

# FCC Test Report

Equipment : Wi-Fi enabled Video Doorbell  
Brand Name : RING  
Model No. : Video Doorbell Pro  
FCC ID : 2AEUPBHALP011  
Standard : 47 CFR FCC Part 15.247  
Operating Band : 2400 MHz – 2483.5 MHz  
Function : ☒ Point-to-multipoint; ☐ Point-to-point  
Applicant : Ring, Inc.  
1523 26th St, Santa Monica, CA 90404, USA  
Manufacturer : Chicony Electronics (Dong Guan ) Co.,Ltd.  
San Zhong Guan Li Qu, Qingxi Town, Dongguan City  
Guangdong 523651 China

This report was evaluated for permissive change. The product sample received on Dec. 05, 2017 and completely tested on Jan. 09, 2018. We, SPORTON, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

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

  
Phoenix Chen/ Assistant Manager  
SPORTON INTERNATIONAL INC.



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## Summary of Test Result

| Conformance Test Specifications |                  |   |                                  |          |
|---------------------------------|------------------|---|----------------------------------|----------|
| Report Clause                   | Ref. Std. Clause | Description                                 | Limit                            | Result   |
| 3.1                             | 15.247(d)        | Emissions in Non-restricted Frequency Bands | Non-Restricted Bands:<br>>20 dBc | Complied |
| 3.2                             | 15.247(d)        | Emissions in Restricted Frequency Bands     | Restricted Bands:<br>FCC 15.209  | Complied |

## Revision History

[illegible]

# 1 General Description

## 1.1 Information

### 1.1.1 RF General Information

| Frequency Range (MHz) | Bluetooth Mode | Ch. Frequency (MHz) | Channel Number |
|-----------------------|----------------|---------------------|----------------|
| 2400-2483.5           | LE             | 2402-2480           | 0-39 [40]      |

| Band          | Mode         | BWch (MHz) | Nant |
|---------------|--------------|------------|------|
| 2.4-2.4835GHz | BT-LE(1Mbps) | 1.0        | 1TX  |

Note:

- ♦ Bluetooth LE uses a GFSK (1Mbps) modulation for DSSS.
- ♦ BWch is the nominal channel bandwidth.

### 1.1.2 EUT Information

| Operational Condition               |   |
|-------------------------------------|---|
| EUT Power Type                      | From Transformer  |
| Type of EUT                         |   |
| <input checked="" type="checkbox"/> | Stand-alone   |
| <input type="checkbox"/>            | Combined (EUT where the radio part is fully integrated within another device) |
| <input type="checkbox"/>            | Combined Equipment - Brand Name / Model No.: ...                              |
| <input type="checkbox"/>            | Plug-in radio (EUT intended for a variety of host systems)                    |
| <input type="checkbox"/>            | Host System - Brand Name / Model No.: ...                                     |
| <input type="checkbox"/>            | Other:  |

### 1.1.3 Mode Test Duty Cycle

| Operated Mode for Worst Duty Cycle  |                                       |
|---|---------------------------------------|
| <input checked="" type="checkbox"/> Operated test mode for worst duty cycle |                                       |
| Test Signal Duty Cycle (x)  | Power Duty Factor [dB] – (10 log 1/x) |
| <input checked="" type="checkbox"/> 69.77% - test mode single channel – LE  | 1.56                                  |

### 1.1.4 Table for Permissive Change

This product is an extension of original one reported under Sporton project number: FR5N2432-03AL

Below is the table for the change of the product with respect to the original one.

| Modifications  | Performance Checking  |
|--|---|
| The name of the applicant is modified.                           | N/A   |
| The material of back enclosure is changed from plastic to metal. | The worst case of Emissions in Non-restricted Frequency Bands and Emissions in Restricted Frequency Bands were evaluated. |

## 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 v04

## 1.3 Testing Location Information

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

| Test Condition | Test Site No. | Test Engineer | Test Environment | Test Date   |
|----------------|---------------|---------------|------------------|-------------|
| RF Conducted   | TH06-HY       | Tim           | 22.5°C / 65%     | 09/Jan/2018 |
| Radiated       | 03CH09-HY     | Jerry         | 23.5°C / 55%     | 04/Jan/2018 |

## 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)  | 3.6 dB      | Confidence levels of 95% |
| Radiated Emission (9kHz ~ 30MHz)     | 3.0 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% |

## 2 Test Configuration of EUT

### 2.1 Test Condition

| RF Conducted | Abbreviation | Remark |
|--------------|--------------|--------|
| TnomVnom     | Tnom         | 20°C   |
| -            | Vnom         | 110V   |

### 2.2 Test Channel Mode




| Test Software | Dos |
|---------------|-----|
|---------------|-----|

| Mode         | Power Setting |
|--------------|---------------|
| BT-LE(1Mbps) | -             |
| 2402MHz      | Default       |
| 2440MHz      | Default       |
| 2480MHz      | Default       |



## 2.3 The Worst Case Measurement Configuration

| The Worst Case Mode for Following Conformance Tests |   |
|---|---|
| <b>Tests Item</b>                                   | 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   | AC Mains  |  |  |
| <b>Operating Mode &gt; 1GHz</b>                     | CTX   |  |  |
| <b>Orthogonal Planes of EUT</b>                     | <b>X Plane</b>  | <b>Y Plane</b>   | <b>Z Plane</b>   |
|   |   |  |  |
| <b>Worst Planes of EUT</b>                          | V   |  |  |

## 2.4 Accessories

| Accessories Information |              |                  |            |        |
|-------------------------|--------------|------------------|------------|--------|
| Li-ion Battery          | Brand Name   | Fuji             | Model Name | 334060 |
|                         | Power Rating | 3.8 Vdc, 300 mAh |            |        |

