      | 18           |
| 2417MHz                      | 20           |
| 2437MHz                      | 20           |
| 2457MHz                      | 20           |
| 2462MHz                      | 18           |
| 2467MHz                      | 15           |
| 2472MHz                      | 6            |

## 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                                                   | DC 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                                                   | DC mode                                                                                                                                                                                                                                             |
| <b>Operating Mode &gt; 1GHz</b>                     | CTX                                                                                                                                                                                                                                                 |
| <b>Orthogonal Planes of EUT</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                                 | DC power supply | GW         | GPS-3030DD | -      |
| 2                                 | Test Fixture    | -          | -          | -      |
| 3                                 | Antenna         | -          | -          | -      |

Note.Support equipment No.3 was provided by customer.

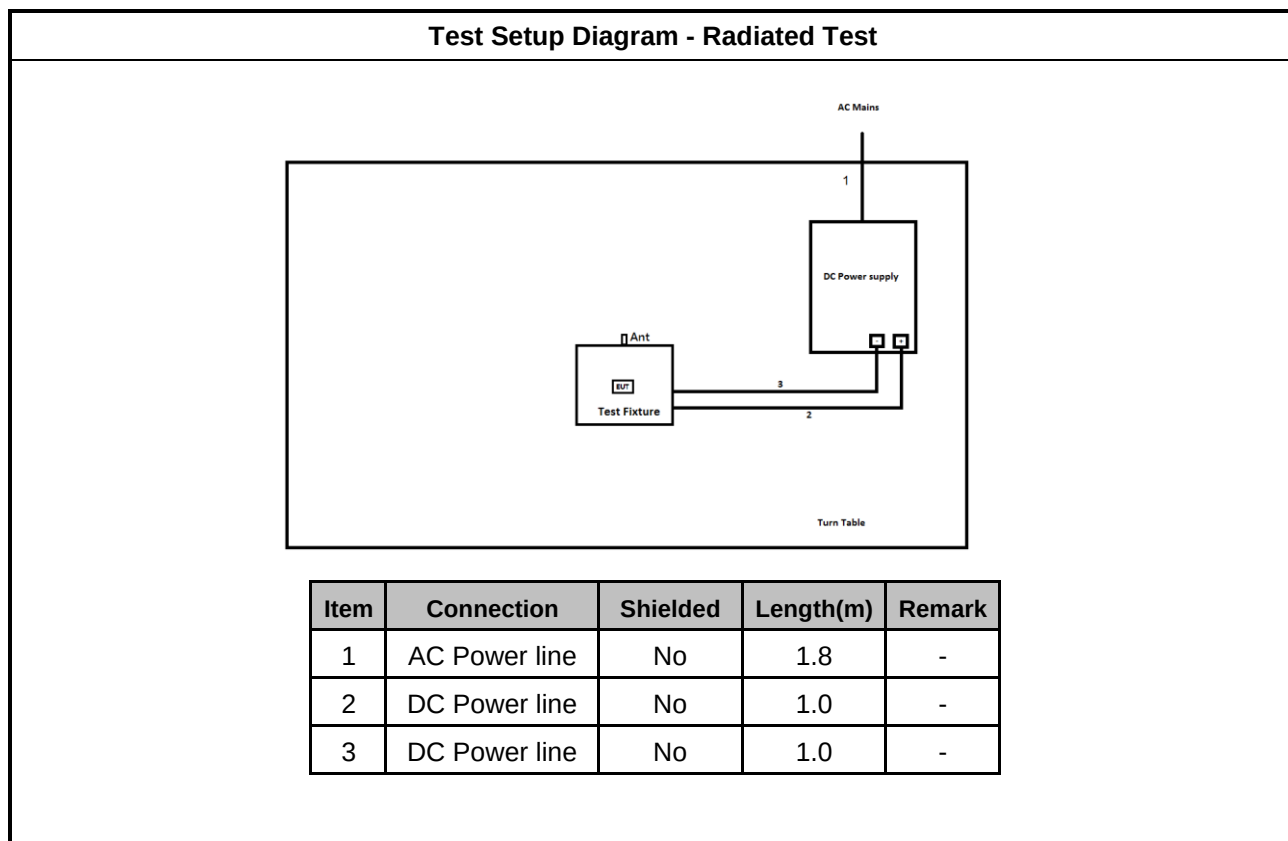
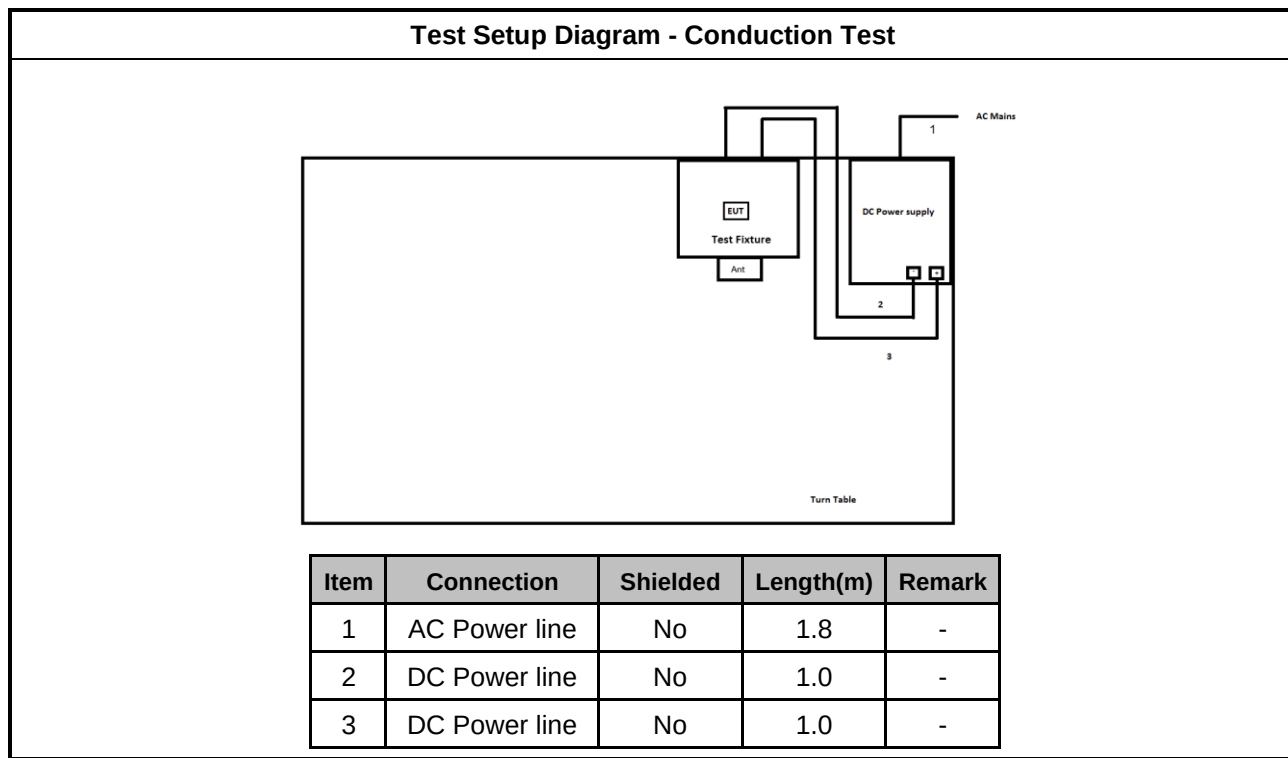
| Support Equipment – RF Conducted |                 |            |               |              |
|----------------------------------|-----------------|------------|---------------|--------------|
| No.                              | Equipment       | Brand Name | Model Name    | FCC ID       |
| 1                                | PC              | ASUS       | D302MT        | -            |
| 2                                | Monitor         | DELL       | VCDTS21553-3P | R35737 / DOC |
| 3                                | DC Power Supply | GW         | GPS-3030DD    | -            |
| 4                                | Test Fixture    | -          | -             | -            |

Note.Support equipment No.1 was provided by customer.

| Support Equipment – Radiated Emission |                 |            |            |        |
|---------------------------------------|-----------------|------------|------------|--------|
| No.                                   | Equipment       | Brand Name | Model Name | FCC ID |
| 1                                     | DC Power Supply | GW         | GPS-3030DD | -      |
| 2                                     | Test Fixture    | -          | -          | -      |
| 3                                     | Antenna         | -          | -          | -      |

Note.Support equipment No.3 was provided by customer.

## 2.5 Test Setup Diagram



### 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.

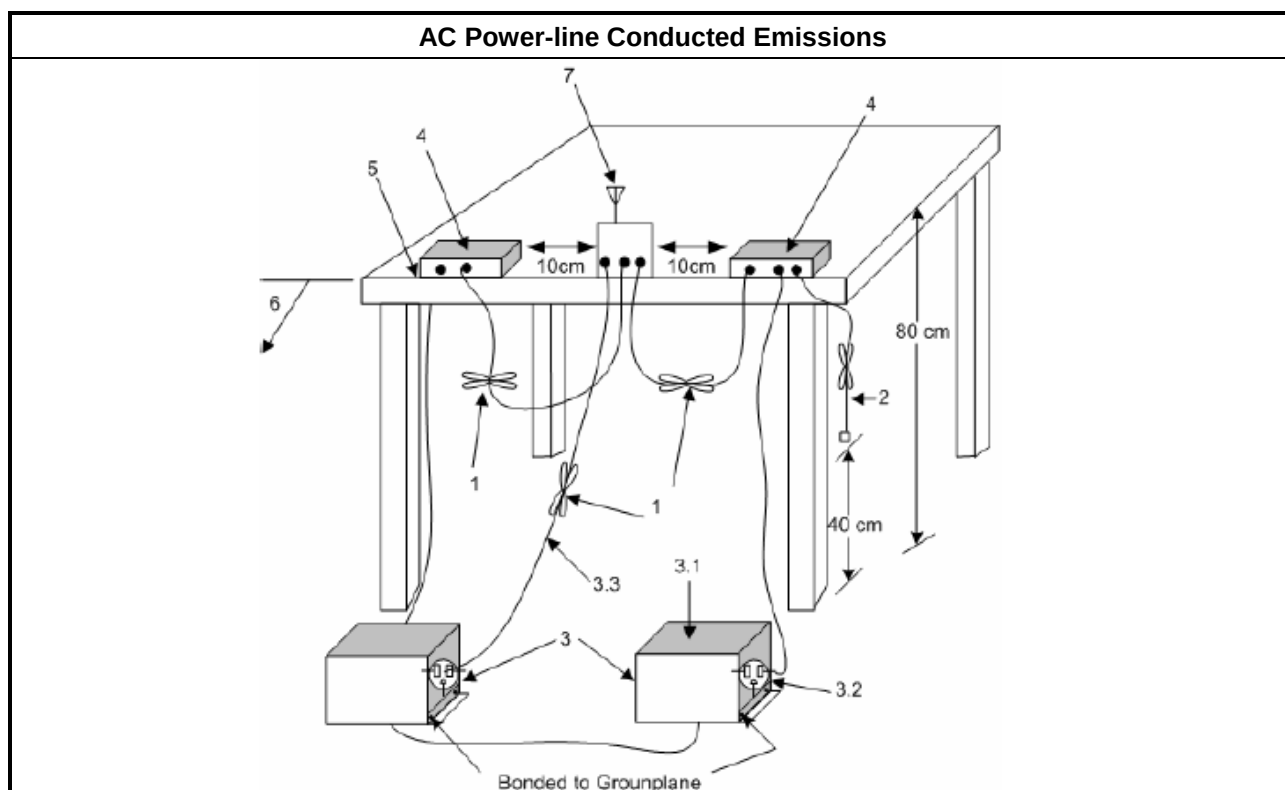
### 3.1.2 Measuring Instruments

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. |

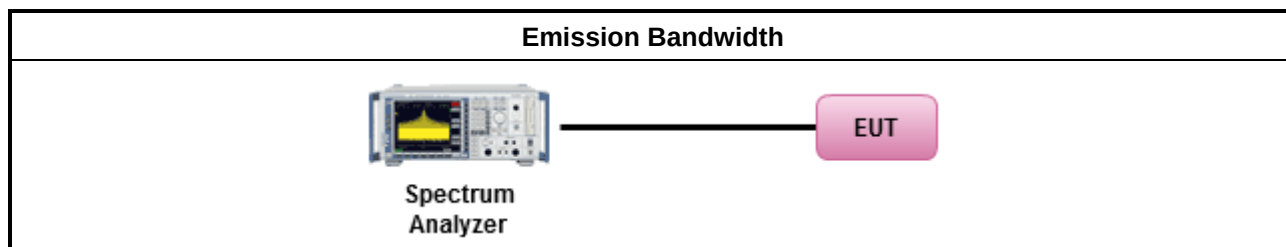
### 3.2.2 Measuring Instruments

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 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                                                                                                                              |   |                                                                                                    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|----------------------------------------------------------------------------------------------------|
|                                                                                                                                                                   | ▪ | If $G_{TX} \leq 6$ dBi, then $P_{Out} \leq 30$ dBm (1 W)                                           |
|                                                                                                                                                                   | ▪ | Point-to-multipoint systems (P2M): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$ dBm     |
|                                                                                                                                                                   | ▪ | Point-to-point systems (P2P): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm        |
|                                                                                                                                                                   | ▪ | Smart antenna system (SAS):                                                                        |
|                                                                                                                                                                   | - | Single beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm                         |
|                                                                                                                                                                   | - | Overlap beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm                        |
|                                                                                                                                                                   | - | Aggregate power on all beams: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3 + 8$ dB dBm |
| e.i.r.p. Power Limit:                                                                                                                                             |   |                                                                                                    |
|                                                                                                                                                                   | ▪ | 2400-2483.5 MHz Band                                                                               |
|                                                                                                                                                                   | ▪ | Point-to-multipoint systems (P2M): $P_{eirp} \leq 36$ dBm (4 W)                                    |
|                                                                                                                                                                   | ▪ | Point-to-point systems (P2P): $P_{eirp} \leq \text{MAX}(36, [P_{Out} + G_{TX}])$ dBm               |
|                                                                                                                                                                   | ▪ | Smart antenna system (SAS)                                                                         |
|                                                                                                                                                                   | - | 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. |   |                                                                                                    |

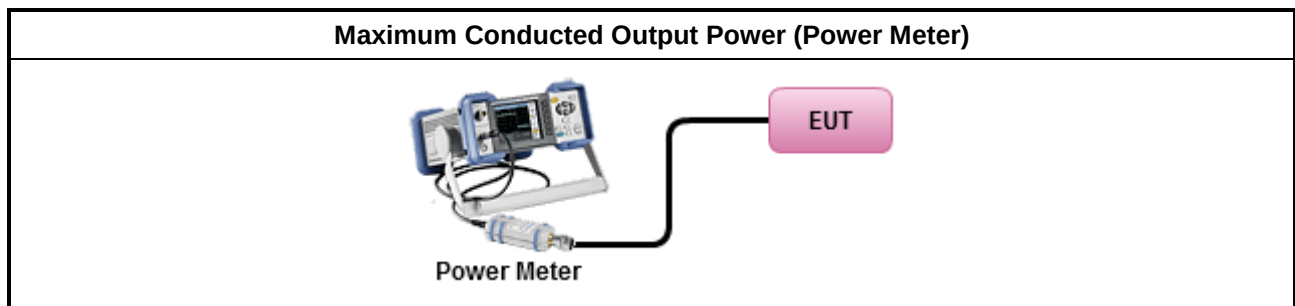
#### 3.3.2 Measuring Instruments

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 |

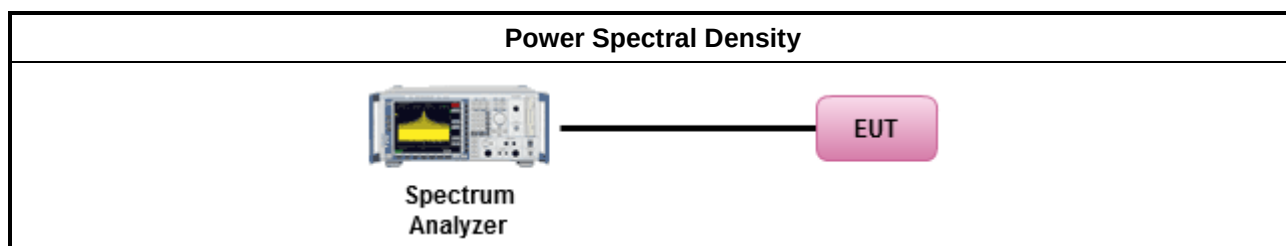
#### 3.4.2 Measuring Instruments

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> |            |

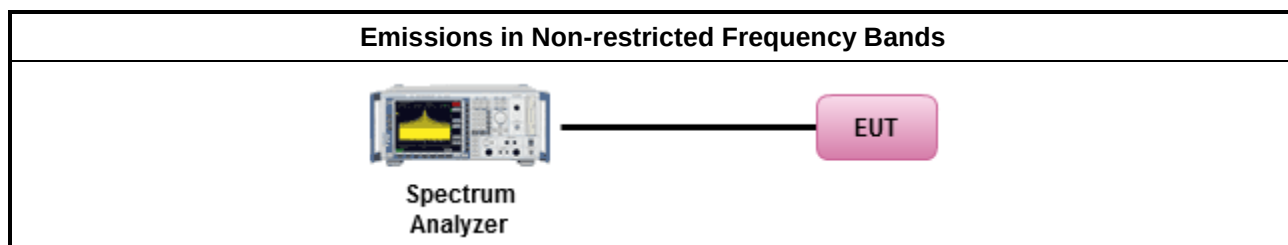
#### 3.5.2 Measuring Instruments

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.

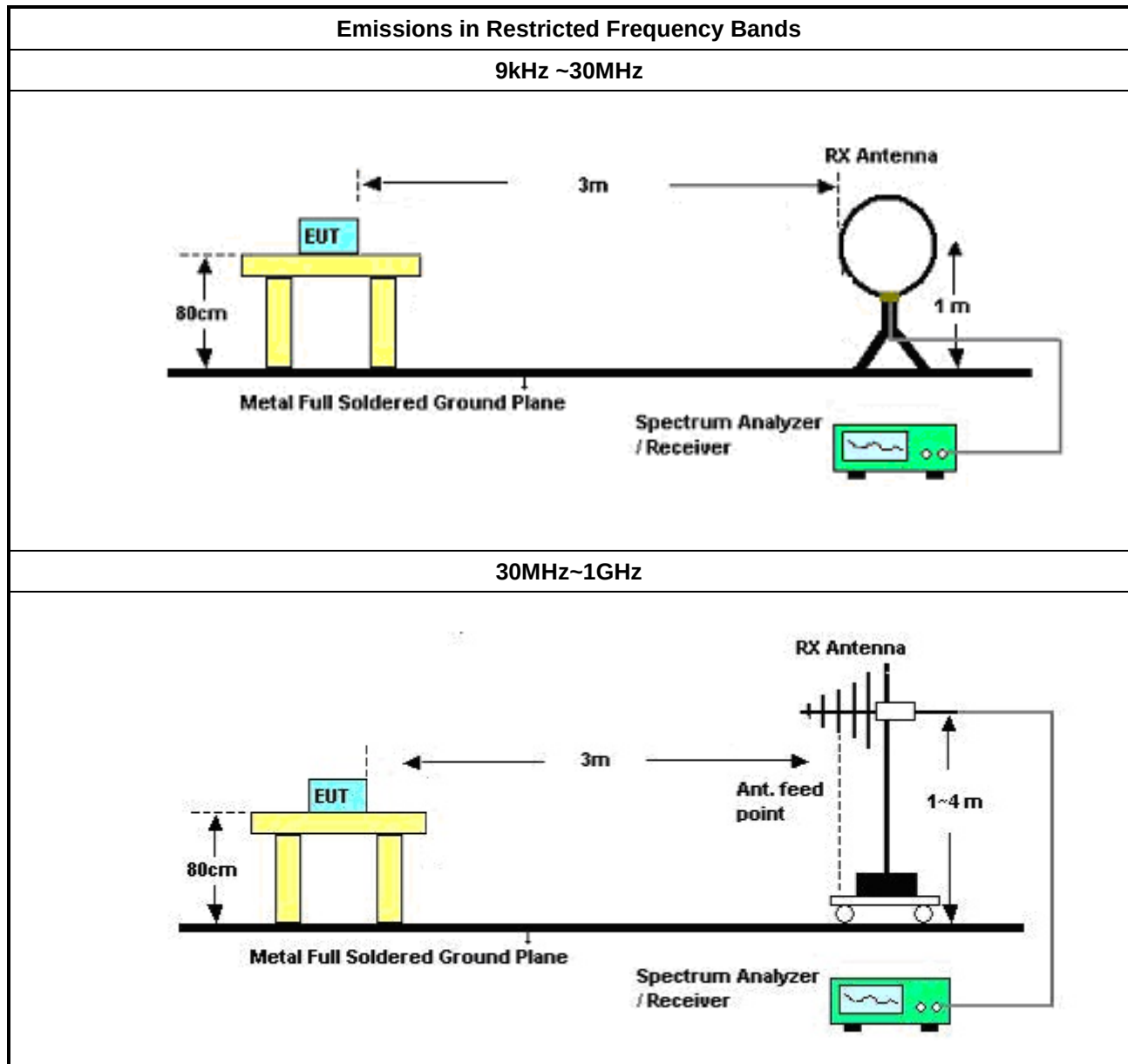
### 3.6.2 Measuring Instruments

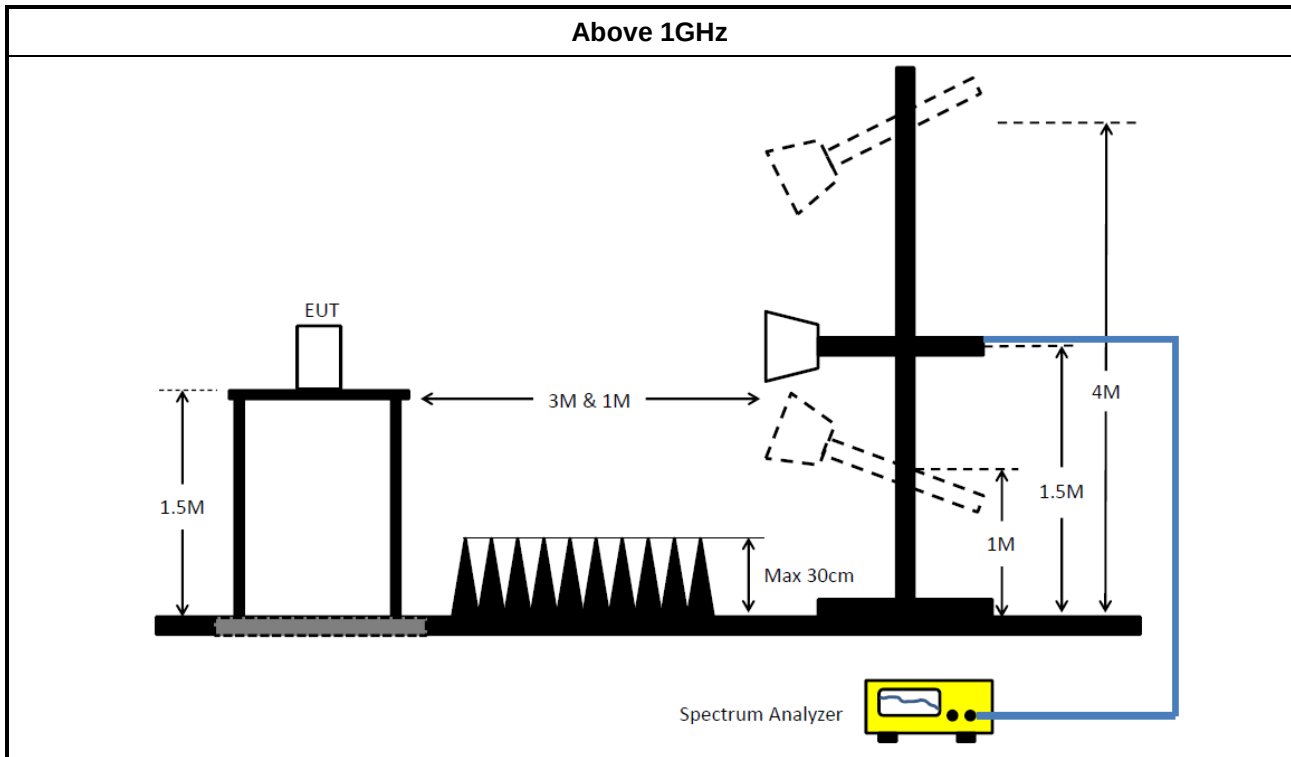
Refer a test equipment and calibration data table in this test report.

### 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 Radiated Test

| Instrument                       | Manufacturer | Model No.             | Serial No.           | Spec.          | Calibration Date | Calibration Due Date |
|----------------------------------|--------------|-----------------------|----------------------|----------------|------------------|----------------------|
| 3m Semi Anechoic Chamber         | TDK          | SAC-3M                | 03CH09-HY            | 30MHz ~ 1GHz   | 23/Apr/2018      | 22/Apr/2019          |
| 3m Semi Anechoic Chamber         | TDK          | SAC-3M                | 03CH09-HY            | 1GHz ~ 18GHz   | 14/Jun/2018      | 13/Jun/2019          |
| Microwave Preamplifier           | Agilent      | 8449B                 | 3008A02096           | 1GHz ~ 26.5GHz | 10/May/2018      | 09/May/2019          |
| Amplifier                        | EMC          | EMC9135               | 980232               | 9KHz~1GHz      | 27/Apr/2018      | 26/Apr/2019          |
| EMI Test Receiver                | R&S          | ESR3                  | 102052               | 9kHz ~ 3.6GHz  | 10/Apr/2018      | 09/Apr/2019          |
| EXA Signal Analyzer              | KEYSIGHT     | N9010A                | MY54200885           | 10Hz ~ 44GHz   | 31/Jul/2018      | 30/Jul/2019          |
| Bilog Antenna & 5dB Attenuator   | TESEQ & MTJ  | CBL6111D & MTJ6102-05 | 35418 / 3            | 30MHz~1GHz     | 02/Oct/2018      | 03/Oct/2019          |
| Double Ridged Guide Horn Antenna | SCHWARZBEC K | BBHA 9120 D           | BBHA9120 D 1534      | 1GHz~18GHz     | 30/Apr/2018      | 29/Apr/2019          |
| Broadband Horn Antenna           | SCHWARZBEC K | BBHA 9170             | BBHA9170614          | 18GHz~40GHz    | 09/Feb/2018      | 08/Feb/2019          |
| Preamplifier                     | MITEQ        | TTA1840-35-HG         | 1864481              | 18GHz ~ 40GHz  | 24/Aug/2018      | 23/Aug/2019          |
| Loop Antenna                     | TESEQ        | HLA 6120              | 31244                | 9k-30MHz       | 29/Mar/2018      | 28/Mar/2019          |
| RF Cable-R03m                    | Jye Bao      | RG142                 | CB031                | 9kHz ~ 1GHz    | 01/Feb/2018      | 31/Jan/2019          |
| RF Cable-high                    | HUBER+SUHNER | SUCOFLEX104           | SN 556626/4 + 556627 | 1GHz ~ 40GHz   | 14/Mar/2018      | 13/Mar/2019          |
| RF Cable-high                    | SUHNER       | SUCOFLEX104           | MY34918/4            | 1GHz ~ 40GHz   | 02/Feb/2018      | 01/Feb/2019          |

**Instrument for Conducted Test**

| Instrument       | Manufacturer | Model No.    | Serial No. | Spec.           | Calibration Date | Calibration Due Date |
|------------------|--------------|--------------|------------|-----------------|------------------|----------------------|
| Signal Analyzer  | R&S          | FSV40        | 101500     | 10Hz ~ 40GHz    | 18/Jul/2018      | 17/Jul/2019          |
| Power Sensor     | Anritsu      | MA2411B      | 1339407    | 300MHz ~ 40GHz  | 17/Nov/2018      | 16/Nov/2019          |
| Power Meter      | Anritsu      | ML2495A      | 1517010    | 300MHz ~ 40GHz  | 17/Nov/2018      | 16/Nov/2019          |
| RF Cable-0.5m    | HUBER+SUHNER | SUCOFLEX_104 | MY12585/4  | 30MHz ~ 26.5GHz | 26/Jan/2018      | 25/Jan/2019          |
| RF Cable-0.2m    | HUBER+SUHNER | SUCOFLEX_104 | MY10710/4  | 30MHz ~ 26.5GHz | 26/Jan/2018      | 25/Jan/2019          |
| RF Cable-0.2m    | HUBER+SUHNER | SUCOFLEX_104 | MY10709/4  | 30MHz ~ 26.5GHz | 26/Jan/2018      | 25/Jan/2019          |
| Signal Generator | R&S          | SMB100A      | 175727     | 100kHz~40GHz    | 26/Oct/2018      | 25/Oct/2019          |

**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 Puls<br>e Limiter | SCHWARZBECK  | VTSD 9561-F | 9561-F041  | 9 kHz ~ 30 MHz      | 12/Oct/2018      | 11/Oct/2019          |

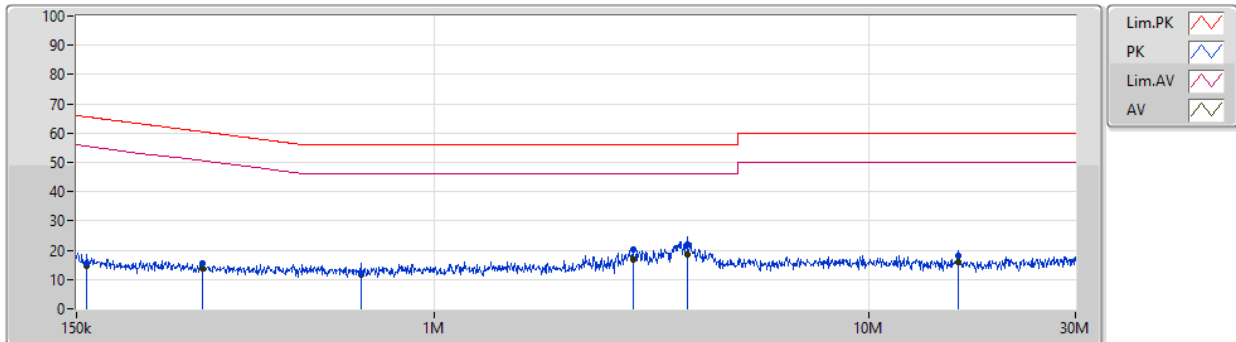
**NCR : Non-Calibration Require**

## AC Power-line Conducted Emissions Result

|                    |            |             |         |
|--------------------|------------|-------------|---------|
| Operating Mode     | 1          | Power Phase | Neutral |
| Operating Function | DC mode_TX |             |         |

### DC Conduction\_Mode 1

25/01/2019



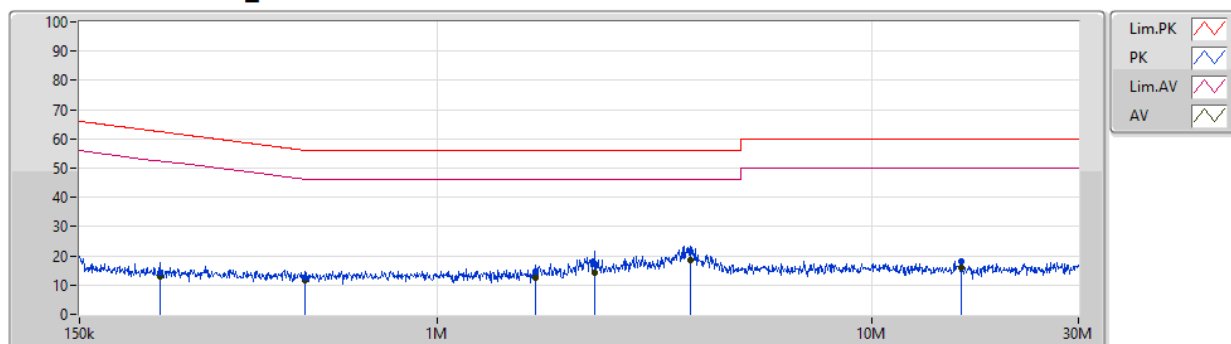
| Type | Freq<br>(Hz) | Level<br>(dBuV) | Limit<br>(dBuV) | Margin<br>(dB) | Factor<br>(dB) | Condition | Comment | Raw<br>(dBuV) | LISN<br>(dB) | CL<br>(dB) | AT<br>(dB) |  |  |  |
|------|--------------|-----------------|-----------------|----------------|----------------|-----------|---------|---------------|--------------|------------|------------|--|--|--|
| QP   | 158.622k     | 15.38           | 65.54           | -50.16         | 19.48          | Neutral   | -       | -4.10         | 9.60         | 0.01       | 9.87       |  |  |  |
| AV   | 158.622k     | 14.48           | 55.54           | -41.06         | 19.48          | Neutral   | -       | -5.00         | 9.60         | 0.01       | 9.87       |  |  |  |
| QP   | 292.16k      | 15.42           | 60.46           | -45.04         | 19.48          | Neutral   | -       | -4.06         | 9.59         | 0.01       | 9.88       |  |  |  |
| AV   | 292.16k      | 13.66           | 50.46           | -36.80         | 19.48          | Neutral   | -       | -5.82         | 9.59         | 0.01       | 9.88       |  |  |  |
| QP   | 678.32k      | 12.20           | 56.00           | -43.80         | 19.48          | Neutral   | -       | -7.28         | 9.59         | 0.01       | 9.88       |  |  |  |
| AV   | 678.32k      | 11.52           | 46.00           | -34.48         | 19.48          | Neutral   | -       | -7.96         | 9.59         | 0.01       | 9.88       |  |  |  |
| QP   | 2.866M       | 20.13           | 56.00           | -35.87         | 19.54          | Neutral   | -       | 0.59          | 9.61         | 0.04       | 9.89       |  |  |  |
| AV   | 2.866M       | 16.90           | 46.00           | -29.10         | 19.54          | Neutral   | -       | -2.64         | 9.61         | 0.04       | 9.89       |  |  |  |
| QP   | 3.821M       | 22.15           | 56.00           | -33.85         | 19.54          | Neutral   | -       | 2.61          | 9.61         | 0.04       | 9.89       |  |  |  |
| AV   | 3.821M       | 18.67           | 46.00           | -27.33         | 19.54          | Neutral   | "Worst" | -0.87         | 9.61         | 0.04       | 9.89       |  |  |  |
| QP   | 16.144M      | 18.00           | 60.00           | -42.00         | 19.68          | Neutral   | -       | -1.68         | 9.68         | 0.10       | 9.90       |  |  |  |
| AV   | 16.144M      | 15.90           | 50.00           | -34.10         | 19.68          | Neutral   | -       | -3.78         | 9.68         | 0.10       | 9.90       |  |  |  |

## AC Power-line Conducted Emissions Result

|                    |            |             |      |
|--------------------|------------|-------------|------|
| Operating Mode     | 1          | Power Phase | Line |
| Operating Function | DC mode_TX |             |      |

### DC Conduction\_Mode 1

25/01/2019



| 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   | 229.932k     | 14.38           | 62.44           | -48.06         | 19.48          | Line      | -       | -5.10         | 9.60         | 0.01       | 9.87       |  |  |  |
| AV   | 229.932k     | 12.97           | 52.44           | -39.47         | 19.48          | Line      | -       | -6.51         | 9.60         | 0.01       | 9.87       |  |  |  |
| QP   | 496.827k     | 12.39           | 56.06           | -43.67         | 19.48          | Line      | -       | -7.09         | 9.59         | 0.01       | 9.88       |  |  |  |
| AV   | 496.827k     | 11.59           | 46.06           | -34.47         | 19.48          | Line      | -       | -7.89         | 9.59         | 0.01       | 9.88       |  |  |  |
| QP   | 1.685M       | 14.61           | 56.00           | -41.39         | 19.54          | Line      | -       | -4.93         | 9.62         | 0.03       | 9.89       |  |  |  |
| AV   | 1.685M       | 12.69           | 46.00           | -33.31         | 19.54          | Line      | -       | -6.85         | 9.62         | 0.03       | 9.89       |  |  |  |
| QP   | 2.301M       | 17.08           | 56.00           | -38.92         | 19.55          | Line      | -       | -2.47         | 9.62         | 0.04       | 9.89       |  |  |  |
| AV   | 2.301M       | 14.32           | 46.00           | -31.68         | 19.55          | Line      | -       | -5.23         | 9.62         | 0.04       | 9.89       |  |  |  |
| QP   | 3.821M       | 21.75           | 56.00           | -34.25         | 19.56          | Line      | -       | 2.19          | 9.63         | 0.04       | 9.89       |  |  |  |
| AV   | 3.821M       | 18.63           | 46.00           | -27.37         | 19.56          | Line      | "Worst" | -0.93         | 9.63         | 0.04       | 9.89       |  |  |  |
| QP   | 16.144M      | 17.96           | 60.00           | -42.04         | 19.64          | Line      | -       | -1.68         | 9.64         | 0.10       | 9.90       |  |  |  |
| AV   | 16.144M      | 15.91           | 50.00           | -34.09         | 19.64          | Line      | -       | -3.73         | 9.64         | 0.10       | 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)_1TX     | 7.55M            | 12.744M         | 12M7G1D  | 6.975M           | 11.969M         |
| 802.11g_Nss1,(6Mbps)_1TX     | 15.1M            | 16.567M         | 16M6D1D  | 15.05M           | 16.317M         |
| 802.11n HT20_Nss1,(MCS0)_1TX | 15.1M            | 17.641M         | 17M6D1D  | 15.05M           | 17.491M         |

