

# FCC Test Report

FCC ID : RYK-WPEA352ACNRB  
Equipment : 802.11ac/b/g/n Mini PCIe Module  
Brand Name : Sparklan  
Model Name : WPEA-352ACNRB  
WPEA-352ACNRBI  
Applicant/ : SparkLAN Communications, Inc.  
Manufacturer : 8F., No. 257, Sec. 2, Tiding Blvd., Neihu District,  
Taipei City 11493, Taiwan  
Standard : 47 CFR FCC Part 15.247

The product was received on May 21, 2020, and testing was started from May 22, 2020 and completed on May 23, 2020. . 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 variant 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   |
|---------------|---------|-------------------------|---------------|
| FR8D0606-01AC | 01      | Initial issue of report | Jun. 30, 2020 |
|               |         |                         |               |
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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               | -              |
| -             | 15.207           | AC Power-line Conducted Emissions           | Not Performed      | Refer to 1.1.6 |
| -             | 15.247(a)        | DTS Bandwidth                               | Not Performed      | Refer to 1.1.6 |
| -             | 15.247(b)        | Maximum Conducted Output Power              | Not Performed      | Refer to 1.1.6 |
| -             | 15.247(e)        | Power Spectral Density                      | Not Performed      | Refer to 1.1.6 |
| -             | 15.247(d)        | Emissions in Non-restricted Frequency Bands | Not Performed      | Refer to 1.1.6 |
| 3.1           | 15.247(d)        | Emissions in Restricted Frequency Bands     | PASS               | -              |

**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: Michelle Tsai**

# 1 General Description

## 1.1 Information

### 1.1.1 RF General Information

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

| Band          | Mode         | BWch (MHz) | Nant |
|---------------|--------------|------------|------|
| 2.4-2.4835GHz | 802.11b      | 20         | 3TX  |
| 2.4-2.4835GHz | 802.11g      | 20         | 3TX  |
| 2.4-2.4835GHz | 802.11n HT20 | 20         | 3TX  |
| 2.4-2.4835GHz | 802.11n HT40 | 40         | 3TX  |

**Note:**

- ♦ 11b mode uses a combination of DSSS-DBPSK, DQPSK, CCK modulation.
- ♦ 11g, HT20 and HT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- ♦ BWch is the nominal channel bandwidth.

### 1.1.2 Antenna Information

| Ant. | Brand        | Model    | Antenna Type | Connector |
|------|--------------|----------|--------------|-----------|
| 1    | SparkLAN     | AD-103AG | Dipole       | I-Pex     |
| 2    | SparkLAN     | AD-301N  | Dipole       | I-Pex     |
| 3    | SparkLAN     | AD-302N  | Dipole       | I-Pex     |
| 4    | SparkLAN     | AD-303N  | Dipole       | I-Pex     |
| 5    | SparkLAN     | AD-305N  | Dipole       | I-Pex     |
| 6    | SparkLAN     | AD-300N  | Dipole       | I-Pex     |
| 7    | Ethertronics | 1000423  | PIFA         | I-Pex     |

| Ant. | Gain (dBi) |         |          |          |         |
|------|------------|---------|----------|----------|---------|
|      | 2.4G       | 5G      |          |          |         |
|      |            | U-NII-1 | U-NII-2A | U-NII-2C | U-NII-3 |
| 1    | 2.02       | 2.03    |          |          |         |
| 2    | 4.4        | 5.2     |          | 5.8      |         |
| 3    | 3.14       | 2.87    |          |          |         |
| 4    | 3.14       | 3.45    |          |          |         |
| 5    | 5          | 5.53    |          |          |         |
| 6    | 3          | 5       |          |          |         |
| 7    | 0.6        | -       |          |          |         |

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

**For 2.4 GHz function:**

For IEEE 802.11b/g/n mode (3TX/3RX)

Ant. 5 could transmit/receive simultaneously.

**For 5 GHz function:**

For IEEE 802.11a/n/ac mode (3TX/3RX)

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

Ant. 5 could transmit/receive simultaneously.

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

Ant. 2 could transmit/receive simultaneously.

**1.1.3 EUT Information**

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

**1.1.4 Mode Test Duty Cycle**

| Mode    | DC    | DCF(dB) | T(s)                 | VBW(Hz) $\geq 1/T$   |
|---------|-------|---------|----------------------|----------------------|
| 802.11b | 0.997 | 0.01    | n/a (DC $\geq$ 0.98) | n/a (DC $\geq$ 0.98) |
| 802.11g | 0.998 | 0.01    | n/a (DC $\geq$ 0.98) | n/a (DC $\geq$ 0.98) |

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

**1.1.5 Table for Multiple Listing**

| Model Name     | Description                                                             |
|----------------|-------------------------------------------------------------------------|
| WPEA-352ACNRB  | Differences between all models are for different marketing requirement. |
| WPEA-352ACNRBI |                                                                         |

**1.1.6 Table for Existing Change**

This product is an extension of original one reported under Sporton project number: FR8D0606AC  
 Below is the table for the change of the product with respect to the original one.

| Modifications                                 | Performance Checking                                                  |
|-----------------------------------------------|-----------------------------------------------------------------------|
| PIFA Antenna (Ethertronics/1000423) is added. | Radiated Emission data above 1GHz was evaluated<br>Photographs of EUT |

## 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

The following reference test guidance is not within the scope of accreditation of TAF:

- ♦ KDB 558074 D01 v05r02
- ♦ KDB 662911 D01 v02r01
- ♦ KDB 414788 D01 v01r01

## 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. |          |                                                                                       |                      |
| <input type="checkbox"/>                   | Wen Shan | ADD : No.14-1, Ln. 19, Wen 33rd St., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.) |                      |
|                                            |          | TEL : 886-3-318-0787                                                                  | FAX : 886-3-318-0287 |
| Test site Designation No. TW1097 with FCC. |          |                                                                                       |                      |

| Test Condition | Test Site No. | Test Engineer | Test Environment   | Test Date               |
|----------------|---------------|---------------|--------------------|-------------------------|
| Radiated       | 03CH02-HY     | Edward Wang   | 22.6~23.9°C/58~69% | 22/May/2020~23/May/2020 |

## 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)  | 0.9 dB      | Confidence levels of 95% |
| Radiated Emission (9kHz ~ 30MHz)     | 2.4 dB      | Confidence levels of 95% |
| Radiated Emission (30MHz ~ 1,000MHz) | 3.7 dB      | Confidence levels of 95% |
| Radiated Emission (1GHz ~ 18GHz)     | 3.6 dB      | Confidence levels of 95% |
| Radiated Emission (18GHz ~ 40GHz)    | 3.5 dB      | Confidence levels of 95% |
| Conducted Emission                   | 1.0 dB      | Confidence levels of 95% |
| Temperature                          | 0.41 °C     | Confidence levels of 95% |
| Humidity                             | 3.4 %       | Confidence levels of 95% |

## 2 Test Configuration of EUT

### 2.1 Test Channel Mode

| Test Software Version    | ART-GUI 2.3   |
|--------------------------|---------------|
| Mode                     | Power Setting |
| 802.11b_Nss1,(1Mbps)_3TX | -             |
| 2437MHz                  | 16            |
| 2457MHz                  | 15            |
| 2462MHz                  | 14.5          |
| 802.11g_Nss1,(6Mbps)_3TX | -             |
| 2412MHz                  | 17            |