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

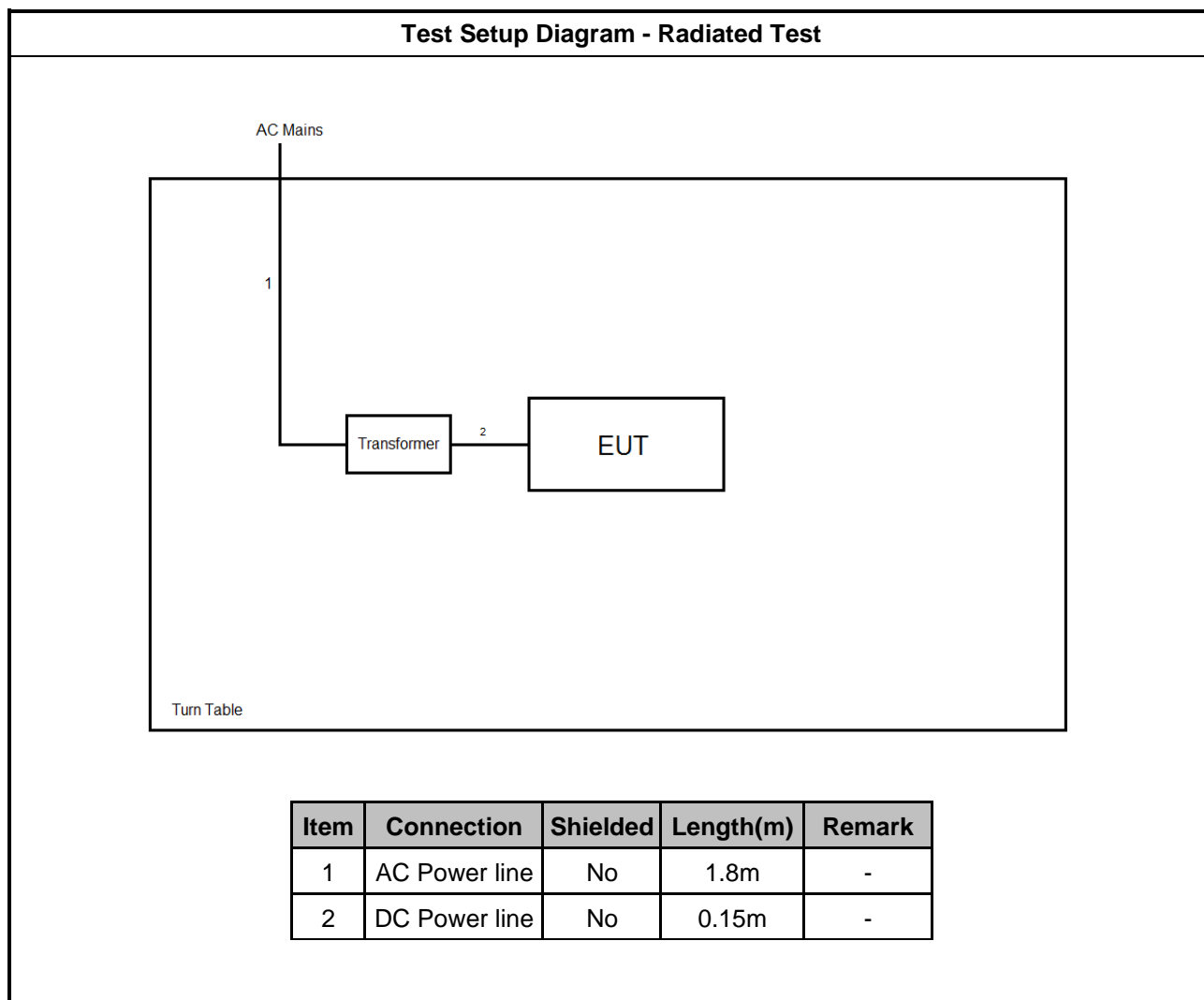
## 2.5 Support Equipment

| Support Equipment – RF Conducted |                |            |            |        |
|----------------------------------|----------------|------------|------------|--------|
| No.                              | Equipment      | Brand Name | Model Name | FCC ID |
| 1                                | Notebook       | DELL       | E5410      | DoC    |
| 2                                | Adapter for NB | DELL       | HA65NM130  | DoC    |
| 3                                | DC Source      | GW         | GPS-3030DD | -      |

| Support Equipment – Radiated Emission |             |            |            |        |
|---------------------------------------|-------------|------------|------------|--------|
| No.                                   | Equipment   | Brand Name | Model Name | FCC ID |
| 1                                     | Transformer | TRIAD      | VPL16-1600 | -      |

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

## 2.6 Test Setup Diagram



### 3 Transmitter Test Result

#### 3.1 Emissions in Non-restricted Frequency Bands

##### 3.1.1 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> |            |

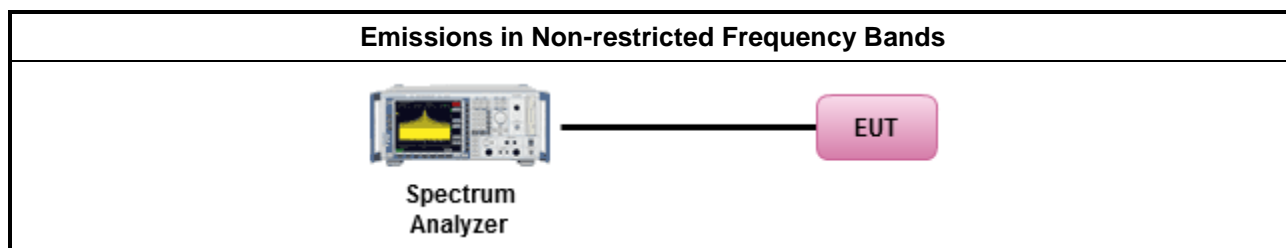
##### 3.1.2 Measuring Instruments

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>Refer as KDB 558074, clause 11 for unwanted emissions into non-restricted bands.</li> </ul> |