**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**

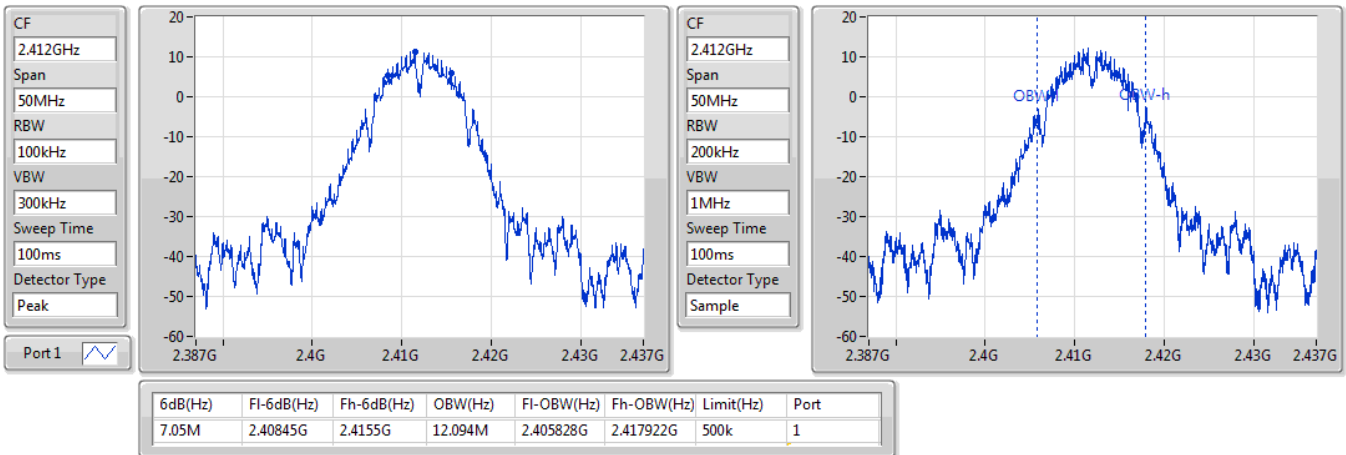
| Mode                         | Result | Limit<br>(Hz) | Port 1-N dB<br>(Hz) | Port 1-OBW<br>(Hz) |
|------------------------------|--------|---------------|---------------------|--------------------|
| 802.11b_Nss1,(1Mbps)_1TX     | -      | -             | -                   | -                  |
| 2412MHz                      | Pass   | 500k          | 7.05M               | 12.094M            |
| 2437MHz                      | Pass   | 500k          | 7.55M               | 12.744M            |
| 2462MHz                      | Pass   | 500k          | 7.025M              | 12.694M            |
| 2472MHz                      | Pass   | 500k          | 6.975M              | 11.969M            |
| 802.11g_Nss1,(6Mbps)_1TX     | -      | -             | -                   | -                  |
| 2412MHz                      | Pass   | 500k          | 15.075M             | 16.392M            |
| 2437MHz                      | Pass   | 500k          | 15.1M               | 16.567M            |
| 2462MHz                      | Pass   | 500k          | 15.1M               | 16.392M            |
| 2472MHz                      | Pass   | 500k          | 15.05M              | 16.317M            |
| 802.11n HT20_Nss1,(MCS0)_1TX | -      | -             | -                   | -                  |
| 2412MHz                      | Pass   | 500k          | 15.05M              | 17.516M            |
| 2437MHz                      | Pass   | 500k          | 15.1M               | 17.641M            |
| 2462MHz                      | Pass   | 500k          | 15.075M             | 17.491M            |
| 2472MHz                      | Pass   | 500k          | 15.075M             | 17.491M            |

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

## 802.11b\_Nss1,(1Mbps)\_1TX

**EBW**
**2412MHz**

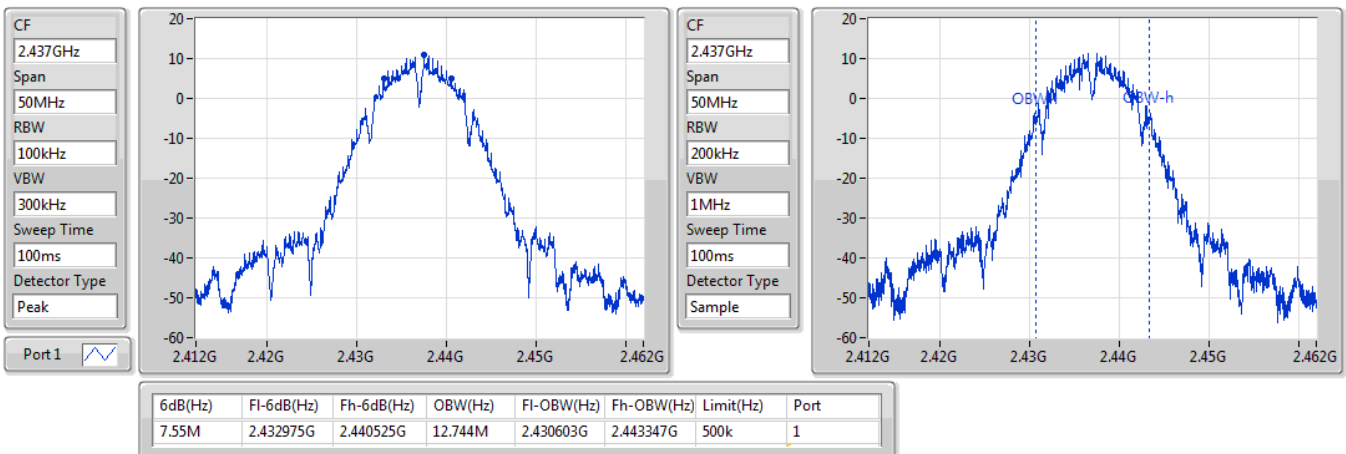
23/11/2018



## 802.11b\_Nss1,(1Mbps)\_1TX

**EBW**
**2437MHz**

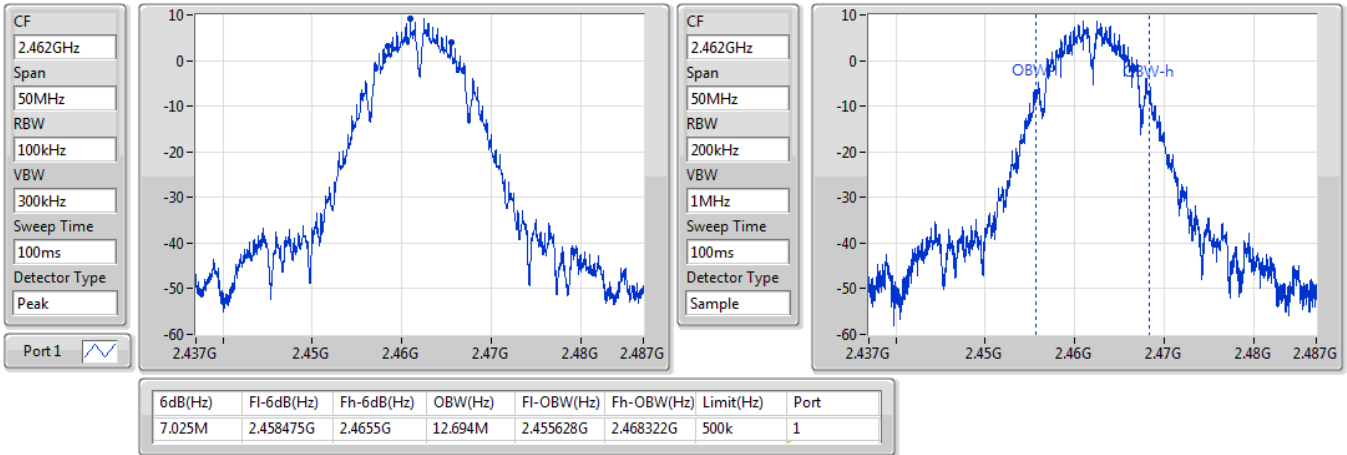
23/11/2018



## 802.11b\_Nss1,(1Mbps)\_1TX

**EBW**
**2462MHz**

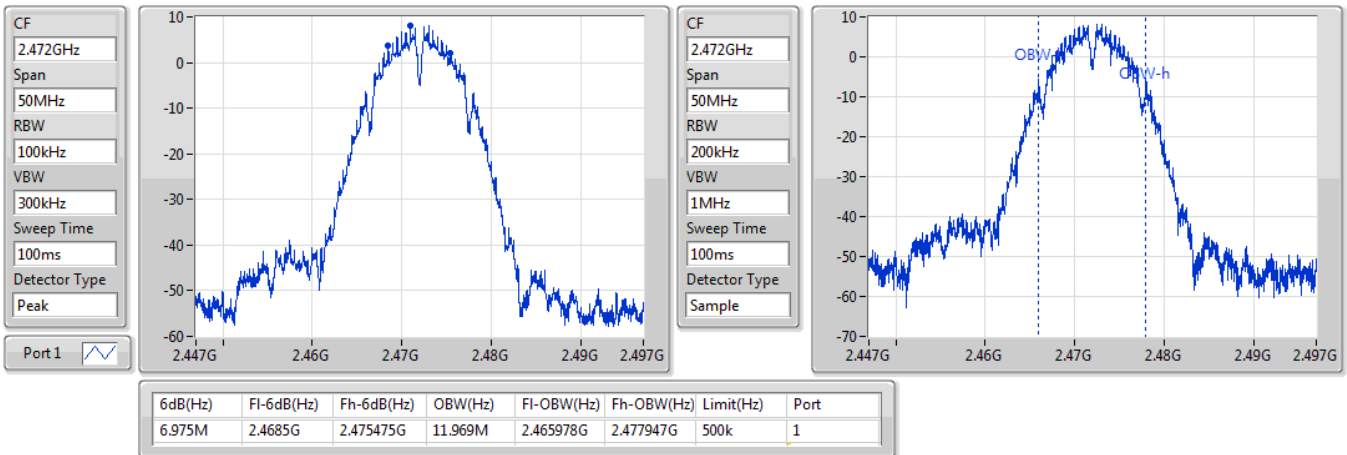
24/01/2019



## 802.11b\_Nss1,(1Mbps)\_1TX

**EBW**
**2472MHz**

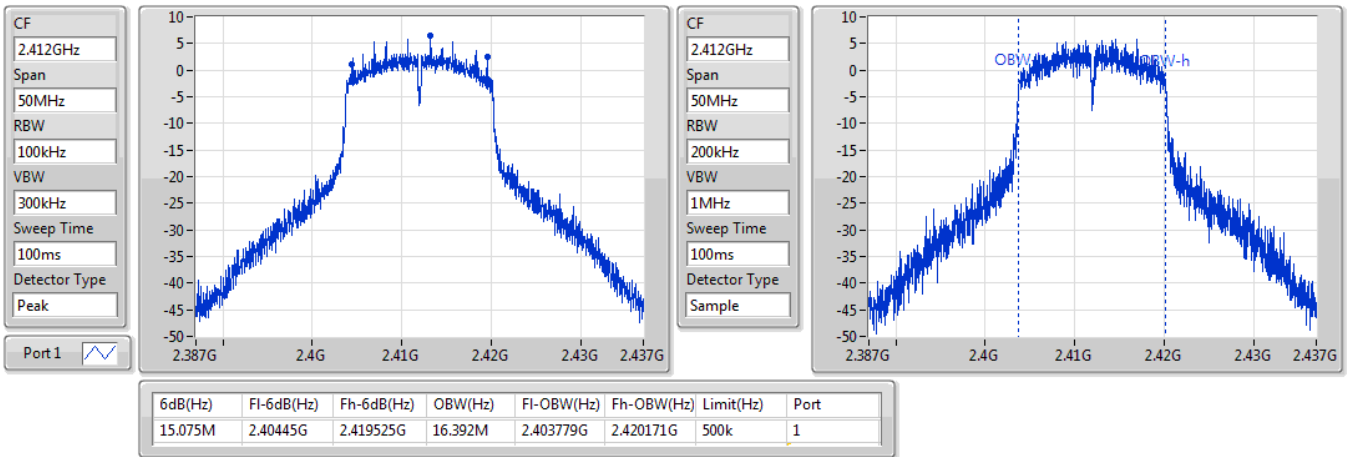
11/03/2019



## 802.11g\_Nss1,(6Mbps)\_1TX

**EBW**
**2412MHz**

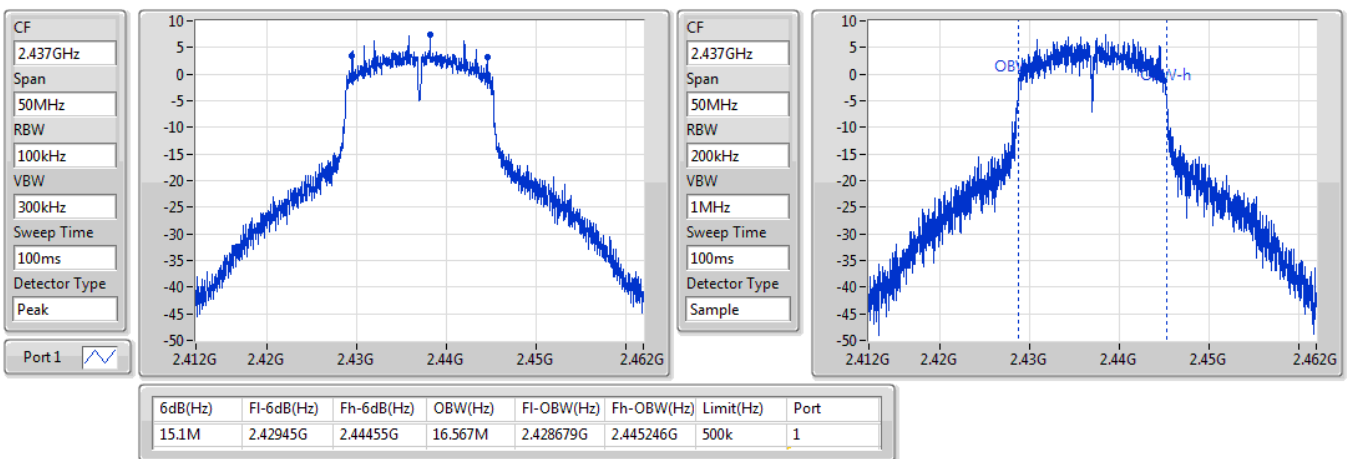
24/01/2019



## 802.11g\_Nss1,(6Mbps)\_1TX

**EBW**
**2437MHz**

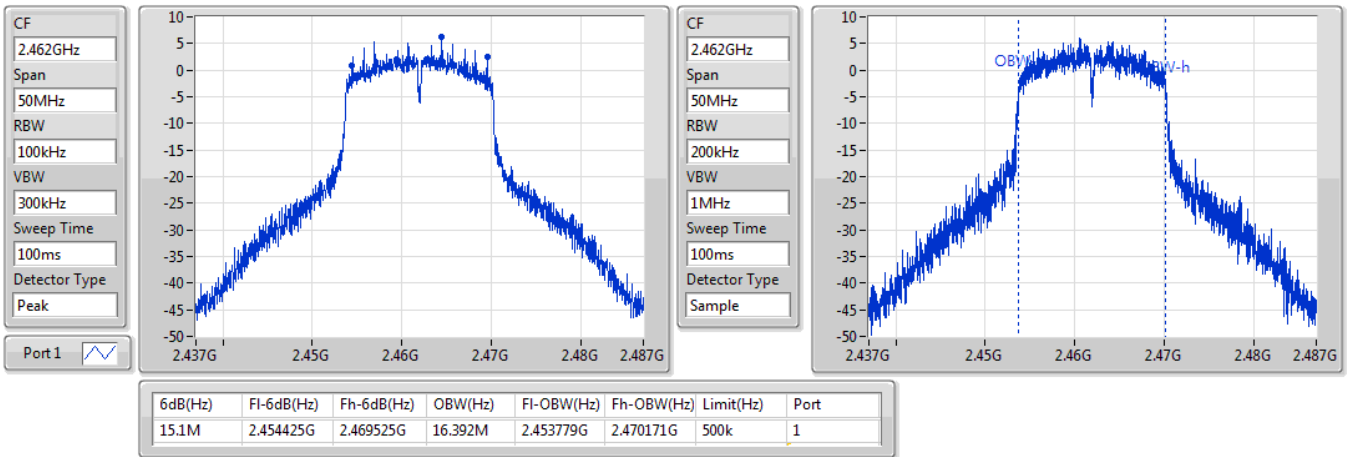
23/11/2018



## 802.11g\_Nss1,(6Mbps)\_1TX

**EBW**
**2462MHz**

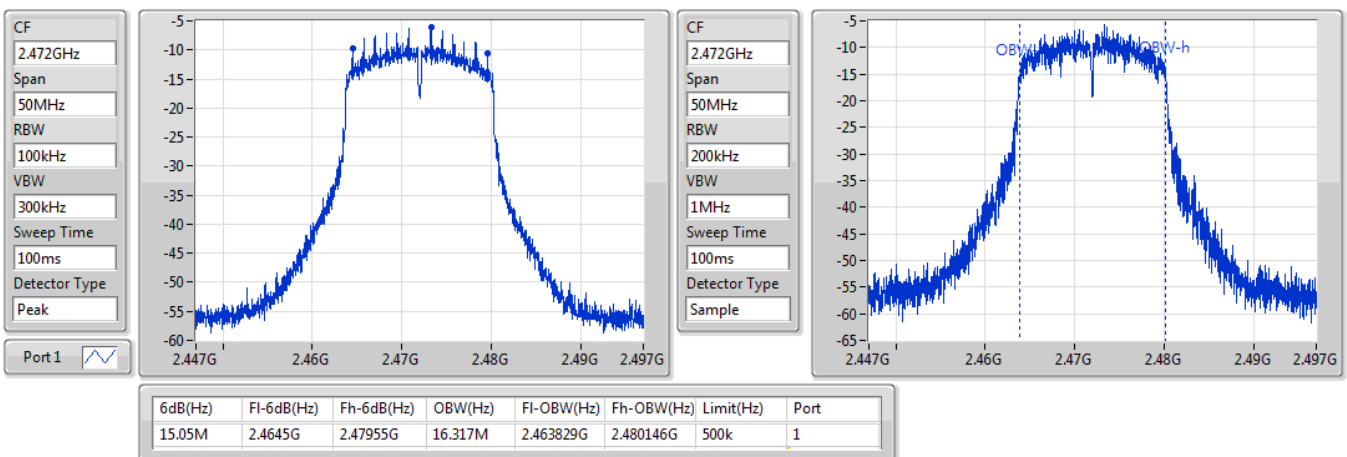
24/01/2019



## 802.11g\_Nss1,(6Mbps)\_1TX

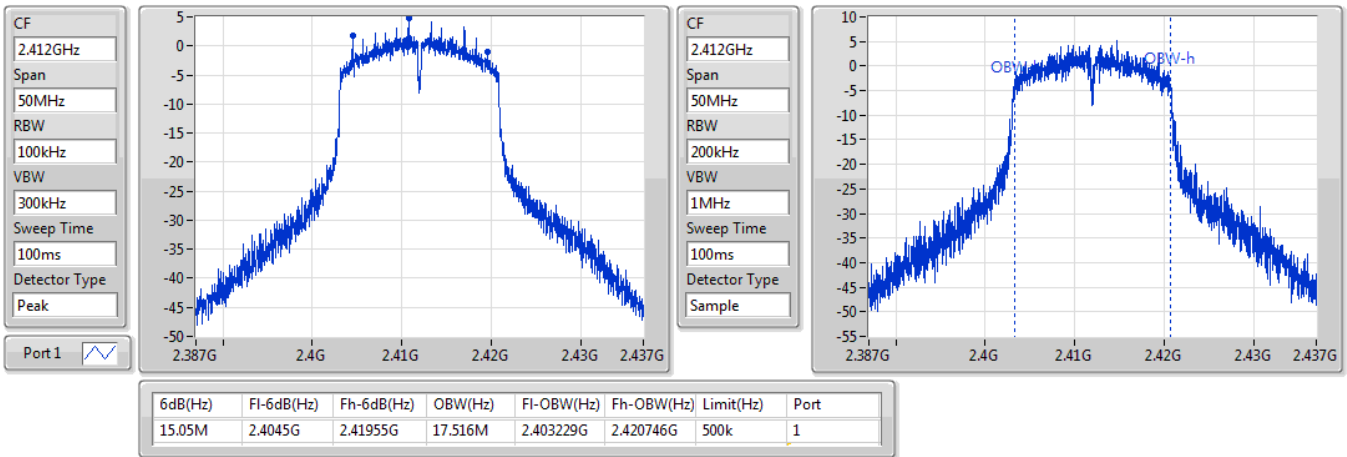
**EBW**
**2472MHz**

11/03/2019

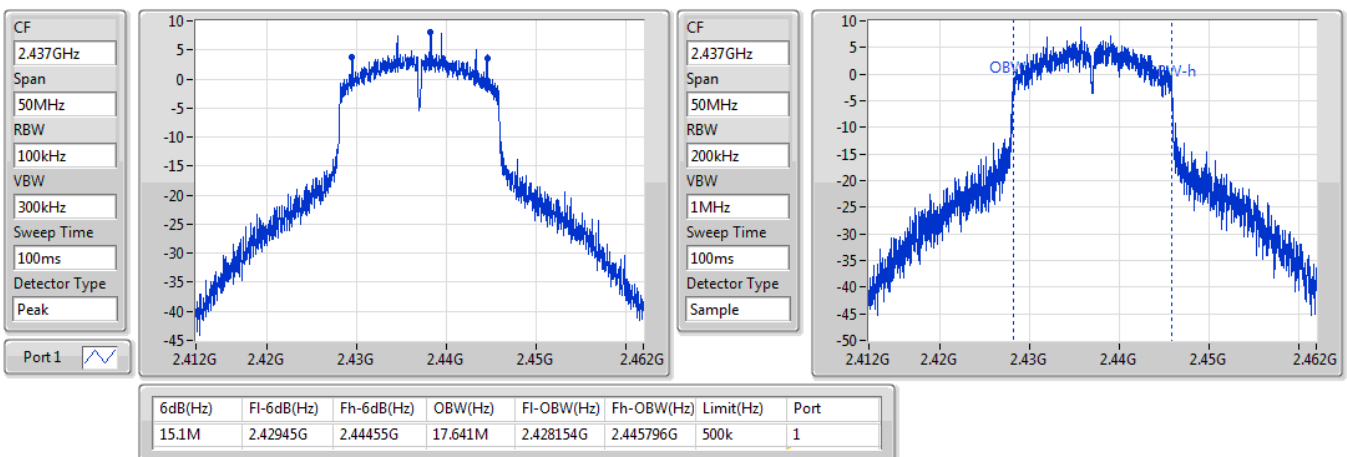


**802.11n HT20\_Nss1,(MCS0)\_1TX**
**EBW**
**2412MHz**

24/01/2019

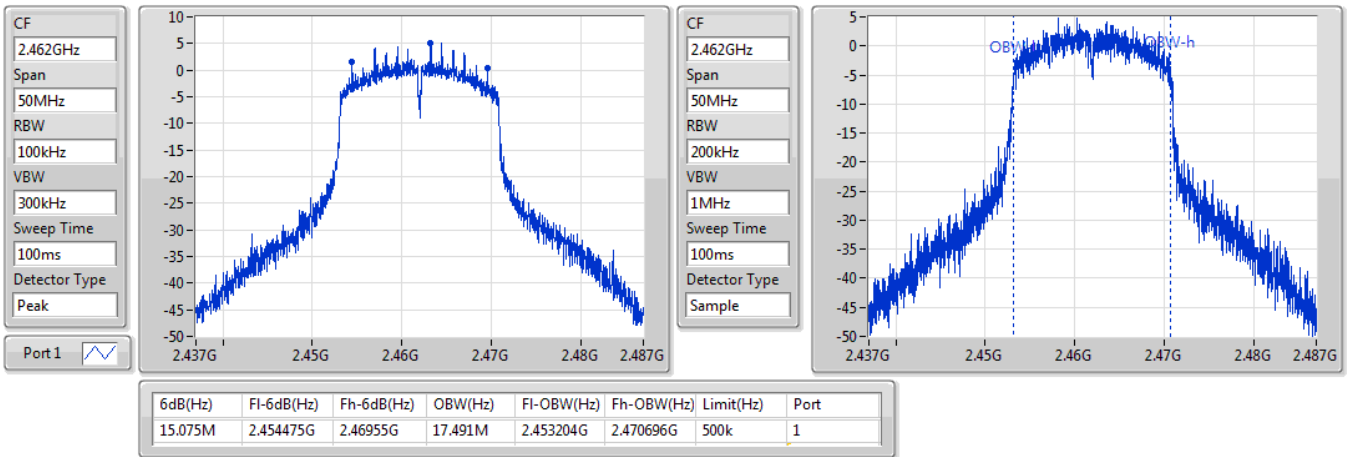

**802.11n HT20\_Nss1,(MCS0)\_1TX**
**EBW**
**2437MHz**

23/11/2018

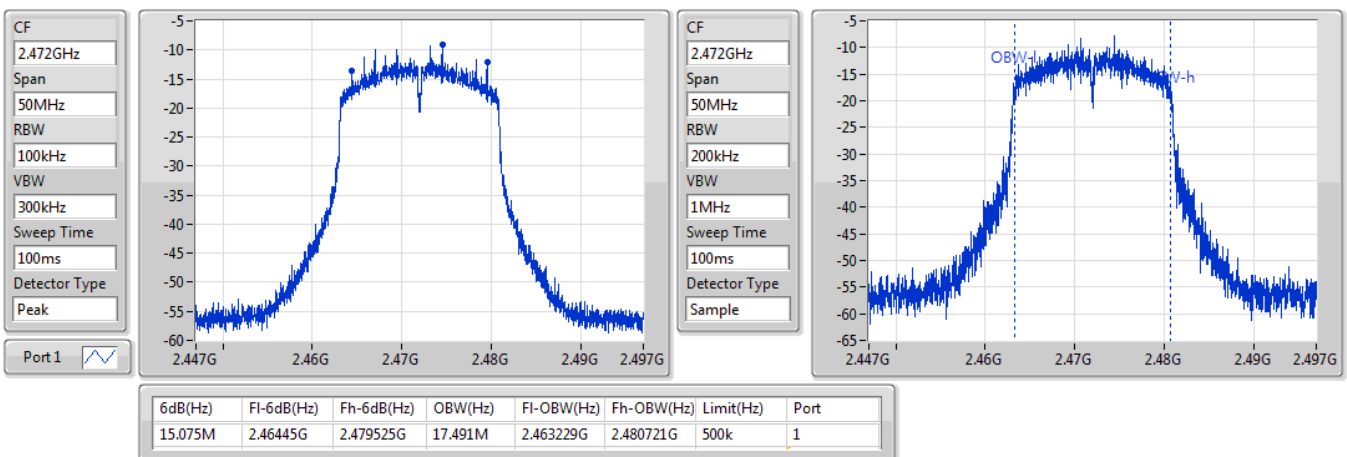


**802.11n HT20\_Nss1,(MCS0)\_1TX**
**EBW**
**2462MHz**

24/01/2019


**802.11n HT20\_Nss1,(MCS0)\_1TX**
**EBW**
**2472MHz**

11/03/2019





## Average Power

## Appendix C

### Summary

| Mode                         | Total Power<br>(dBm) | Total Power<br>(W) |
|------------------------------|----------------------|--------------------|
| 2.4-2.4835GHz                | -                    | -                  |
| 802.11b_Nss1,(1Mbps)_1TX     | 20.29                | 0.10691            |
| 802.11g_Nss1,(6Mbps)_1TX     | 19.08                | 0.08091            |
| 802.11n HT20_Nss1,(MCS0)_1TX | 18.83                | 0.07638            |

## Result

| Mode                         | Result | DG<br>(dBi) | Port 1<br>(dBm) | Total Power<br>(dBm) | Power Limit<br>(dBm) |
|------------------------------|--------|-------------|-----------------|----------------------|----------------------|
| 802.11b_Nss1,(1Mbps)_1TX     | -      | -           | -               | -                    | -                    |
| 2412MHz                      | Pass   | -2.40       | 20.29           | 20.29                | 30.00                |
| 2437MHz                      | Pass   | -2.40       | 19.90           | 19.90                | 30.00                |
| 2462MHz                      | Pass   | -2.40       | 19.67           | 19.67                | 30.00                |
| 2467MHz                      | Pass   | -2.40       | 18.83           | 18.83                | 30.00                |
| 2472MHz                      | Pass   | -2.40       | 17.03           | 17.03                | 30.00                |
| 802.11g_Nss1,(6Mbps)_1TX     | -      | -           | -               | -                    | -                    |
| 2412MHz                      | Pass   | -2.40       | 17.75           | 17.75                | 30.00                |
| 2417MHz                      | Pass   | -2.40       | 19.08           | 19.08                | 30.00                |
| 2437MHz                      | Pass   | -2.40       | 18.89           | 18.89                | 30.00                |
| 2457MHz                      | Pass   | -2.40       | 18.94           | 18.94                | 30.00                |
| 2462MHz                      | Pass   | -2.40       | 17.59           | 17.59                | 30.00                |
| 2467MHz                      | Pass   | -2.40       | 13.00           | 13.00                | 30.00                |
| 2472MHz                      | Pass   | -2.40       | 5.42            | 5.42                 | 30.00                |
| 802.11n HT20_Nss1,(MCS0)_1TX | -      | -           | -               | -                    | -                    |
| 2412MHz                      | Pass   | -2.40       | 16.57           | 16.57                | 30.00                |
| 2417MHz                      | Pass   | -2.40       | 18.76           | 18.76                | 30.00                |
| 2437MHz                      | Pass   | -2.40       | 18.83           | 18.83                | 30.00                |
| 2457MHz                      | Pass   | -2.40       | 18.72           | 18.72                | 30.00                |
| 2462MHz                      | Pass   | -2.40       | 16.44           | 16.44                | 30.00                |
| 2467MHz                      | Pass   | -2.40       | 13.55           | 13.55                | 30.00                |
| 2472MHz                      | Pass   | -2.40       | 2.55            | 2.55                 | 30.00                |

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

**Summary**

| Mode                         | PD<br>(dBm/RBW) |
|------------------------------|-----------------|
| 2.4-2.4835GHz                | -               |
| 802.11b_Nss1,(1Mbps)_1TX     | 4.34            |
| 802.11g_Nss1,(6Mbps)_1TX     | -1.12           |
| 802.11n HT20_Nss1,(MCS0)_1TX | -1.47           |

RBW=3 kHz.

## Result

| Mode                         | Result | DG<br>(dBi) | Port 1<br>(dBm/RBW) | PD<br>(dBm/RBW) | PD Limit<br>(dBm/RBW) |
|------------------------------|--------|-------------|---------------------|-----------------|-----------------------|
| 802.11b_Nss1,(1Mbps)_1TX     | -      | -           | -                   | -               | -                     |
| 2412MHz                      | Pass   | -2.40       | 4.34                | 4.34            | 8.00                  |
| 2437MHz                      | Pass   | -2.40       | 3.42                | 3.42            | 8.00                  |
| 2462MHz                      | Pass   | -2.40       | 0.89                | 0.89            | 8.00                  |
| 2472MHz                      | Pass   | -2.40       | 0.15                | 0.15            | 8.00                  |
| 802.11g_Nss1,(6Mbps)_1TX     | -      | -           | -                   | -               | -                     |
| 2412MHz                      | Pass   | -2.40       | -2.25               | -2.25           | 8.00                  |
| 2437MHz                      | Pass   | -2.40       | -1.12               | -1.12           | 8.00                  |
| 2462MHz                      | Pass   | -2.40       | -2.65               | -2.65           | 8.00                  |
| 2472MHz                      | Pass   | -2.40       | -14.58              | -14.58          | 8.00                  |
| 802.11n HT20_Nss1,(MCS0)_1TX | -      | -           | -                   | -               | -                     |
| 2412MHz                      | Pass   | -2.40       | -3.70               | -3.70           | 8.00                  |
| 2437MHz                      | Pass   | -2.40       | -1.47               | -1.47           | 8.00                  |
| 2462MHz                      | Pass   | -2.40       | -4.14               | -4.14           | 8.00                  |
| 2472MHz                      | Pass   | -2.40       | -17.59              | -17.59          | 8.00                  |

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

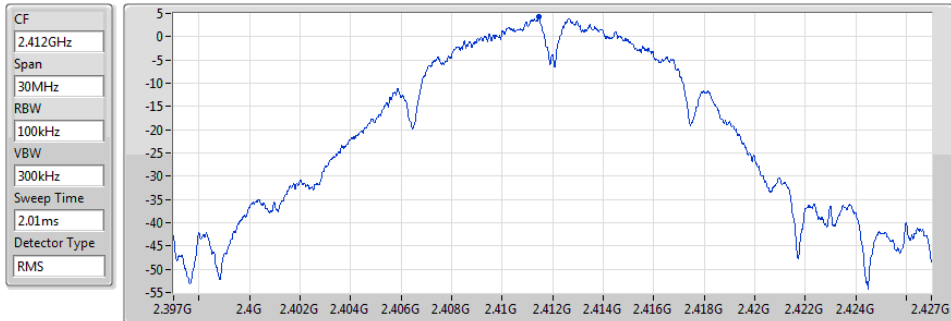
**PD** = trace bin-by-bin of each transmits port summing can be performed maximum power density; **Port X** = Port X power density;