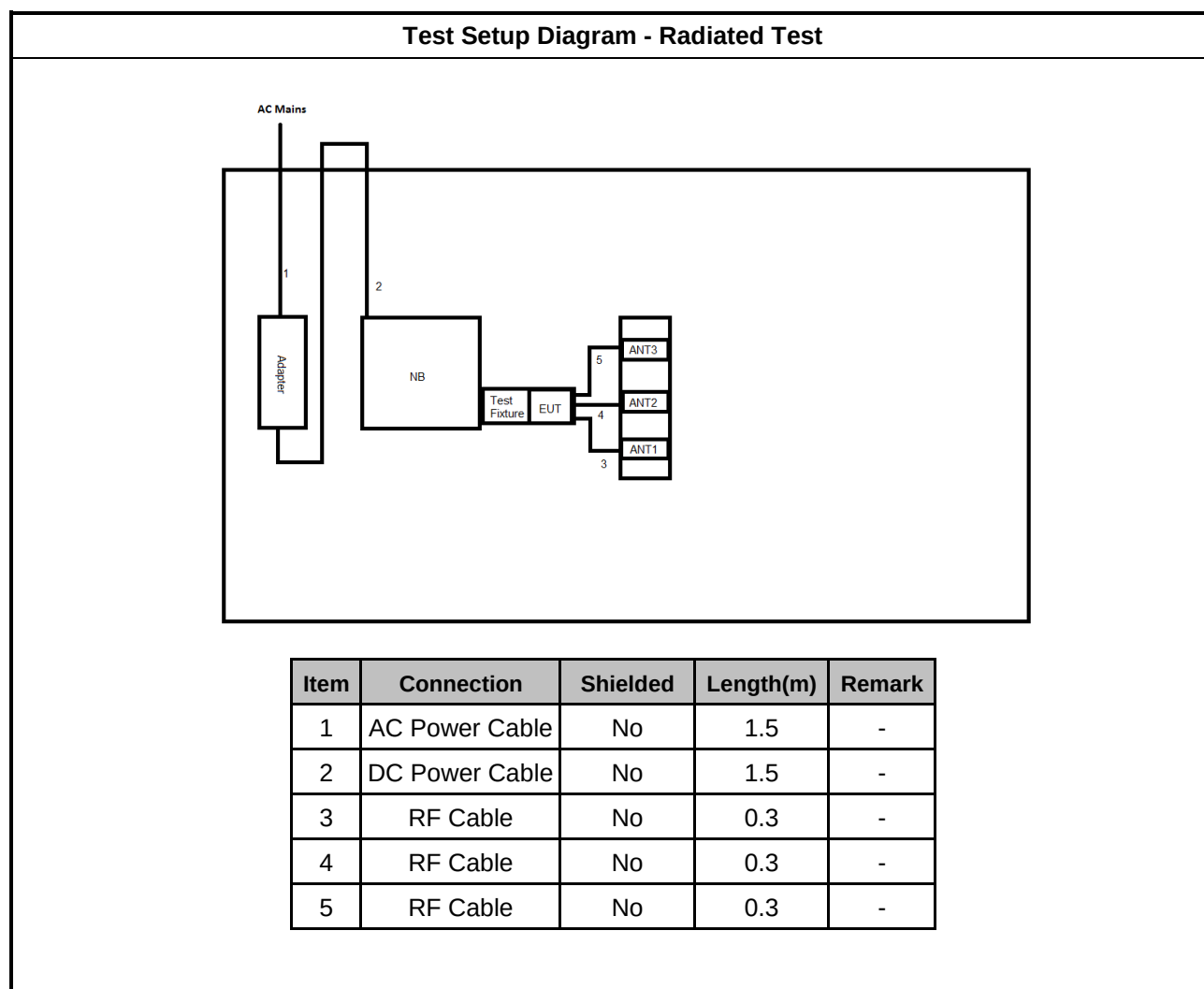
### 2.2 The Worst Case Measurement Configuration

| The Worst Case Mode for Following Conformance Tests |                                                                                                                                                                                                                                                     |                                                                                     |                                                                                       |
|-----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Tests Item                                          | Emissions in Restricted Frequency Bands                                                                                                                                                                                                             |                                                                                     |                                                                                       |
| Test Condition                                      | Radiated measurement<br>If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type. |                                                                                     |                                                                                       |
| Operating Mode > 1GHz                               | CTX                                                                                                                                                                                                                                                 |                                                                                     |                                                                                       |
| 1                                                   | Test fixture mode                                                                                                                                                                                                                                   |                                                                                     |                                                                                       |
| Orthogonal Planes of EUT                            | X Plane                                                                                                                                                                                                                                             | Y Plane                                                                             | Z Plane                                                                               |
|                                                     |                                                                                                                                                                  |  |  |
| Worst Planes of EUT                                 |                                                                                                                                                                                                                                                     |                                                                                     | V                                                                                     |

### 2.3 Support Equipment

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

## 2.4 Test Setup Diagram



### 3 Transmitter Test Result

#### 3.1 Emissions in Restricted Frequency Bands

##### 3.1.1 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.

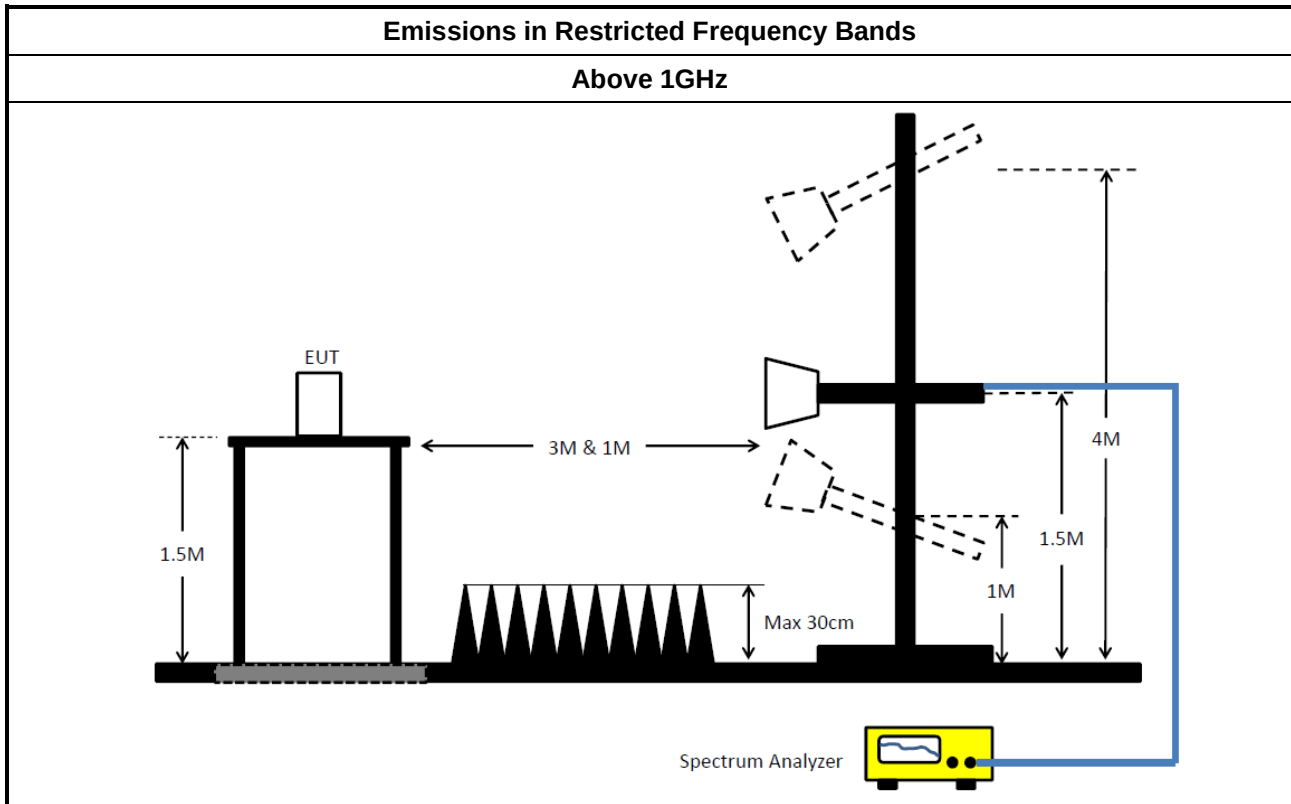
##### 3.1.2 Measuring Instruments

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

### 3.1.3 Test Procedures

| Test Method                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>The average emission levels shall be measured in [duty cycle <math>\geq</math> 98 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.</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>                                                                                    |
| <ul style="list-style-type: none"> <li>KDB 414788 Open-Field Test Sites and Chamber Correlation Justification.</li> </ul>                                                                                                   |                                                                                                                                                                                                                                                                  |
|                                                                                                                                                                                                                             | <ul style="list-style-type: none"> <li>Based on FCC 15.31 (f) (2): measurements may be performed at a distance closer than that specified in regulations; however, an attempt should be made to avoid making measurements in the near field.</li> </ul>          |
|                                                                                                                                                                                                                             | <ul style="list-style-type: none"> <li>Open-field site and chamber correlation testing had been performed and chamber measured test result is the worst case test result.</li> </ul>                                                                             |