##### 3.1.4 Test Setup



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

Refer as Appendix A

## 3.2 Emissions in Restricted Frequency Bands

### 3.2.1 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.

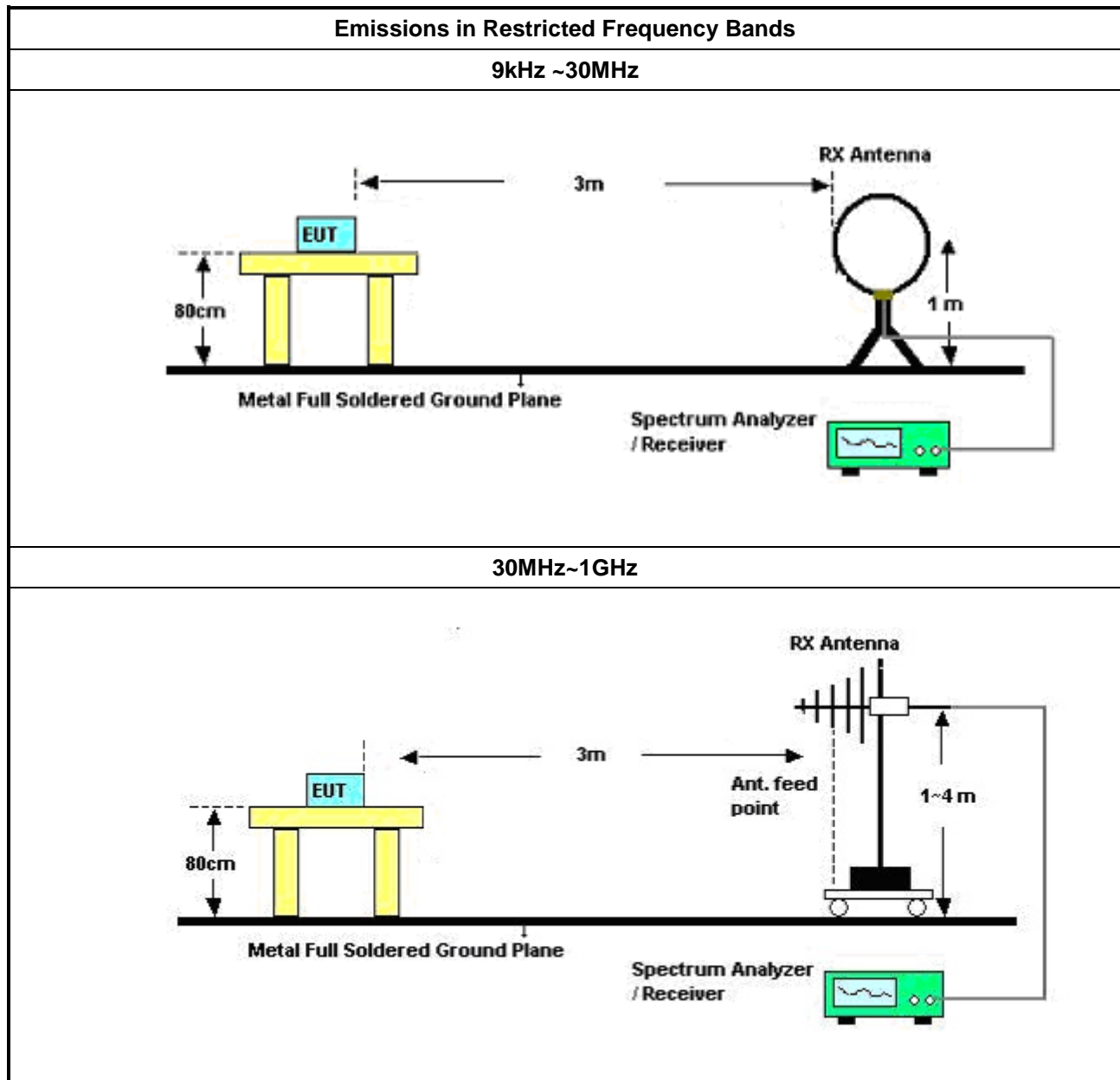
### 3.2.2 Measuring Instruments

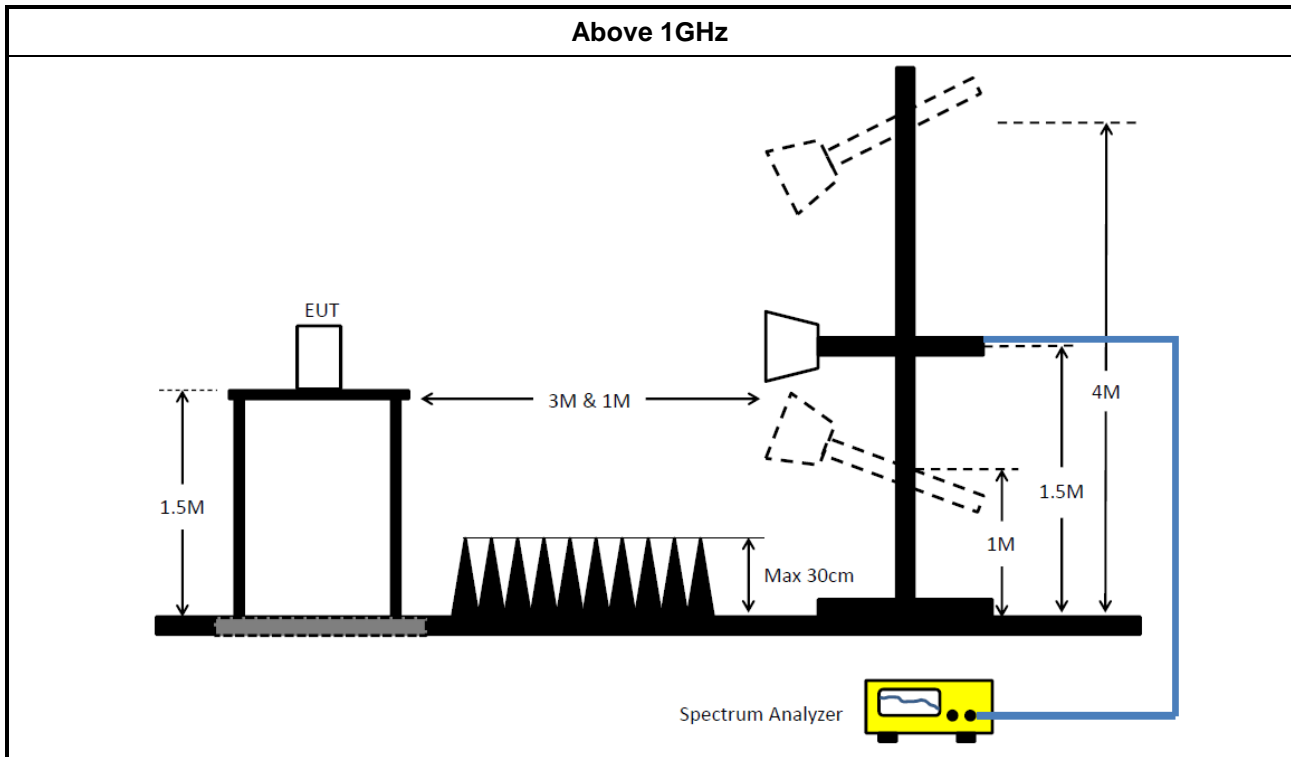
Refer a test equipment and calibration data table in this test report.