## 802.11b\_Nss1,(1Mbps)\_1TX

## PSD

2412MHz

23/11/2018

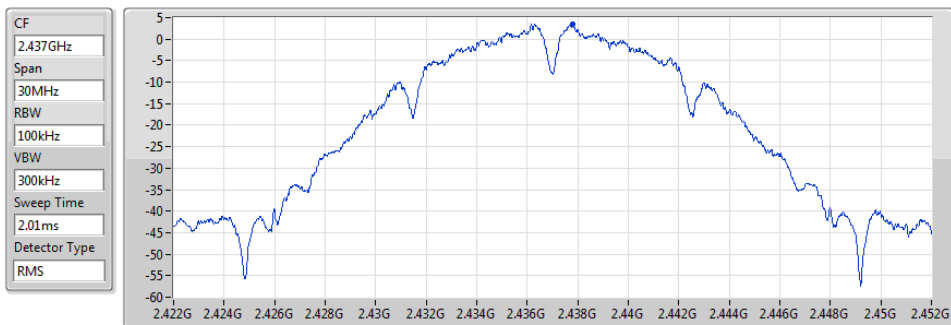


## 802.11b\_Nss1,(1Mbps)\_1TX

## PSD

2437MHz

23/11/2018

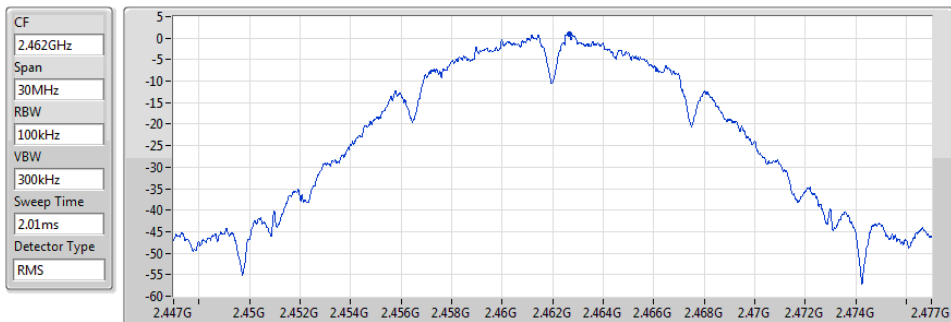


## 802.11b\_Nss1,(1Mbps)\_1TX

## PSD

2462MHz

24/01/2019

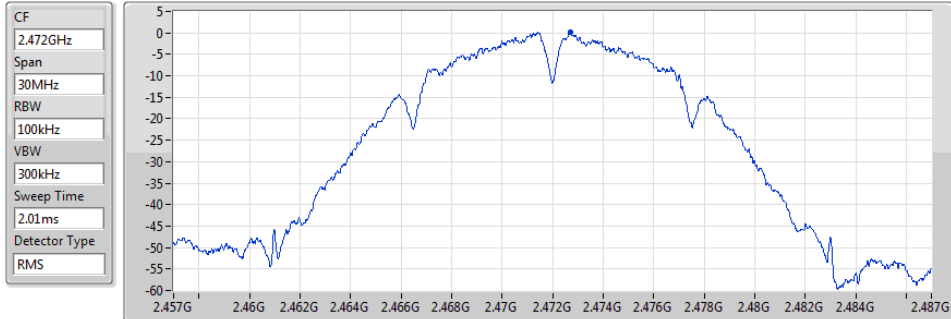


## 802.11b\_Nss1,(1Mbps)\_1TX

## PSD

2472MHz

11/03/2019

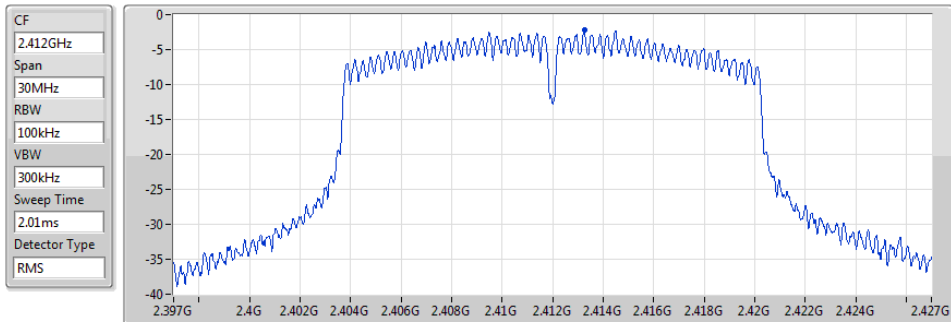


## 802.11g\_Nss1,(6Mbps)\_1TX

## PSD

2412MHz

24/01/2019

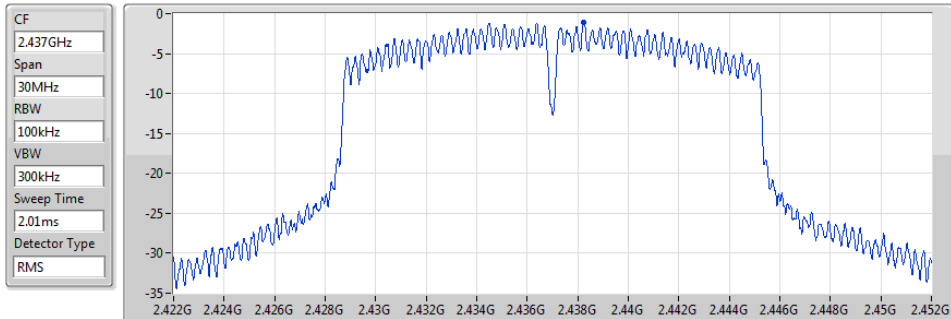


## 802.11g\_Nss1,(6Mbps)\_1TX

## PSD

2437MHz

23/11/2018

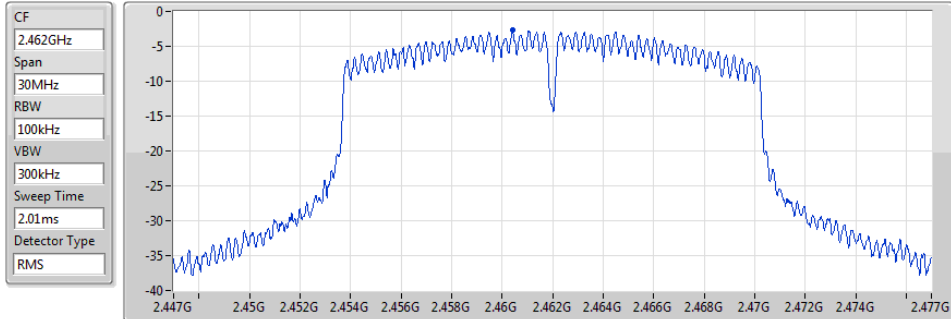


## 802.11g\_Nss1,(6Mbps)\_1TX

PSD

2462MHz

24/01/2019

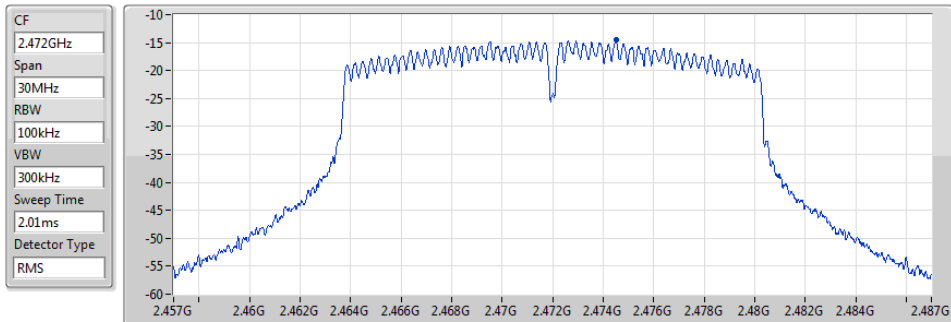


## 802.11g\_Nss1,(6Mbps)\_1TX

PSD

2472MHz

11/03/2019

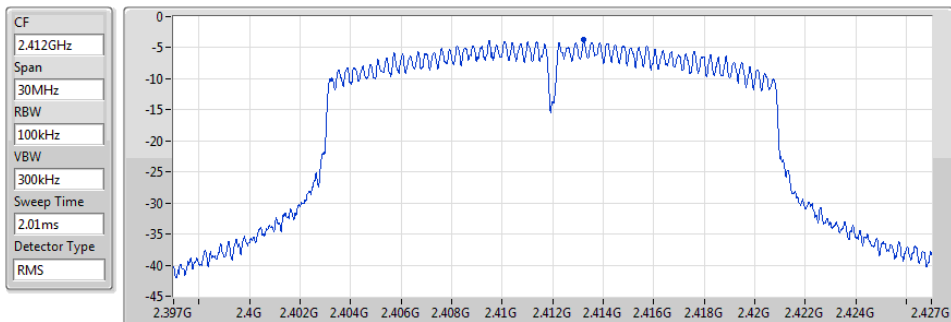


## 802.11n HT20\_Nss1,(MCS0)\_1TX

PSD

2412MHz

24/01/2019

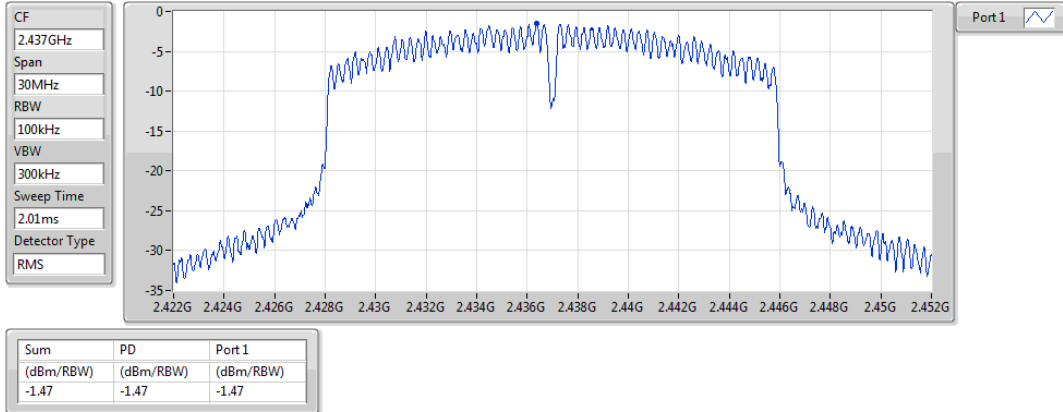


## 802.11n HT20\_Nss1,(MCS0)\_1TX

PSD

2437MHz

23/11/2018

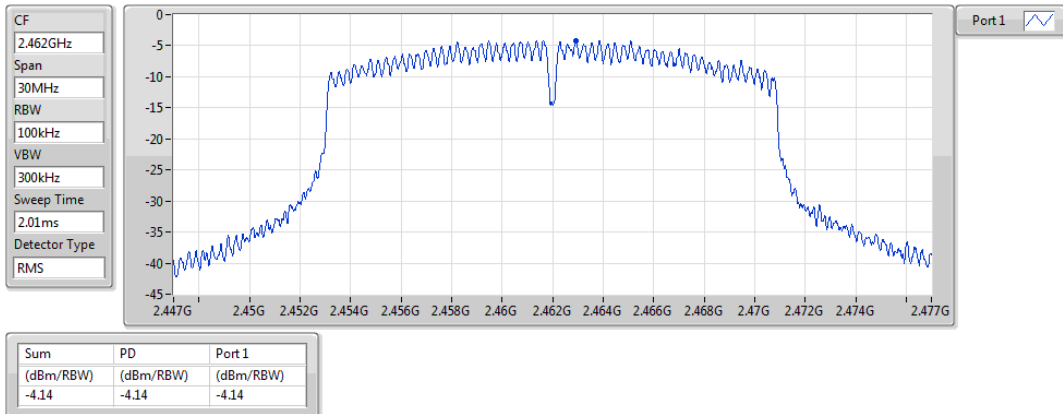


## 802.11n HT20\_Nss1,(MCS0)\_1TX

PSD

2462MHz

24/01/2019

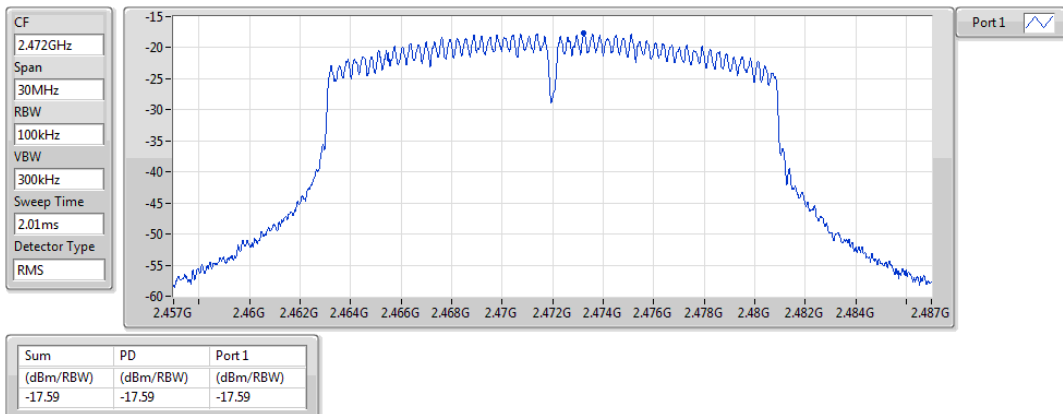


## 802.11n HT20\_Nss1,(MCS0)\_1TX

PSD

2472MHz

11/03/2019



**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)_1TX     | Pass   | 2.41248G    | 10.45        | -19.55         | 2.30612G     | -62.85         | 2.39952G     | -32.08         | 2.48596G     | -59.53         | 7.23514G     | -48.02         | 1    |
| 802.11g_Nss1,(6Mbps)_1TX     | Pass   | 2.4382G     | 7.40         | -22.60         | 2.30146G     | -65.38         | 2.3999G      | -23.21         | 2.48576G     | -60.80         | 16.20326G    | -53.64         | 1    |
| 802.11n HT20_Nss1,(MCS0)_1TX | Pass   | 2.43954G    | 6.02         | -23.98         | 2.15583G     | -65.56         | 2.39926G     | -24.05         | 2.48386G     | -60.68         | 16.88036G    | -53.64         | 1    |

**Result**

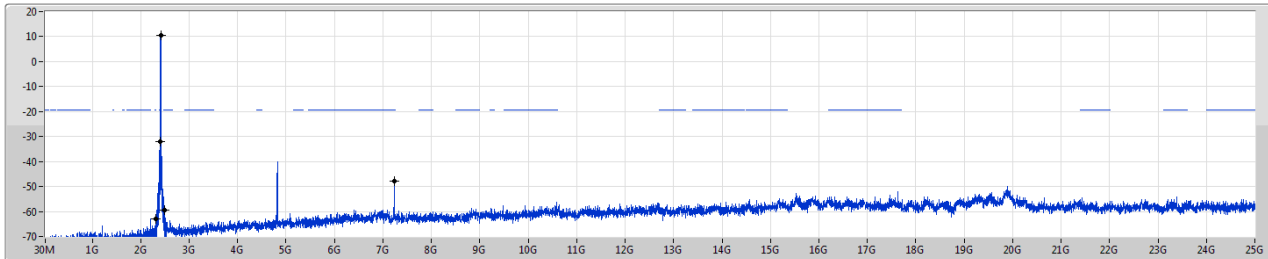
| Mode                         | Result | Ref<br>(Hz) | Ref<br>(dBm) | Limit<br>(dBm) | Freq<br>(Hz) | Level<br>(dBm) | Freq<br>(Hz) | Level<br>(dBm) | Freq<br>(Hz) | Level<br>(dBm) | Freq<br>(Hz) | Level<br>(dBm) | Port |
|------------------------------|--------|-------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|------|
| 802.11b_Nss1,(1Mbps)_1TX     | -      | -           | -            | -              | -            | -              | -            | -              | -            | -              | -            | -              | -    |
| 2412MHz                      | Pass   | 2.41248G    | 10.45        | -19.55         | 2.30612G     | -62.85         | 2.39952G     | -32.08         | 2.48596G     | -59.53         | 7.23514G     | -48.02         | 1    |
| 2437MHz                      | Pass   | 2.41248G    | 10.45        | -19.55         | 2.3G         | -66.08         | 2.39696G     | -47.39         | 2.48448G     | -54.95         | 16.27069G    | -53.20         | 1    |
| 2462MHz                      | Pass   | 2.41144G    | 10.16        | -19.84         | 2.30292G     | -65.84         | 2.39208G     | -59.62         | 2.48494G     | -45.05         | 15.20867G    | -53.42         | 1    |
| 2472MHz                      | Pass   | 2.41248G    | 10.45        | -19.55         | 1.83313G     | -66.88         | 2.39722G     | -62.46         | 2.49398G     | -43.36         | 16.22293G    | -53.59         | 1    |
| 802.11g_Nss1,(6Mbps)_1TX     | -      | -           | -            | -              | -            | -              | -            | -              | -            | -              | -            | -              | -    |
| 2412MHz                      | Pass   | 2.4382G     | 7.40         | -22.60         | 2.30146G     | -65.38         | 2.3999G      | -23.21         | 2.48576G     | -60.80         | 16.20326G    | -53.64         | 1    |
| 2437MHz                      | Pass   | 2.4382G     | 7.40         | -22.60         | 2.3035G      | -65.50         | 2.39764G     | -40.55         | 2.4876G      | -49.46         | 16.22012G    | -54.19         | 1    |
| 2462MHz                      | Pass   | 2.43319G    | 6.61         | -23.39         | 49.81M       | -65.38         | 2.39936G     | -57.20         | 2.48418G     | -36.24         | 16.70055G    | -54.09         | 1    |
| 2472MHz                      | Pass   | 2.4382G     | 7.40         | -22.60         | 2.30728G     | -66.94         | 2.39592G     | -64.93         | 2.48376G     | -41.10         | 16.63312G    | -53.11         | 1    |
| 802.11n HT20_Nss1,(MCS0)_1TX | -      | -           | -            | -              | -            | -              | -            | -              | -            | -              | -            | -              | -    |
| 2412MHz                      | Pass   | 2.43954G    | 6.02         | -23.98         | 2.15583G     | -65.56         | 2.39926G     | -24.05         | 2.48386G     | -60.68         | 16.88036G    | -53.64         | 1    |
| 2437MHz                      | Pass   | 2.43954G    | 6.02         | -23.98         | 1.97206G     | -65.60         | 2.39672G     | -45.45         | 2.48608G     | -51.36         | 17.45352G    | -54.08         | 1    |
| 2462MHz                      | Pass   | 2.43073G    | 6.15         | -23.85         | 49.81M       | -65.81         | 2.39902G     | -58.20         | 2.48356G     | -38.31         | 16.71179G    | -53.66         | 1    |
| 2472MHz                      | Pass   | 2.43954G    | 6.02         | -23.98         | 2.1937G      | -66.38         | 2.399G       | -64.06         | 2.48362G     | -42.97         | 15.16091G    | -53.79         | 1    |

## 802.11b\_Nss1,(1Mbps)\_1TX

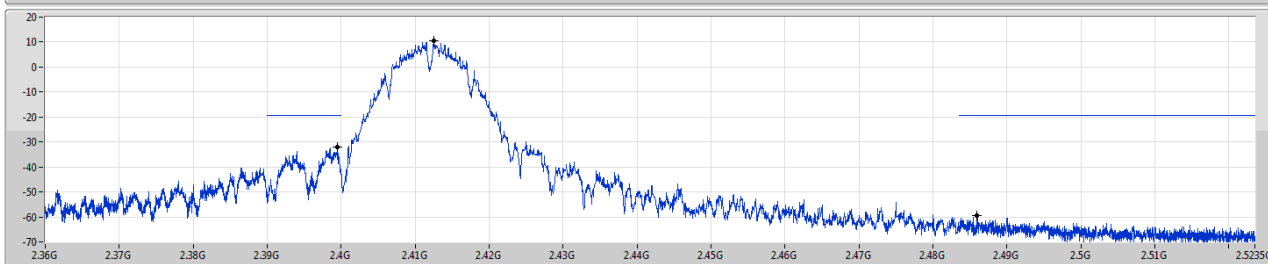
CSE NdB

2412MHz

11/03/2019



Port1



RBW (Hz)  
100k  
VBW (Hz)  
300k  
Detector  
Peak

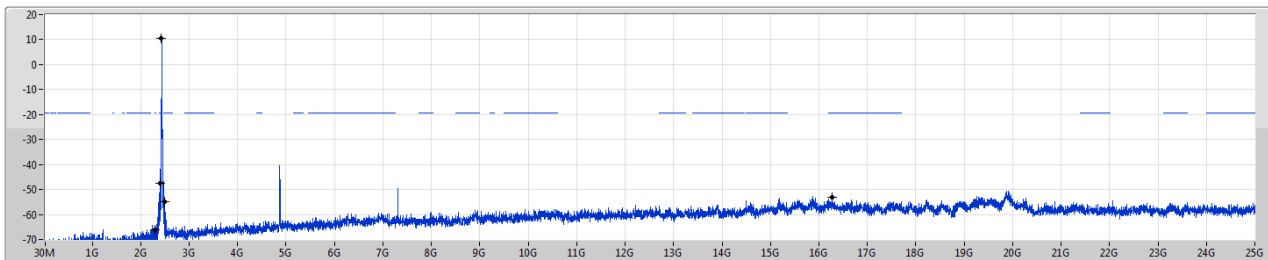
| Ref(Hz)  | Ref(dBm) | Limit(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz) | Level(dBm) | Port |
|----------|----------|------------|----------|------------|----------|------------|----------|------------|----------|------------|------|
| 2.41248G | 10.45    | -19.55     | 2.30612G | -62.85     | 2.39952G | -32.08     | 2.48596G | -59.53     | 7.23514G | -48.02     | 1    |

## 802.11b\_Nss1,(1Mbps)\_1TX

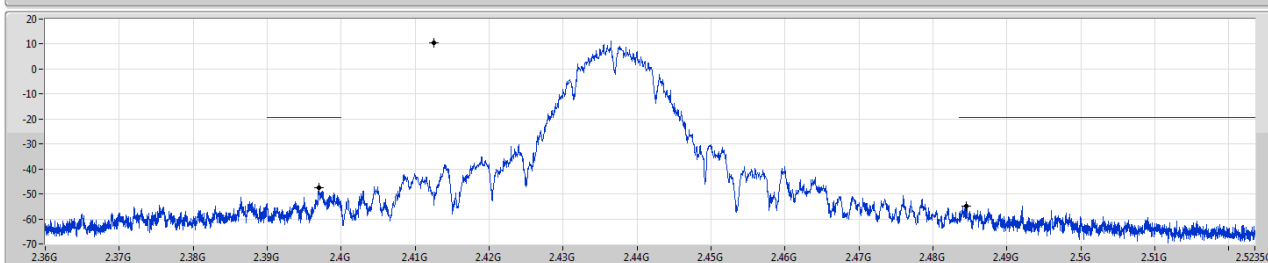
CSE NdB

2437MHz

11/03/2019



Port1



RBW (Hz)  
100k  
VBW (Hz)  
300k  
Detector  
Peak

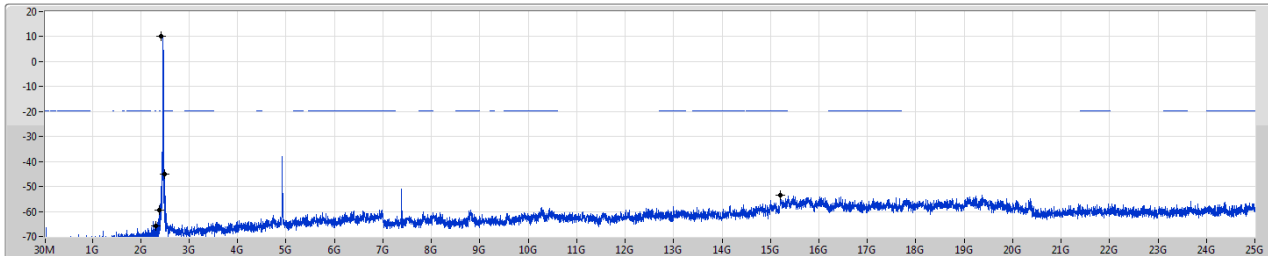
| Ref(Hz)  | Ref(dBm) | Limit(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz)  | Level(dBm) | Port |
|----------|----------|------------|----------|------------|----------|------------|----------|------------|-----------|------------|------|
| 2.41248G | 10.45    | -19.55     | 2.3G     | -66.08     | 2.30696G | -47.39     | 2.48448G | -54.95     | 16.27069G | -53.20     | 1    |

802.11b\_Nss1,(1Mbps)\_1TX

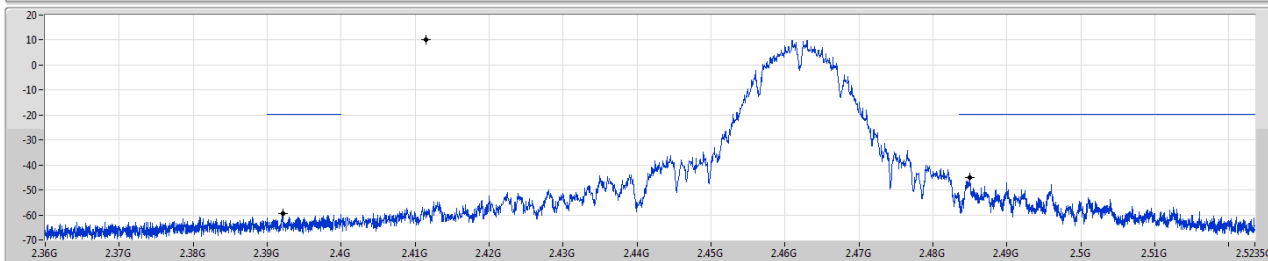
CSE NdB

2462MHz

24/01/2019



Port1



RBW (Hz)  
100k  
VBW (Hz)  
300k  
Detector  
Peak

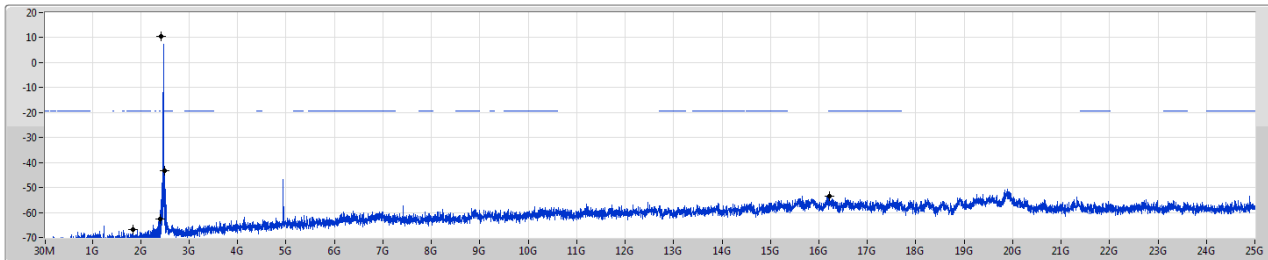
| Ref(Hz)  | Ref(dBm) | Limit(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz)  | Level(dBm) | Port |
|----------|----------|------------|----------|------------|----------|------------|----------|------------|-----------|------------|------|
| 2.41144G | 10.16    | -19.84     | 2.30292G | -65.84     | 2.39208G | -59.62     | 2.48494G | -45.05     | 15.20867G | -53.42     | 1    |

802.11b\_Nss1,(1Mbps)\_1TX

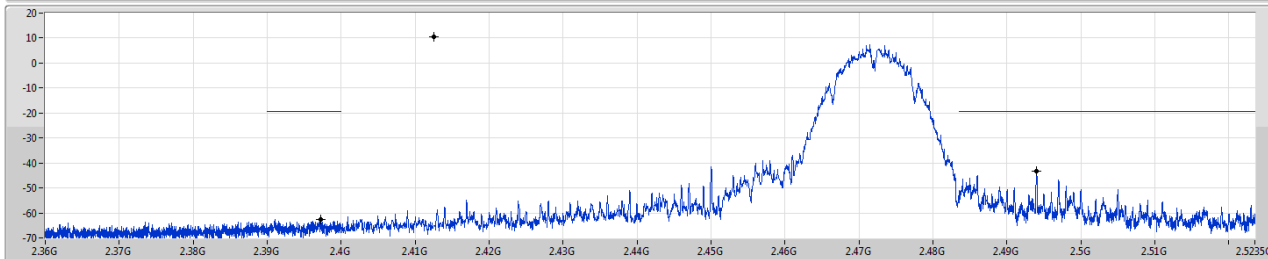
CSE NdB

2472MHz

11/03/2019



Port1



RBW (Hz)  
100k  
VBW (Hz)  
300k  
Detector  
Peak

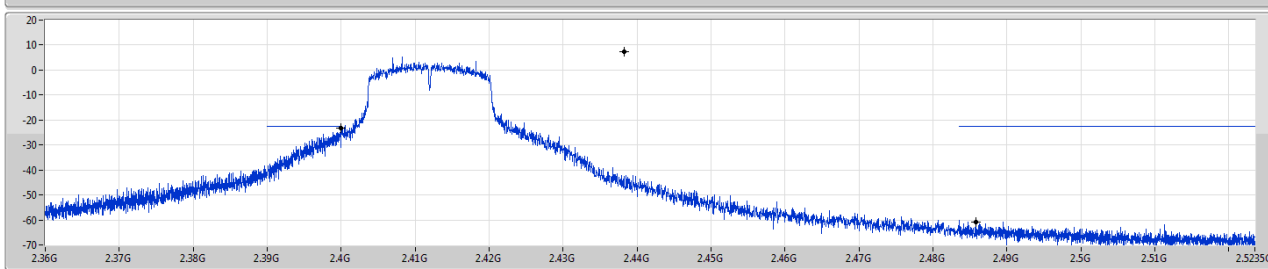
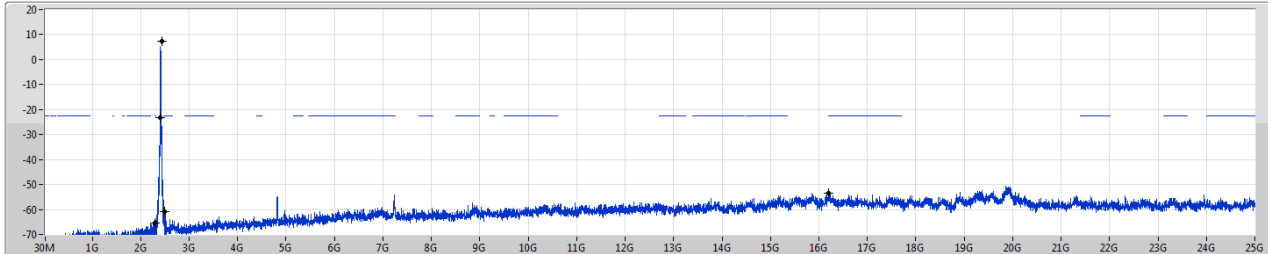
| Ref(Hz)  | Ref(dBm) | Limit(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz)  | Level(dBm) | Port |
|----------|----------|------------|----------|------------|----------|------------|----------|------------|-----------|------------|------|
| 2.41248G | 10.45    | -19.55     | 1.83313G | -66.88     | 2.39722G | -62.46     | 2.49398G | -43.36     | 16.22293G | -53.59     | 1    |

802.11g\_Nss1,(6Mbps)\_1TX

CSE NdB

2412MHz

11/03/2019



RBW (Hz)  
100k  
VBW (Hz)  
300k  
Detector  
Peak

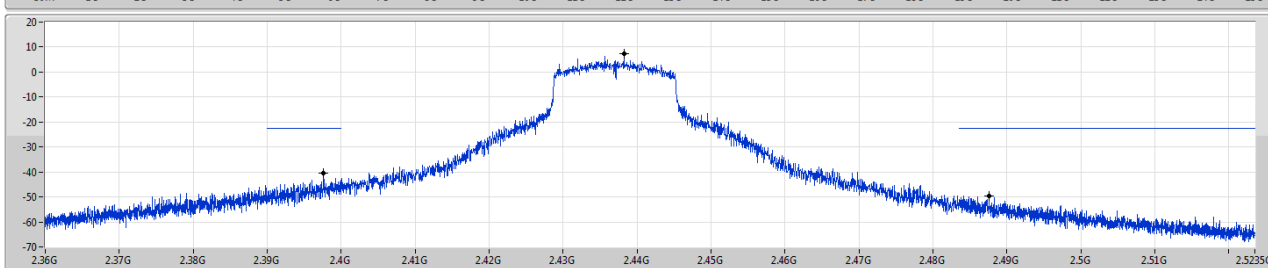
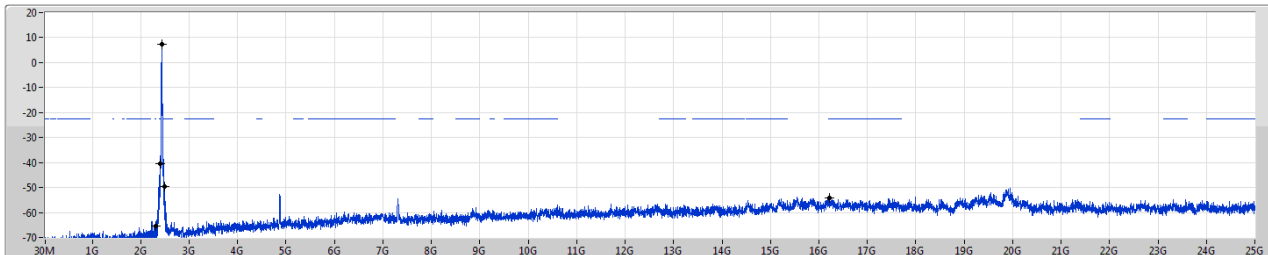
| Ref(Hz) | Ref(dBm) | Limit(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz)  | Level(dBm) | Port |
|---------|----------|------------|----------|------------|----------|------------|----------|------------|-----------|------------|------|
| 2.4382G | 7.40     | -22.60     | 2.30146G | -65.38     | 2.3999G  | -23.21     | 2.48576G | -60.80     | 16.20326G | -53.64     | 1    |

802.11g\_Nss1,(6Mbps)\_1TX

CSE NdB

2437MHz

11/03/2019



RBW (Hz)  
100k  
VBW (Hz)  
300k  
Detector  
Peak

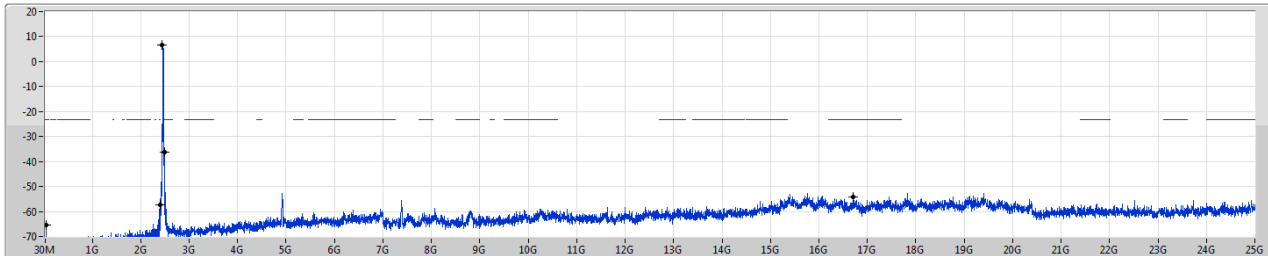
| Ref(Hz) | Ref(dBm) | Limit(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz)  | Level(dBm) | Port |
|---------|----------|------------|----------|------------|----------|------------|----------|------------|-----------|------------|------|
| 2.4382G | 7.40     | -22.60     | 2.3035G  | -65.50     | 2.39764G | -40.55     | 2.4876G  | -49.46     | 16.22012G | -54.19     | 1    |

## 802.11g\_Nss1,(6Mbps)\_1TX

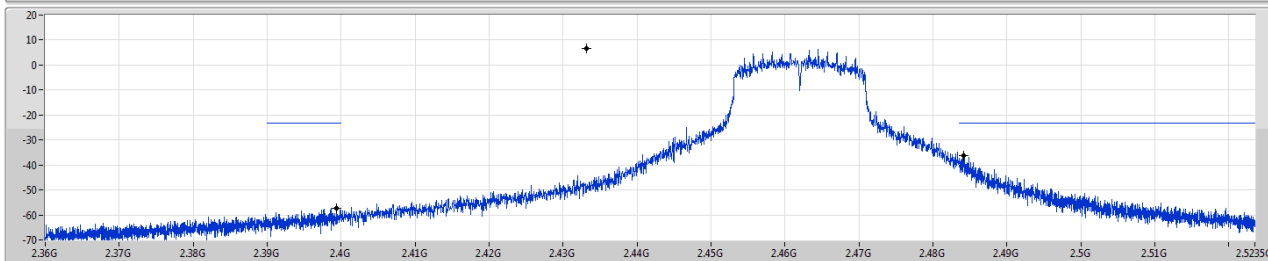
CSE NdB

2462MHz

24/01/2019



Port1

RBW (Hz)  
100k  
VBW (Hz)  
300k  
Detector  
Peak

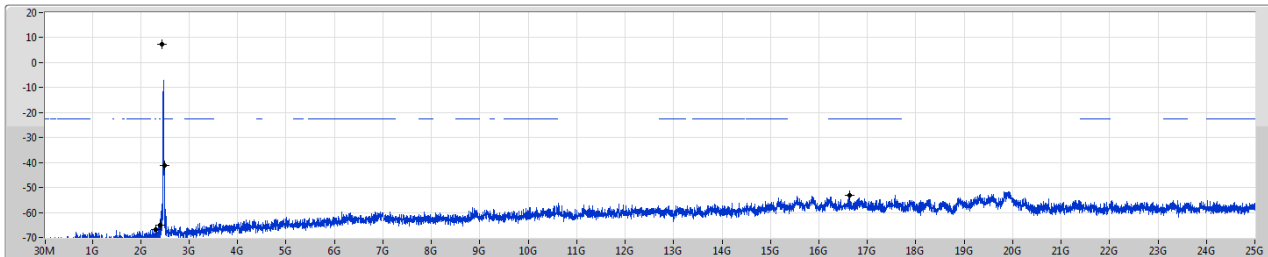
| Ref(Hz) | Ref(dBm) | Limit(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz)  | Level(dBm) | Port |
|---------|----------|------------|----------|------------|----------|------------|----------|------------|-----------|------------|------|
| 2.4319G | 6.61     | -23.39     | 49.81M   | -65.38     | 2.39936G | -57.20     | 2.48418G | -36.24     | 16.70055G | -54.09     | 1    |

## 802.11g\_Nss1,(6Mbps)\_1TX

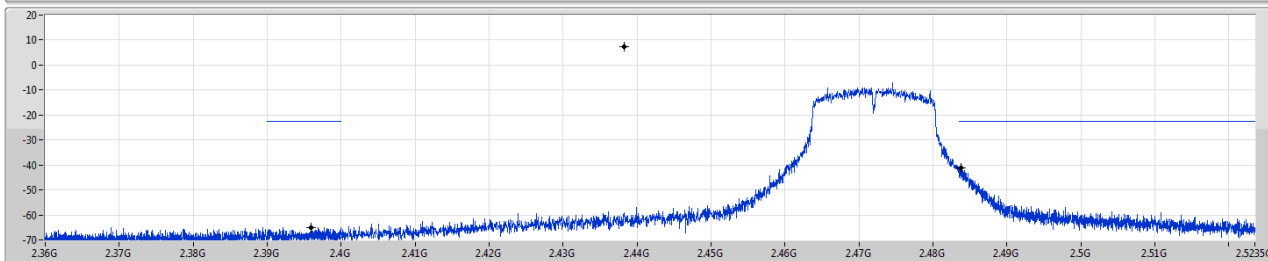
CSE NdB

2472MHz

11/03/2019



Port1

RBW (Hz)  
100k  
VBW (Hz)  
300k  
Detector  
Peak

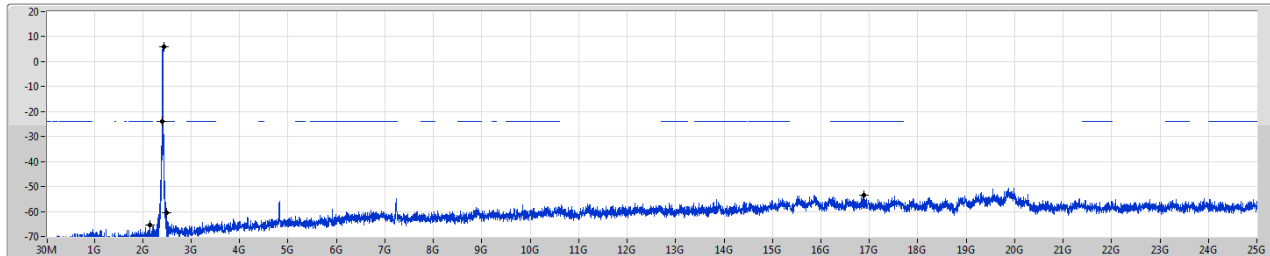
| Ref(Hz) | Ref(dBm) | Limit(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz)  | Level(dBm) | Port |
|---------|----------|------------|----------|------------|----------|------------|----------|------------|-----------|------------|------|
| 2.4382G | 7.40     | -22.60     | 2.30728G | -66.94     | 2.39992G | -64.93     | 2.48376G | -41.10     | 16.63312G | -53.11     | 1    |