### 3.1.4 Test Setup



### 3.1.5 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.

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

Refer as Appendix A

## 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         | SIDT FRANKONIA  | SAC-3M        | 03CH02-HY                | 1GHz~18GHz<br>3m | 29/Aug/2019      | 28/Aug/2020          |
| Microwave Preamplifier           | Agilent         | 8449B         | 3008A02373               | 1GHz~26.5GHz     | 16/Oct/2019      | 15/Oct/2020          |
| Spectrum Analyzer                | Rohde & Schwarz | FSP40         | 100593                   | 9kHz - 40GHz     | 27/Dec/2020      | 26/Dec/2021          |
| RF Cable-high 6m                 | SUHNER          | SUCOFLEX104   | 10567868 /<br>SN805193/4 | 1GHz~40GHz       | 08/Apr/2020      | 07/Apr/2021          |
| RF Cable-high 7m                 | SUHNER          | SUCOFLEX104   | 10567868 /<br>SN805192/4 | 1GHz~40GHz       | 08/Apr/2020      | 07/Apr/2021          |
| Broadband Horn Antenna           | SCHWARZBECK     | BBHA 9170     | BBHA 9170221             | 18GHz~40GHz      | 13/Mar/2020      | 12/Mar/2021          |
| Double Ridged Guide Horn Antenna | SCHWARZBECK     | BBHA 9120 D   | BBHA 9120 D<br>01543     | 1GHz~18GHz       | 03/Jun/2019      | 02/Jun/2020          |
| Preamplifier                     | MITEQ           | TTA1840-35-HG | 1864481                  | 18GHz~40GHz      | 05/Aug/2019      | 04/Aug/2020          |



Summary

| Mode                     | Result | Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|--------------------------|--------|------|--------------|-------------------|-------------------|----------------|-------------|------------|----------------|---------------|----------|
| 2.4-2.4835GHz            | -      | -    | -            | -                 | -                 | -              | -           | -          | -              | -             | -        |
| 802.11b_Nss1,(1Mbps)_3TX | Pass   | AV   | 4.87396G     | 53.48             | 54.00             | -0.52          | 3           | Horizontal | 261            | 1.00          | -        |
| 802.11g_Nss1,(6Mbps)_3TX | Pass   | AV   | 2.3884G      | 52.87             | 54.00             | -1.13          | 3           | Horizontal | 297            | 1.16          | -        |

**Result**

| Mode                     | Result | Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|--------------------------|--------|------|--------------|-------------------|-------------------|----------------|-------------|------------|----------------|---------------|----------|
| 802.11b_Nss1,(1Mbps)_3TX | -      | -    | -            | -                 | -                 | -              | -           | -          | -              | -             | -        |
| 2437MHz                  | Pass   | AV   | 2.3574G      | 45.33             | 54.00             | -8.67          | 3           | Vertical   | 21             | 1.59          | -        |
| 2437MHz                  | Pass   | AV   | 2.4362G      | 92.00             | Inf               | -Inf           | 3           | Vertical   | 21             | 1.59          | -        |
| 2437MHz                  | Pass   | AV   | 2.497G       | 45.82             | 54.00             | -8.18          | 3           | Vertical   | 21             | 1.59          | -        |
| 2437MHz                  | Pass   | PK   | 2.3682G      | 57.10             | 74.00             | -16.90         | 3           | Vertical   | 21             | 1.59          | -        |
| 2437MHz                  | Pass   | PK   | 2.4362G      | 95.76             | Inf               | -Inf           | 3           | Vertical   | 21             | 1.59          | -        |
| 2437MHz                  | Pass   | PK   | 2.4926G      | 57.44             | 74.00             | -16.56         | 3           | Vertical   | 21             | 1.59          | -        |
| 2437MHz                  | Pass   | AV   | 2.343G       | 45.37             | 54.00             | -8.63          | 3           | Horizontal | 221            | 3.00          | -        |
| 2437MHz                  | Pass   | AV   | 2.4362G      | 101.90            | Inf               | -Inf           | 3           | Horizontal | 221            | 3.00          | -        |
| 2437MHz                  | Pass   | AV   | 2.4946G      | 45.80             | 54.00             | -8.20          | 3           | Horizontal | 221            | 3.00          | -        |
| 2437MHz                  | Pass   | PK   | 2.3606G      | 57.55             | 74.00             | -16.45         | 3           | Horizontal | 221            | 3.00          | -        |
| 2437MHz                  | Pass   | PK   | 2.4378G      | 105.56            | Inf               | -Inf           | 3           | Horizontal | 221            | 3.00          | -        |
| 2437MHz                  | Pass   | PK   | 2.4978G      | 58.04             | 74.00             | -15.96         | 3           | Horizontal | 221            | 3.00          | -        |
| 2437MHz                  | Pass   | AV   | 4.87396G     | 49.05             | 54.00             | -4.95          | 3           | Vertical   | 305            | 1.00          | -        |
| 2437MHz                  | Pass   | PK   | 4.87408G     | 52.25             | 74.00             | -21.75         | 3           | Vertical   | 305            | 1.00          | -        |
| 2437MHz                  | Pass   | AV   | 4.87396G     | 53.48             | 54.00             | -0.52          | 3           | Horizontal | 261            | 1.00          | -        |
| 2437MHz                  | Pass   | PK   | 4.874G       | 56.10             | 74.00             | -17.90         | 3           | Horizontal | 261            | 1.00          | -        |
| 2457MHz                  | Pass   | AV   | 2.4562G      | 99.38             | Inf               | -Inf           | 3           | Vertical   | 355            | 1.87          | -        |
| 2457MHz                  | Pass   | AV   | 2.4984G      | 45.81             | 54.00             | -8.19          | 3           | Vertical   | 355            | 1.87          | -        |
| 2457MHz                  | Pass   | PK   | 2.456G       | 103.04            | Inf               | -Inf           | 3           | Vertical   | 355            | 1.87          | -        |
| 2457MHz                  | Pass   | PK   | 2.4946G      | 57.61             | 74.00             | -16.39         | 3           | Vertical   | 355            | 1.87          | -        |
| 2457MHz                  | Pass   | AV   | 2.4562G      | 100.89            | Inf               | -Inf           | 3           | Horizontal | 193            | 1.52          | -        |
| 2457MHz                  | Pass   | AV   | 2.4992G      | 45.86             | 54.00             | -8.14          | 3           | Horizontal | 193            | 1.52          | -        |
| 2457MHz                  | Pass   | PK   | 2.4576G      | 104.64            | Inf               | -Inf           | 3           | Horizontal | 193            | 1.52          | -        |
| 2457MHz                  | Pass   | PK   | 2.487G       | 57.58             | 74.00             | -16.42         | 3           | Horizontal | 193            | 1.52          | -        |
| 2457MHz                  | Pass   | AV   | 4.91396G     | 50.15             | 54.00             | -3.85          | 3           | Vertical   | 306            | 1.08          | -        |
| 2457MHz                  | Pass   | PK   | 4.91404G     | 53.01             | 74.00             | -20.99         | 3           | Vertical   | 306            | 1.08          | -        |
| 2457MHz                  | Pass   | AV   | 4.91396G     | 53.36             | 54.00             | -0.64          | 3           | Horizontal | 53             | 1.00          | -        |
| 2457MHz                  | Pass   | PK   | 4.91396G     | 55.92             | 74.00             | -18.08         | 3           | Horizontal | 53             | 1.00          | -        |
| 2462MHz                  | Pass   | AV   | 2.4636G      | 101.21            | Inf               | -Inf           | 3           | Vertical   | 265            | 2.68          | -        |
| 2462MHz                  | Pass   | AV   | 2.4962G      | 45.91             | 54.00             | -8.09          | 3           | Vertical   | 265            | 2.68          | -        |
| 2462MHz                  | Pass   | PK   | 2.4636G      | 104.73            | Inf               | -Inf           | 3           | Vertical   | 265            | 2.68          | -        |
| 2462MHz                  | Pass   | PK   | 2.4932G      | 58.17             | 74.00             | -15.83         | 3           | Vertical   | 265            | 2.68          | -        |
| 2462MHz                  | Pass   | AV   | 2.4632G      | 103.28            | Inf               | -Inf           | 3           | Horizontal | 254            | 2.68          | -        |
| 2462MHz                  | Pass   | AV   | 2.4878G      | 45.97             | 54.00             | -8.03          | 3           | Horizontal | 254            | 2.68          | -        |
| 2462MHz                  | Pass   | PK   | 2.463G       | 107.17            | Inf               | -Inf           | 3           | Horizontal | 254            | 2.68          | -        |
| 2462MHz                  | Pass   | PK   | 2.497G       | 57.89             | 74.00             | -16.11         | 3           | Horizontal | 254            | 2.68          | -        |
| 2462MHz                  | Pass   | AV   | 4.92396G     | 50.22             | 54.00             | -3.78          | 3           | Vertical   | 304            | 1.11          | -        |
| 2462MHz                  | Pass   | PK   | 4.92392G     | 53.09             | 74.00             | -20.91         | 3           | Vertical   | 304            | 1.11          | -        |
| 2462MHz                  | Pass   | AV   | 4.92396G     | 53.27             | 54.00             | -0.73          | 3           | Horizontal | 50             | 1.05          | -        |
| 2462MHz                  | Pass   | PK   | 4.92396G     | 55.88             | 74.00             | -18.12         | 3           | Horizontal | 50             | 1.05          | -        |
| 802.11g_Nss1,(6Mbps)_3TX | -      | -    | -            | -                 | -                 | -              | -           | -          | -              | -             | -        |
| 2412MHz                  | Pass   | AV   | 2.387G       | 48.27             | 54.00             | -5.73          | 3           | Vertical   | 9              | 1.04          | -        |
| 2412MHz                  | Pass   | AV   | 2.4166G      | 100.96            | Inf               | -Inf           | 3           | Vertical   | 9              | 1.04          | -        |
| 2412MHz                  | Pass   | PK   | 2.388G       | 61.70             | 74.00             | -12.30         | 3           | Vertical   | 9              | 1.04          | -        |
| 2412MHz                  | Pass   | PK   | 2.4166G      | 111.39            | Inf               | -Inf           | 3           | Vertical   | 9              | 1.04          | -        |
| 2412MHz                  | Pass   | AV   | 2.3884G      | 52.87             | 54.00             | -1.13          | 3           | Horizontal | 297            | 1.16          | -        |
| 2412MHz                  | Pass   | AV   | 2.4172G      | 104.84            | Inf               | -Inf           | 3           | Horizontal | 297            | 1.16          | -        |