### 3.2.3 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 12 for unwanted emissions into restricted bands.</li> </ul>   |
|   | <input checked="" type="checkbox"/> Refer as KDB 558074, clause 12.2.5.3 (ANSI C63.10, clause 4.1.4.2.3), Reduced VBW $\geq 1/T$ .   |
|   | <input checked="" type="checkbox"/> Refer as KDB 558074, clause 12.2.4 measurement procedure peak limit.   |
| <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 13.1, 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 13.2 (ANSI C63.10, clause 6.10.6) for marker-delta method for band-edge measurements.</li> </ul>  |
|   | <ul style="list-style-type: none"> <li>Refer as KDB 558074, clause 13.3 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>For conducted and cabinet radiation measurement, refer as KDB 558074, clause 12.2.2.</li> </ul>  |  |
|   | <ul style="list-style-type: none"> <li>For conducted unwanted emissions into restricted bands (absolute emission limits).<br/>Devices with multiple transmit chains using options given below:<br/>(1) Measure and sum the spectra across the outputs or<br/>(2) Measure and add 10 log(N) dB</li> </ul>   |
|   | <ul style="list-style-type: none"> <li>For KDB 662911 The methodology described here may overestimate array gain, thereby resulting in apparent failures to satisfy the out-of-band limits even if the device is actually compliant. In such cases, compliance may be demonstrated by performing radiated tests around the frequencies at which the apparent failures occurred.</li> </ul> |

### 3.2.4 Test Setup





### 3.2.5 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.

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

Refer as Appendix B



## 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   | 25/Apr/2017      | 24/Apr/2018          |
| 3m Semi Anechoic Chamber | TDK          | SAC-3M      | 03CH09-HY      | 1GHz ~ 18GHz   | 28/Jun/2017      | 27/Jun/2018          |
| Amplifier                | Agilent      | 8449B       | 3008A02096     | 1GHz ~ 26.5GHz | 25/Apr/2017      | 24/Apr/2018          |
| Amplifier                | EMC          | EMC9135     | 980232         | 9kHz~1GHz      | 25/Apr/2017      | 24/Apr/2018          |
| Spectrum Analyzer        | KEYSIGHT     | N9010A      | MY54200885     | 10Hz ~ 44GHz   | 20/Jul/2017      | 19/Jul/2018          |
| Bilog Antenna            | TESEQ        | CBL 6111D   | 35418          | 30MHz~1GHz     | 09/Sep/2017      | 08/Sep/2018          |
| Horn Antenna             | SCHWARZBECK  | BBHA 9120D  | BBHA9120D 1534 | 1GHz~18GHz     | 28/Apr/2017      | 27/Apr/2018          |
| Horn Antenna             | SCHWARZBECK  | BBHA9170    | BBHA9170614    | 18GHz ~ 40GHz  | 06/Feb/2017      | 05/Feb/2018          |
| Loop Antenna             | TESTQ        | HLA 6120    | 31244          | 9kHz ~ 30MHz   | 02/Mar/2017      | 01/Mar/2018          |
| RF Cable-R03m            | Jye Bao      | RG142       | CB021          | 9kHz ~ 1GHz    | 02/Feb/2017      | 01/Feb/2018          |
| RF Cable-high            | SUHNER       | SUCOFLEX104 | MY34918/4      | 1GHz ~ 40GHz   | 02/Feb/2017      | 01/Feb/2018          |
| Receiver                 | R&S          | ESR3        | 102052         | 9kHz ~ 3.6GHz  | 29/Apr/2017      | 28/Apr/2018          |