802.11n HT20\_Nss1,(MCS0)\_1TX

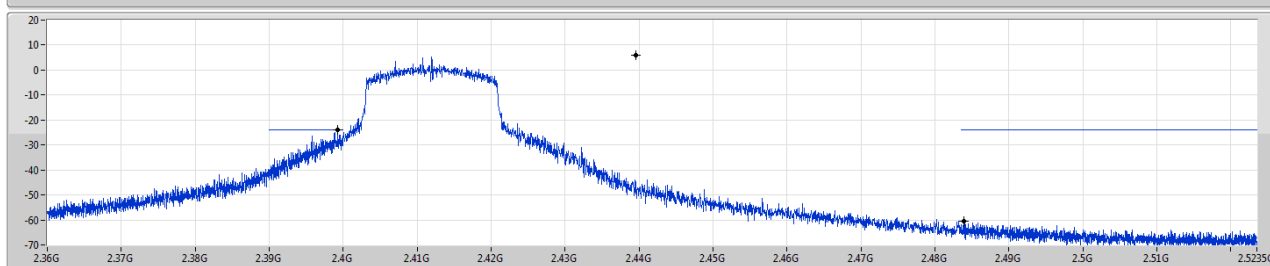
CSE NdB

2412MHz

11/03/2019



Port1



RBW (Hz)  
100k  
VBW (Hz)  
300k  
Detector  
Peak

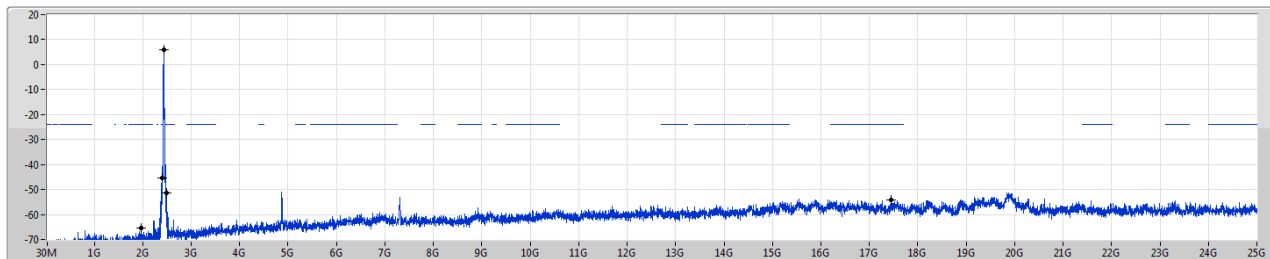
| Ref(Hz)  | Ref(dBm) | Limit(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz)  | Level(dBm) | Port |
|----------|----------|------------|----------|------------|----------|------------|----------|------------|-----------|------------|------|
| 2.43954G | 6.02     | -23.98     | 2.15583G | -65.56     | 2.39926G | -24.05     | 2.48386G | -60.68     | 16.88036G | -53.64     | 1    |

802.11n HT20\_Nss1,(MCS0)\_1TX

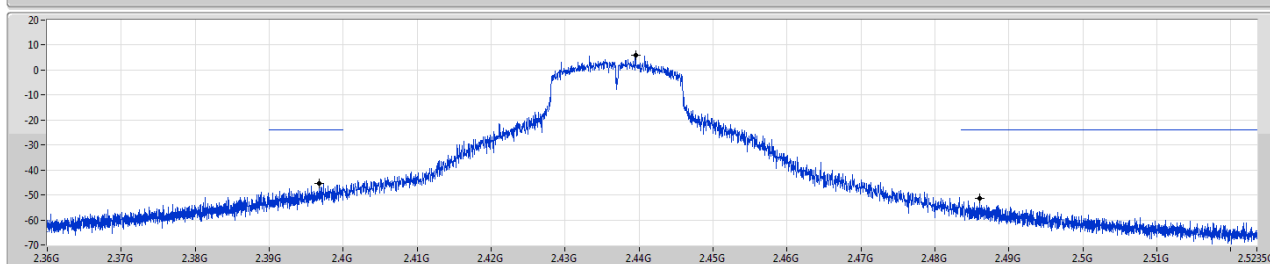
CSE NdB

2437MHz

11/03/2019



Port1



RBW (Hz)  
100k  
VBW (Hz)  
300k  
Detector  
Peak

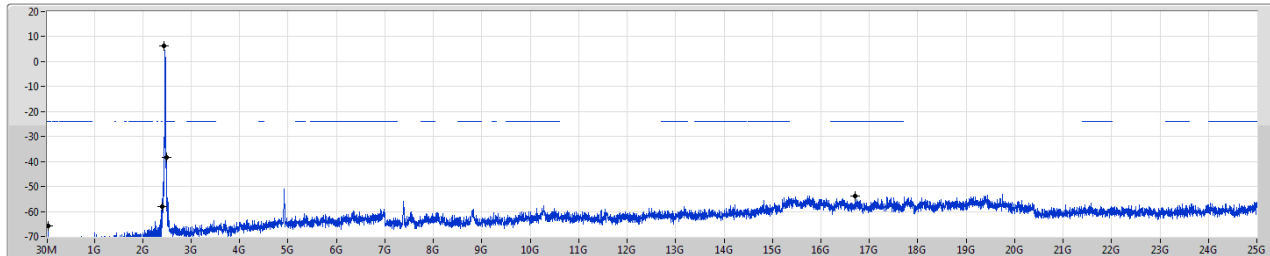
| Ref(Hz)  | Ref(dBm) | Limit(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz)  | Level(dBm) | Port |
|----------|----------|------------|----------|------------|----------|------------|----------|------------|-----------|------------|------|
| 2.43954G | 6.02     | -23.98     | 1.97206G | -65.60     | 2.39672G | -45.45     | 2.48608G | -51.36     | 17.45352G | -54.08     | 1    |

802.11n HT20\_Nss1,(MCS0)\_1TX

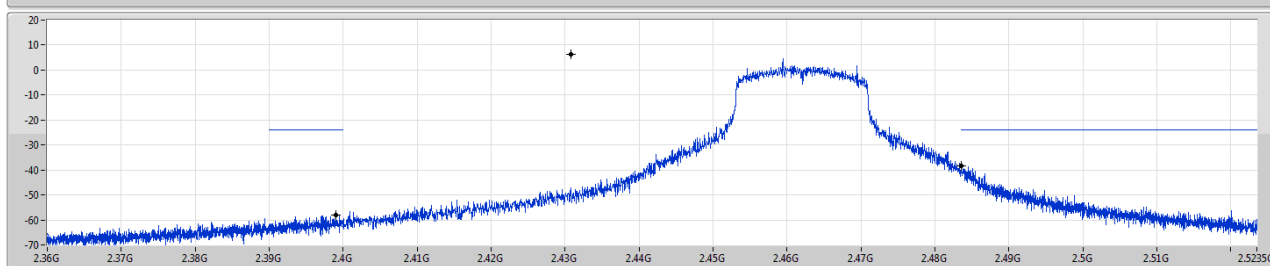
CSE NdB

2462MHz

24/01/2019



Port1



RBW (Hz)  
100k  
VBW (Hz)  
300k  
Detector  
Peak

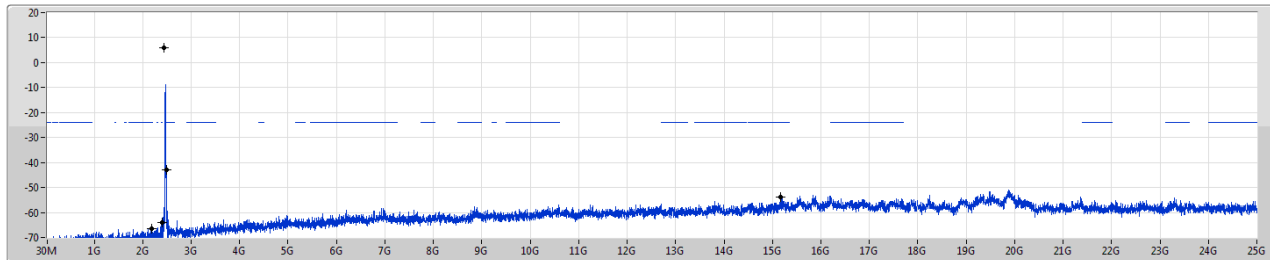
| Ref(Hz)  | Ref(dBm) | Limit(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz)  | Level(dBm) | Port |
|----------|----------|------------|----------|------------|----------|------------|----------|------------|-----------|------------|------|
| 2.43073G | 6.15     | -23.85     | 49.81M   | -65.81     | 2.39902G | -58.20     | 2.48356G | -38.31     | 16.71179G | -53.66     | 1    |

802.11n HT20\_Nss1,(MCS0)\_1TX

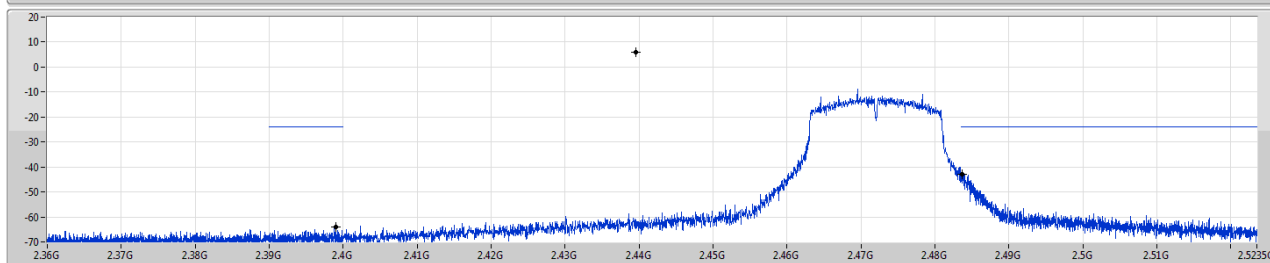
CSE NdB

2472MHz

11/03/2019



Port1



RBW (Hz)  
100k  
VBW (Hz)  
300k  
Detector  
Peak

| Ref(Hz)  | Ref(dBm) | Limit(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz)  | Level(dBm) | Port |
|----------|----------|------------|----------|------------|----------|------------|----------|------------|-----------|------------|------|
| 2.43954G | 6.02     | -23.98     | 2.1937G  | -66.38     | 2.399G   | -64.06     | 2.48362G | -42.97     | 15.16091G | -53.79     | 1    |



**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 HT20_Nss1,(MCS0)_1TX | Pass   | PK   | 30M          | 21.30             | 40.00             | -18.70         | -13.40         | 3           | Vertical  | 0              | 3.00          | -        |

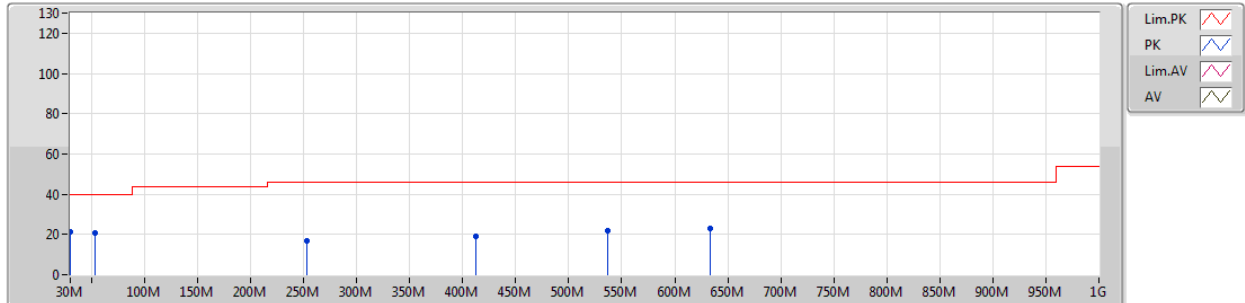
### Result

| 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 HT20_Nss1,(MCS0)_1TX | -      | -    | -            | -                 | -                 | -              | -              | -           | -          | -              | -             | -        |
| 2437MHz                      | Pass   | PK   | 30M          | 21.30             | 40.00             | -18.70         | -13.40         | 3           | Vertical   | 0              | 3.00          | -        |
| 2437MHz                      | Pass   | PK   | 53.28M       | 20.92             | 40.00             | -19.08         | -24.56         | 3           | Vertical   | 0              | 3.00          | -        |
| 2437MHz                      | Pass   | PK   | 253.1M       | 16.56             | 46.00             | -29.44         | -16.67         | 3           | Vertical   | 0              | 3.00          | -        |
| 2437MHz                      | Pass   | PK   | 412.18M      | 19.01             | 46.00             | -26.99         | -13.54         | 3           | Vertical   | 0              | 3.00          | -        |
| 2437MHz                      | Pass   | PK   | 536.34M      | 22.01             | 46.00             | -23.99         | -12.06         | 3           | Vertical   | 0              | 3.00          | -        |
| 2437MHz                      | Pass   | PK   | 633.34M      | 23.12             | 46.00             | -22.88         | -10.02         | 3           | Vertical   | 0              | 3.00          | -        |
| 2437MHz                      | Pass   | PK   | 30M          | 19.07             | 40.00             | -20.93         | -13.40         | 3           | Horizontal | 360            | 3.00          | -        |
| 2437MHz                      | Pass   | PK   | 123.12M      | 14.12             | 43.50             | -29.38         | -19.24         | 3           | Horizontal | 360            | 3.00          | -        |
| 2437MHz                      | Pass   | PK   | 249.22M      | 16.24             | 46.00             | -29.76         | -17.26         | 3           | Horizontal | 360            | 3.00          | -        |
| 2437MHz                      | Pass   | PK   | 406.36M      | 19.72             | 46.00             | -26.28         | -13.77         | 3           | Horizontal | 360            | 3.00          | -        |
| 2437MHz                      | Pass   | PK   | 536.34M      | 21.22             | 46.00             | -24.78         | -12.06         | 3           | Horizontal | 360            | 3.00          | -        |
| 2437MHz                      | Pass   | PK   | 569.32M      | 23.43             | 46.00             | -22.57         | -10.62         | 3           | Horizontal | 360            | 3.00          | -        |

### 802.11n HT20\_Nss1,(MCS0)\_1TX

23/01/2019

### 2437MHz\_DC Power Supply

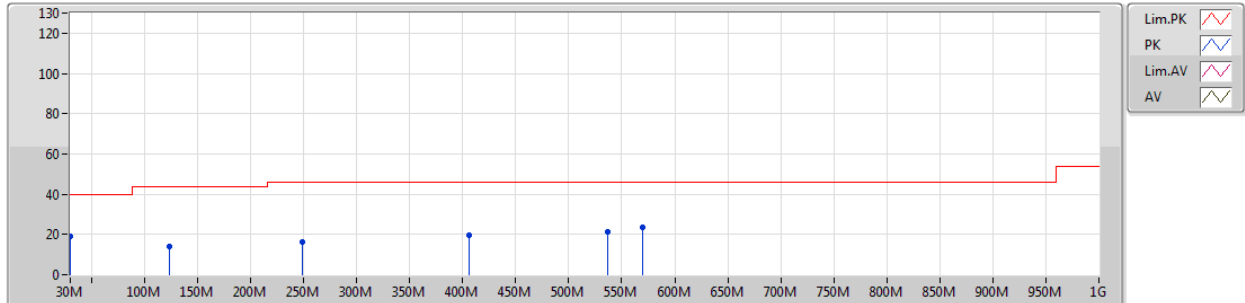


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| PK   | 30M          | 21.30             | 40.00             | -18.70         | -13.40         | 3           | Vertical  | 0              | 3.00          | -        |
| PK   | 53.28M       | 20.92             | 40.00             | -19.08         | -24.56         | 3           | Vertical  | 0              | 3.00          | -        |
| PK   | 253.1M       | 16.56             | 46.00             | -29.44         | -16.67         | 3           | Vertical  | 0              | 3.00          | -        |
| PK   | 412.18M      | 19.01             | 46.00             | -26.99         | -13.54         | 3           | Vertical  | 0              | 3.00          | -        |
| PK   | 536.34M      | 22.01             | 46.00             | -23.99         | -12.06         | 3           | Vertical  | 0              | 3.00          | -        |
| PK   | 633.34M      | 23.12             | 46.00             | -22.88         | -10.02         | 3           | Vertical  | 0              | 3.00          | -        |

## 802.11n HT20\_Nss1,(MCS0)\_1TX

23/01/2019

## 2437MHz\_DC Power Supply



| 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          | 19.07             | 40.00             | -20.93         | -13.40         | 3           | Horizontal | 360            | 3.00          | -        |
| PK   | 123.12M      | 14.12             | 43.50             | -29.38         | -19.24         | 3           | Horizontal | 360            | 3.00          | -        |
| PK   | 249.22M      | 16.24             | 46.00             | -29.76         | -17.26         | 3           | Horizontal | 360            | 3.00          | -        |
| PK   | 406.36M      | 19.72             | 46.00             | -26.28         | -13.77         | 3           | Horizontal | 360            | 3.00          | -        |
| PK   | 536.34M      | 21.22             | 46.00             | -24.78         | -12.06         | 3           | Horizontal | 360            | 3.00          | -        |
| PK   | 569.32M      | 23.43             | 46.00             | -22.57         | -10.62         | 3           | Horizontal | 360            | 3.00          | -        |

**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)_1TX     | Pass   | AV   | 2.4844G      | 51.64             | 54.00             | -2.36          | 32.39          | 3           | Vertical  | 76             | 1.06          | -        |
| 802.11g_Nss1,(6Mbps)_1TX     | Pass   | PK   | 2.4835G      | 72.65             | 74.00             | -1.35          | 32.38          | 3           | Vertical  | 76             | 1.11          | -        |
| 802.11n HT20_Nss1,(MCS0)_1TX | Pass   | AV   | 2.4838G      | 52.90             | 54.00             | -1.10          | 31.11          | 3           | Vertical  | 220            | 2.42          | -        |

**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)_1TX | -      | -    | -            | -                 | -                 | -              | -              | -           | -          | -              | -             | -        |
| 2412MHz                  | Pass   | AV   | 2.3892G      | 49.36             | 54.00             | -4.64          | 30.77          | 3           | Vertical   | 282            | 1.19          | -        |
| 2412MHz                  | Pass   | AV   | 2.4112G      | 101.98            | Inf               | -Inf           | 30.85          | 3           | Vertical   | 282            | 1.19          | -        |
| 2412MHz                  | Pass   | PK   | 2.389G       | 59.26             | 74.00             | -14.74         | 30.77          | 3           | Vertical   | 282            | 1.19          | -        |
| 2412MHz                  | Pass   | PK   | 2.4112G      | 104.41            | Inf               | -Inf           | 30.85          | 3           | Vertical   | 282            | 1.19          | -        |
| 2412MHz                  | Pass   | AV   | 2.389G       | 44.70             | 54.00             | -9.30          | 30.77          | 3           | Horizontal | 137            | 1.19          | -        |
| 2412MHz                  | Pass   | AV   | 2.4112G      | 96.56             | Inf               | -Inf           | 30.85          | 3           | Horizontal | 137            | 1.19          | -        |
| 2412MHz                  | Pass   | PK   | 2.3894G      | 57.30             | 74.00             | -16.70         | 30.77          | 3           | Horizontal | 137            | 1.19          | -        |
| 2412MHz                  | Pass   | PK   | 2.4112G      | 98.95             | Inf               | -Inf           | 30.85          | 3           | Horizontal | 137            | 1.19          | -        |
| 2412MHz                  | Pass   | AV   | 4.824G       | 38.79             | 54.00             | -15.21         | 2.13           | 3           | Vertical   | 144            | 2.64          | -        |
| 2412MHz                  | Pass   | PK   | 4.82394G     | 46.64             | 74.00             | -27.36         | 2.13           | 3           | Vertical   | 144            | 2.64          | -        |
| 2412MHz                  | Pass   | AV   | 4.824G       | 32.72             | 54.00             | -21.28         | 2.13           | 3           | Horizontal | 102            | 2.97          | -        |
| 2412MHz                  | Pass   | PK   | 4.82778G     | 44.78             | 74.00             | -29.22         | 2.14           | 3           | Horizontal | 102            | 2.97          | -        |
| 2437MHz                  | Pass   | AV   | 2.3882G      | 42.50             | 54.00             | -11.50         | 30.77          | 3           | Vertical   | 286            | 1.40          | -        |
| 2437MHz                  | Pass   | AV   | 2.4362G      | 100.81            | Inf               | -Inf           | 30.94          | 3           | Vertical   | 286            | 1.40          | -        |
| 2437MHz                  | Pass   | AV   | 2.487G       | 43.00             | 54.00             | -11.00         | 31.12          | 3           | Vertical   | 286            | 1.40          | -        |
| 2437MHz                  | Pass   | PK   | 2.3474G      | 55.41             | 74.00             | -18.59         | 30.62          | 3           | Vertical   | 286            | 1.40          | -        |
| 2437MHz                  | Pass   | PK   | 2.4362G      | 103.33            | Inf               | -Inf           | 30.94          | 3           | Vertical   | 286            | 1.40          | -        |
| 2437MHz                  | Pass   | PK   | 2.4862G      | 56.08             | 74.00             | -17.92         | 31.12          | 3           | Vertical   | 286            | 1.40          | -        |
| 2437MHz                  | Pass   | AV   | 2.3878G      | 42.17             | 54.00             | -11.83         | 30.77          | 3           | Horizontal | 136            | 1.27          | -        |
| 2437MHz                  | Pass   | AV   | 2.4378G      | 96.49             | Inf               | -Inf           | 30.95          | 3           | Horizontal | 136            | 1.27          | -        |
| 2437MHz                  | Pass   | AV   | 2.499G       | 42.90             | 54.00             | -11.10         | 31.17          | 3           | Horizontal | 136            | 1.27          | -        |
| 2437MHz                  | Pass   | PK   | 2.3878G      | 55.10             | 74.00             | -18.90         | 30.77          | 3           | Horizontal | 136            | 1.27          | -        |
| 2437MHz                  | Pass   | PK   | 2.4378G      | 99.04             | Inf               | -Inf           | 30.95          | 3           | Horizontal | 136            | 1.27          | -        |
| 2437MHz                  | Pass   | PK   | 2.4902G      | 55.94             | 74.00             | -18.06         | 31.13          | 3           | Horizontal | 136            | 1.27          | -        |
| 2437MHz                  | Pass   | AV   | 4.874G       | 39.08             | 54.00             | -14.92         | 2.25           | 3           | Vertical   | 137            | 2.74          | -        |
| 2437MHz                  | Pass   | PK   | 4.87388G     | 45.80             | 74.00             | -28.20         | 2.25           | 3           | Vertical   | 137            | 2.74          | -        |
| 2437MHz                  | Pass   | AV   | 4.874G       | 31.59             | 54.00             | -22.41         | 2.25           | 3           | Horizontal | 344            | 1.23          | -        |
| 2437MHz                  | Pass   | PK   | 4.87418G     | 43.18             | 74.00             | -30.82         | 2.25           | 3           | Horizontal | 344            | 1.23          | -        |
| 2457MHz                  | Pass   | AV   | 2.4578G      | 107.08            | Inf               | -Inf           | 31.02          | 3           | Vertical   | 53             | 1.78          | -        |
| 2457MHz                  | Pass   | AV   | 2.4838G      | 47.54             | 54.00             | -6.46          | 31.11          | 3           | Vertical   | 53             | 1.78          | -        |
| 2457MHz                  | Pass   | PK   | 2.4578G      | 109.72            | Inf               | -Inf           | 31.02          | 3           | Vertical   | 53             | 1.78          | -        |
| 2457MHz                  | Pass   | PK   | 2.4848G      | 58.42             | 74.00             | -15.58         | 31.12          | 3           | Vertical   | 53             | 1.78          | -        |
| 2457MHz                  | Pass   | AV   | 2.4562G      | 106.42            | Inf               | -Inf           | 31.01          | 3           | Horizontal | 19             | 2.23          | -        |
| 2457MHz                  | Pass   | AV   | 2.4836G      | 47.41             | 54.00             | -6.59          | 31.11          | 3           | Horizontal | 19             | 2.23          | -        |
| 2457MHz                  | Pass   | PK   | 2.456G       | 109.05            | Inf               | -Inf           | 31.01          | 3           | Horizontal | 19             | 2.23          | -        |
| 2457MHz                  | Pass   | PK   | 2.4838G      | 58.60             | 74.00             | -15.40         | 31.11          | 3           | Horizontal | 19             | 2.23          | -        |
| 2462MHz                  | Pass   | AV   | 2.4612G      | 100.76            | Inf               | -Inf           | 31.03          | 3           | Vertical   | 277            | 1.14          | -        |
| 2462MHz                  | Pass   | AV   | 2.4848G      | 46.30             | 54.00             | -7.70          | 31.12          | 3           | Vertical   | 277            | 1.14          | -        |
| 2462MHz                  | Pass   | PK   | 2.4628G      | 103.29            | Inf               | -Inf           | 31.04          | 3           | Vertical   | 277            | 1.14          | -        |
| 2462MHz                  | Pass   | PK   | 2.4894G      | 57.32             | 74.00             | -16.68         | 31.13          | 3           | Vertical   | 277            | 1.14          | -        |
| 2462MHz                  | Pass   | AV   | 2.4612G      | 97.55             | Inf               | -Inf           | 31.03          | 3           | Horizontal | 176            | 1.32          | -        |
| 2462MHz                  | Pass   | AV   | 2.4848G      | 44.92             | 54.00             | -9.08          | 31.12          | 3           | Horizontal | 176            | 1.32          | -        |
| 2462MHz                  | Pass   | PK   | 2.4628G      | 100.07            | Inf               | -Inf           | 31.04          | 3           | Horizontal | 176            | 1.32          | -        |
| 2462MHz                  | Pass   | PK   | 2.485G       | 57.10             | 74.00             | -16.90         | 31.12          | 3           | Horizontal | 176            | 1.32          | -        |
| 2462MHz                  | Pass   | AV   | 4.92394G     | 36.73             | 54.00             | -17.27         | 2.38           | 3           | Vertical   | 128            | 1.04          | -        |
| 2462MHz                  | Pass   | PK   | 4.92382G     | 45.04             | 74.00             | -28.96         | 2.38           | 3           | Vertical   | 128            | 1.04          | -        |
| 2462MHz                  | Pass   | AV   | 4.92394G     | 31.18             | 54.00             | -22.82         | 2.38           | 3           | Horizontal | 6              | 1.16          | -        |

| 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   | 4.93018G     | 43.64             | 74.00             | -30.36         | 2.40           | 3           | Horizontal | 6              | 1.16          | -        |
| 2467MHz                  | Pass   | AV   | 2.4662G      | 105.85            | Inf               | -Inf           | 32.33          | 3           | Vertical   | 76             | 1.06          | -        |
| 2467MHz                  | Pass   | AV   | 2.4844G      | 51.64             | 54.00             | -2.36          | 32.39          | 3           | Vertical   | 76             | 1.06          | -        |
| 2467MHz                  | Pass   | PK   | 2.468G       | 109.53            | Inf               | -Inf           | 32.33          | 3           | Vertical   | 76             | 1.06          | -        |
| 2467MHz                  | Pass   | PK   | 2.487G       | 61.05             | 74.00             | -12.95         | 32.39          | 3           | Vertical   | 76             | 1.06          | -        |
| 2467MHz                  | Pass   | AV   | 2.4662G      | 106.01            | Inf               | -Inf           | 32.33          | 3           | Horizontal | 83             | 1.28          | -        |
| 2467MHz                  | Pass   | AV   | 2.4842G      | 51.25             | 54.00             | -2.75          | 32.39          | 3           | Horizontal | 83             | 1.28          | -        |
| 2467MHz                  | Pass   | PK   | 2.468G       | 109.82            | Inf               | -Inf           | 32.33          | 3           | Horizontal | 83             | 1.28          | -        |
| 2467MHz                  | Pass   | PK   | 2.4854G      | 59.73             | 74.00             | -14.27         | 32.39          | 3           | Horizontal | 83             | 1.28          | -        |
| 2472MHz                  | Pass   | AV   | 2.4712G      | 104.52            | Inf               | -Inf           | 32.34          | 3           | Vertical   | 77             | 1.11          | -        |
| 2472MHz                  | Pass   | AV   | 2.486G       | 51.24             | 54.00             | -2.76          | 32.39          | 3           | Vertical   | 77             | 1.11          | -        |
| 2472MHz                  | Pass   | PK   | 2.473G       | 108.06            | Inf               | -Inf           | 32.34          | 3           | Vertical   | 77             | 1.11          | -        |
| 2472MHz                  | Pass   | PK   | 2.4848G      | 60.18             | 74.00             | -13.82         | 32.39          | 3           | Vertical   | 77             | 1.11          | -        |
| 2472MHz                  | Pass   | AV   | 2.4712G      | 103.08            | Inf               | -Inf           | 32.34          | 3           | Horizontal | 83             | 1.28          | -        |
| 2472MHz                  | Pass   | AV   | 2.4835G      | 48.92             | 54.00             | -5.08          | 32.38          | 3           | Horizontal | 83             | 1.28          | -        |
| 2472MHz                  | Pass   | PK   | 2.471G       | 106.61            | Inf               | -Inf           | 32.34          | 3           | Horizontal | 83             | 1.28          | -        |
| 2472MHz                  | Pass   | PK   | 2.4835G      | 58.81             | 74.00             | -15.19         | 32.38          | 3           | Horizontal | 83             | 1.28          | -        |
| 2472MHz                  | Pass   | AV   | 4.94404G     | 34.85             | 54.00             | -19.15         | 3.80           | 3           | Vertical   | 306            | 1.18          | -        |
| 2472MHz                  | Pass   | PK   | 4.94635G     | 47.36             | 74.00             | -26.64         | 3.80           | 3           | Vertical   | 306            | 1.18          | -        |
| 2472MHz                  | Pass   | AV   | 4.95048G     | 32.89             | 54.00             | -21.11         | 3.82           | 3           | Horizontal | 350            | 2.01          | -        |
| 2472MHz                  | Pass   | PK   | 4.9341G      | 47.29             | 74.00             | -26.71         | 3.77           | 3           | Horizontal | 350            | 2.01          | -        |
| 802.11g_Nss1,(6Mbps)_1TX | -      | -    | -            | -                 | -                 | -              | -              | -           | -          | -              | -             | -        |
| 2412MHz                  | Pass   | AV   | 2.39G        | 51.61             | 54.00             | -2.39          | 30.77          | 3           | Vertical   | 281            | 1.20          | -        |
| 2412MHz                  | Pass   | AV   | 2.4136G      | 95.40             | Inf               | -Inf           | 30.86          | 3           | Vertical   | 281            | 1.20          | -        |
| 2412MHz                  | Pass   | PK   | 2.3896G      | 68.07             | 74.00             | -5.93          | 30.77          | 3           | Vertical   | 281            | 1.20          | -        |
| 2412MHz                  | Pass   | PK   | 2.411G       | 105.42            | Inf               | -Inf           | 30.85          | 3           | Vertical   | 281            | 1.20          | -        |
| 2412MHz                  | Pass   | AV   | 2.39G        | 46.64             | 54.00             | -7.36          | 30.77          | 3           | Horizontal | 134            | 1.04          | -        |
| 2412MHz                  | Pass   | AV   | 2.4128G      | 89.35             | Inf               | -Inf           | 30.86          | 3           | Horizontal | 134            | 1.04          | -        |
| 2412MHz                  | Pass   | PK   | 2.3898G      | 61.69             | 74.00             | -12.31         | 30.77          | 3           | Horizontal | 134            | 1.04          | -        |
| 2412MHz                  | Pass   | PK   | 2.4142G      | 99.34             | Inf               | -Inf           | 30.86          | 3           | Horizontal | 134            | 1.04          | -        |
| 2412MHz                  | Pass   | AV   | 4.8096G      | 30.52             | 54.00             | -23.48         | 2.10           | 3           | Vertical   | 160            | 1.35          | -        |
| 2412MHz                  | Pass   | PK   | 4.83234G     | 44.40             | 74.00             | -29.60         | 2.15           | 3           | Vertical   | 160            | 1.35          | -        |
| 2412MHz                  | Pass   | AV   | 4.80918G     | 31.11             | 54.00             | -22.89         | 2.09           | 3           | Horizontal | 173            | 1.50          | -        |
| 2412MHz                  | Pass   | PK   | 4.81008G     | 49.64             | 74.00             | -24.36         | 2.10           | 3           | Horizontal | 173            | 1.50          | -        |
| 2417MHz                  | Pass   | AV   | 2.39G        | 51.80             | 54.00             | -2.20          | 30.77          | 3           | Vertical   | 219            | 2.22          | -        |
| 2417MHz                  | Pass   | AV   | 2.4158G      | 99.00             | Inf               | -Inf           | 30.86          | 3           | Vertical   | 219            | 2.22          | -        |
| 2417MHz                  | Pass   | PK   | 2.3892G      | 66.27             | 74.00             | -7.73          | 30.77          | 3           | Vertical   | 219            | 2.22          | -        |
| 2417MHz                  | Pass   | PK   | 2.4182G      | 108.35            | Inf               | -Inf           | 30.87          | 3           | Vertical   | 219            | 2.22          | -        |
| 2417MHz                  | Pass   | AV   | 2.3898G      | 47.79             | 54.00             | -6.21          | 30.77          | 3           | Horizontal | 202            | 1.75          | -        |
| 2417MHz                  | Pass   | AV   | 2.416G       | 92.99             | Inf               | -Inf           | 30.86          | 3           | Horizontal | 202            | 1.75          | -        |
| 2417MHz                  | Pass   | PK   | 2.3882G      | 61.34             | 74.00             | -12.66         | 30.77          | 3           | Horizontal | 202            | 1.75          | -        |
| 2417MHz                  | Pass   | PK   | 2.4148G      | 103.60            | Inf               | -Inf           | 30.86          | 3           | Horizontal | 202            | 1.75          | -        |
| 2437MHz                  | Pass   | AV   | 2.3862G      | 43.69             | 54.00             | -10.31         | 30.76          | 3           | Vertical   | 280            | 1.10          | -        |
| 2437MHz                  | Pass   | AV   | 2.4382G      | 95.71             | Inf               | -Inf           | 30.95          | 3           | Vertical   | 280            | 1.10          | -        |
| 2437MHz                  | Pass   | AV   | 2.4866G      | 44.03             | 54.00             | -9.97          | 31.12          | 3           | Vertical   | 280            | 1.10          | -        |
| 2437MHz                  | Pass   | PK   | 2.3894G      | 55.71             | 74.00             | -18.29         | 30.77          | 3           | Vertical   | 280            | 1.10          | -        |
| 2437MHz                  | Pass   | PK   | 2.4346G      | 105.97            | Inf               | -Inf           | 30.94          | 3           | Vertical   | 280            | 1.10          | -        |
| 2437MHz                  | Pass   | PK   | 2.4886G      | 56.21             | 74.00             | -17.79         | 31.13          | 3           | Vertical   | 280            | 1.10          | -        |
| 2437MHz                  | Pass   | AV   | 2.3874G      | 43.15             | 54.00             | -10.85         | 30.76          | 3           | Horizontal | 133            | 1.22          | -        |