Remark :

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$$\text{Level (dBuV/m)} = \text{Raw(Read Level)} + \text{AF(Antenna Factor)} + \text{CL(Cable Loss)} - \text{PA( Preamp Factor)}$$

8D0606-01

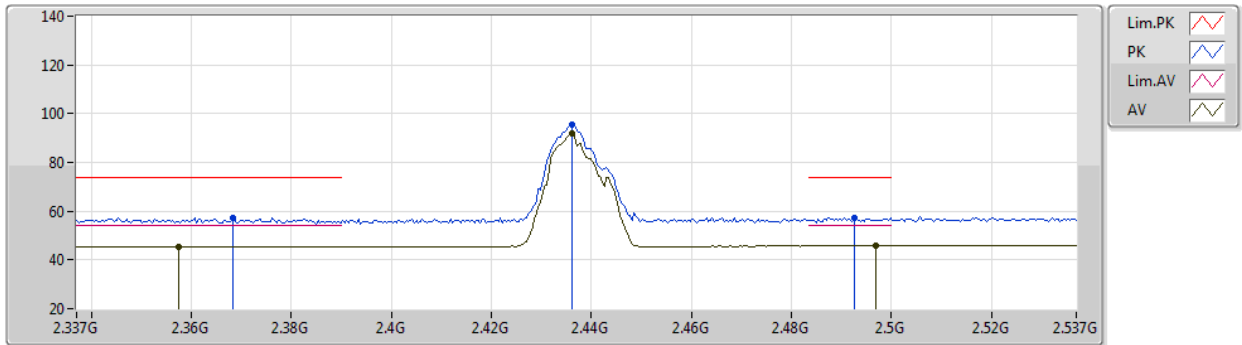


| Mode    | Result | Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|---------|--------|------|--------------|-------------------|-------------------|----------------|-------------|------------|----------------|---------------|----------|
| 2412MHz | Pass   | PK   | 2.388G       | 68.06             | 74.00             | -5.94          | 3           | Horizontal | 297            | 1.16          | -        |
| 2412MHz | Pass   | PK   | 2.417G       | 115.31            | Inf               | -Inf           | 3           | Horizontal | 297            | 1.16          | -        |
| 2412MHz | Pass   | AV   | 4.82334G     | 34.53             | 54.00             | -19.47         | 3           | Vertical   | 142            | 2.72          | -        |
| 2412MHz | Pass   | PK   | 4.82742G     | 48.64             | 74.00             | -25.36         | 3           | Vertical   | 142            | 2.72          | -        |
| 2412MHz | Pass   | AV   | 4.82184G     | 35.77             | 54.00             | -18.23         | 3           | Horizontal | 39             | 2.28          | -        |
| 2412MHz | Pass   | PK   | 4.82274G     | 49.91             | 74.00             | -24.09         | 3           | Horizontal | 39             | 2.28          | -        |

# 802.11b\_Nss1,(1Mbps)\_3TX

23/05/2020

## 2437MHz\_TX

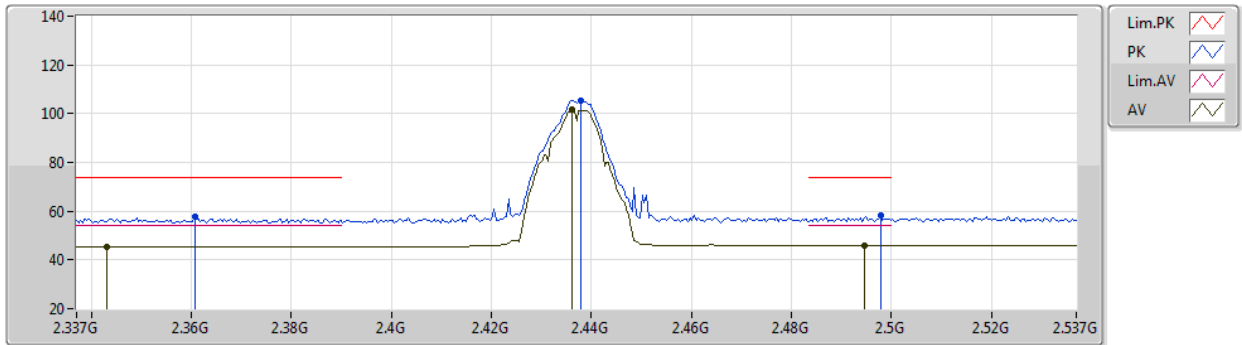


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comment | Raw<br>(dBuV) | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|---------|---------------|------------|------------|------------|
| AV   | 2.3574G      | 45.33             | 54.00             | -8.67          | 33.20          | 3           | Vertical  | 21             | 1.59          | -       | 12.13         | 27.27      | 5.93       | -          |
| AV   | 2.4362G      | 92.00             | Inf               | -Inf           | 33.51          | 3           | Vertical  | 21             | 1.59          | -       | 58.49         | 27.51      | 6.00       | -          |
| AV   | 2.497G       | 45.82             | 54.00             | -8.18          | 33.77          | 3           | Vertical  | 21             | 1.59          | -       | 12.05         | 27.69      | 6.08       | -          |
| PK   | 2.3682G      | 57.10             | 74.00             | -16.90         | 33.24          | 3           | Vertical  | 21             | 1.59          | -       | 23.86         | 27.30      | 5.94       | -          |
| PK   | 2.4362G      | 95.76             | Inf               | -Inf           | 33.51          | 3           | Vertical  | 21             | 1.59          | -       | 62.25         | 27.51      | 6.00       | -          |
| PK   | 2.4926G      | 57.44             | 74.00             | -16.56         | 33.75          | 3           | Vertical  | 21             | 1.59          | -       | 23.69         | 27.68      | 6.07       | -          |