### Instrument for Conducted Test

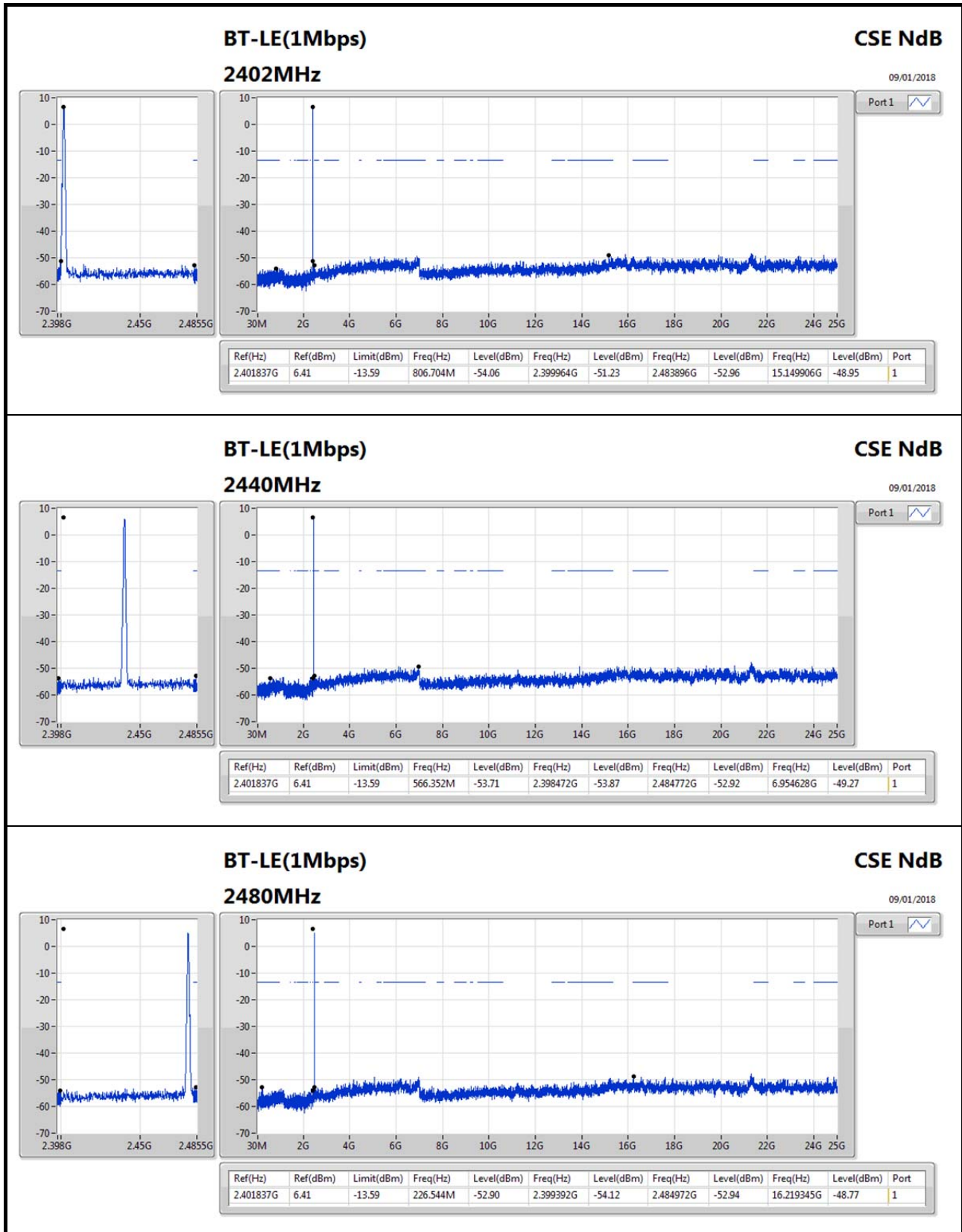
| Instrument        | Manufacturer | Model No. | Serial No. | Spec.          | Calibration Date | Calibration Due Date |
|-------------------|--------------|-----------|------------|----------------|------------------|----------------------|
| Spectrum Analyzer | R&S          | FSV 40    | 101515     | 9kHz ~ 40GHz   | 08/Dec/2017      | 07/Dec/2018          |
| Power Sensor      | Anritsu      | MA2411B   | 1027452    | 300MHz ~ 40GHz | 24/Feb/2017      | 23/Feb/2018          |
| Power Meter       | Anritsu      | ML2495A   | 1124009    | 300MHz ~ 40GHz | 24/Feb/2017      | 23/Feb/2018          |
| Signal Generator  | R&S          | SMR40     | 100116     | 10MHz ~ 40GHz  | 27/Jul/2017      | 26/Jul/2018          |

**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 | -      | -           | -            | -              | -            | -              | -            | -              | -            | -              | -            | -              | -    |
| BT-LE(1Mbps)  | Pass   | 2.401837G   | 6.41         | -13.59         | 226.544M     | -52.90         | 2.399392G    | -54.12         | 2.484972G    | -52.94         | 16.219345G   | -48.77         | 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 |
|------------------|--------|-------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|------|
| BT-LE(1Mbps)     | -      | -           | -            | -              | -            | -              | -            | -              | -            | -              | -            | -              | -    |
| 2402MHz_TnomVnom | Pass   | 2.401837G   | 6.41         | -13.59         | 806.704M     | -54.06         | 2.399964G    | -51.23         | 2.483896G    | -52.96         | 15.149906G   | -48.95         | 1    |
| 2440MHz_TnomVnom | Pass   | 2.401837G   | 6.41         | -13.59         | 566.352M     | -53.71         | 2.398472G    | -53.87         | 2.484772G    | -52.92         | 6.954628G    | -49.27         | 1    |
| 2480MHz_TnomVnom | Pass   | 2.401837G   | 6.41         | -13.59         | 226.544M     | -52.90         | 2.399392G    | -54.12         | 2.484972G    | -52.94         | 16.219345G   | -48.77         | 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 | -      | -    | -            | -                 | -                 | -              | -              | -           | -          | -              | -             | -        |
| BT-LE(1Mbps)  | Pass   | PK   | 703.18M      | 41.96             | 46.00             | -4.04          | -7.14          | 3           | Horizontal | 0              | 1.00          | -        |