| 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   | AV   | 2.4378G      | 91.18             | Inf               | -Inf           | 30.95          | 3           | Horizontal | 133            | 1.22          | -        |
| 2437MHz | Pass   | AV   | 2.495G       | 43.92             | 54.00             | -10.08         | 31.16          | 3           | Horizontal | 133            | 1.22          | -        |
| 2437MHz | Pass   | PK   | 2.349G       | 55.42             | 74.00             | -18.58         | 30.63          | 3           | Horizontal | 133            | 1.22          | -        |
| 2437MHz | Pass   | PK   | 2.4362G      | 100.80            | Inf               | -Inf           | 30.94          | 3           | Horizontal | 133            | 1.22          | -        |
| 2437MHz | Pass   | PK   | 2.4838G      | 56.26             | 74.00             | -17.74         | 31.11          | 3           | Horizontal | 133            | 1.22          | -        |
| 2437MHz | Pass   | AV   | 4.87562G     | 31.58             | 54.00             | -22.42         | 2.26           | 3           | Vertical   | 138            | 2.97          | -        |
| 2437MHz | Pass   | PK   | 4.87634G     | 44.31             | 74.00             | -29.69         | 2.26           | 3           | Vertical   | 138            | 2.97          | -        |
| 2437MHz | Pass   | AV   | 4.88792G     | 30.58             | 54.00             | -23.42         | 2.29           | 3           | Horizontal | 168            | 2.73          | -        |
| 2437MHz | Pass   | PK   | 4.87868G     | 43.32             | 74.00             | -30.68         | 2.27           | 3           | Horizontal | 168            | 2.73          | -        |
| 2457MHz | Pass   | AV   | 2.456G       | 97.98             | Inf               | -Inf           | 31.01          | 3           | Vertical   | 199            | 2.42          | -        |
| 2457MHz | Pass   | AV   | 2.4835G      | 51.03             | 54.00             | -2.97          | 31.11          | 3           | Vertical   | 199            | 2.42          | -        |
| 2457MHz | Pass   | PK   | 2.4556G      | 108.06            | Inf               | -Inf           | 31.01          | 3           | Vertical   | 199            | 2.42          | -        |
| 2457MHz | Pass   | PK   | 2.4835G      | 69.60             | 74.00             | -4.40          | 31.11          | 3           | Vertical   | 199            | 2.42          | -        |
| 2457MHz | Pass   | AV   | 2.4562G      | 92.42             | Inf               | -Inf           | 31.01          | 3           | Horizontal | 201            | 2.24          | -        |
| 2457MHz | Pass   | AV   | 2.4835G      | 46.06             | 54.00             | -7.94          | 31.11          | 3           | Horizontal | 201            | 2.24          | -        |
| 2457MHz | Pass   | PK   | 2.4546G      | 101.97            | Inf               | -Inf           | 31.00          | 3           | Horizontal | 201            | 2.24          | -        |
| 2457MHz | Pass   | PK   | 2.4848G      | 62.83             | 74.00             | -11.17         | 31.12          | 3           | Horizontal | 201            | 2.24          | -        |
| 2462MHz | Pass   | AV   | 2.4602G      | 93.67             | Inf               | -Inf           | 31.03          | 3           | Vertical   | 274            | 1.16          | -        |
| 2462MHz | Pass   | AV   | 2.4835G      | 52.04             | 54.00             | -1.96          | 31.11          | 3           | Vertical   | 274            | 1.16          | -        |
| 2462MHz | Pass   | PK   | 2.462G       | 104.10            | Inf               | -Inf           | 31.03          | 3           | Vertical   | 274            | 1.16          | -        |
| 2462MHz | Pass   | PK   | 2.4835G      | 69.03             | 74.00             | -4.97          | 31.11          | 3           | Vertical   | 274            | 1.16          | -        |
| 2462MHz | Pass   | AV   | 2.4644G      | 90.85             | Inf               | -Inf           | 31.04          | 3           | Horizontal | 174            | 1.33          | -        |
| 2462MHz | Pass   | AV   | 2.4838G      | 49.32             | 54.00             | -4.68          | 31.11          | 3           | Horizontal | 174            | 1.33          | -        |
| 2462MHz | Pass   | PK   | 2.4622G      | 101.01            | Inf               | -Inf           | 31.03          | 3           | Horizontal | 174            | 1.33          | -        |
| 2462MHz | Pass   | PK   | 2.4835G      | 64.98             | 74.00             | -9.02          | 31.11          | 3           | Horizontal | 174            | 1.33          | -        |
| 2462MHz | Pass   | AV   | 4.92412G     | 31.16             | 54.00             | -22.84         | 2.38           | 3           | Vertical   | 154            | 2.66          | -        |
| 2462MHz | Pass   | PK   | 4.9255G      | 44.17             | 74.00             | -29.83         | 2.39           | 3           | Vertical   | 154            | 2.66          | -        |
| 2462MHz | Pass   | AV   | 4.93228G     | 30.88             | 54.00             | -23.12         | 2.40           | 3           | Horizontal | 17             | 1.50          | -        |
| 2462MHz | Pass   | PK   | 4.93588G     | 43.76             | 74.00             | -30.24         | 2.42           | 3           | Horizontal | 17             | 1.50          | -        |
| 2467MHz | Pass   | AV   | 2.4692G      | 95.62             | Inf               | -Inf           | 32.33          | 3           | Vertical   | 76             | 1.03          | -        |
| 2467MHz | Pass   | AV   | 2.4835G      | 51.91             | 54.00             | -2.09          | 32.38          | 3           | Vertical   | 76             | 1.03          | -        |
| 2467MHz | Pass   | PK   | 2.4668G      | 106.88            | Inf               | -Inf           | 32.33          | 3           | Vertical   | 76             | 1.03          | -        |
| 2467MHz | Pass   | PK   | 2.4835G      | 70.59             | 74.00             | -3.41          | 32.38          | 3           | Vertical   | 76             | 1.03          | -        |
| 2467MHz | Pass   | AV   | 2.4678G      | 95.15             | Inf               | -Inf           | 32.33          | 3           | Horizontal | 84             | 1.02          | -        |
| 2467MHz | Pass   | AV   | 2.4835G      | 50.55             | 54.00             | -3.45          | 32.38          | 3           | Horizontal | 84             | 1.02          | -        |
| 2467MHz | Pass   | PK   | 2.4688G      | 105.14            | Inf               | -Inf           | 32.33          | 3           | Horizontal | 84             | 1.02          | -        |
| 2467MHz | Pass   | PK   | 2.4848G      | 68.75             | 74.00             | -5.25          | 32.39          | 3           | Horizontal | 84             | 1.02          | -        |
| 2472MHz | Pass   | AV   | 2.4728G      | 87.38             | Inf               | -Inf           | 32.34          | 3           | Vertical   | 76             | 1.11          | -        |
| 2472MHz | Pass   | AV   | 2.4835G      | 51.69             | 54.00             | -2.31          | 32.38          | 3           | Vertical   | 76             | 1.11          | -        |
| 2472MHz | Pass   | PK   | 2.4734G      | 98.00             | Inf               | -Inf           | 32.35          | 3           | Vertical   | 76             | 1.11          | -        |
| 2472MHz | Pass   | PK   | 2.4835G      | 72.65             | 74.00             | -1.35          | 32.38          | 3           | Vertical   | 76             | 1.11          | -        |
| 2472MHz | Pass   | AV   | 2.471G       | 86.81             | Inf               | -Inf           | 32.34          | 3           | Horizontal | 86             | 1.01          | -        |
| 2472MHz | Pass   | AV   | 2.4835G      | 51.13             | 54.00             | -2.87          | 32.38          | 3           | Horizontal | 86             | 1.01          | -        |
| 2472MHz | Pass   | PK   | 2.4752G      | 97.21             | Inf               | -Inf           | 32.36          | 3           | Horizontal | 86             | 1.01          | -        |
| 2472MHz | Pass   | PK   | 2.4835G      | 71.87             | 74.00             | -2.13          | 32.38          | 3           | Horizontal | 86             | 1.01          | -        |
| 2472MHz | Pass   | AV   | 4.95816G     | 33.30             | 54.00             | -20.70         | 3.83           | 3           | Vertical   | 151            | 2.37          | -        |
| 2472MHz | Pass   | PK   | 4.95714G     | 46.66             | 74.00             | -27.34         | 3.83           | 3           | Vertical   | 151            | 2.37          | -        |
| 2472MHz | Pass   | AV   | 4.94856G     | 33.38             | 54.00             | -20.62         | 3.81           | 3           | Horizontal | 281            | 1.55          | -        |
| 2472MHz | Pass   | PK   | 4.9572G      | 47.04             | 74.00             | -26.96         | 3.83           | 3           | Horizontal | 281            | 1.55          | -        |

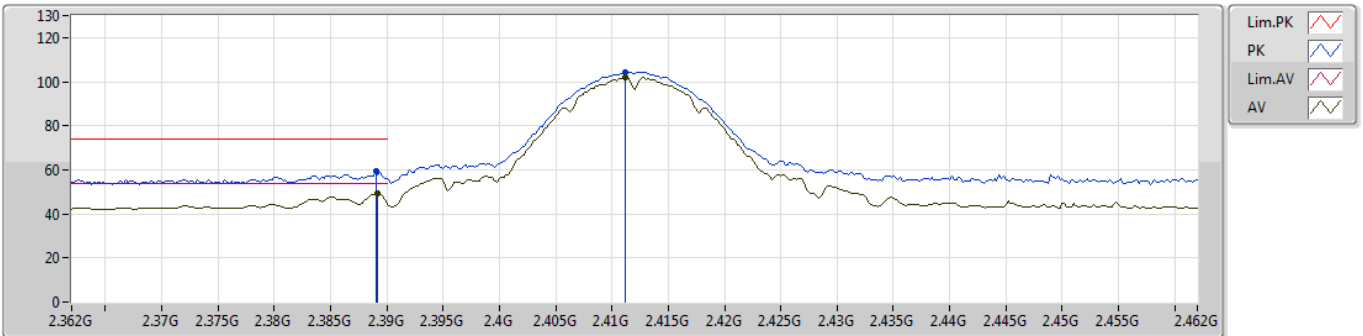
| Mode                         | Result | Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|------------------------------|--------|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| 802.11n HT20_Nss1,(MCS0)_1TX | -      | -    | -            | -                 | -                 | -              | -              | -           | -          | -              | -             | -        |
| 2412MHz                      | Pass   | AV   | 2.39G        | 51.84             | 54.00             | -2.16          | 30.77          | 3           | Vertical   | 220            | 2.24          | -        |
| 2412MHz                      | Pass   | AV   | 2.4126G      | 96.74             | Inf               | -Inf           | 30.86          | 3           | Vertical   | 220            | 2.24          | -        |
| 2412MHz                      | Pass   | PK   | 2.3898G      | 67.27             | 74.00             | -6.73          | 30.77          | 3           | Vertical   | 220            | 2.24          | -        |
| 2412MHz                      | Pass   | PK   | 2.413G       | 107.02            | Inf               | -Inf           | 30.86          | 3           | Vertical   | 220            | 2.24          | -        |
| 2412MHz                      | Pass   | AV   | 2.39G        | 47.31             | 54.00             | -6.69          | 30.77          | 3           | Horizontal | 204            | 1.76          | -        |
| 2412MHz                      | Pass   | AV   | 2.4112G      | 90.75             | Inf               | -Inf           | 30.85          | 3           | Horizontal | 204            | 1.76          | -        |
| 2412MHz                      | Pass   | PK   | 2.39G        | 61.98             | 74.00             | -12.02         | 30.77          | 3           | Horizontal | 204            | 1.76          | -        |
| 2412MHz                      | Pass   | PK   | 2.4102G      | 100.35            | Inf               | -Inf           | 30.85          | 3           | Horizontal | 204            | 1.76          | -        |
| 2412MHz                      | Pass   | AV   | 4.80936G     | 30.59             | 54.00             | -23.41         | 2.09           | 3           | Vertical   | 189            | 1.19          | -        |
| 2412MHz                      | Pass   | PK   | 4.80918G     | 44.86             | 74.00             | -29.14         | 2.09           | 3           | Vertical   | 189            | 1.19          | -        |
| 2412MHz                      | Pass   | AV   | 4.81002G     | 31.10             | 54.00             | -22.90         | 2.10           | 3           | Horizontal | 212            | 2.62          | -        |
| 2412MHz                      | Pass   | PK   | 4.81176G     | 48.97             | 74.00             | -25.03         | 2.10           | 3           | Horizontal | 212            | 2.62          | -        |
| 2417MHz                      | Pass   | AV   | 2.3896G      | 51.14             | 54.00             | -2.86          | 30.77          | 3           | Vertical   | 218            | 2.22          | -        |
| 2417MHz                      | Pass   | AV   | 2.4158G      | 99.13             | Inf               | -Inf           | 30.86          | 3           | Vertical   | 218            | 2.22          | -        |
| 2417MHz                      | Pass   | PK   | 2.389G       | 66.58             | 74.00             | -7.42          | 30.77          | 3           | Vertical   | 218            | 2.22          | -        |
| 2417MHz                      | Pass   | PK   | 2.4154G      | 108.55            | Inf               | -Inf           | 30.86          | 3           | Vertical   | 218            | 2.22          | -        |
| 2417MHz                      | Pass   | AV   | 2.39G        | 47.56             | 54.00             | -6.44          | 30.77          | 3           | Horizontal | 202            | 1.73          | -        |
| 2417MHz                      | Pass   | AV   | 2.415G       | 92.98             | Inf               | -Inf           | 30.86          | 3           | Horizontal | 202            | 1.73          | -        |
| 2417MHz                      | Pass   | PK   | 2.3884G      | 62.74             | 74.00             | -11.26         | 30.77          | 3           | Horizontal | 202            | 1.73          | -        |
| 2417MHz                      | Pass   | PK   | 2.4194G      | 103.09            | Inf               | -Inf           | 30.88          | 3           | Horizontal | 202            | 1.73          | -        |
| 2437MHz                      | Pass   | AV   | 2.3898G      | 44.24             | 54.00             | -9.76          | 30.77          | 3           | Vertical   | 220            | 2.17          | -        |
| 2437MHz                      | Pass   | AV   | 2.4358G      | 98.56             | Inf               | -Inf           | 30.94          | 3           | Vertical   | 220            | 2.17          | -        |
| 2437MHz                      | Pass   | AV   | 2.4858G      | 44.17             | 54.00             | -9.83          | 31.12          | 3           | Vertical   | 220            | 2.17          | -        |
| 2437MHz                      | Pass   | PK   | 2.3886G      | 56.04             | 74.00             | -17.96         | 30.77          | 3           | Vertical   | 220            | 2.17          | -        |
| 2437MHz                      | Pass   | PK   | 2.4338G      | 108.23            | Inf               | -Inf           | 30.93          | 3           | Vertical   | 220            | 2.17          | -        |
| 2437MHz                      | Pass   | PK   | 2.4862G      | 56.43             | 74.00             | -17.57         | 31.12          | 3           | Vertical   | 220            | 2.17          | -        |
| 2437MHz                      | Pass   | AV   | 2.3834G      | 43.12             | 54.00             | -10.88         | 30.75          | 3           | Horizontal | 217            | 2.25          | -        |
| 2437MHz                      | Pass   | AV   | 2.4362G      | 93.39             | Inf               | -Inf           | 30.94          | 3           | Horizontal | 217            | 2.25          | -        |
| 2437MHz                      | Pass   | AV   | 2.493G       | 43.81             | 54.00             | -10.19         | 31.14          | 3           | Horizontal | 217            | 2.25          | -        |
| 2437MHz                      | Pass   | PK   | 2.3566G      | 56.02             | 74.00             | -17.98         | 30.66          | 3           | Horizontal | 217            | 2.25          | -        |
| 2437MHz                      | Pass   | PK   | 2.4354G      | 102.95            | Inf               | -Inf           | 30.94          | 3           | Horizontal | 217            | 2.25          | -        |
| 2437MHz                      | Pass   | PK   | 2.495G       | 56.18             | 74.00             | -17.82         | 31.16          | 3           | Horizontal | 217            | 2.25          | -        |
| 2437MHz                      | Pass   | AV   | 4.88684G     | 30.74             | 54.00             | -23.26         | 2.29           | 3           | Vertical   | 34             | 1.05          | -        |
| 2437MHz                      | Pass   | PK   | 4.86872G     | 43.17             | 74.00             | -30.83         | 2.24           | 3           | Vertical   | 34             | 1.05          | -        |
| 2437MHz                      | Pass   | AV   | 4.88864G     | 30.80             | 54.00             | -23.20         | 2.29           | 3           | Horizontal | 192            | 1.50          | -        |
| 2437MHz                      | Pass   | PK   | 4.88732G     | 43.89             | 74.00             | -30.11         | 2.29           | 3           | Horizontal | 192            | 1.50          | -        |
| 2457MHz                      | Pass   | AV   | 2.4582G      | 97.78             | Inf               | -Inf           | 31.02          | 3           | Vertical   | 203            | 2.43          | -        |
| 2457MHz                      | Pass   | AV   | 2.4835G      | 51.60             | 54.00             | -2.40          | 31.11          | 3           | Vertical   | 203            | 2.43          | -        |
| 2457MHz                      | Pass   | PK   | 2.4584G      | 107.65            | Inf               | -Inf           | 31.02          | 3           | Vertical   | 203            | 2.43          | -        |
| 2457MHz                      | Pass   | PK   | 2.4844G      | 66.84             | 74.00             | -7.16          | 31.12          | 3           | Vertical   | 203            | 2.43          | -        |
| 2457MHz                      | Pass   | AV   | 2.456G       | 92.00             | Inf               | -Inf           | 31.01          | 3           | Horizontal | 203            | 2.24          | -        |
| 2457MHz                      | Pass   | AV   | 2.4835G      | 45.74             | 54.00             | -8.26          | 31.11          | 3           | Horizontal | 203            | 2.24          | -        |
| 2457MHz                      | Pass   | PK   | 2.457G       | 101.37            | Inf               | -Inf           | 31.02          | 3           | Horizontal | 203            | 2.24          | -        |
| 2457MHz                      | Pass   | PK   | 2.4836G      | 60.24             | 74.00             | -13.76         | 31.11          | 3           | Horizontal | 203            | 2.24          | -        |
| 2462MHz                      | Pass   | AV   | 2.4612G      | 96.71             | Inf               | -Inf           | 31.03          | 3           | Vertical   | 220            | 2.42          | -        |
| 2462MHz                      | Pass   | AV   | 2.4838G      | 52.90             | 54.00             | -1.10          | 31.11          | 3           | Vertical   | 220            | 2.42          | -        |
| 2462MHz                      | Pass   | PK   | 2.4602G      | 105.83            | Inf               | -Inf           | 31.03          | 3           | Vertical   | 220            | 2.42          | -        |
| 2462MHz                      | Pass   | PK   | 2.4836G      | 70.32             | 74.00             | -3.68          | 31.11          | 3           | Vertical   | 220            | 2.42          | -        |

| 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   | AV   | 2.461G       | 89.77             | Inf               | -Inf           | 31.03          | 3           | Horizontal | 199            | 1.01          | -        |
| 2462MHz | Pass   | AV   | 2.4835G      | 49.09             | 54.00             | -4.91          | 31.11          | 3           | Horizontal | 199            | 1.01          | -        |
| 2462MHz | Pass   | PK   | 2.464G       | 99.24             | Inf               | -Inf           | 31.04          | 3           | Horizontal | 199            | 1.01          | -        |
| 2462MHz | Pass   | PK   | 2.484G       | 65.70             | 74.00             | -8.30          | 31.12          | 3           | Horizontal | 199            | 1.01          | -        |
| 2462MHz | Pass   | AV   | 4.9297G      | 31.48             | 54.00             | -22.52         | 2.40           | 3           | Vertical   | 147            | 2.97          | -        |
| 2462MHz | Pass   | PK   | 4.92424G     | 43.95             | 74.00             | -30.05         | 2.38           | 3           | Vertical   | 147            | 2.97          | -        |
| 2462MHz | Pass   | AV   | 4.93204G     | 31.33             | 54.00             | -22.67         | 2.40           | 3           | Horizontal | 40             | 2.98          | -        |
| 2462MHz | Pass   | PK   | 4.90936G     | 43.64             | 74.00             | -30.36         | 2.34           | 3           | Horizontal | 40             | 2.98          | -        |
| 2467MHz | Pass   | AV   | 2.4682G      | 95.13             | Inf               | -Inf           | 32.33          | 3           | Vertical   | 76             | 1.01          | -        |
| 2467MHz | Pass   | AV   | 2.4835G      | 52.79             | 54.00             | -1.21          | 32.38          | 3           | Vertical   | 76             | 1.01          | -        |
| 2467MHz | Pass   | PK   | 2.4708G      | 105.35            | Inf               | -Inf           | 32.34          | 3           | Vertical   | 76             | 1.01          | -        |
| 2467MHz | Pass   | PK   | 2.4838G      | 71.55             | 74.00             | -2.45          | 32.38          | 3           | Vertical   | 76             | 1.01          | -        |
| 2467MHz | Pass   | AV   | 2.4658G      | 95.36             | Inf               | -Inf           | 32.32          | 3           | Horizontal | 85             | 1.01          | -        |
| 2467MHz | Pass   | AV   | 2.4835G      | 52.34             | 54.00             | -1.66          | 32.38          | 3           | Horizontal | 85             | 1.01          | -        |
| 2467MHz | Pass   | PK   | 2.4694G      | 105.59            | Inf               | -Inf           | 32.33          | 3           | Horizontal | 85             | 1.01          | -        |
| 2467MHz | Pass   | PK   | 2.4838G      | 72.66             | 74.00             | -1.34          | 32.38          | 3           | Horizontal | 85             | 1.01          | -        |
| 2472MHz | Pass   | AV   | 2.4698G      | 85.92             | Inf               | -Inf           | 32.34          | 3           | Vertical   | 76             | 1.06          | -        |
| 2472MHz | Pass   | AV   | 2.4835G      | 50.75             | 54.00             | -3.25          | 32.38          | 3           | Vertical   | 76             | 1.06          | -        |
| 2472MHz | Pass   | PK   | 2.474G       | 95.69             | Inf               | -Inf           | 32.35          | 3           | Vertical   | 76             | 1.06          | -        |
| 2472MHz | Pass   | PK   | 2.4835G      | 72.21             | 74.00             | -1.79          | 32.38          | 3           | Vertical   | 76             | 1.06          | -        |
| 2472MHz | Pass   | AV   | 2.4704G      | 85.02             | Inf               | -Inf           | 32.34          | 3           | Horizontal | 84             | 1.01          | -        |
| 2472MHz | Pass   | AV   | 2.4835G      | 50.09             | 54.00             | -3.91          | 32.38          | 3           | Horizontal | 84             | 1.01          | -        |
| 2472MHz | Pass   | PK   | 2.4746G      | 95.32             | Inf               | -Inf           | 32.35          | 3           | Horizontal | 84             | 1.01          | -        |
| 2472MHz | Pass   | PK   | 2.4835G      | 70.80             | 74.00             | -3.20          | 32.38          | 3           | Horizontal | 84             | 1.01          | -        |
| 2472MHz | Pass   | AV   | 4.95726G     | 33.39             | 54.00             | -20.61         | 3.83           | 3           | Vertical   | 135            | 2.09          | -        |
| 2472MHz | Pass   | PK   | 4.93332G     | 46.35             | 74.00             | -27.65         | 3.77           | 3           | Vertical   | 135            | 2.09          | -        |
| 2472MHz | Pass   | AV   | 4.94904G     | 33.36             | 54.00             | -20.64         | 3.81           | 3           | Horizontal | 289            | 1.77          | -        |
| 2472MHz | Pass   | PK   | 4.94202G     | 47.14             | 74.00             | -26.86         | 3.80           | 3           | Horizontal | 289            | 1.77          | -        |

## 802.11b\_Nss1,(1Mbps)\_1TX

21/01/2019

### 2412MHz\_TX

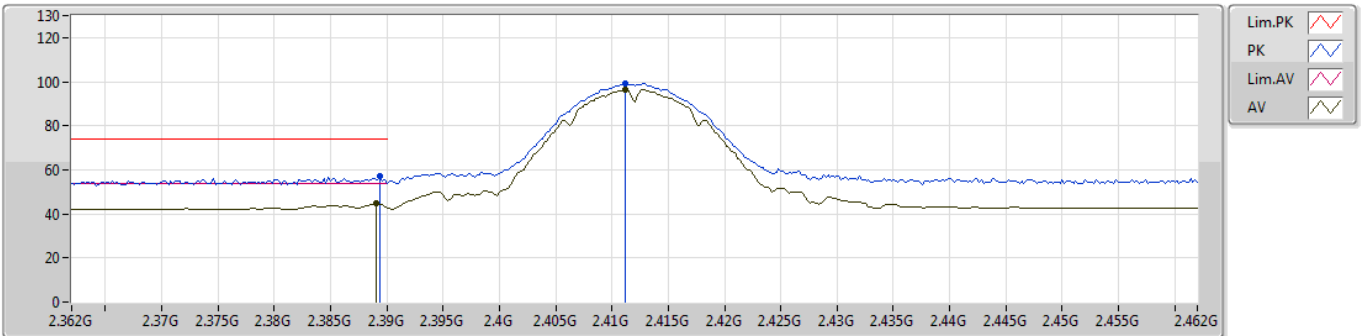


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 2.3892G      | 49.36             | 54.00             | -4.64          | 30.77          | 3           | Vertical  | 282            | 1.19          | -        |
| AV   | 2.4112G      | 101.98            | Inf               | -Inf           | 30.85          | 3           | Vertical  | 282            | 1.19          | -        |
| PK   | 2.389G       | 59.26             | 74.00             | -14.74         | 30.77          | 3           | Vertical  | 282            | 1.19          | -        |
| PK   | 2.4112G      | 104.41            | Inf               | -Inf           | 30.85          | 3           | Vertical  | 282            | 1.19          | -        |

## 802.11b\_Nss1,(1Mbps)\_1TX

21/01/2019

## 2412MHz\_TX

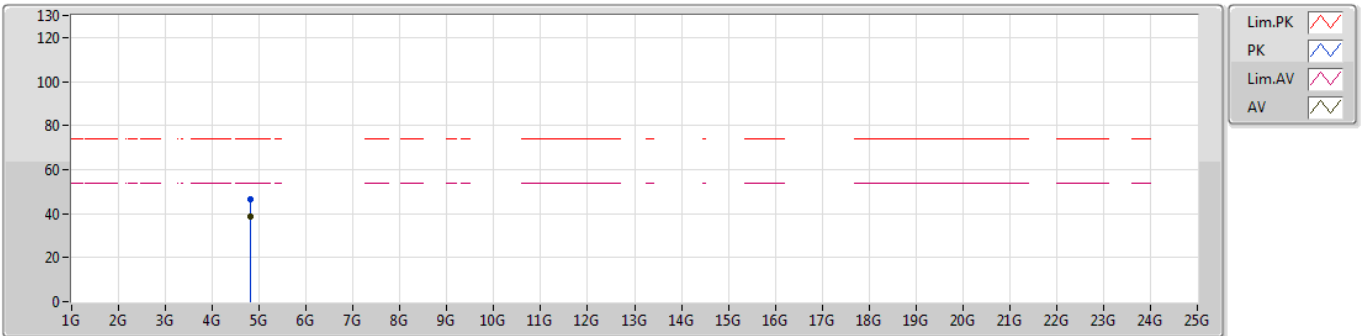


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| AV   | 2.389G       | 44.70             | 54.00             | -9.30          | 30.77          | 3           | Horizontal | 137            | 1.19          | -        |
| AV   | 2.4112G      | 96.56             | Inf               | -Inf           | 30.85          | 3           | Horizontal | 137            | 1.19          | -        |
| PK   | 2.3894G      | 57.30             | 74.00             | -16.70         | 30.77          | 3           | Horizontal | 137            | 1.19          | -        |
| PK   | 2.4112G      | 98.95             | Inf               | -Inf           | 30.85          | 3           | Horizontal | 137            | 1.19          | -        |

# 802.11b\_Nss1,(1Mbps)\_1TX

21/01/2019

## 2412MHz\_TX

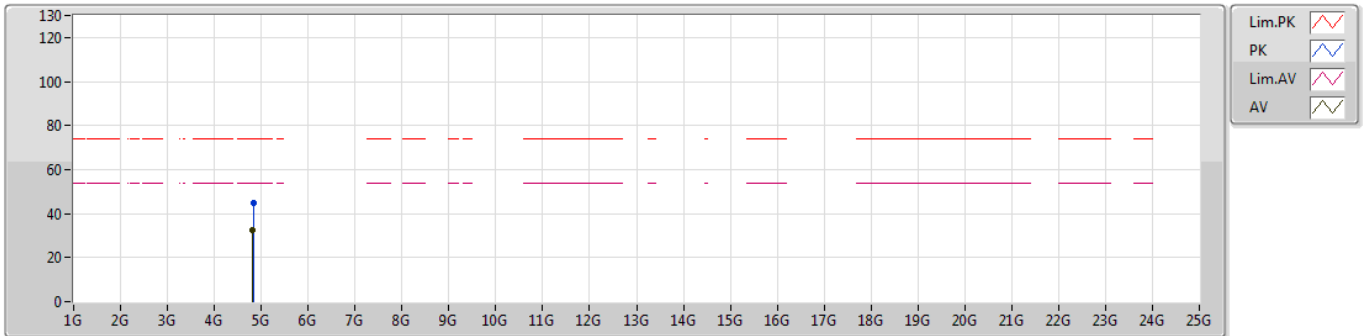


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 4.824G       | 38.79             | 54.00             | -15.21         | 2.13           | 3           | Vertical  | 144            | 2.64          | -        |
| PK   | 4.82394G     | 46.64             | 74.00             | -27.36         | 2.13           | 3           | Vertical  | 144            | 2.64          | -        |

## 802.11b\_Nss1,(1Mbps)\_1TX

21/01/2019

## 2412MHz\_TX

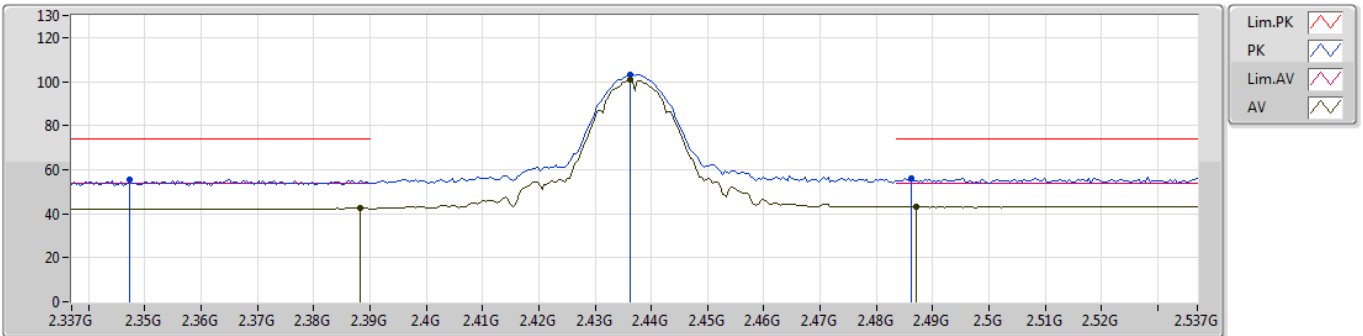


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| AV   | 4.824G       | 32.72             | 54.00             | -21.28         | 2.13           | 3           | Horizontal | 102            | 2.97          | -        |
| PK   | 4.82778G     | 44.78             | 74.00             | -29.22         | 2.14           | 3           | Horizontal | 102            | 2.97          | -        |

## 802.11b\_Nss1,(1Mbps)\_1TX

22/01/2019

## 2437MHz\_TX

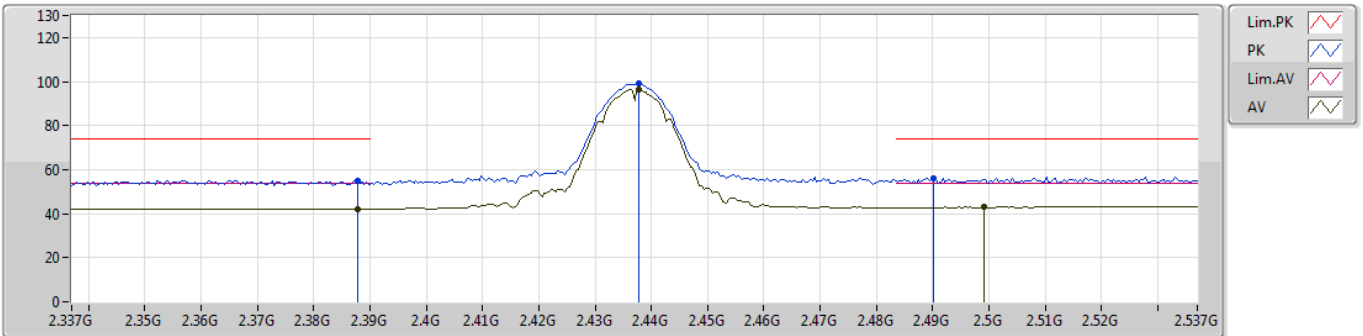


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 2.3882G      | 42.50             | 54.00             | -11.50         | 30.77          | 3           | Vertical  | 286            | 1.40          | -        |
| AV   | 2.4362G      | 100.81            | Inf               | -Inf           | 30.94          | 3           | Vertical  | 286            | 1.40          | -        |
| AV   | 2.487G       | 43.00             | 54.00             | -11.00         | 31.12          | 3           | Vertical  | 286            | 1.40          | -        |
| PK   | 2.3474G      | 55.41             | 74.00             | -18.59         | 30.62          | 3           | Vertical  | 286            | 1.40          | -        |
| PK   | 2.4362G      | 103.33            | Inf               | -Inf           | 30.94          | 3           | Vertical  | 286            | 1.40          | -        |
| PK   | 2.4862G      | 56.08             | 74.00             | -17.92         | 31.12          | 3           | Vertical  | 286            | 1.40          | -        |

## 802.11b\_Nss1,(1Mbps)\_1TX

22/01/2019

## 2437MHz\_TX

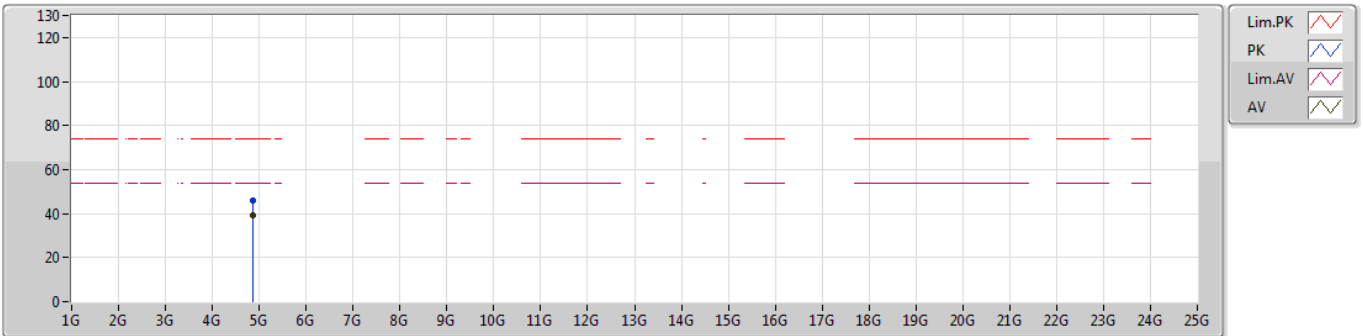


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| AV   | 2.3878G      | 42.17             | 54.00             | -11.83         | 30.77          | 3           | Horizontal | 136            | 1.27          | -        |
| AV   | 2.4378G      | 96.49             | Inf               | -Inf           | 30.95          | 3           | Horizontal | 136            | 1.27          | -        |
| AV   | 2.499G       | 42.90             | 54.00             | -11.10         | 31.17          | 3           | Horizontal | 136            | 1.27          | -        |
| PK   | 2.3878G      | 55.10             | 74.00             | -18.90         | 30.77          | 3           | Horizontal | 136            | 1.27          | -        |
| PK   | 2.4378G      | 99.04             | Inf               | -Inf           | 30.95          | 3           | Horizontal | 136            | 1.27          | -        |
| PK   | 2.4902G      | 55.94             | 74.00             | -18.06         | 31.13          | 3           | Horizontal | 136            | 1.27          | -        |

## 802.11b\_Nss1,(1Mbps)\_1TX

22/01/2019

### 2437MHz\_TX

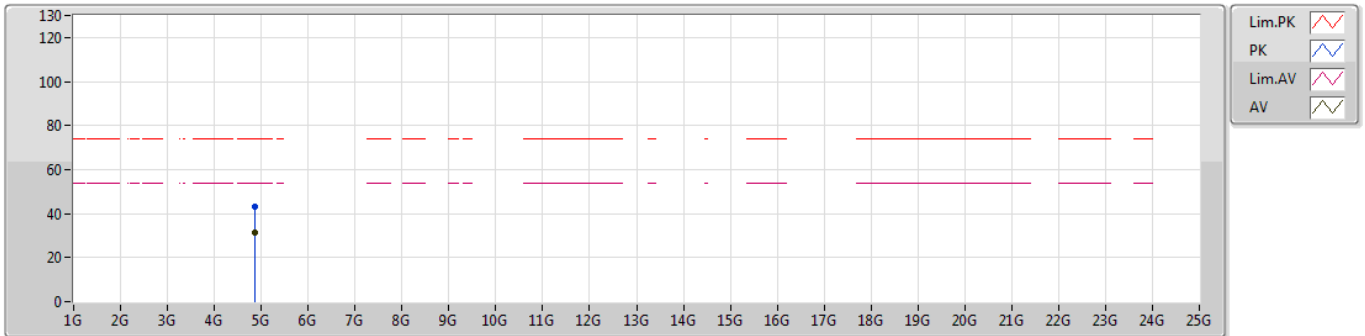


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 4.874G       | 39.08             | 54.00             | -14.92         | 2.25           | 3           | Vertical  | 137            | 2.74          | -        |
| PK   | 4.87388G     | 45.80             | 74.00             | -28.20         | 2.25           | 3           | Vertical  | 137            | 2.74          | -        |