# 802.11b\_Nss1,(1Mbps)\_3TX

23/05/2020

## 2437MHz\_TX

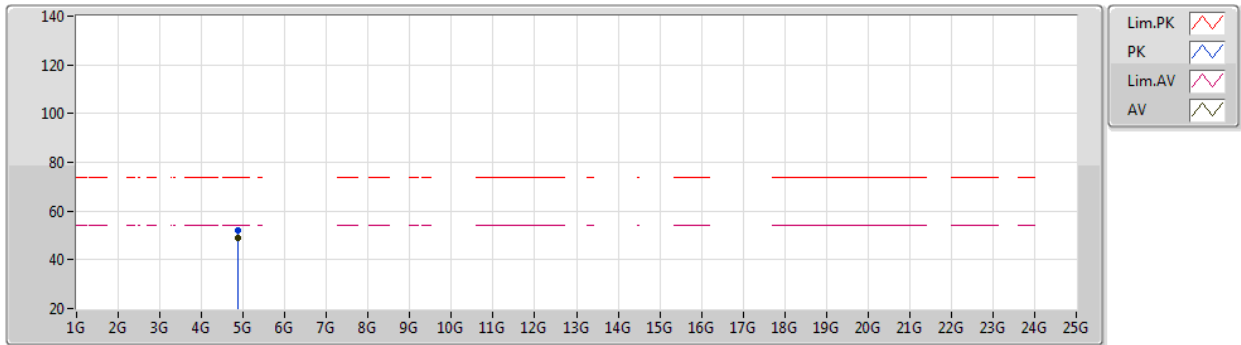


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comment | Raw<br>(dBuV) | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|---------|---------------|------------|------------|------------|
| AV   | 2.343G       | 45.37             | 54.00             | -8.63          | 33.15          | 3           | Horizontal | 221            | 3.00          | -       | 12.22         | 27.23      | 5.92       | -          |
| AV   | 2.4362G      | 101.90            | Inf               | -Inf           | 33.51          | 3           | Horizontal | 221            | 3.00          | -       | 68.39         | 27.51      | 6.00       | -          |
| AV   | 2.4946G      | 45.80             | 54.00             | -8.20          | 33.75          | 3           | Horizontal | 221            | 3.00          | -       | 12.05         | 27.68      | 6.07       | -          |
| PK   | 2.3606G      | 57.55             | 74.00             | -16.45         | 33.21          | 3           | Horizontal | 221            | 3.00          | -       | 24.34         | 27.28      | 5.93       | -          |
| PK   | 2.4378G      | 105.56            | Inf               | -Inf           | 33.52          | 3           | Horizontal | 221            | 3.00          | -       | 72.04         | 27.51      | 6.01       | -          |
| PK   | 2.4978G      | 58.04             | 74.00             | -15.96         | 33.77          | 3           | Horizontal | 221            | 3.00          | -       | 24.27         | 27.69      | 6.08       | -          |

## 802.11b\_Nss1,(1Mbps)\_3TX

23/05/2020

### 2437MHz\_TX

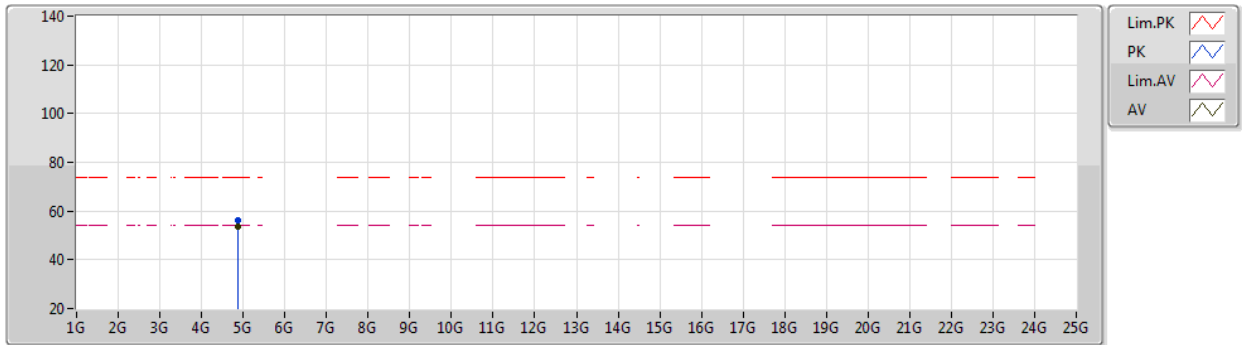


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comment | Raw<br>(dBuV) | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|---------|---------------|------------|------------|------------|
| AV   | 4.87396G     | 49.05             | 54.00             | -4.95          | 5.90           | 3           | Vertical  | 305            | 1.00          | -       | 43.15         | 31.47      | 8.30       | 33.87      |
| PK   | 4.87408G     | 52.25             | 74.00             | -21.75         | 5.90           | 3           | Vertical  | 305            | 1.00          | -       | 46.35         | 31.47      | 8.30       | 33.87      |

# 802.11b\_Nss1,(1Mbps)\_3TX

23/05/2020

## 2437MHz\_TX

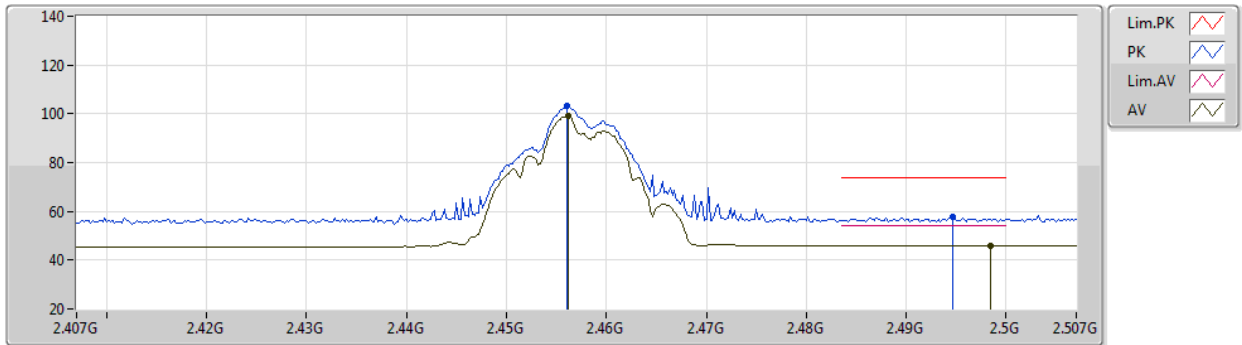


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comment | Raw<br>(dBuV) | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|---------|---------------|------------|------------|------------|
| AV   | 4.87396G     | 53.48             | 54.00             | -0.52          | 5.90           | 3           | Horizontal | 261            | 1.00          | -       | 47.58         | 31.47      | 8.30       | 33.87      |
| PK   | 4.874G       | 56.10             | 74.00             | -17.90         | 5.90           | 3           | Horizontal | 261            | 1.00          | -       | 50.20         | 31.47      | 8.30       | 33.87      |