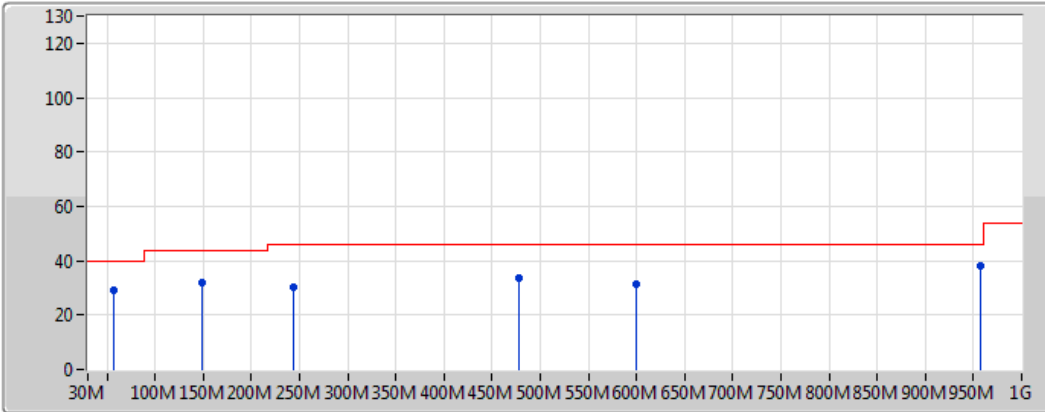
**Result**

| Mode         | Result | Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|--------------|--------|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| BT-LE(1Mbps) | -      | -    | -            | -                 | -                 | -              | -              | -           | -          | -              | -             | -        |
| 2440MHz      | Pass   | PK   | 115.36M      | 35.86             | 43.50             | -7.64          | -18.53         | 3           | Horizontal | 0              | 1.00          | -        |
| 2440MHz      | Pass   | PK   | 198.78M      | 34.29             | 43.50             | -9.21          | -19.91         | 3           | Horizontal | 0              | 1.00          | -        |
| 2440MHz      | Pass   | PK   | 243.4M       | 36.65             | 46.00             | -9.35          | -16.83         | 3           | Horizontal | 0              | 1.00          | -        |
| 2440MHz      | Pass   | PK   | 478.14M      | 28.43             | 46.00             | -17.57         | -10.22         | 3           | Horizontal | 0              | 1.00          | -        |
| 2440MHz      | Pass   | PK   | 703.18M      | 41.96             | 46.00             | -4.04          | -7.14          | 3           | Horizontal | 0              | 1.00          | -        |
| 2440MHz      | Pass   | PK   | 792.42M      | 39.44             | 46.00             | -6.56          | -5.22          | 3           | Horizontal | 0              | 1.00          | -        |
| 2440MHz      | Pass   | PK   | 57.16M       | 29.02             | 40.00             | -10.98         | -24.57         | 3           | Vertical   | 360            | 1.00          | -        |
| 2440MHz      | Pass   | PK   | 148.34M      | 31.85             | 43.50             | -11.65         | -18.22         | 3           | Vertical   | 360            | 1.00          | -        |
| 2440MHz      | Pass   | PK   | 243.4M       | 30.39             | 46.00             | -15.61         | -16.83         | 3           | Vertical   | 360            | 1.00          | -        |
| 2440MHz      | Pass   | PK   | 478.14M      | 33.55             | 46.00             | -12.45         | -10.22         | 3           | Vertical   | 360            | 1.00          | -        |
| 2440MHz      | Pass   | PK   | 600.36M      | 31.32             | 46.00             | -14.68         | -8.37          | 3           | Vertical   | 360            | 1.00          | -        |
| 2440MHz      | Pass   | PK   | 957.32M      | 37.92             | 46.00             | -8.08          | -1.64          | 3           | Vertical   | 360            | 1.00          | -        |

### BT-LE(1Mbps)

### 2440MHz\_AC

04/01/2018



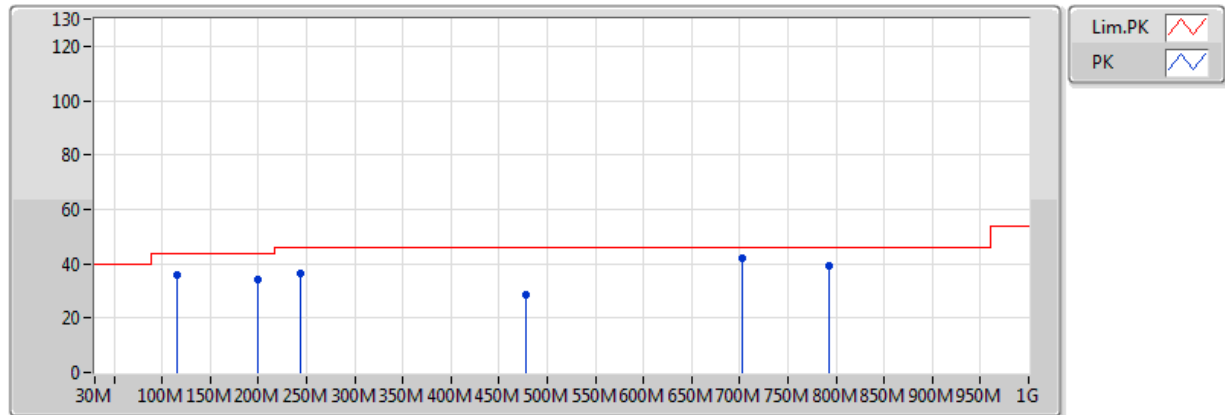
Lim.PK  
PK

| 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 | Raw<br>(dBuV) | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|---------------|------------|------------|------------|
| PK   | 57.16M       | 29.02             | 40.00             | -10.98         | -24.57         | 3           | Vertical  | 360            | 1.00          | -        | 53.59         | 11.30      | 1.23       | 37.10      |
| PK   | 148.34M      | 31.85             | 43.50             | -11.65         | -18.22         | 3           | Vertical  | 360            | 1.00          | -        | 50.07         | 16.35      | 2.03       | 36.60      |
| PK   | 243.4M       | 30.39             | 46.00             | -15.61         | -16.83         | 3           | Vertical  | 360            | 1.00          | -        | 47.22         | 17.04      | 2.53       | 36.40      |
| PK   | 478.14M      | 33.55             | 46.00             | -12.45         | -10.22         | 3           | Vertical  | 360            | 1.00          | -        | 43.77         | 22.87      | 3.76       | 36.85      |
| PK   | 600.36M      | 31.32             | 46.00             | -14.68         | -8.37          | 3           | Vertical  | 360            | 1.00          | -        | 39.69         | 24.70      | 4.12       | 37.19      |
| PK   | 957.32M      | 37.92             | 46.00             | -8.08          | -1.64          | 3           | Vertical  | 360            | 1.00          | -        | 39.56         | 30.23      | 5.44       | 37.31      |

### BT-LE(1Mbps)

### 2440MHz\_AC

04/01/2018



| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments | Raw<br>(dBuV) | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|---------------|------------|------------|------------|
| PK   | 115.36M      | 35.86             | 43.50             | -7.64          | -18.53         | 3           | Horizontal | 0              | 1.00          | -        | 54.39         | 16.46      | 1.74       | 36.74      |
| PK   | 198.78M      | 34.29             | 43.50             | -9.21          | -19.91         | 3           | Horizontal | 0              | 1.00          | -        | 54.20         | 14.18      | 2.29       | 36.38      |
| PK   | 243.4M       | 36.65             | 46.00             | -9.35          | -16.83         | 3           | Horizontal | 0              | 1.00          | -        | 53.48         | 17.04      | 2.53       | 36.40      |
| PK   | 478.14M      | 28.43             | 46.00             | -17.57         | -10.22         | 3           | Horizontal | 0              | 1.00          | -        | 38.65         | 22.87      | 3.76       | 36.85      |
| PK   | 703.18M      | 41.96             | 46.00             | -4.04          | -7.14          | 3           | Horizontal | 0              | 1.00          | -        | 49.10         | 25.86      | 4.36       | 37.35      |
| PK   | 792.42M      | 39.44             | 46.00             | -6.56          | -5.22          | 3           | Horizontal | 0              | 1.00          | -        | 44.66         | 27.33      | 4.92       | 37.47      |