## 802.11b\_Nss1,(1Mbps)\_1TX

22/01/2019

### 2437MHz\_TX

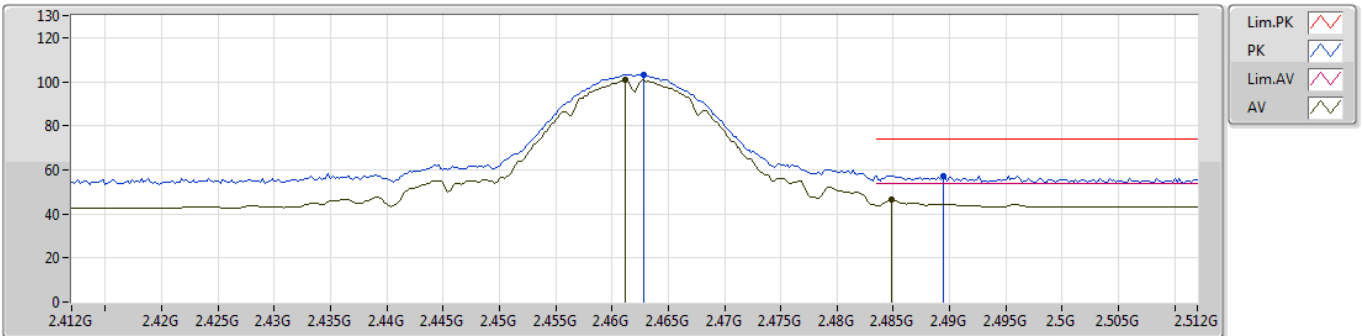


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| AV   | 4.874G       | 31.59             | 54.00             | -22.41         | 2.25           | 3           | Horizontal | 344            | 1.23          | -        |
| PK   | 4.87418G     | 43.18             | 74.00             | -30.82         | 2.25           | 3           | Horizontal | 344            | 1.23          | -        |

## 802.11b\_Nss1,(1Mbps)\_1TX

22/01/2019

### 2462MHz\_TX

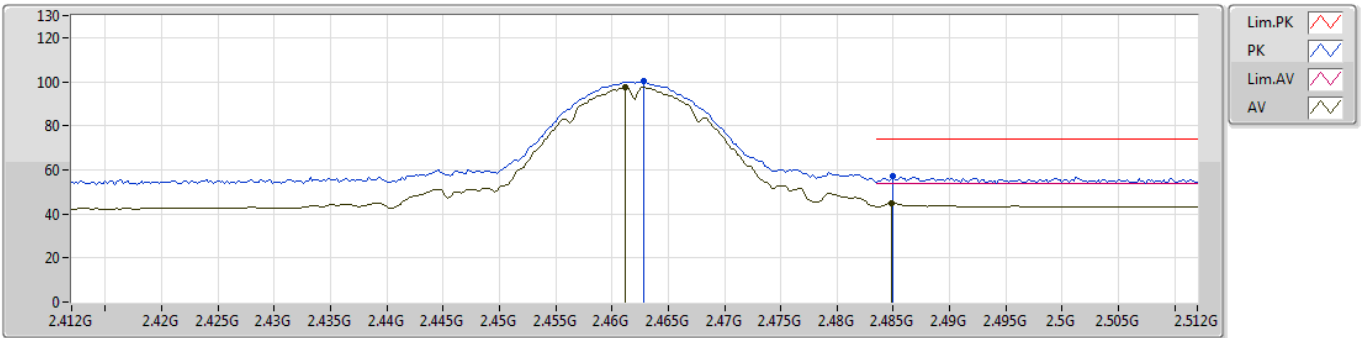


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 2.4612G      | 100.76            | Inf               | -Inf           | 31.03          | 3           | Vertical  | 277            | 1.14          | -        |
| AV   | 2.4848G      | 46.30             | 54.00             | -7.70          | 31.12          | 3           | Vertical  | 277            | 1.14          | -        |
| PK   | 2.4628G      | 103.29            | Inf               | -Inf           | 31.04          | 3           | Vertical  | 277            | 1.14          | -        |
| PK   | 2.4894G      | 57.32             | 74.00             | -16.68         | 31.13          | 3           | Vertical  | 277            | 1.14          | -        |

## 802.11b\_Nss1,(1Mbps)\_1TX

22/01/2019

### 2462MHz\_TX

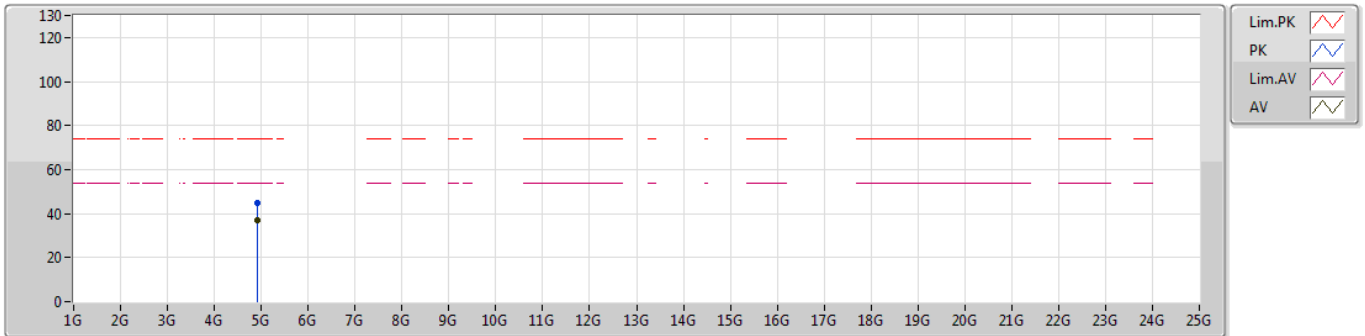


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| AV   | 2.4612G      | 97.55             | Inf               | -Inf           | 31.03          | 3           | Horizontal | 176            | 1.32          | -        |
| AV   | 2.4848G      | 44.92             | 54.00             | -9.08          | 31.12          | 3           | Horizontal | 176            | 1.32          | -        |
| PK   | 2.4628G      | 100.07            | Inf               | -Inf           | 31.04          | 3           | Horizontal | 176            | 1.32          | -        |
| PK   | 2.485G       | 57.10             | 74.00             | -16.90         | 31.12          | 3           | Horizontal | 176            | 1.32          | -        |

# 802.11b\_Nss1,(1Mbps)\_1TX

22/01/2019

## 2462MHz\_TX

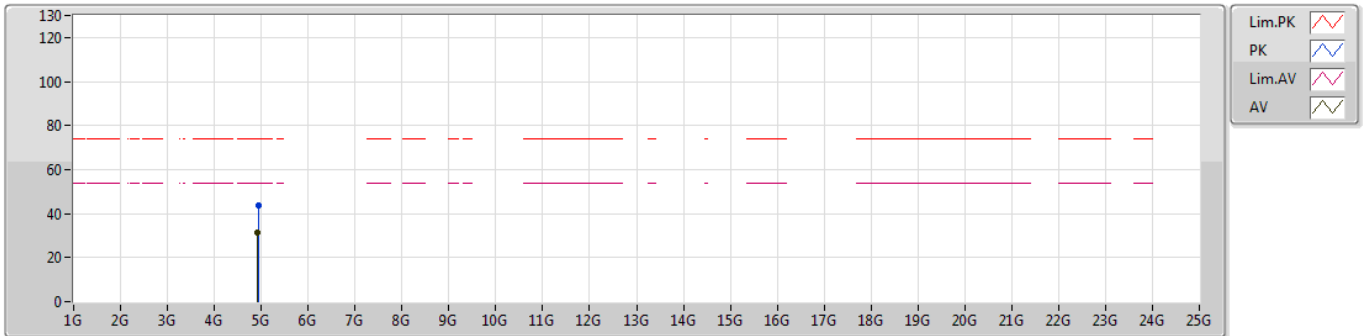


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 4.92394G     | 36.73             | 54.00             | -17.27         | 2.38           | 3           | Vertical  | 128            | 1.04          | -        |
| PK   | 4.92382G     | 45.04             | 74.00             | -28.96         | 2.38           | 3           | Vertical  | 128            | 1.04          | -        |

## 802.11b\_Nss1,(1Mbps)\_1TX

22/01/2019

## 2462MHz\_TX

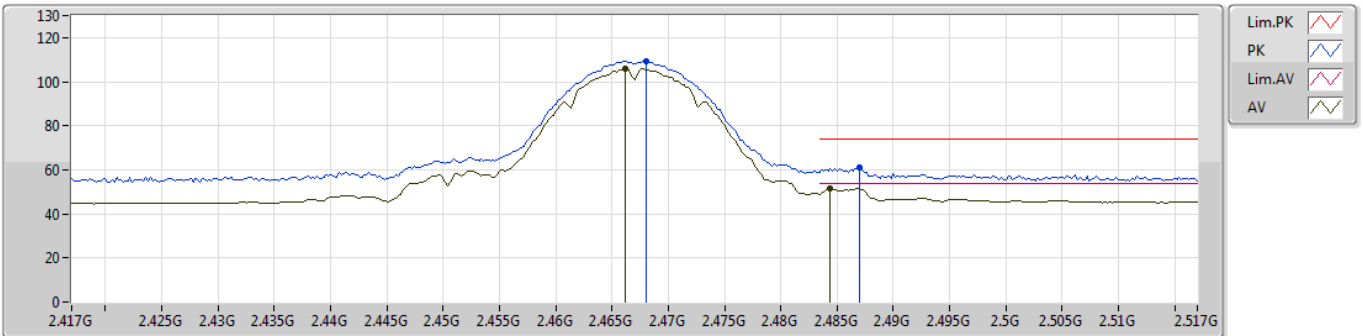


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| AV   | 4.92394G     | 31.18             | 54.00             | -22.82         | 2.38           | 3           | Horizontal | 6              | 1.16          | -        |
| PK   | 4.93018G     | 43.64             | 74.00             | -30.36         | 2.40           | 3           | Horizontal | 6              | 1.16          | -        |

## 802.11b\_Nss1,(1Mbps)\_1TX

08/03/2019

## 2467MHz\_TX

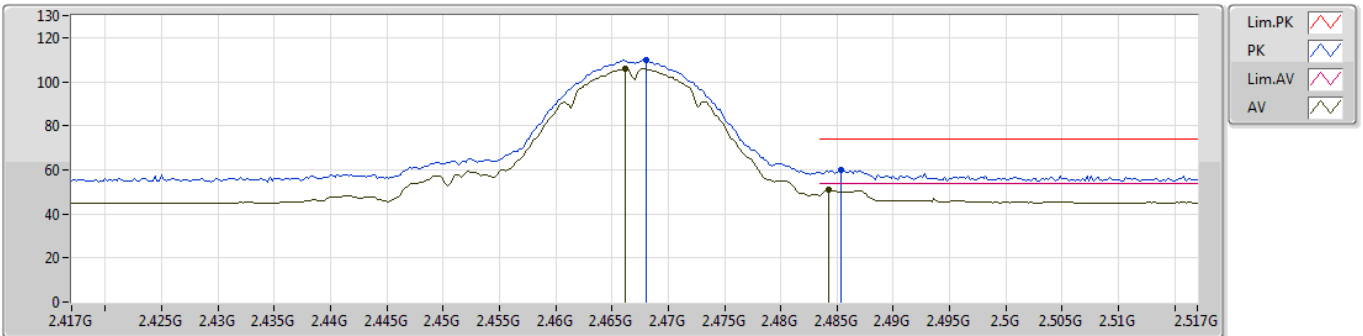


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 2.4662G      | 105.85            | Inf               | -Inf           | 32.33          | 3           | Vertical  | 76             | 1.06          | -        |
| AV   | 2.4844G      | 51.64             | 54.00             | -2.36          | 32.39          | 3           | Vertical  | 76             | 1.06          | -        |
| PK   | 2.468G       | 109.53            | Inf               | -Inf           | 32.33          | 3           | Vertical  | 76             | 1.06          | -        |
| PK   | 2.487G       | 61.05             | 74.00             | -12.95         | 32.39          | 3           | Vertical  | 76             | 1.06          | -        |

## 802.11b\_Nss1,(1Mbps)\_1TX

08/03/2019

## 2467MHz\_TX

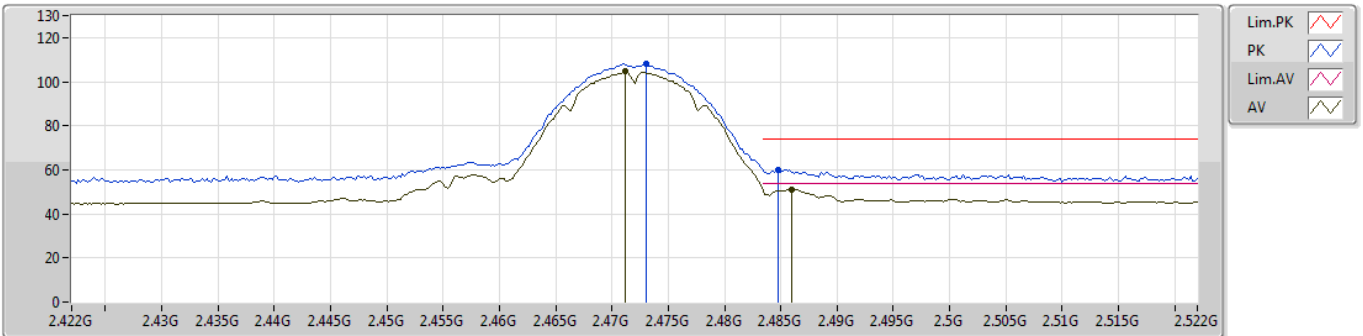


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| AV   | 2.4662G      | 106.01            | Inf               | -Inf           | 32.33          | 3           | Horizontal | 83             | 1.28          | -        |
| AV   | 2.4842G      | 51.25             | 54.00             | -2.75          | 32.39          | 3           | Horizontal | 83             | 1.28          | -        |
| PK   | 2.468G       | 109.82            | Inf               | -Inf           | 32.33          | 3           | Horizontal | 83             | 1.28          | -        |
| PK   | 2.4854G      | 59.73             | 74.00             | -14.27         | 32.39          | 3           | Horizontal | 83             | 1.28          | -        |

## 802.11b\_Nss1,(1Mbps)\_1TX

08/03/2019

## 2472MHz\_TX

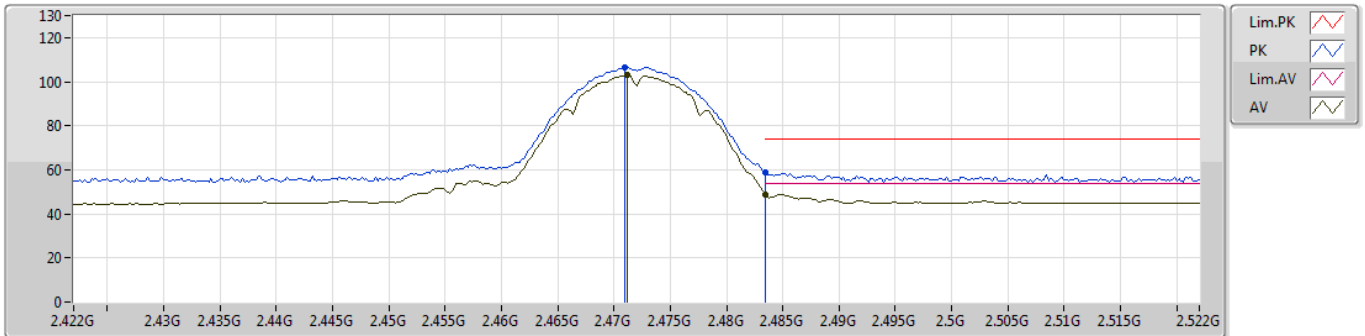


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 2.4712G      | 104.52            | Inf               | -Inf           | 32.34          | 3           | Vertical  | 77             | 1.11          | -        |
| AV   | 2.486G       | 51.24             | 54.00             | -2.76          | 32.39          | 3           | Vertical  | 77             | 1.11          | -        |
| PK   | 2.473G       | 108.06            | Inf               | -Inf           | 32.34          | 3           | Vertical  | 77             | 1.11          | -        |
| PK   | 2.4848G      | 60.18             | 74.00             | -13.82         | 32.39          | 3           | Vertical  | 77             | 1.11          | -        |

## 802.11b\_Nss1,(1Mbps)\_1TX

08/03/2019

## 2472MHz\_TX

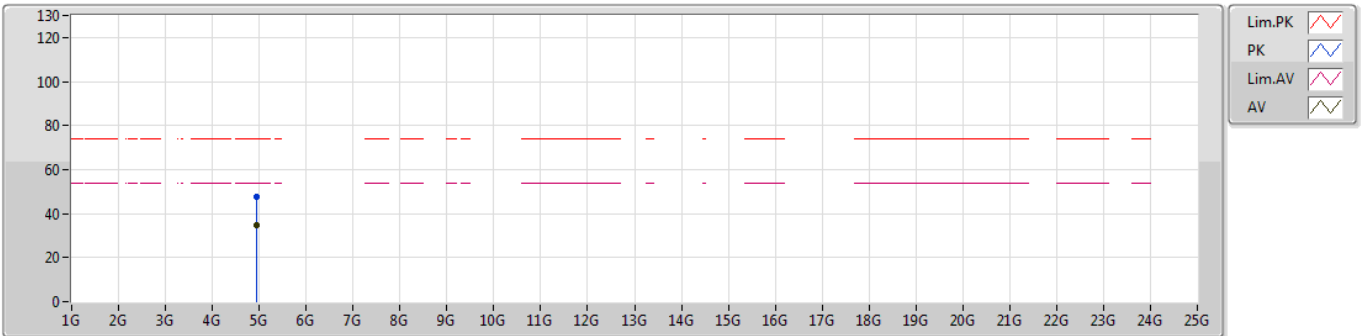


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| AV   | 2.4712G      | 103.08            | Inf               | -Inf           | 32.34          | 3           | Horizontal | 83             | 1.28          | -        |
| AV   | 2.4835G      | 48.92             | 54.00             | -5.08          | 32.38          | 3           | Horizontal | 83             | 1.28          | -        |
| PK   | 2.471G       | 106.61            | Inf               | -Inf           | 32.34          | 3           | Horizontal | 83             | 1.28          | -        |
| PK   | 2.4835G      | 58.81             | 74.00             | -15.19         | 32.38          | 3           | Horizontal | 83             | 1.28          | -        |

# 802.11b\_Nss1,(1Mbps)\_1TX

08/03/2019

## 2472MHz\_TX

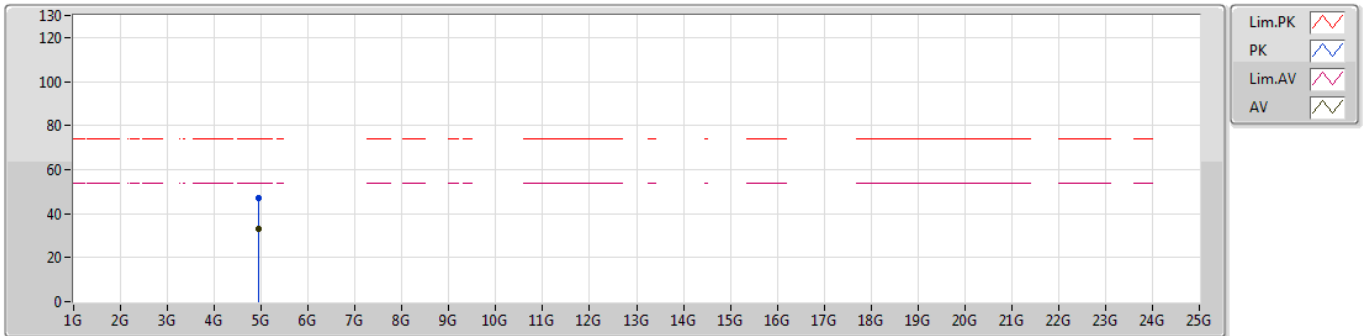


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 4.94404G     | 34.85             | 54.00             | -19.15         | 3.80           | 3           | Vertical  | 306            | 1.18          | -        |
| PK   | 4.94635G     | 47.36             | 74.00             | -26.64         | 3.80           | 3           | Vertical  | 306            | 1.18          | -        |

## 802.11b\_Nss1,(1Mbps)\_1TX

08/03/2019

## 2472MHz\_TX

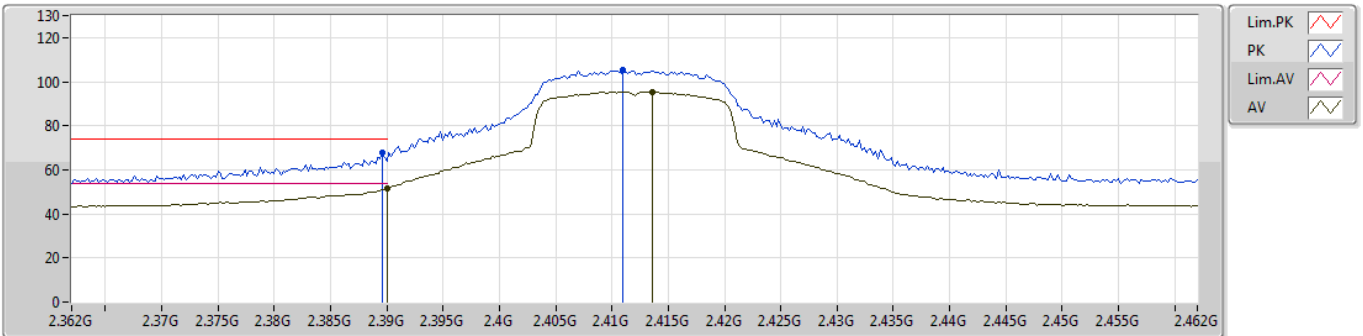


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| AV   | 4.95048G     | 32.89             | 54.00             | -21.11         | 3.82           | 3           | Horizontal | 350            | 2.01          | -        |
| PK   | 4.9341G      | 47.29             | 74.00             | -26.71         | 3.77           | 3           | Horizontal | 350            | 2.01          | -        |

## 802.11g\_Nss1,(6Mbps)\_1TX

22/01/2019

## 2412MHz\_TX

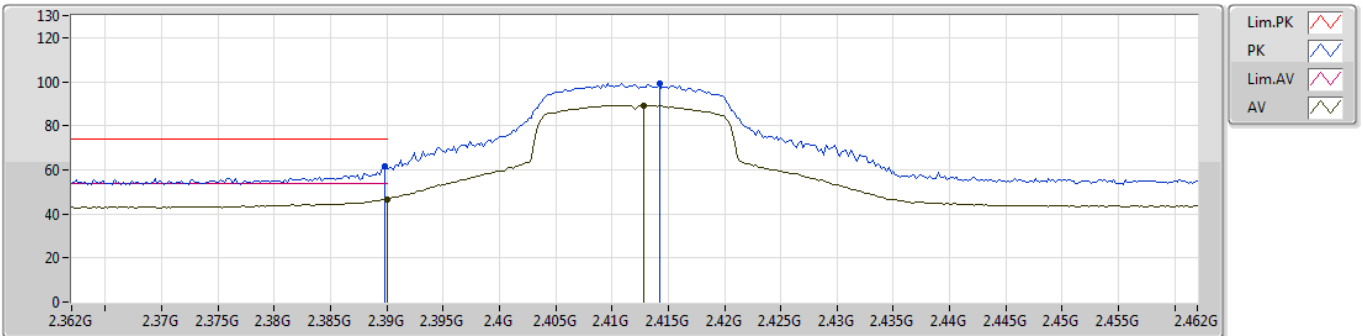


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 2.39G        | 51.61             | 54.00             | -2.39          | 30.77          | 3           | Vertical  | 281            | 1.20          | -        |
| AV   | 2.4136G      | 95.40             | Inf               | -Inf           | 30.86          | 3           | Vertical  | 281            | 1.20          | -        |
| PK   | 2.3896G      | 68.07             | 74.00             | -5.93          | 30.77          | 3           | Vertical  | 281            | 1.20          | -        |
| PK   | 2.411G       | 105.42            | Inf               | -Inf           | 30.85          | 3           | Vertical  | 281            | 1.20          | -        |

## 802.11g\_Nss1,(6Mbps)\_1TX

22/01/2019

## 2412MHz\_TX

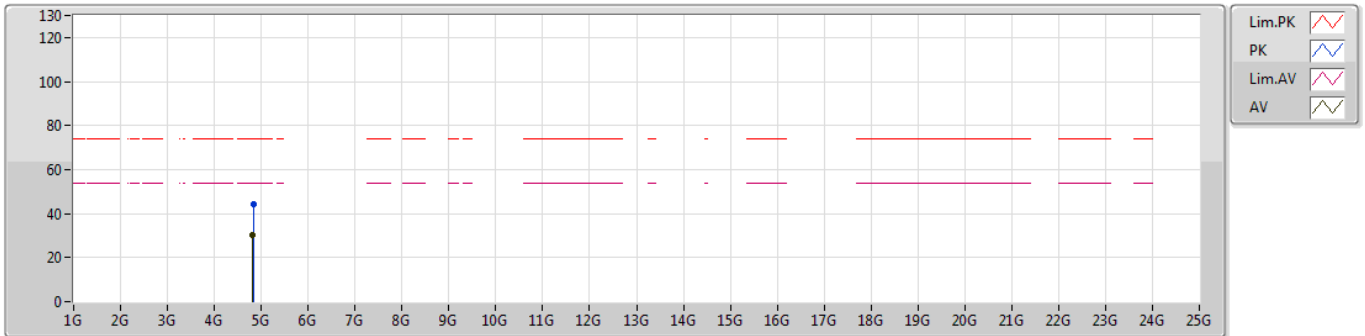


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| AV   | 2.39G        | 46.64             | 54.00             | -7.36          | 30.77          | 3           | Horizontal | 134            | 1.04          | -        |
| AV   | 2.4128G      | 89.35             | Inf               | -Inf           | 30.86          | 3           | Horizontal | 134            | 1.04          | -        |
| PK   | 2.3898G      | 61.69             | 74.00             | -12.31         | 30.77          | 3           | Horizontal | 134            | 1.04          | -        |
| PK   | 2.4142G      | 99.34             | Inf               | -Inf           | 30.86          | 3           | Horizontal | 134            | 1.04          | -        |

# 802.11g\_Nss1,(6Mbps)\_1TX

22/01/2019

## 2412MHz\_TX

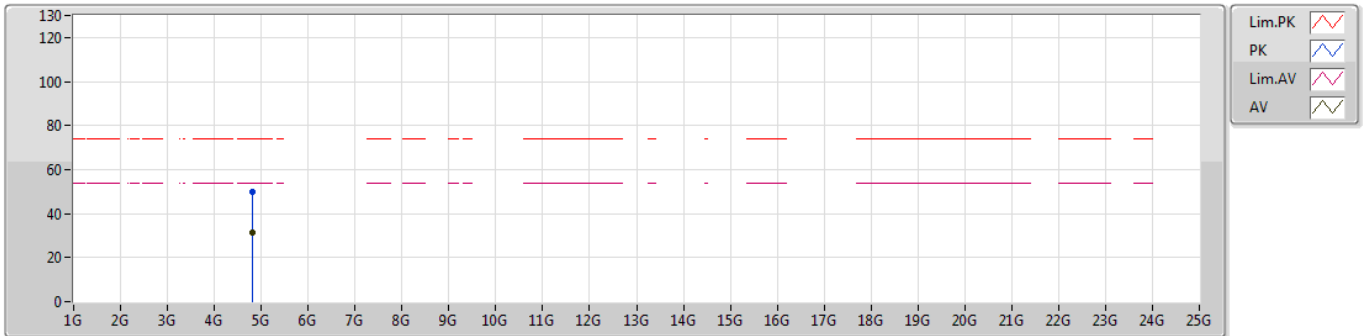


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 4.8096G      | 30.52             | 54.00             | -23.48         | 2.10           | 3           | Vertical  | 160            | 1.35          | -        |
| PK   | 4.83234G     | 44.40             | 74.00             | -29.60         | 2.15           | 3           | Vertical  | 160            | 1.35          | -        |

## 802.11g\_Nss1,(6Mbps)\_1TX

22/01/2019

## 2412MHz\_TX

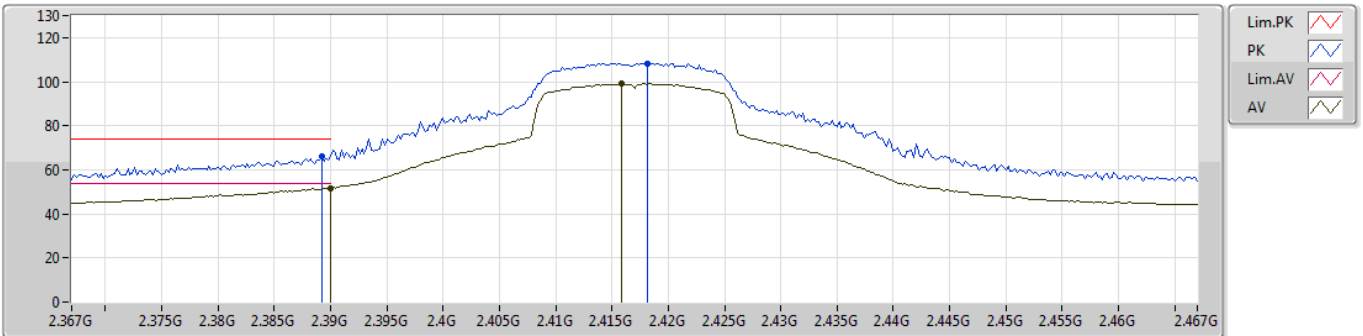


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| AV   | 4.80918G     | 31.11             | 54.00             | -22.89         | 2.09           | 3           | Horizontal | 173            | 1.50          | -        |
| PK   | 4.81008G     | 49.64             | 74.00             | -24.36         | 2.10           | 3           | Horizontal | 173            | 1.50          | -        |

## 802.11g\_Nss1,(6Mbps)\_1TX

22/01/2019

## 2417MHz\_TX

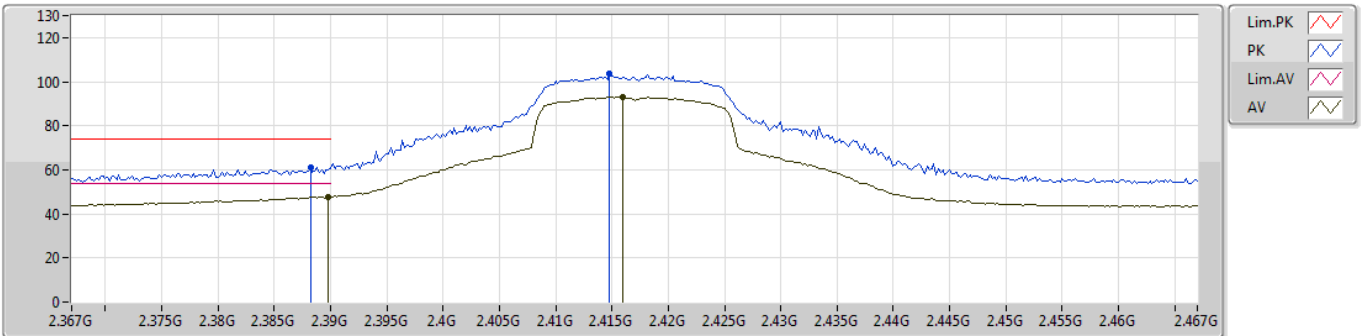


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 2.39G        | 51.80             | 54.00             | -2.20          | 30.77          | 3           | Vertical  | 219            | 2.22          | -        |
| AV   | 2.4158G      | 99.00             | Inf               | -Inf           | 30.86          | 3           | Vertical  | 219            | 2.22          | -        |
| PK   | 2.3892G      | 66.27             | 74.00             | -7.73          | 30.77          | 3           | Vertical  | 219            | 2.22          | -        |
| PK   | 2.4182G      | 108.35            | Inf               | -Inf           | 30.87          | 3           | Vertical  | 219            | 2.22          | -        |

## 802.11g\_Nss1,(6Mbps)\_1TX

22/01/2019

## 2417MHz\_TX

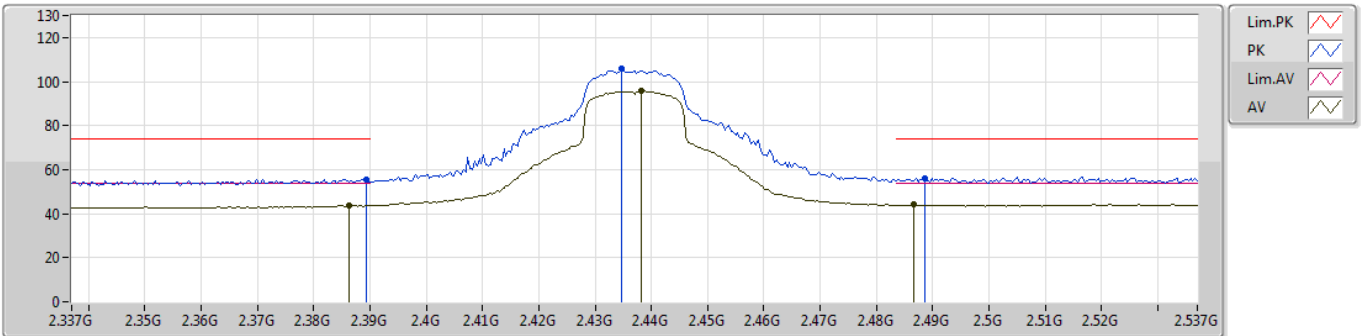


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| AV   | 2.3898G      | 47.79             | 54.00             | -6.21          | 30.77          | 3           | Horizontal | 202            | 1.75          | -        |
| AV   | 2.416G       | 92.99             | Inf               | -Inf           | 30.86          | 3           | Horizontal | 202            | 1.75          | -        |
| PK   | 2.3882G      | 61.34             | 74.00             | -12.66         | 30.77          | 3           | Horizontal | 202            | 1.75          | -        |
| PK   | 2.4148G      | 103.60            | Inf               | -Inf           | 30.86          | 3           | Horizontal | 202            | 1.75          | -        |

## 802.11g\_Nss1,(6Mbps)\_1TX

22/01/2019

## 2437MHz\_TX

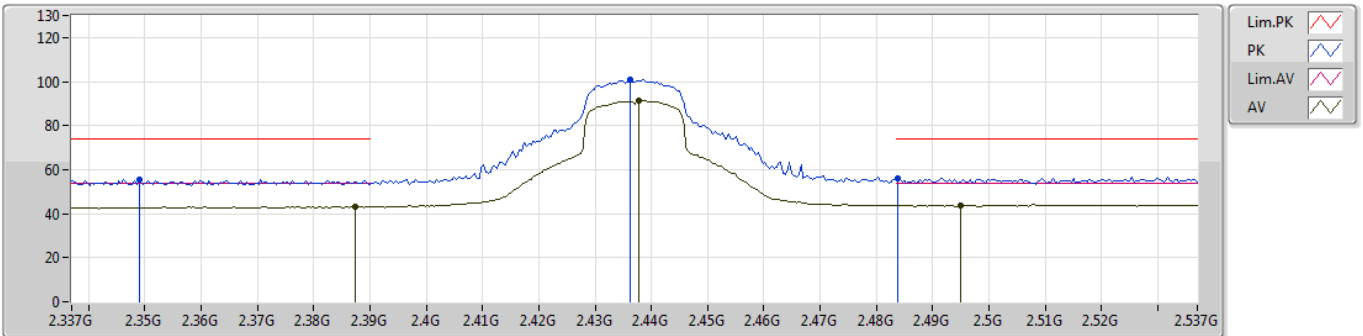


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 2.3862G      | 43.69             | 54.00             | -10.31         | 30.76          | 3           | Vertical  | 280            | 1.10          | -        |
| AV   | 2.4382G      | 95.71             | Inf               | -Inf           | 30.95          | 3           | Vertical  | 280            | 1.10          | -        |
| AV   | 2.4866G      | 44.03             | 54.00             | -9.97          | 31.12          | 3           | Vertical  | 280            | 1.10          | -        |
| PK   | 2.3894G      | 55.71             | 74.00             | -18.29         | 30.77          | 3           | Vertical  | 280            | 1.10          | -        |
| PK   | 2.4346G      | 105.97            | Inf               | -Inf           | 30.94          | 3           | Vertical  | 280            | 1.10          | -        |
| PK   | 2.4886G      | 56.21             | 74.00             | -17.79         | 31.13          | 3           | Vertical  | 280            | 1.10          | -        |