# 802.11b\_Nss1,(1Mbps)\_3TX

23/05/2020

## 2457MHz\_TX

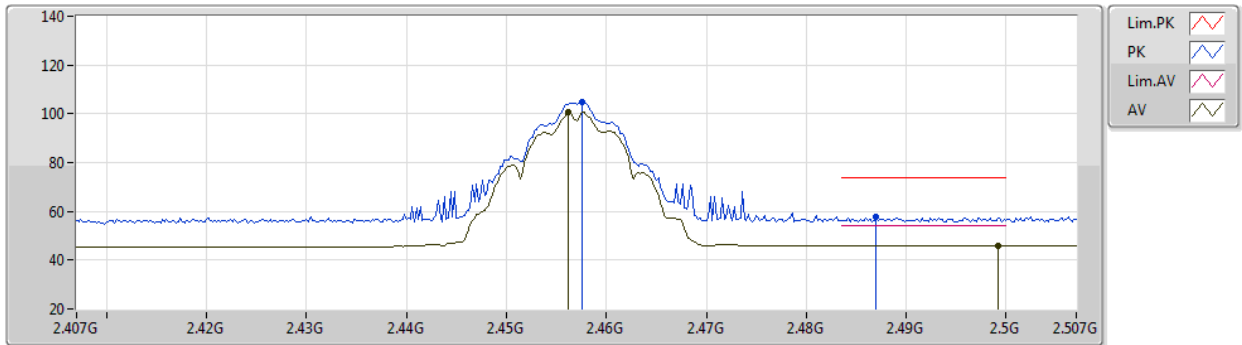


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comment | Raw<br>(dBuV) | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|---------|---------------|------------|------------|------------|
| AV   | 2.4562G      | 99.38             | Inf               | -Inf           | 33.60          | 3           | Vertical  | 355            | 1.87          | -       | 65.78         | 27.57      | 6.03       | -          |
| AV   | 2.4984G      | 45.81             | 54.00             | -8.19          | 33.78          | 3           | Vertical  | 355            | 1.87          | -       | 12.03         | 27.70      | 6.08       | -          |
| PK   | 2.456G       | 103.04            | Inf               | -Inf           | 33.60          | 3           | Vertical  | 355            | 1.87          | -       | 69.44         | 27.57      | 6.03       | -          |
| PK   | 2.4946G      | 57.61             | 74.00             | -16.39         | 33.75          | 3           | Vertical  | 355            | 1.87          | -       | 23.86         | 27.68      | 6.07       | -          |

# 802.11b\_Nss1,(1Mbps)\_3TX

23/05/2020

## 2457MHz\_TX

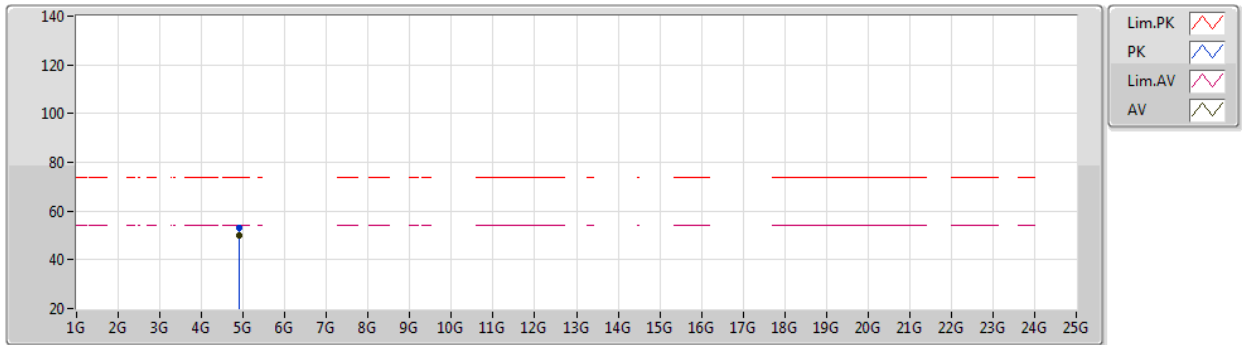


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comment | Raw<br>(dBuV) | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|---------|---------------|------------|------------|------------|
| AV   | 2.4562G      | 100.89            | Inf               | -Inf           | 33.60          | 3           | Horizontal | 193            | 1.52          | -       | 67.29         | 27.57      | 6.03       | -          |
| AV   | 2.4992G      | 45.86             | 54.00             | -8.14          | 33.78          | 3           | Horizontal | 193            | 1.52          | -       | 12.08         | 27.70      | 6.08       | -          |
| PK   | 2.4576G      | 104.64            | Inf               | -Inf           | 33.60          | 3           | Horizontal | 193            | 1.52          | -       | 71.04         | 27.57      | 6.03       | -          |
| PK   | 2.487G       | 57.58             | 74.00             | -16.42         | 33.72          | 3           | Horizontal | 193            | 1.52          | -       | 23.86         | 27.66      | 6.06       | -          |

# 802.11b\_Nss1,(1Mbps)\_3TX

23/05/2020

## 2457MHz\_TX

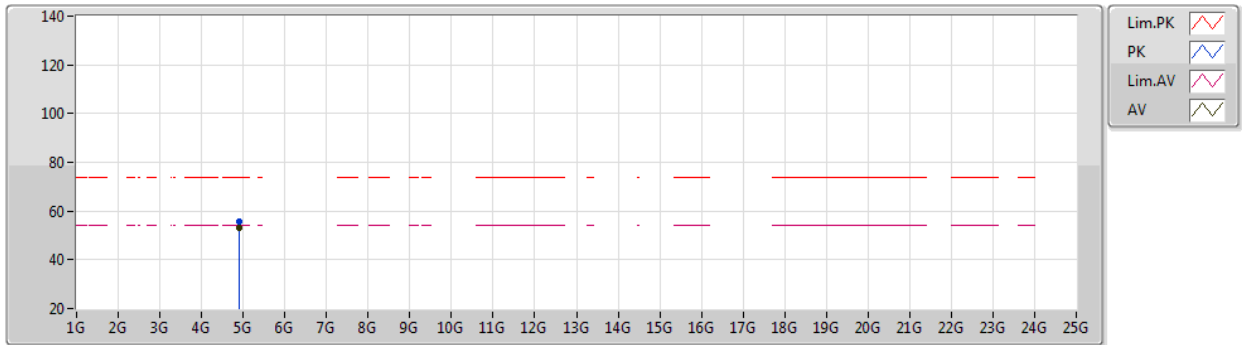


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comment | Raw<br>(dBuV) | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|---------|---------------|------------|------------|------------|
| AV   | 4.91396G     | 50.15             | 54.00             | -3.85          | 6.02           | 3           | Vertical  | 306            | 1.08          | -       | 44.13         | 31.55      | 8.32       | 33.85      |
| PK   | 4.91404G     | 53.01             | 74.00             | -20.99         | 6.02           | 3           | Vertical  | 306            | 1.08          | -       | 46.99         | 31.55      | 8.32       | 33.85      |

## 802.11b\_Nss1,(1Mbps)\_3TX

23/05/2020

### 2457MHz\_TX

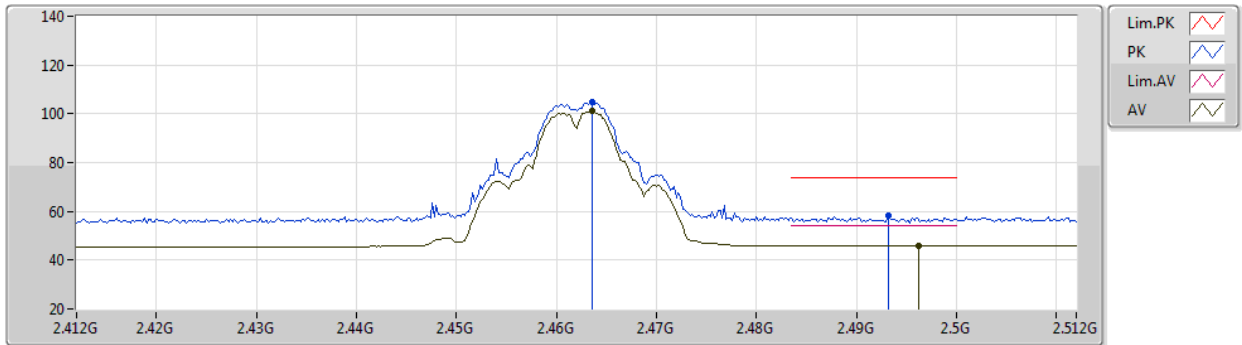


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comment | Raw<br>(dBuV) | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|---------|---------------|------------|------------|------------|
| AV   | 4.91396G     | 53.36             | 54.00             | -0.64          | 6.02           | 3           | Horizontal | 53             | 1.00          | -       | 47.34         | 31.55      | 8.32       | 33.85      |
| PK   | 4.91396G     | 55.92             | 74.00             | -18.08         | 6.02           | 3           | Horizontal | 53             | 1.00          | -       | 49.90         | 31.55      | 8.32       | 33.85      |