**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 | -      | -    | -            | -                 | -                 | -              | -              | -           | -          | -              | -             | -        |
| BT-LE(1Mbps)  | Pass   | AV   | 2.483502G    | 48.10             | 54.00             | -5.90          | 31.27          | 3           | Horizontal | 157            | 1.00          | -        |



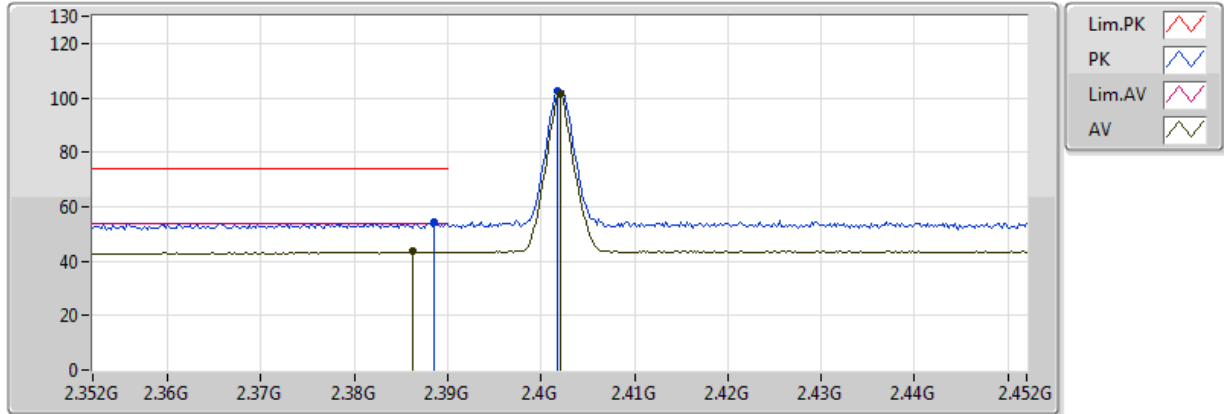
**Result**

| Mode         | Result | Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|--------------|--------|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| BT-LE(1Mbps) | -      | -    | -            | -                 | -                 | -              | -              | -           | -          | -              | -             | -        |
| 2402MHz      | Pass   | AV   | 2.3886G      | 43.31             | 54.00             | -10.69         | 30.93          | 3           | Horizontal | 44             | 1.00          | -        |
| 2402MHz      | Pass   | AV   | 2.402G       | 100.95            | Inf               | -Inf           | 30.98          | 3           | Horizontal | 44             | 1.00          | -        |
| 2402MHz      | Pass   | PK   | 2.389G       | 54.26             | 74.00             | -19.74         | 30.93          | 3           | Horizontal | 44             | 1.00          | -        |
| 2402MHz      | Pass   | PK   | 2.4022G      | 102.30            | Inf               | -Inf           | 30.98          | 3           | Horizontal | 44             | 1.00          | -        |
| 2402MHz      | Pass   | AV   | 2.3862G      | 43.48             | 54.00             | -10.52         | 30.92          | 3           | Vertical   | 17             | 1.12          | -        |
| 2402MHz      | Pass   | AV   | 2.402G       | 101.27            | Inf               | -Inf           | 30.98          | 3           | Vertical   | 17             | 1.12          | -        |
| 2402MHz      | Pass   | PK   | 2.3886G      | 54.40             | 74.00             | -19.60         | 30.93          | 3           | Vertical   | 17             | 1.12          | -        |
| 2402MHz      | Pass   | PK   | 2.4018G      | 102.38            | Inf               | -Inf           | 30.98          | 3           | Vertical   | 17             | 1.12          | -        |
| 2402MHz      | Pass   | AV   | 4.804G       | 38.70             | 54.00             | -15.30         | 9.42           | 3           | Horizontal | 290            | 1.02          | -        |
| 2402MHz      | Pass   | PK   | 4.804G       | 48.53             | 74.00             | -25.47         | 9.42           | 3           | Horizontal | 290            | 1.02          | -        |
| 2402MHz      | Pass   | AV   | 4.804G       | 37.61             | 54.00             | -16.39         | 9.42           | 3           | Vertical   | 310            | 1.50          | -        |
| 2402MHz      | Pass   | PK   | 4.804G       | 44.21             | 74.00             | -29.79         | 9.42           | 3           | Vertical   | 310            | 1.50          | -        |
| 2440MHz      | Pass   | AV   | 2.39G        | 43.36             | 54.00             | -10.64         | 30.93          | 3           | Horizontal | 154            | 1.34          | -        |
| 2440MHz      | Pass   | AV   | 2.44G        | 100.39            | Inf               | -Inf           | 31.11          | 3           | Horizontal | 154            | 1.34          | -        |
| 2440MHz      | Pass   | AV   | 2.4972G      | 43.96             | 54.00             | -10.04         | 31.32          | 3           | Horizontal | 154            | 1.34          | -        |
| 2440MHz      | Pass   | PK   | 2.3812G      | 54.13             | 74.00             | -19.87         | 30.90          | 3           | Horizontal | 154            | 1.34          | -        |
| 2440MHz      | Pass   | PK   | 2.4396G      | 101.75            | Inf               | -Inf           | 31.11          | 3           | Horizontal | 154            | 1.34          | -        |
| 2440MHz      | Pass   | PK   | 2.4948G      | 55.58             | 74.00             | -18.42         | 31.31          | 3           | Horizontal | 154            | 1.34          | -        |
| 2440MHz      | Pass   | AV   | 2.3896G      | 43.07             | 54.00             | -10.93         | 30.93          | 3           | Vertical   | 195            | 1.87          | -        |