## 802.11g\_Nss1,(6Mbps)\_1TX

22/01/2019

## 2437MHz\_TX

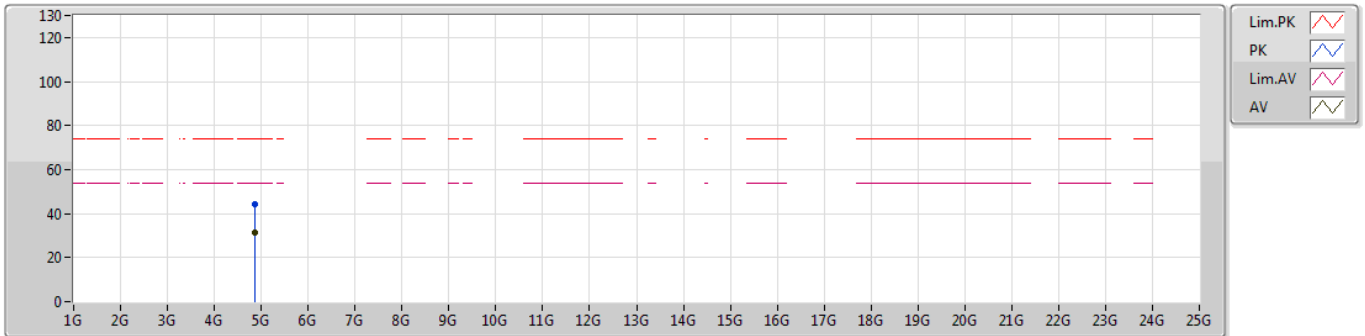


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| AV   | 2.3874G      | 43.15             | 54.00             | -10.85         | 30.76          | 3           | Horizontal | 133            | 1.22          | -        |
| AV   | 2.4378G      | 91.18             | Inf               | -Inf           | 30.95          | 3           | Horizontal | 133            | 1.22          | -        |
| AV   | 2.495G       | 43.92             | 54.00             | -10.08         | 31.16          | 3           | Horizontal | 133            | 1.22          | -        |
| PK   | 2.349G       | 55.42             | 74.00             | -18.58         | 30.63          | 3           | Horizontal | 133            | 1.22          | -        |
| PK   | 2.4362G      | 100.80            | Inf               | -Inf           | 30.94          | 3           | Horizontal | 133            | 1.22          | -        |
| PK   | 2.4838G      | 56.26             | 74.00             | -17.74         | 31.11          | 3           | Horizontal | 133            | 1.22          | -        |

### 802.11g\_Nss1,(6Mbps)\_1TX

22/01/2019

### 2437MHz\_TX

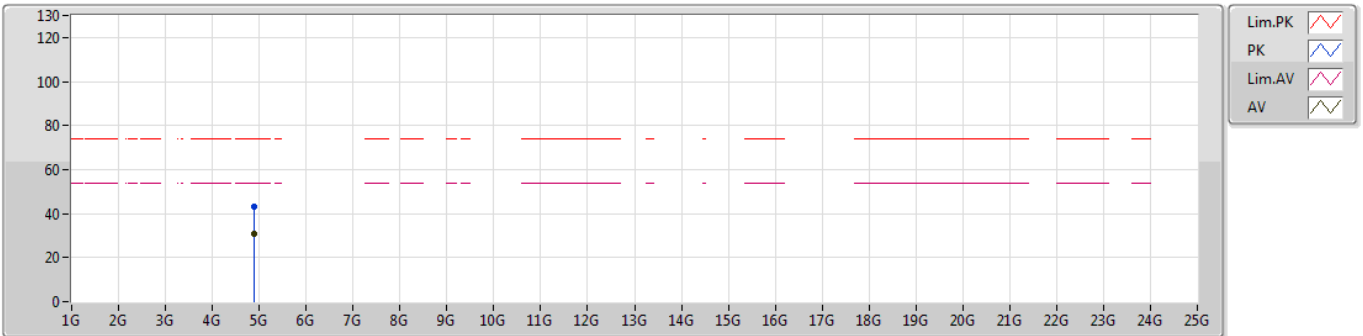


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 4.87562G     | 31.58             | 54.00             | -22.42         | 2.26           | 3           | Vertical  | 138            | 2.97          | -        |
| PK   | 4.87634G     | 44.31             | 74.00             | -29.69         | 2.26           | 3           | Vertical  | 138            | 2.97          | -        |

## 802.11g\_Nss1,(6Mbps)\_1TX

22/01/2019

## 2437MHz\_TX

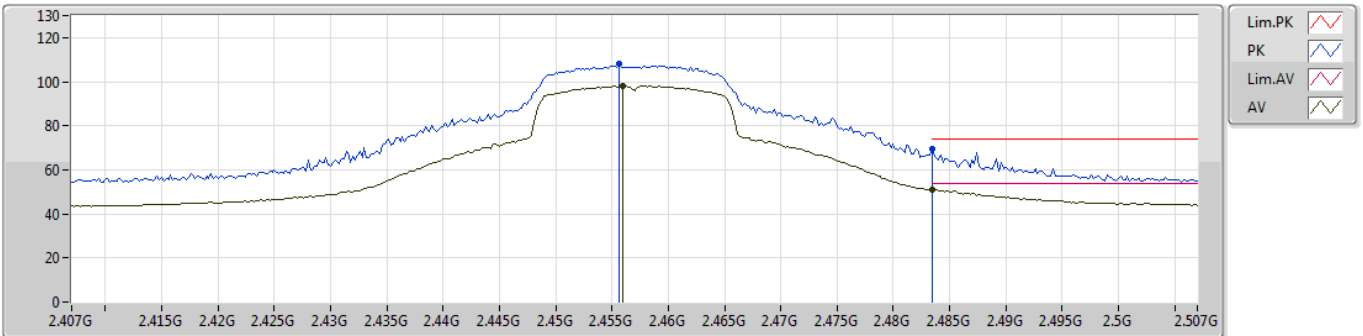


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| AV   | 4.88792G     | 30.58             | 54.00             | -23.42         | 2.29           | 3           | Horizontal | 168            | 2.73          | -        |
| PK   | 4.87868G     | 43.32             | 74.00             | -30.68         | 2.27           | 3           | Horizontal | 168            | 2.73          | -        |

## 802.11g\_Nss1,(6Mbps)\_1TX

22/01/2019

## 2457MHz\_TX

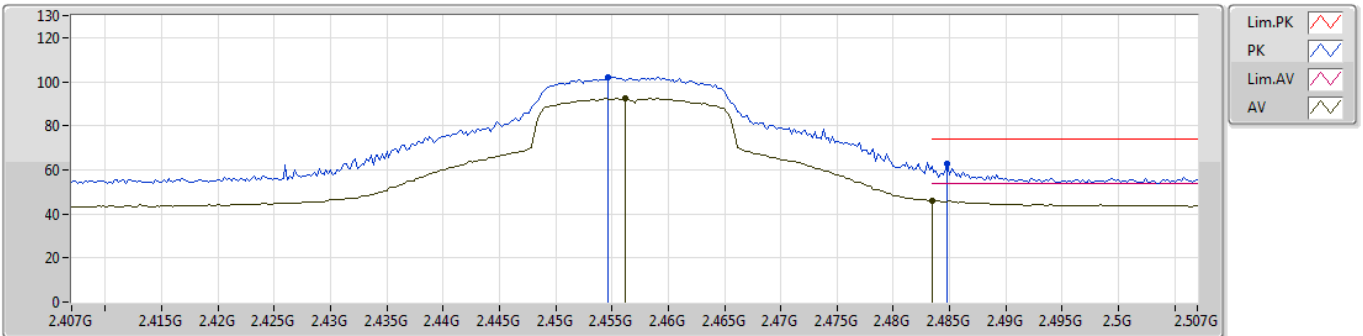


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 2.456G       | 97.98             | Inf               | -Inf           | 31.01          | 3           | Vertical  | 199            | 2.42          | -        |
| AV   | 2.4835G      | 51.03             | 54.00             | -2.97          | 31.11          | 3           | Vertical  | 199            | 2.42          | -        |
| PK   | 2.4556G      | 108.06            | Inf               | -Inf           | 31.01          | 3           | Vertical  | 199            | 2.42          | -        |
| PK   | 2.4835G      | 69.60             | 74.00             | -4.40          | 31.11          | 3           | Vertical  | 199            | 2.42          | -        |

## 802.11g\_Nss1,(6Mbps)\_1TX

22/01/2019

## 2457MHz\_TX

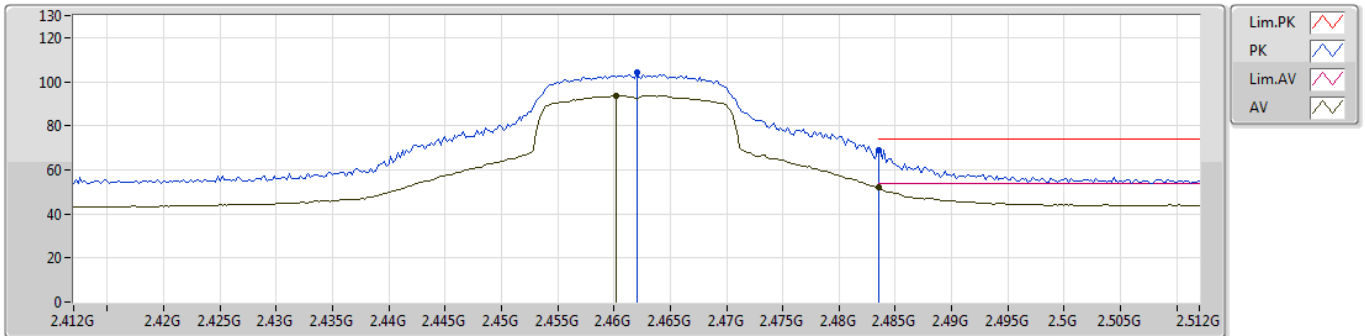


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| AV   | 2.4562G      | 92.42             | Inf               | -Inf           | 31.01          | 3           | Horizontal | 201            | 2.24          | -        |
| AV   | 2.4835G      | 46.06             | 54.00             | -7.94          | 31.11          | 3           | Horizontal | 201            | 2.24          | -        |
| PK   | 2.4546G      | 101.97            | Inf               | -Inf           | 31.00          | 3           | Horizontal | 201            | 2.24          | -        |
| PK   | 2.4848G      | 62.83             | 74.00             | -11.17         | 31.12          | 3           | Horizontal | 201            | 2.24          | -        |

## 802.11g\_Nss1,(6Mbps)\_1TX

22/01/2019

## 2462MHz\_TX

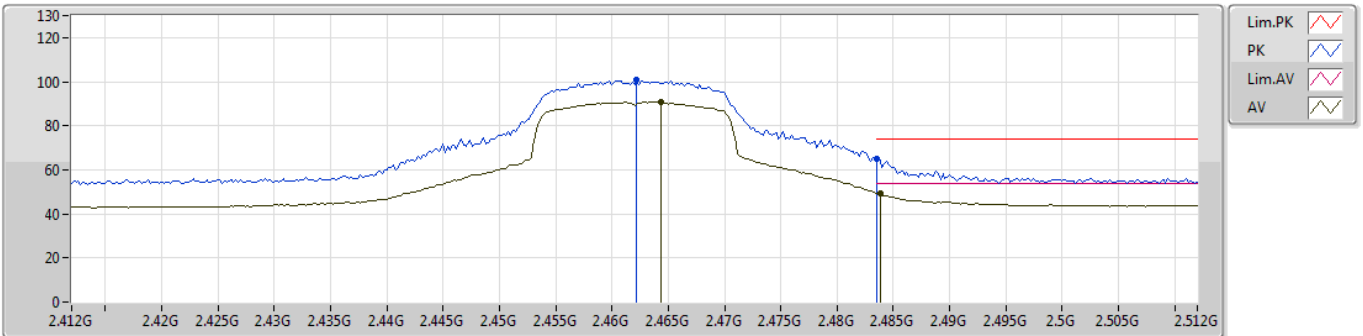


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 2.4602G      | 93.67             | Inf               | -Inf           | 31.03          | 3           | Vertical  | 274            | 1.16          | -        |
| AV   | 2.4835G      | 52.04             | 54.00             | -1.96          | 31.11          | 3           | Vertical  | 274            | 1.16          | -        |
| PK   | 2.462G       | 104.10            | Inf               | -Inf           | 31.03          | 3           | Vertical  | 274            | 1.16          | -        |
| PK   | 2.4835G      | 69.03             | 74.00             | -4.97          | 31.11          | 3           | Vertical  | 274            | 1.16          | -        |

## 802.11g\_Nss1,(6Mbps)\_1TX

22/01/2019

## 2462MHz\_TX

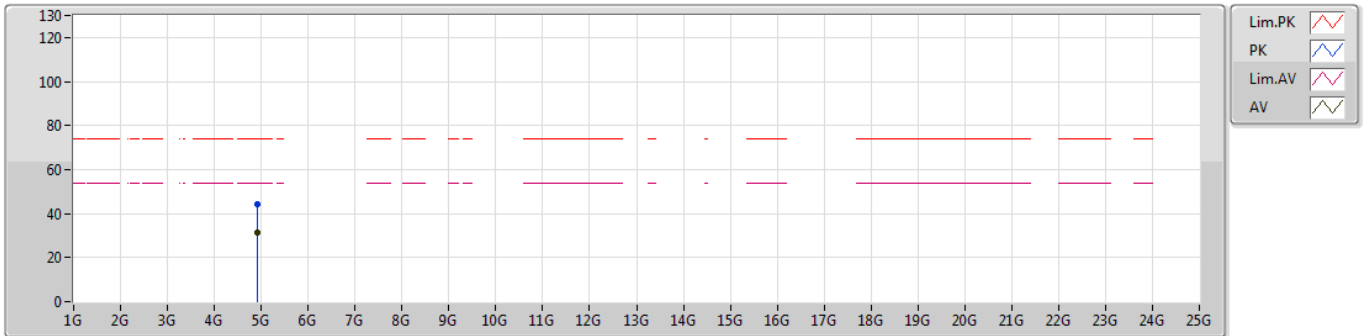


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| AV   | 2.4644G      | 90.85             | Inf               | -Inf           | 31.04          | 3           | Horizontal | 174            | 1.33          | -        |
| AV   | 2.4838G      | 49.32             | 54.00             | -4.68          | 31.11          | 3           | Horizontal | 174            | 1.33          | -        |
| PK   | 2.4622G      | 101.01            | Inf               | -Inf           | 31.03          | 3           | Horizontal | 174            | 1.33          | -        |
| PK   | 2.4835G      | 64.98             | 74.00             | -9.02          | 31.11          | 3           | Horizontal | 174            | 1.33          | -        |

## 802.11g\_Nss1,(6Mbps)\_1TX

22/01/2019

### 2462MHz\_TX

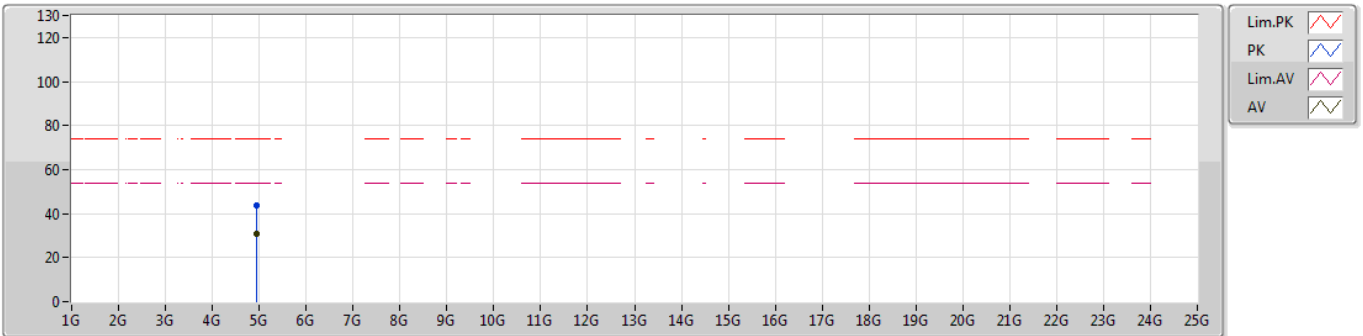


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 4.92412G     | 31.16             | 54.00             | -22.84         | 2.38           | 3           | Vertical  | 154            | 2.66          | -        |
| PK   | 4.9255G      | 44.17             | 74.00             | -29.83         | 2.39           | 3           | Vertical  | 154            | 2.66          | -        |

## 802.11g\_Nss1,(6Mbps)\_1TX

22/01/2019

## 2462MHz\_TX

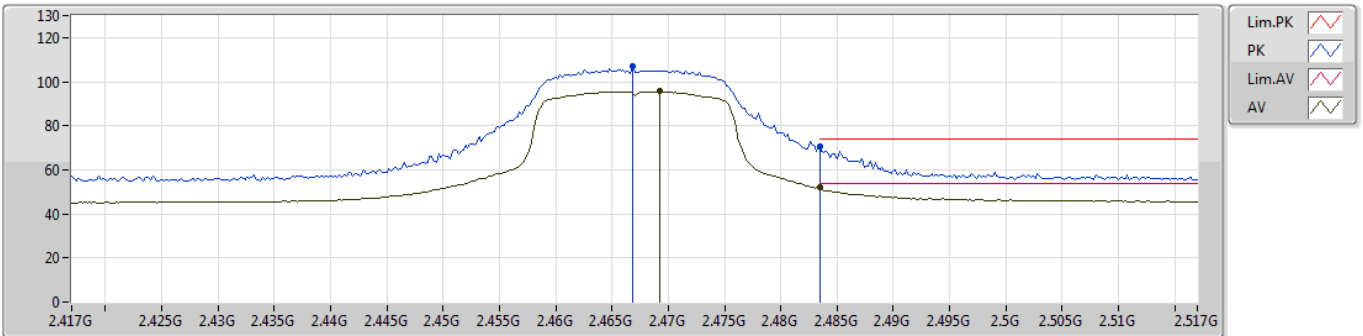


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| AV   | 4.93228G     | 30.88             | 54.00             | -23.12         | 2.40           | 3           | Horizontal | 17             | 1.50          | -        |
| PK   | 4.93588G     | 43.76             | 74.00             | -30.24         | 2.42           | 3           | Horizontal | 17             | 1.50          | -        |

## 802.11g\_Nss1,(6Mbps)\_1TX

08/03/2019

### 2467MHz\_TX

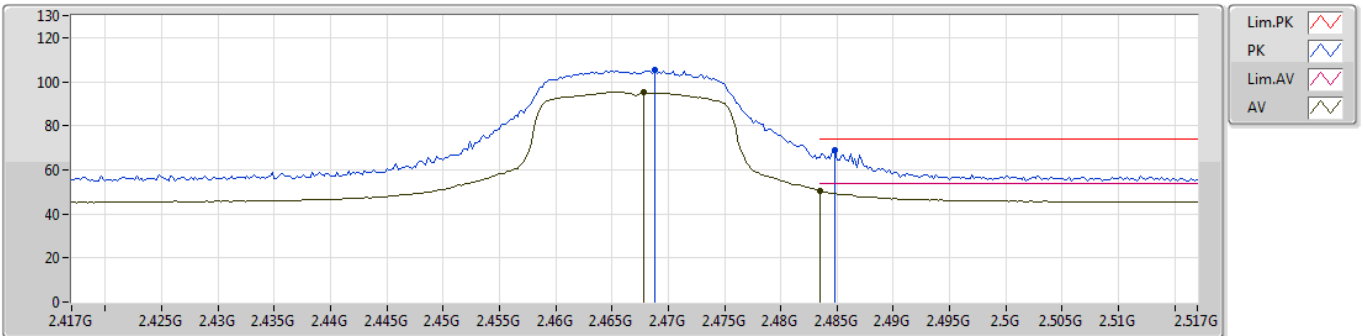


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 2.4692G      | 95.62             | Inf               | -Inf           | 32.33          | 3           | Vertical  | 76             | 1.03          | -        |
| AV   | 2.4835G      | 51.91             | 54.00             | -2.09          | 32.38          | 3           | Vertical  | 76             | 1.03          | -        |
| PK   | 2.4668G      | 106.88            | Inf               | -Inf           | 32.33          | 3           | Vertical  | 76             | 1.03          | -        |
| PK   | 2.4835G      | 70.59             | 74.00             | -3.41          | 32.38          | 3           | Vertical  | 76             | 1.03          | -        |

## 802.11g\_Nss1,(6Mbps)\_1TX

08/03/2019

### 2467MHz\_TX

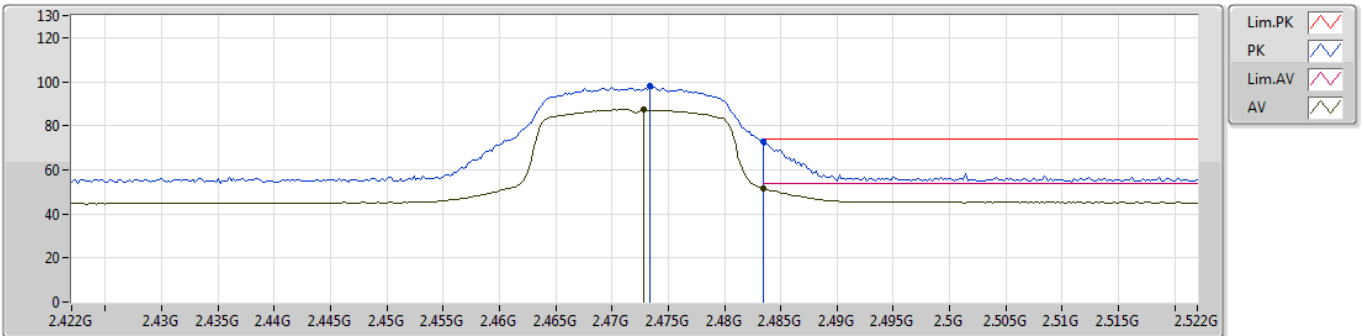


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| AV   | 2.4678G      | 95.15             | Inf               | -Inf           | 32.33          | 3           | Horizontal | 84             | 1.02          | -        |
| AV   | 2.4835G      | 50.55             | 54.00             | -3.45          | 32.38          | 3           | Horizontal | 84             | 1.02          | -        |
| PK   | 2.4688G      | 105.14            | Inf               | -Inf           | 32.33          | 3           | Horizontal | 84             | 1.02          | -        |
| PK   | 2.4848G      | 68.75             | 74.00             | -5.25          | 32.39          | 3           | Horizontal | 84             | 1.02          | -        |

## 802.11g\_Nss1,(6Mbps)\_1TX

08/03/2019

### 2472MHz\_TX

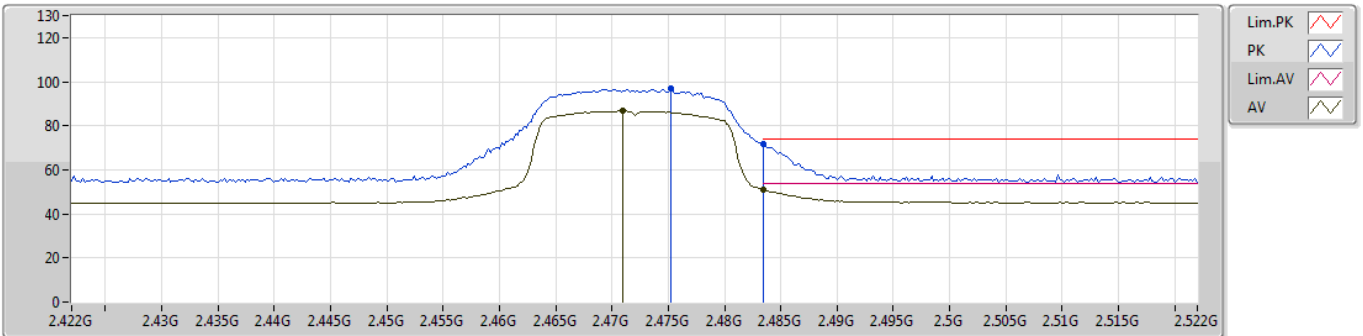


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 2.4728G      | 87.38             | Inf               | -Inf           | 32.34          | 3           | Vertical  | 76             | 1.11          | -        |
| AV   | 2.4835G      | 51.69             | 54.00             | -2.31          | 32.38          | 3           | Vertical  | 76             | 1.11          | -        |
| PK   | 2.4734G      | 98.00             | Inf               | -Inf           | 32.35          | 3           | Vertical  | 76             | 1.11          | -        |
| PK   | 2.4835G      | 72.65             | 74.00             | -1.35          | 32.38          | 3           | Vertical  | 76             | 1.11          | -        |

## 802.11g\_Nss1,(6Mbps)\_1TX

08/03/2019

## 2472MHz\_TX

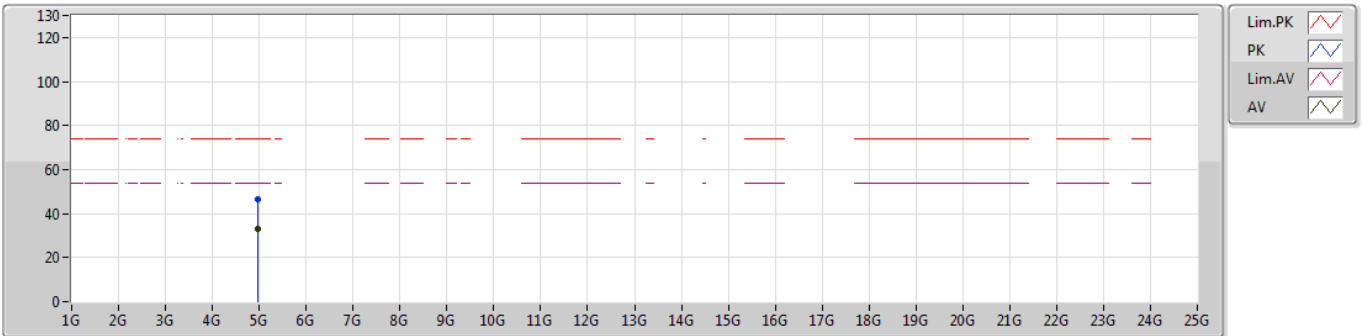


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| AV   | 2.471G       | 86.81             | Inf               | -Inf           | 32.34          | 3           | Horizontal | 86             | 1.01          | -        |
| AV   | 2.4835G      | 51.13             | 54.00             | -2.87          | 32.38          | 3           | Horizontal | 86             | 1.01          | -        |
| PK   | 2.4752G      | 97.21             | Inf               | -Inf           | 32.36          | 3           | Horizontal | 86             | 1.01          | -        |
| PK   | 2.4835G      | 71.87             | 74.00             | -2.13          | 32.38          | 3           | Horizontal | 86             | 1.01          | -        |

## 802.11g\_Nss1,(6Mbps)\_1TX

08/03/2019

## 2472MHz\_TX

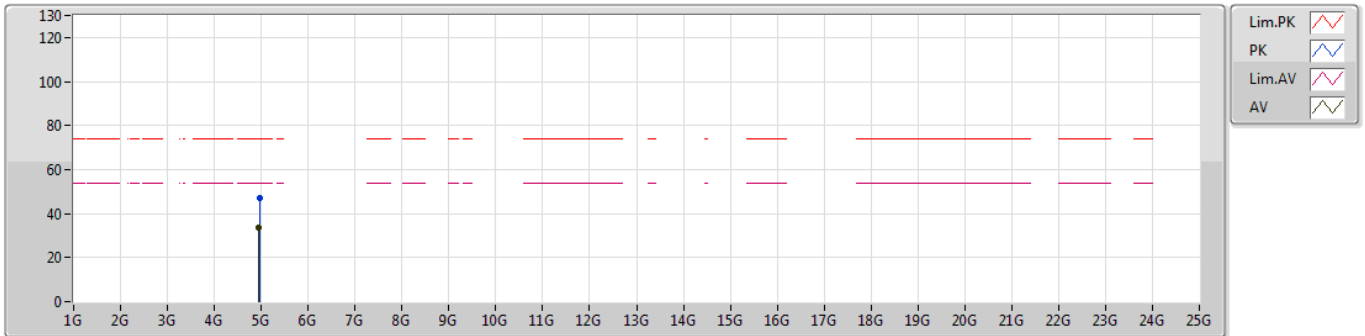


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 4.95816G     | 33.30             | 54.00             | -20.70         | 3.83           | 3           | Vertical  | 151            | 2.37          | -        |
| PK   | 4.95714G     | 46.66             | 74.00             | -27.34         | 3.83           | 3           | Vertical  | 151            | 2.37          | -        |

## 802.11g\_Nss1,(6Mbps)\_1TX

08/03/2019

## 2472MHz\_TX

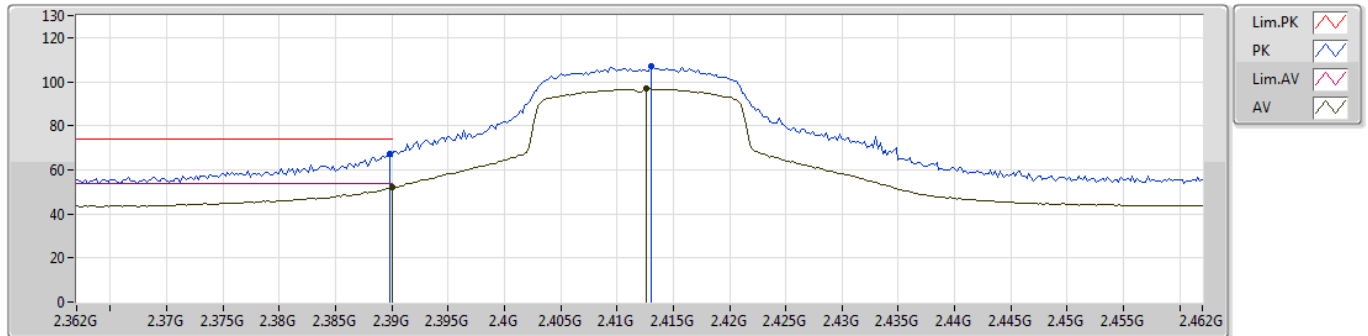


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| AV   | 4.94856G     | 33.38             | 54.00             | -20.62         | 3.81           | 3           | Horizontal | 281            | 1.55          | -        |
| PK   | 4.9572G      | 47.04             | 74.00             | -26.96         | 3.83           | 3           | Horizontal | 281            | 1.55          | -        |

## 802.11n HT20\_Nss1,(MCS0)\_1TX

22/01/2019

## 2412MHz\_TX

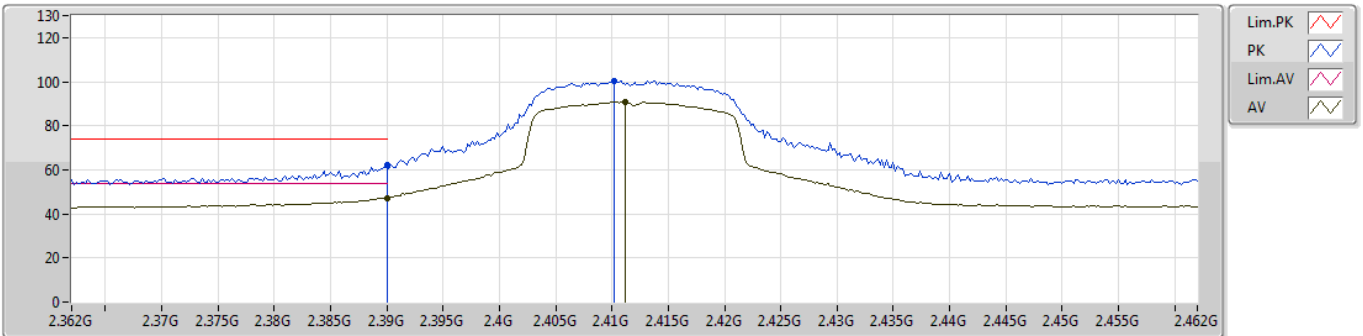


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 2.39G        | 51.84             | 54.00             | -2.16          | 30.77          | 3           | Vertical  | 220            | 2.24          | -        |
| AV   | 2.4126G      | 96.74             | Inf               | -Inf           | 30.86          | 3           | Vertical  | 220            | 2.24          | -        |
| PK   | 2.3898G      | 67.27             | 74.00             | -6.73          | 30.77          | 3           | Vertical  | 220            | 2.24          | -        |
| PK   | 2.413G       | 107.02            | Inf               | -Inf           | 30.86          | 3           | Vertical  | 220            | 2.24          | -        |

## 802.11n HT20\_Nss1,(MCS0)\_1TX

22/01/2019

## 2412MHz\_TX

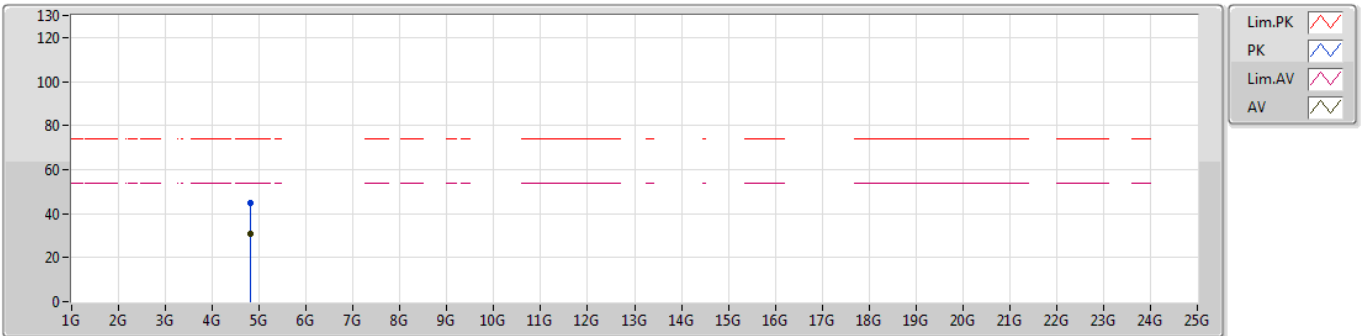


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| AV   | 2.39G        | 47.31             | 54.00             | -6.69          | 30.77          | 3           | Horizontal | 204            | 1.76          | -        |
| AV   | 2.4112G      | 90.75             | Inf               | -Inf           | 30.85          | 3           | Horizontal | 204            | 1.76          | -        |
| PK   | 2.39G        | 61.98             | 74.00             | -12.02         | 30.77          | 3           | Horizontal | 204            | 1.76          | -        |
| PK   | 2.4102G      | 100.35            | Inf               | -Inf           | 30.85          | 3           | Horizontal | 204            | 1.76          | -        |

## 802.11n HT20\_Nss1,(MCS0)\_1TX

22/01/2019

## 2412MHz\_TX

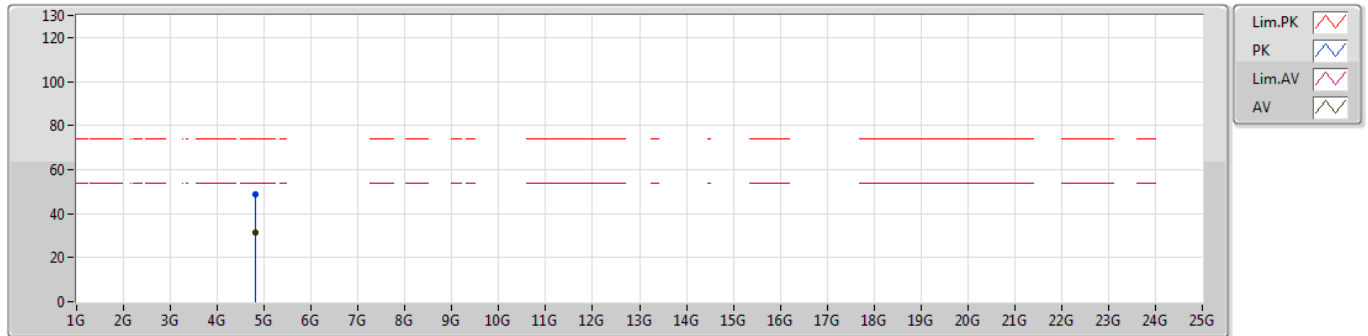


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 4.80936G     | 30.59             | 54.00             | -23.41         | 2.09           | 3           | Vertical  | 189            | 1.19          | -        |
| PK   | 4.80918G     | 44.86             | 74.00             | -29.14         | 2.09           | 3           | Vertical  | 189            | 1.19          | -        |