## 802.11b\_Nss1,(1Mbps)\_3TX

23/05/2020

### 2462MHz\_TX

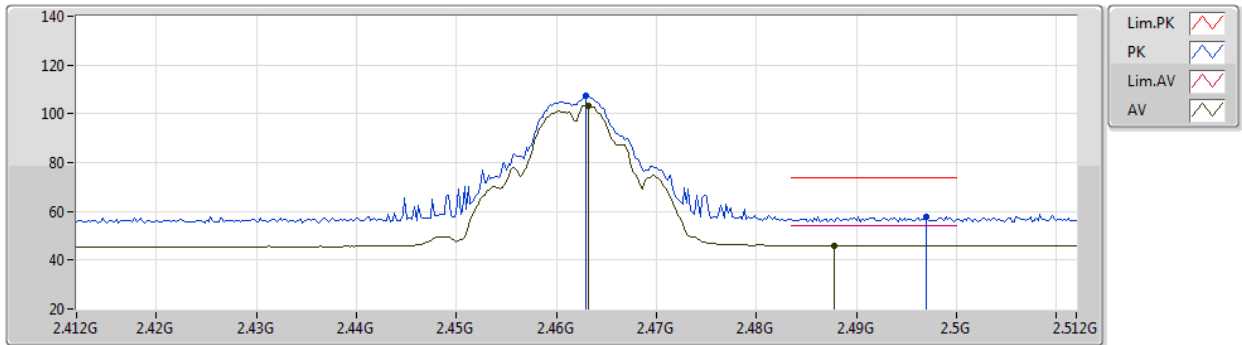


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comment | Raw<br>(dBuV) | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|---------|---------------|------------|------------|------------|
| AV   | 2.4636G      | 101.21            | Inf               | -Inf           | 33.63          | 3           | Vertical  | 265            | 2.68          | -       | 67.58         | 27.59      | 6.04       | -          |
| AV   | 2.4962G      | 45.91             | 54.00             | -8.09          | 33.77          | 3           | Vertical  | 265            | 2.68          | -       | 12.14         | 27.69      | 6.08       | -          |
| PK   | 2.4636G      | 104.73            | Inf               | -Inf           | 33.63          | 3           | Vertical  | 265            | 2.68          | -       | 71.10         | 27.59      | 6.04       | -          |
| PK   | 2.4932G      | 58.17             | 74.00             | -15.83         | 33.75          | 3           | Vertical  | 265            | 2.68          | -       | 24.42         | 27.68      | 6.07       | -          |

## 802.11b\_Nss1,(1Mbps)\_3TX

23/05/2020

### 2462MHz\_TX

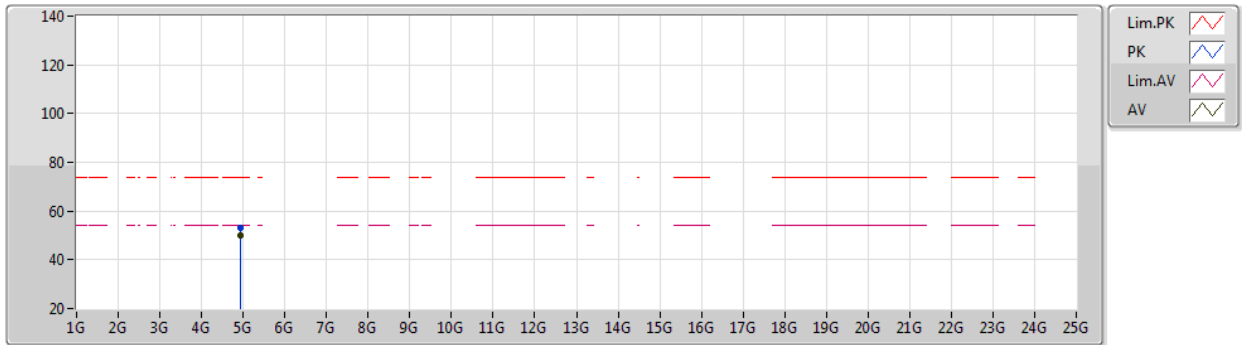


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comment | Raw<br>(dBuV) | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|---------|---------------|------------|------------|------------|
| AV   | 2.4632G      | 103.28            | Inf               | -Inf           | 33.63          | 3           | Horizontal | 254            | 2.68          | -       | 69.65         | 27.59      | 6.04       | -          |
| AV   | 2.4878G      | 45.97             | 54.00             | -8.03          | 33.73          | 3           | Horizontal | 254            | 2.68          | -       | 12.24         | 27.66      | 6.07       | -          |
| PK   | 2.463G       | 107.17            | Inf               | -Inf           | 33.63          | 3           | Horizontal | 254            | 2.68          | -       | 73.54         | 27.59      | 6.04       | -          |
| PK   | 2.497G       | 57.89             | 74.00             | -16.11         | 33.77          | 3           | Horizontal | 254            | 2.68          | -       | 24.12         | 27.69      | 6.08       | -          |

# 802.11b\_Nss1,(1Mbps)\_3TX

23/05/2020

## 2462MHz\_TX

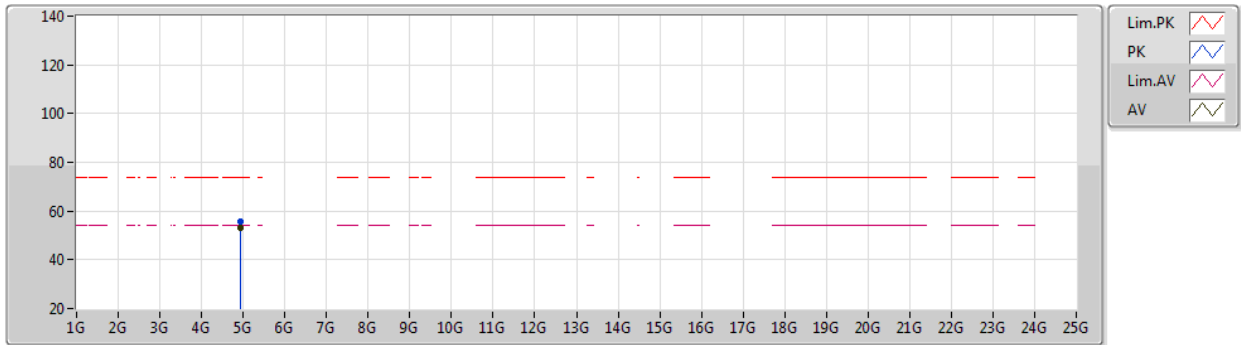


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comment | Raw<br>(dBuV) | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|---------|---------------|------------|------------|------------|
| AV   | 4.92396G     | 50.22             | 54.00             | -3.78          | 6.04           | 3           | Vertical  | 304            | 1.11          | -       | 44.18         | 31.56      | 8.33       | 33.85      |
| PK   | 4.92392G     | 53.09             | 74.00             | -20.91         | 6.04           | 3           | Vertical  | 304            | 1.11          | -       | 47.05         | 31.56      | 8.33       | 33.85      |

## 802.11b\_Nss1,(1Mbps)\_3TX

23/05/2020

### 2462MHz\_TX

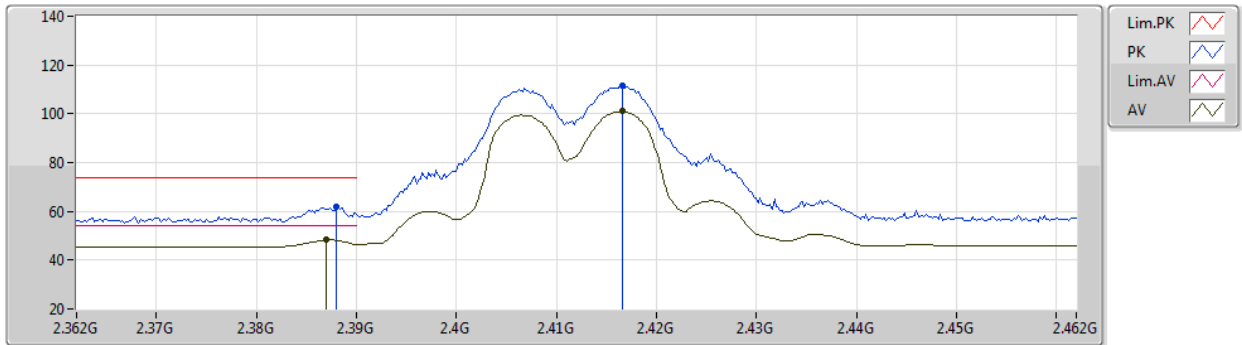


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comment | Raw<br>(dBuV) | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|---------|---------------|------------|------------|------------|
| AV   | 4.92396G     | 53.27             | 54.00             | -0.73          | 6.04           | 3           | Horizontal | 50             | 1.05          | -       | 47.23         | 31.56      | 8.33       | 33.85      |
| PK   | 4.92396G     | 55.88             | 74.00             | -18.12         | 6.04           | 3           | Horizontal | 50             | 1.05          | -       | 49.84         | 31.56      | 8.33       | 33.85      |

# 802.11g\_Nss1,(6Mbps)\_3TX

22/05/2020

## 2412MHz\_TX

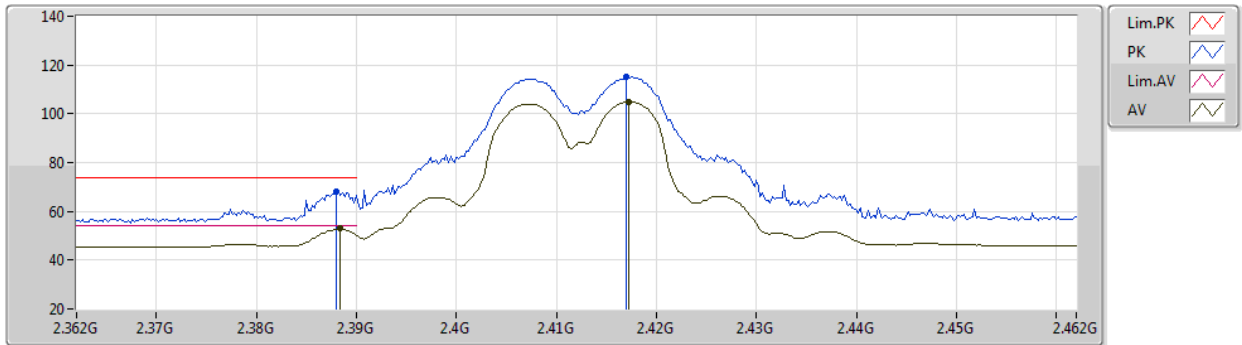


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comment | Raw<br>(dBuV) | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|---------|---------------|------------|------------|------------|
| AV   | 2.387G       | 48.27             | 54.00             | -5.73          | 33.31          | 3           | Vertical  | 9              | 1.04          | -       | 14.96         | 27.36      | 5.95       | -          |
| AV   | 2.4166G      | 100.96            | Inf               | -Inf           | 33.43          | 3           | Vertical  | 9              | 1.04          | -       | 67.53         | 27.45      | 5.98       | -          |
| PK   | 2.388G       | 61.70             | 74.00             | -12.30         | 33.31          | 3           | Vertical  | 9              | 1.04          | -       | 28.39         | 27.36      | 5.95       | -          |
| PK   | 2.4166G      | 111.39            | Inf               | -Inf           | 33.43          | 3           | Vertical  | 9              | 1.04          | -       | 77.96         | 27.45      | 5.98       | -          |

## 802.11g\_Nss1,(6Mbps)\_3TX

22/05/2020

### 2412MHz\_TX

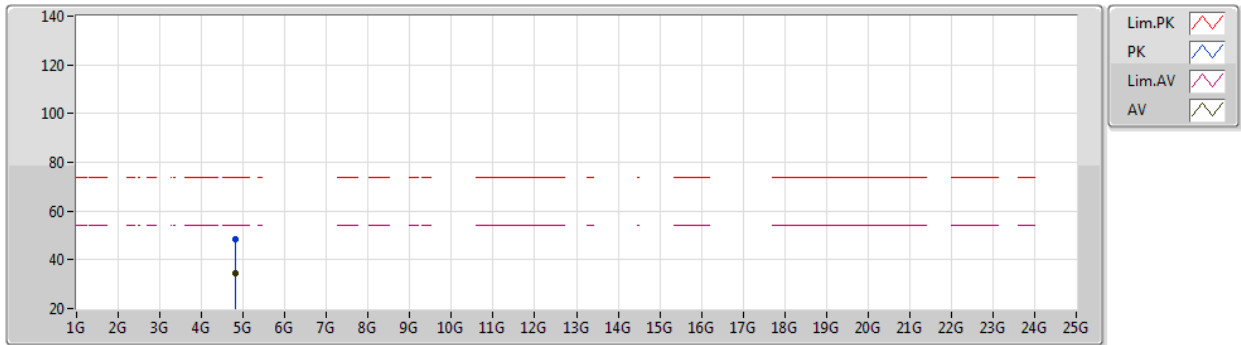


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comment | Raw<br>(dBuV) | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|---------|---------------|------------|------------|------------|
| AV   | 2.3884G      | 52.87             | 54.00             | -1.13          | 33.32          | 3           | Horizontal | 297            | 1.16          | -       | 19.55         | 27.37      | 5.95       | -          |
| AV   | 2.4172G      | 104.84            | Inf               | -Inf           | 33.43          | 3           | Horizontal | 297            | 1.16          | -       | 71.41         | 27.45      | 5.98       | -          |
| PK   | 2.388G       | 68.06             | 74.00             | -5.94          | 33.31          | 3           | Horizontal | 297            | 1.16          | -       | 34.75         | 27.36      | 5.95       | -          |
| PK   | 2.417G       | 115.31            | Inf               | -Inf           | 33.43          | 3           | Horizontal | 297            | 1.16          | -       | 81.88         | 27.45      | 5.98       | -          |

## 802.11g\_Nss1,(6Mbps)\_3TX

22/05/2020

### 2412MHz\_TX

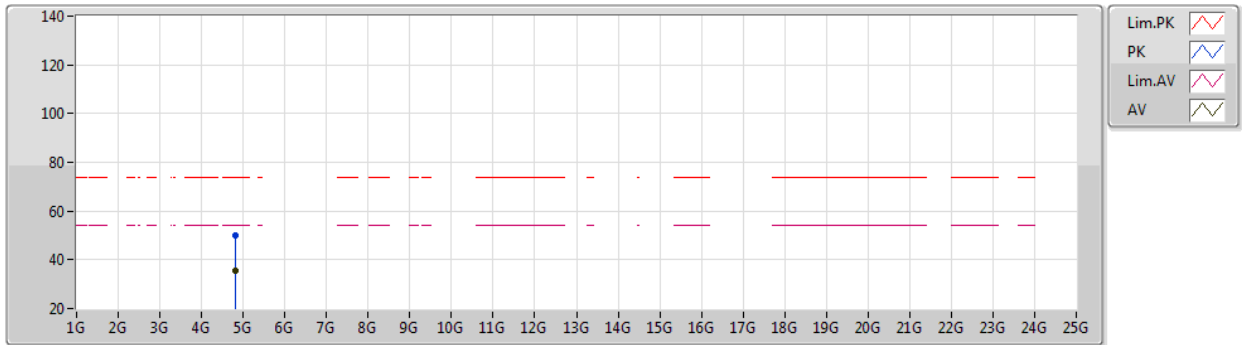


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comment | Raw<br>(dBuV) | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|---------|---------------|------------|------------|------------|
| AV   | 4.82334G     | 34.53             | 54.00             | -19.47         | 5.75           | 3           | Vertical  | 142            | 2.72          | -       | 28.78         | 31.38      | 8.27       | 33.90      |
| PK   | 4.82742G     | 48.64             | 74.00             | -25.36         | 5.76           | 3           | Vertical  | 142            | 2.72          | -       | 42.88         | 31.39      | 8.27       | 33.90      |

## 802.11g\_Nss1,(6Mbps)\_3TX

22/05/2020

### 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) | Comment | Raw<br>(dBuV) | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|---------|---------------|------------|------------|------------|
| AV   | 4.82184G     | 35.77             | 54.00             | -18.23         | 5.74           | 3           | Horizontal | 39             | 2.28          | -       | 30.03         | 31.38      | 8.26       | 33.90      |
| PK   | 4.82274G     | 49.91             | 74.00             | -24.09         | 5.74           | 3           | Horizontal | 39             | 2.28          | -       | 44.17         | 31.38      | 8.26       | 33.90      |