## 802.11n HT20\_Nss1,(MCS0)\_1TX

22/01/2019

## 2412MHz\_TX

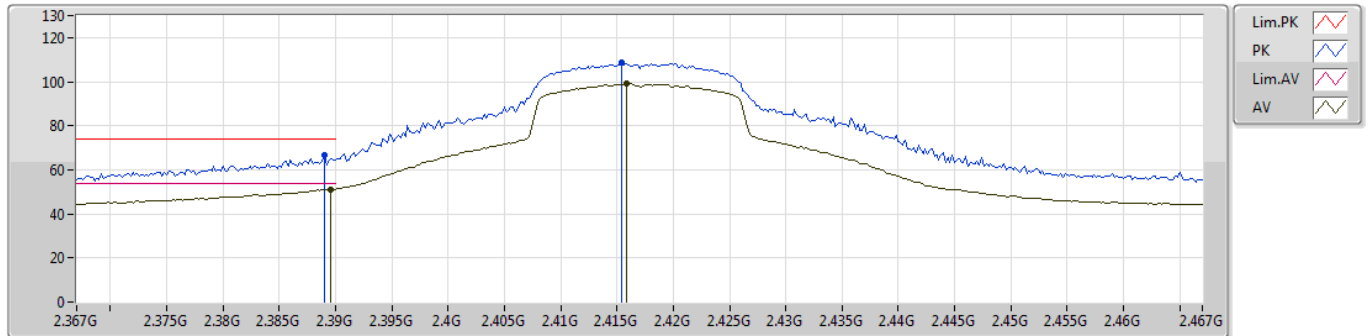


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| AV   | 4.81002G     | 31.10             | 54.00             | -22.90         | 2.10           | 3           | Horizontal | 212            | 2.62          | -        |
| PK   | 4.81176G     | 48.97             | 74.00             | -25.03         | 2.10           | 3           | Horizontal | 212            | 2.62          | -        |

## 802.11n HT20\_Nss1,(MCS0)\_1TX

22/01/2019

## 2417MHz\_TX

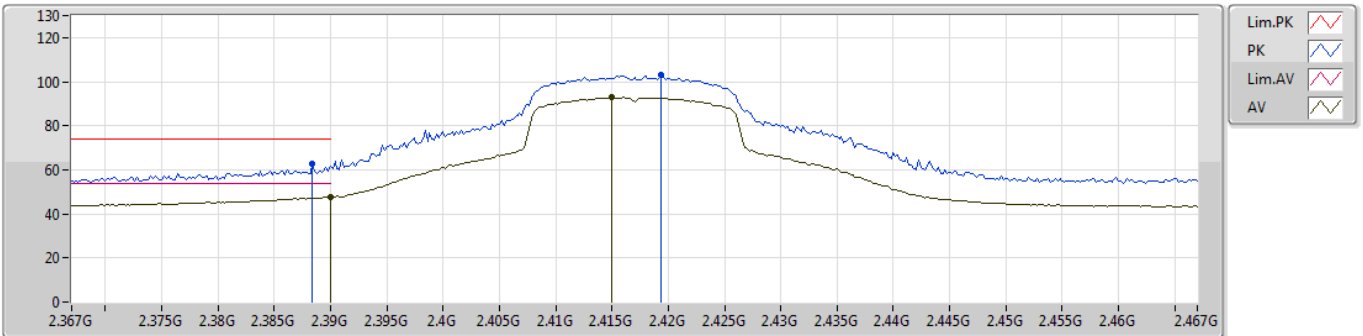


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 2.3896G      | 51.14             | 54.00             | -2.86          | 30.77          | 3           | Vertical  | 218            | 2.22          | -        |
| AV   | 2.4158G      | 99.13             | Inf               | -Inf           | 30.86          | 3           | Vertical  | 218            | 2.22          | -        |
| PK   | 2.389G       | 66.58             | 74.00             | -7.42          | 30.77          | 3           | Vertical  | 218            | 2.22          | -        |
| PK   | 2.4154G      | 108.55            | Inf               | -Inf           | 30.86          | 3           | Vertical  | 218            | 2.22          | -        |

## 802.11n HT20\_Nss1,(MCS0)\_1TX

22/01/2019

## 2417MHz\_TX

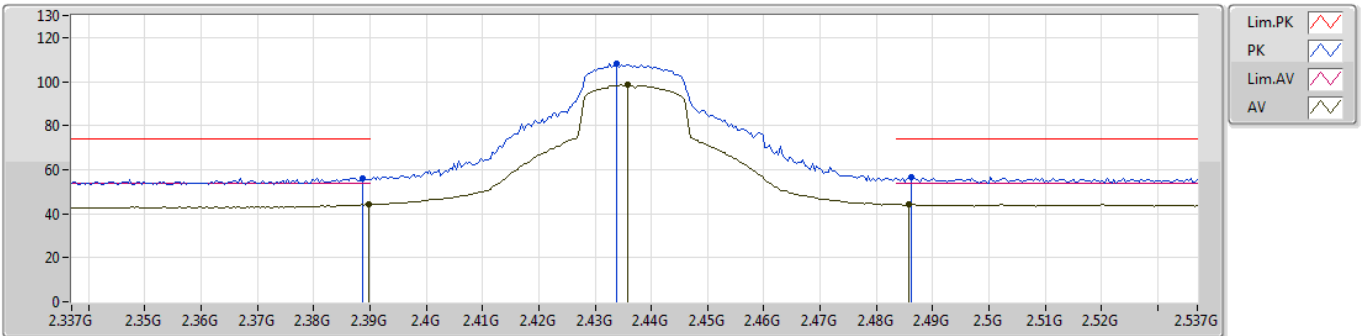


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| AV   | 2.39G        | 47.56             | 54.00             | -6.44          | 30.77          | 3           | Horizontal | 202            | 1.73          | -        |
| AV   | 2.415G       | 92.98             | Inf               | -Inf           | 30.86          | 3           | Horizontal | 202            | 1.73          | -        |
| PK   | 2.3884G      | 62.74             | 74.00             | -11.26         | 30.77          | 3           | Horizontal | 202            | 1.73          | -        |
| PK   | 2.4194G      | 103.09            | Inf               | -Inf           | 30.88          | 3           | Horizontal | 202            | 1.73          | -        |

## 802.11n HT20\_Nss1,(MCS0)\_1TX

22/01/2019

## 2437MHz\_TX

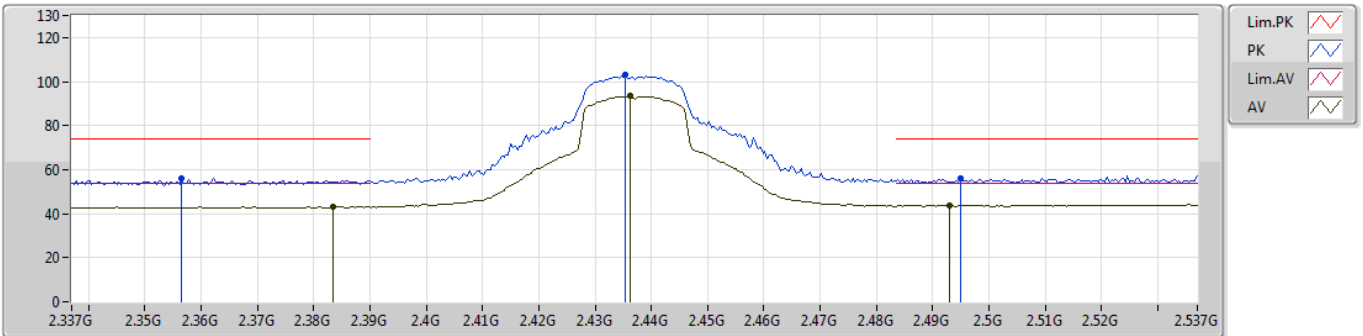


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 2.3898G      | 44.24             | 54.00             | -9.76          | 30.77          | 3           | Vertical  | 220            | 2.17          | -        |
| AV   | 2.4358G      | 98.56             | Inf               | -Inf           | 30.94          | 3           | Vertical  | 220            | 2.17          | -        |
| AV   | 2.4858G      | 44.17             | 54.00             | -9.83          | 31.12          | 3           | Vertical  | 220            | 2.17          | -        |
| PK   | 2.3886G      | 56.04             | 74.00             | -17.96         | 30.77          | 3           | Vertical  | 220            | 2.17          | -        |
| PK   | 2.4338G      | 108.23            | Inf               | -Inf           | 30.93          | 3           | Vertical  | 220            | 2.17          | -        |
| PK   | 2.4862G      | 56.43             | 74.00             | -17.57         | 31.12          | 3           | Vertical  | 220            | 2.17          | -        |

## 802.11n HT20\_Nss1,(MCS0)\_1TX

22/01/2019

### 2437MHz\_TX

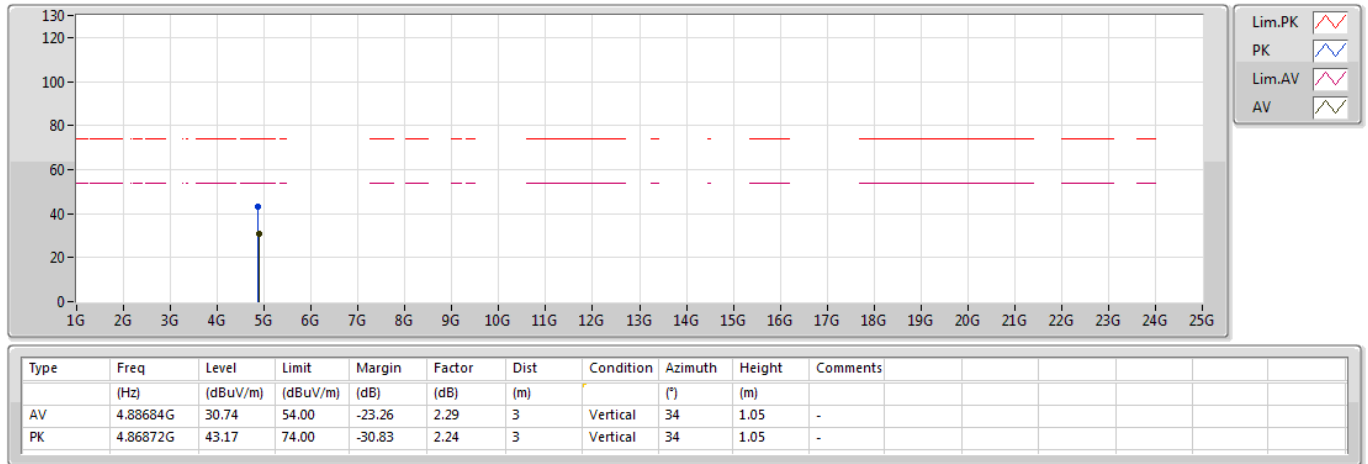


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| AV   | 2.3834G      | 43.12             | 54.00             | -10.88         | 30.75          | 3           | Horizontal | 217            | 2.25          | -        |
| AV   | 2.4362G      | 93.39             | Inf               | -Inf           | 30.94          | 3           | Horizontal | 217            | 2.25          | -        |
| AV   | 2.493G       | 43.81             | 54.00             | -10.19         | 31.14          | 3           | Horizontal | 217            | 2.25          | -        |
| PK   | 2.3566G      | 56.02             | 74.00             | -17.98         | 30.66          | 3           | Horizontal | 217            | 2.25          | -        |
| PK   | 2.4354G      | 102.95            | Inf               | -Inf           | 30.94          | 3           | Horizontal | 217            | 2.25          | -        |
| PK   | 2.495G       | 56.18             | 74.00             | -17.82         | 31.16          | 3           | Horizontal | 217            | 2.25          | -        |

## 802.11n HT20\_Nss1,(MCS0)\_1TX

22/01/2019

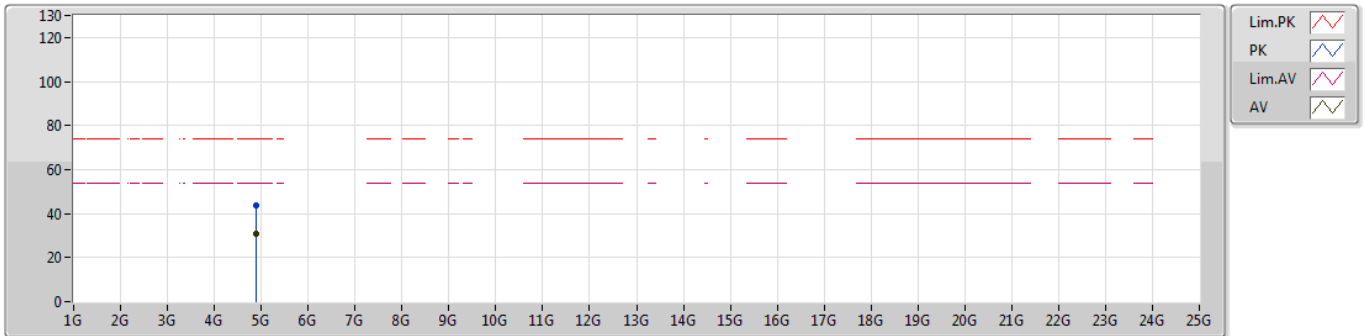
## 2437MHz\_TX



## 802.11n HT20\_Nss1,(MCS0)\_1TX

22/01/2019

## 2437MHz\_TX

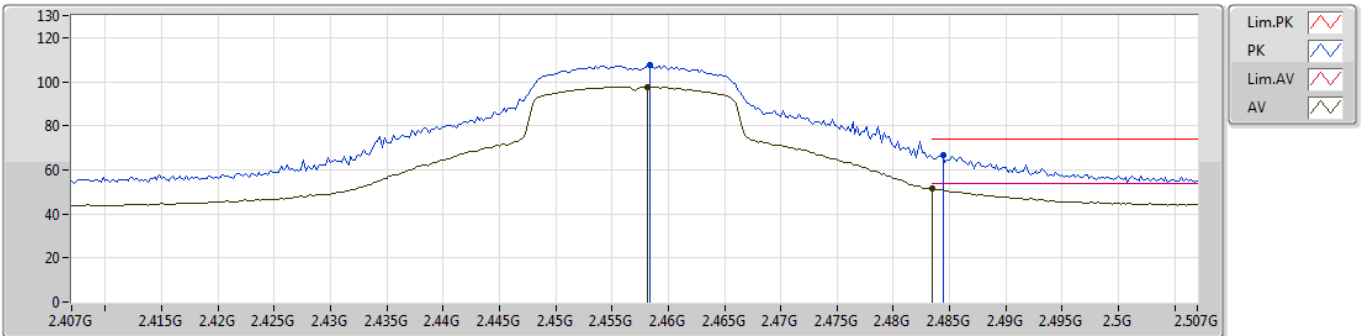


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| AV   | 4.88864G     | 30.80             | 54.00             | -23.20         | 2.29           | 3           | Horizontal | 192            | 1.50          | -        |
| PK   | 4.88732G     | 43.89             | 74.00             | -30.11         | 2.29           | 3           | Horizontal | 192            | 1.50          | -        |

## 802.11n HT20\_Nss1,(MCS0)\_1TX

22/01/2019

## 2457MHz\_TX

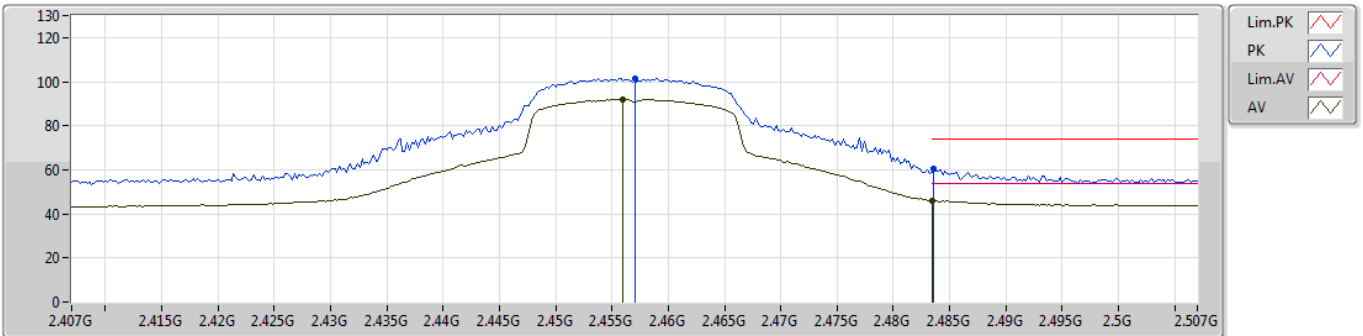


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 2.4582G      | 97.78             | Inf               | -Inf           | 31.02          | 3           | Vertical  | 203            | 2.43          | -        |
| AV   | 2.4835G      | 51.60             | 54.00             | -2.40          | 31.11          | 3           | Vertical  | 203            | 2.43          | -        |
| PK   | 2.4584G      | 107.65            | Inf               | -Inf           | 31.02          | 3           | Vertical  | 203            | 2.43          | -        |
| PK   | 2.4844G      | 66.84             | 74.00             | -7.16          | 31.12          | 3           | Vertical  | 203            | 2.43          | -        |

## 802.11n HT20\_Nss1,(MCS0)\_1TX

22/01/2019

## 2457MHz\_TX

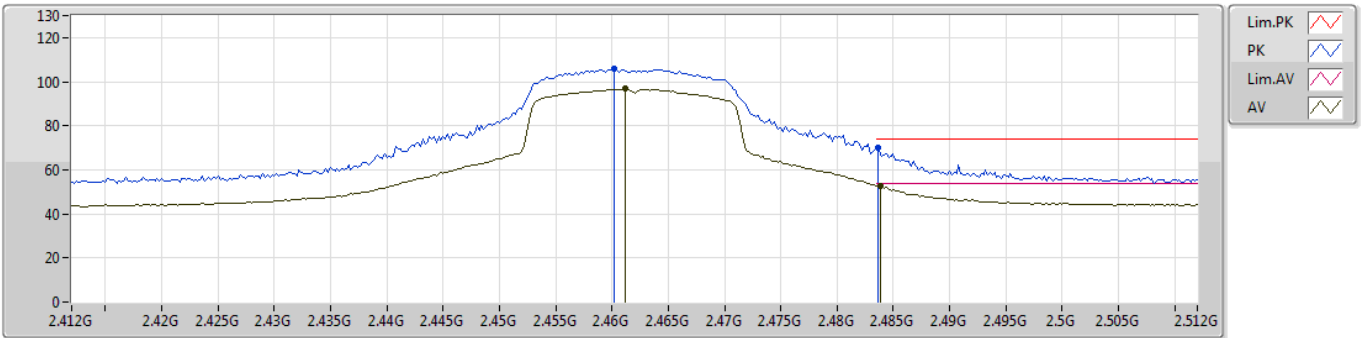


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| AV   | 2.456G       | 92.00             | Inf               | -Inf           | 31.01          | 3           | Horizontal | 203            | 2.24          | -        |
| AV   | 2.4835G      | 45.74             | 54.00             | -8.26          | 31.11          | 3           | Horizontal | 203            | 2.24          | -        |
| PK   | 2.457G       | 101.37            | Inf               | -Inf           | 31.02          | 3           | Horizontal | 203            | 2.24          | -        |
| PK   | 2.4836G      | 60.24             | 74.00             | -13.76         | 31.11          | 3           | Horizontal | 203            | 2.24          | -        |

## 802.11n HT20\_Nss1,(MCS0)\_1TX

22/01/2019

### 2462MHz\_TX

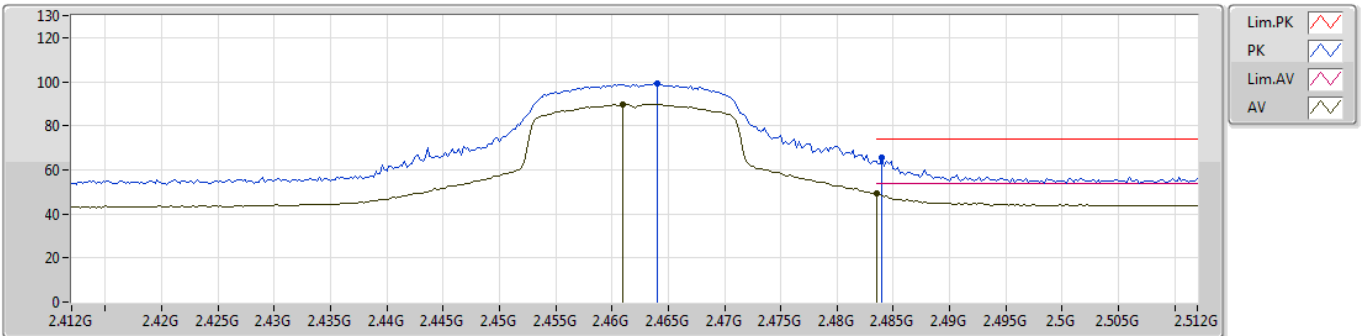


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 2.4612G      | 96.71             | Inf               | -Inf           | 31.03          | 3           | Vertical  | 220            | 2.42          | -        |
| AV   | 2.4838G      | 52.90             | 54.00             | -1.10          | 31.11          | 3           | Vertical  | 220            | 2.42          | -        |
| PK   | 2.4602G      | 105.83            | Inf               | -Inf           | 31.03          | 3           | Vertical  | 220            | 2.42          | -        |
| PK   | 2.4836G      | 70.32             | 74.00             | -3.68          | 31.11          | 3           | Vertical  | 220            | 2.42          | -        |

## 802.11n HT20\_Nss1,(MCS0)\_1TX

22/01/2019

### 2462MHz\_TX

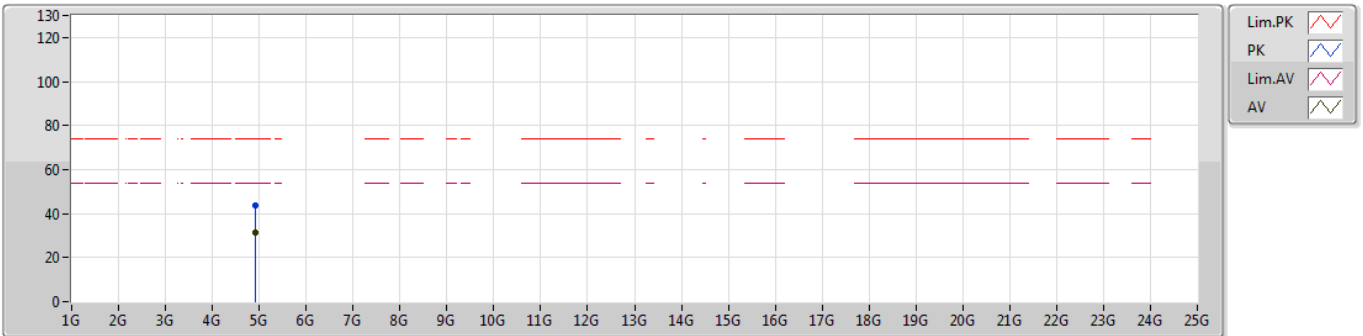


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| AV   | 2.461G       | 89.77             | Inf               | -Inf           | 31.03          | 3           | Horizontal | 199            | 1.01          | -        |
| AV   | 2.4835G      | 49.09             | 54.00             | -4.91          | 31.11          | 3           | Horizontal | 199            | 1.01          | -        |
| PK   | 2.464G       | 99.24             | Inf               | -Inf           | 31.04          | 3           | Horizontal | 199            | 1.01          | -        |
| PK   | 2.484G       | 65.70             | 74.00             | -8.30          | 31.12          | 3           | Horizontal | 199            | 1.01          | -        |

## 802.11n HT20\_Nss1,(MCS0)\_1TX

22/01/2019

## 2462MHz\_TX

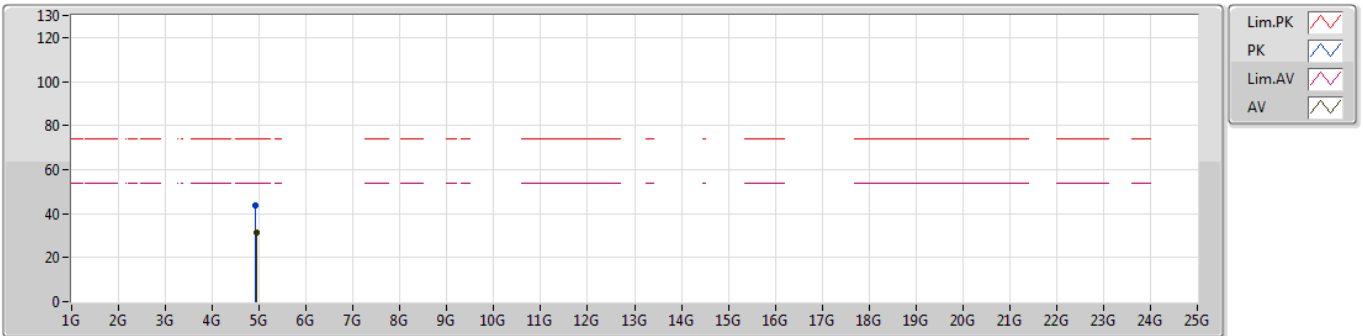


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 4.9297G      | 31.48             | 54.00             | -22.52         | 2.40           | 3           | Vertical  | 147            | 2.97          | -        |
| PK   | 4.92424G     | 43.95             | 74.00             | -30.05         | 2.38           | 3           | Vertical  | 147            | 2.97          | -        |

## 802.11n HT20\_Nss1,(MCS0)\_1TX

22/01/2019

## 2462MHz\_TX

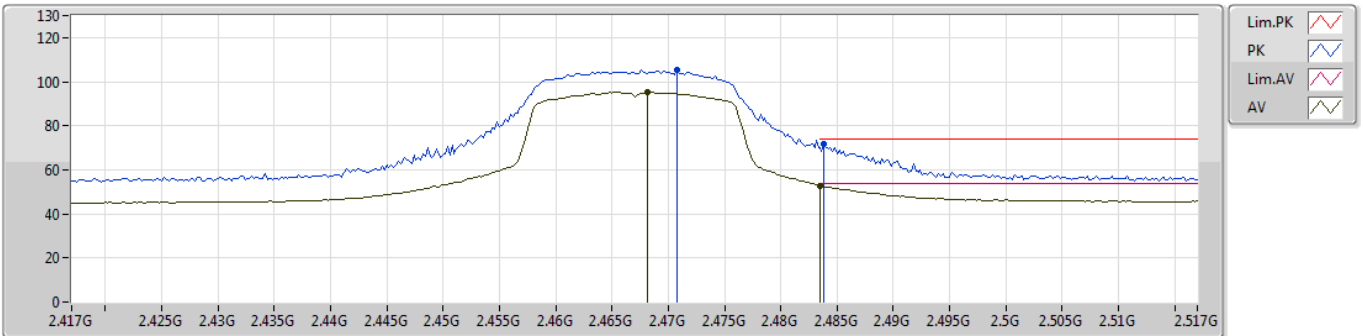


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| AV   | 4.93204G     | 31.33             | 54.00             | -22.67         | 2.40           | 3           | Horizontal | 40             | 2.98          | -        |
| PK   | 4.90936G     | 43.64             | 74.00             | -30.36         | 2.34           | 3           | Horizontal | 40             | 2.98          | -        |

## 802.11n HT20\_Nss1,(MCS0)\_1TX

08/03/2019

## 2467MHz\_TX

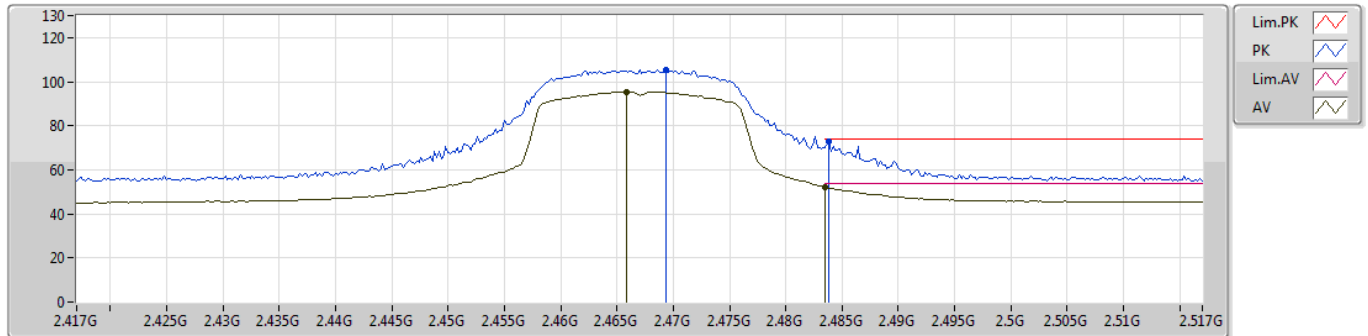


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 2.4682G      | 95.13             | Inf               | -Inf           | 32.33          | 3           | Vertical  | 76             | 1.01          | -        |
| AV   | 2.4835G      | 52.79             | 54.00             | -1.21          | 32.38          | 3           | Vertical  | 76             | 1.01          | -        |
| PK   | 2.4708G      | 105.35            | Inf               | -Inf           | 32.34          | 3           | Vertical  | 76             | 1.01          | -        |
| PK   | 2.4838G      | 71.55             | 74.00             | -2.45          | 32.38          | 3           | Vertical  | 76             | 1.01          | -        |

## 802.11n HT20\_Nss1,(MCS0)\_1TX

08/03/2019

## 2467MHz\_TX

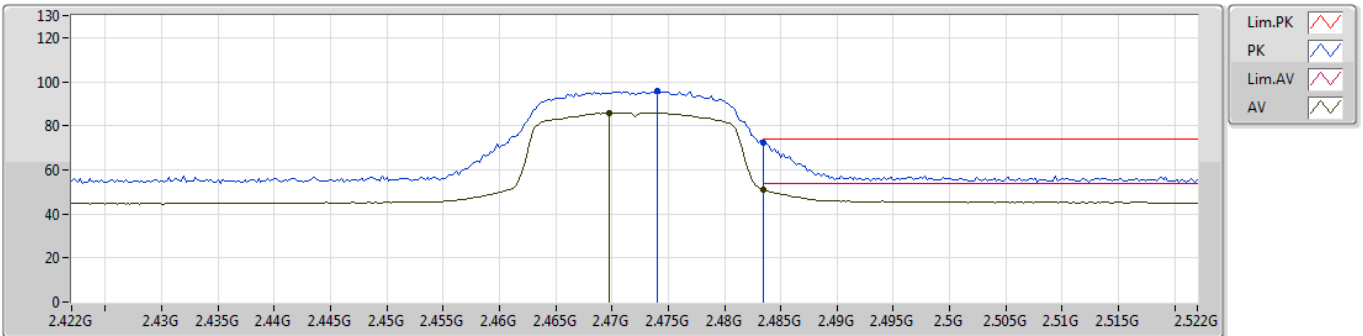


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| AV   | 2.4658G      | 95.36             | Inf               | -Inf           | 32.32          | 3           | Horizontal | 85             | 1.01          | -        |
| AV   | 2.4835G      | 52.34             | 54.00             | -1.66          | 32.38          | 3           | Horizontal | 85             | 1.01          | -        |
| PK   | 2.4694G      | 105.59            | Inf               | -Inf           | 32.33          | 3           | Horizontal | 85             | 1.01          | -        |
| PK   | 2.4838G      | 72.66             | 74.00             | -1.34          | 32.38          | 3           | Horizontal | 85             | 1.01          | -        |

## 802.11n HT20\_Nss1,(MCS0)\_1TX

08/03/2019

## 2472MHz\_TX

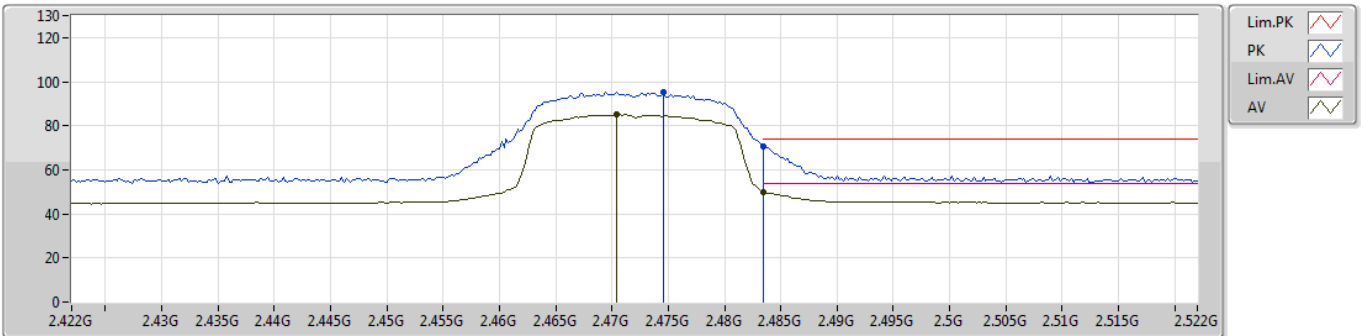


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 2.4698G      | 85.92             | Inf               | -Inf           | 32.34          | 3           | Vertical  | 76             | 1.06          | -        |
| AV   | 2.4835G      | 50.75             | 54.00             | -3.25          | 32.38          | 3           | Vertical  | 76             | 1.06          | -        |
| PK   | 2.474G       | 95.69             | Inf               | -Inf           | 32.35          | 3           | Vertical  | 76             | 1.06          | -        |
| PK   | 2.4835G      | 72.21             | 74.00             | -1.79          | 32.38          | 3           | Vertical  | 76             | 1.06          | -        |

## 802.11n HT20\_Nss1,(MCS0)\_1TX

08/03/2019

## 2472MHz\_TX

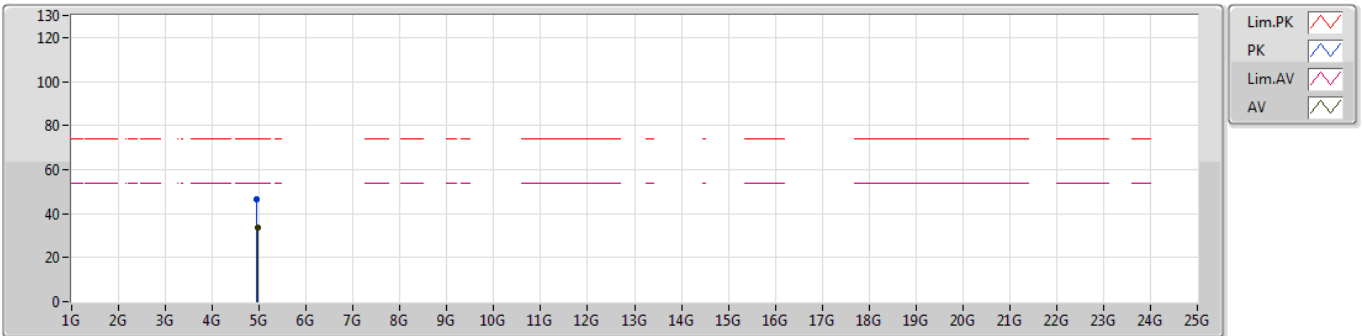


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| AV   | 2.4704G      | 85.02             | Inf               | -Inf           | 32.34          | 3           | Horizontal | 84             | 1.01          | -        |
| AV   | 2.4835G      | 50.09             | 54.00             | -3.91          | 32.38          | 3           | Horizontal | 84             | 1.01          | -        |
| PK   | 2.4746G      | 95.32             | Inf               | -Inf           | 32.35          | 3           | Horizontal | 84             | 1.01          | -        |
| PK   | 2.4835G      | 70.80             | 74.00             | -3.20          | 32.38          | 3           | Horizontal | 84             | 1.01          | -        |

## 802.11n HT20\_Nss1,(MCS0)\_1TX

08/03/2019

## 2472MHz\_TX

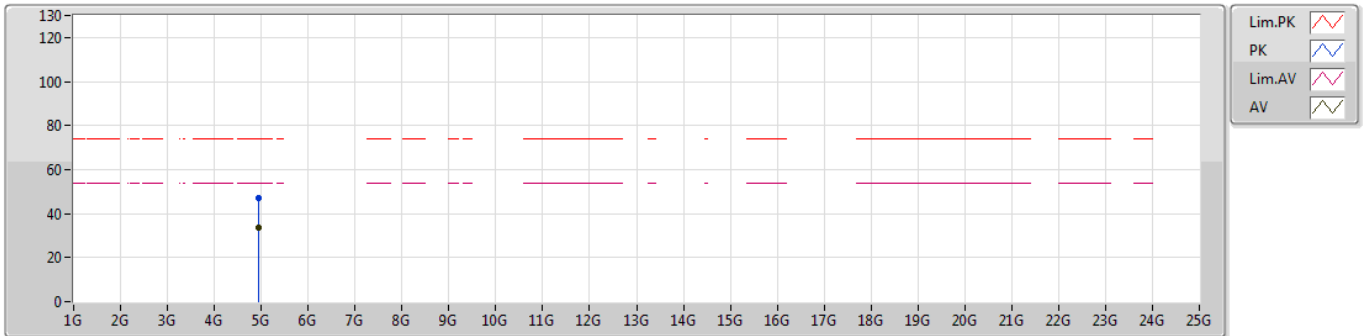


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 4.95726G     | 33.39             | 54.00             | -20.61         | 3.83           | 3           | Vertical  | 135            | 2.09          | -        |
| PK   | 4.93332G     | 46.35             | 74.00             | -27.65         | 3.77           | 3           | Vertical  | 135            | 2.09          | -        |

## 802.11n HT20\_Nss1,(MCS0)\_1TX

08/03/2019

## 2472MHz\_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   | 4.94904G     | 33.36             | 54.00             | -20.64         | 3.81           | 3           | Horizontal | 289            | 1.77          | -        |
| PK   | 4.94202G     | 47.14             | 74.00             | -26.86         | 3.80           | 3           | Horizontal | 289            | 1.77          | -        |