| 2440MHz      | Pass   | AV   | 2.44G        | 100.79            | Inf               | -Inf           | 31.11          | 3           | Vertical   | 195            | 1.87          | -        |
| 2440MHz      | Pass   | AV   | 2.4944G      | 43.86             | 54.00             | -10.14         | 31.31          | 3           | Vertical   | 195            | 1.87          | -        |
| 2440MHz      | Pass   | PK   | 2.3568G      | 53.87             | 74.00             | -20.13         | 30.82          | 3           | Vertical   | 195            | 1.87          | -        |
| 2440MHz      | Pass   | PK   | 2.4396G      | 102.13            | Inf               | -Inf           | 31.11          | 3           | Vertical   | 195            | 1.87          | -        |
| 2440MHz      | Pass   | PK   | 2.4948G      | 55.71             | 74.00             | -18.29         | 31.31          | 3           | Vertical   | 195            | 1.87          | -        |
| 2440MHz      | Pass   | AV   | 4.88G        | 37.77             | 54.00             | -16.23         | 9.65           | 3           | Horizontal | 289            | 1.13          | -        |
| 2440MHz      | Pass   | PK   | 4.88G        | 47.51             | 74.00             | -26.49         | 9.65           | 3           | Horizontal | 289            | 1.13          | -        |
| 2440MHz      | Pass   | AV   | 4.88G        | 38.23             | 54.00             | -15.77         | 9.65           | 3           | Vertical   | 60             | 3.69          | -        |
| 2440MHz      | Pass   | PK   | 4.88G        | 48.44             | 74.00             | -25.56         | 9.65           | 3           | Vertical   | 60             | 3.69          | -        |
| 2480MHz      | Pass   | AV   | 2.48G        | 101.86            | Inf               | -Inf           | 31.26          | 3           | Horizontal | 157            | 1.00          | -        |
| 2480MHz      | Pass   | AV   | 2.483502G    | 48.10             | 54.00             | -5.90          | 31.27          | 3           | Horizontal | 157            | 1.00          | -        |
| 2480MHz      | Pass   | PK   | 2.4798G      | 103.22            | Inf               | -Inf           | 31.26          | 3           | Horizontal | 157            | 1.00          | -        |
| 2480MHz      | Pass   | PK   | 2.483502G    | 55.95             | 74.00             | -18.05         | 31.27          | 3           | Horizontal | 157            | 1.00          | -        |
| 2480MHz      | Pass   | AV   | 2.48G        | 100.99            | Inf               | -Inf           | 31.26          | 3           | Vertical   | 245            | 1.16          | -        |
| 2480MHz      | Pass   | AV   | 2.483502G    | 47.80             | 54.00             | -6.20          | 31.27          | 3           | Vertical   | 245            | 1.16          | -        |
| 2480MHz      | Pass   | PK   | 2.4802G      | 102.37            | Inf               | -Inf           | 31.26          | 3           | Vertical   | 245            | 1.16          | -        |
| 2480MHz      | Pass   | PK   | 2.483502G    | 56.26             | 74.00             | -17.74         | 31.27          | 3           | Vertical   | 245            | 1.16          | -        |
| 2480MHz      | Pass   | AV   | 4.96G        | 38.34             | 54.00             | -15.66         | 9.88           | 3           | Horizontal | 289            | 1.06          | -        |
| 2480MHz      | Pass   | PK   | 4.96G        | 48.50             | 74.00             | -25.50         | 9.88           | 3           | Horizontal | 289            | 1.06          | -        |
| 2480MHz      | Pass   | AV   | 4.96G        | 38.10             | 54.00             | -15.90         | 9.88           | 3           | Vertical   | 60             | 1.06          | -        |
| 2480MHz      | Pass   | PK   | 4.96G        | 48.22             | 74.00             | -25.78         | 9.88           | 3           | Vertical   | 60             | 1.06          | -        |

### BT-LE(1Mbps)

### 2402MHz\_TX

04/01/2018

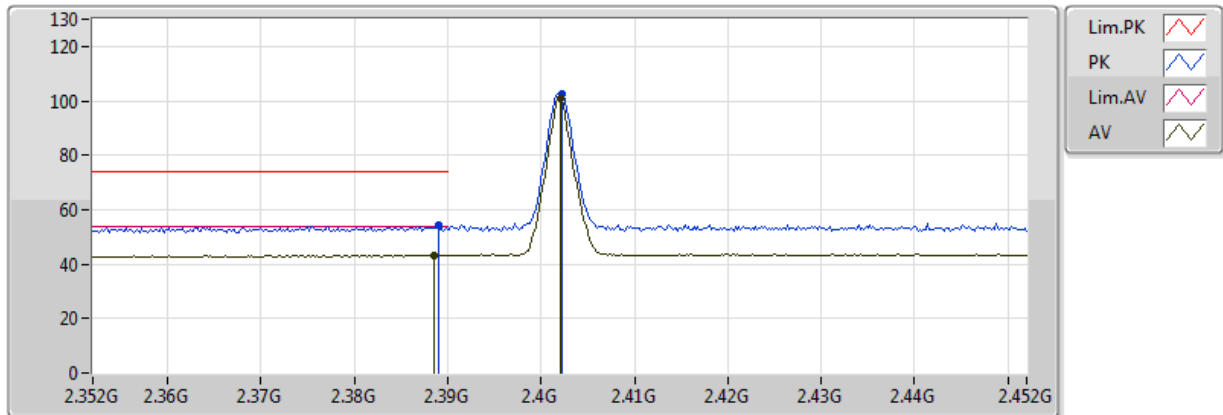


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments | Raw<br>(dBuV) | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|---------------|------------|------------|------------|
| AV   | 2.3862G      | 43.48             | 54.00             | -10.52         | 30.92          | 3           | Vertical  | 17             | 1.12          | -        | 12.55         | 27.30      | 3.62       | -          |
| AV   | 2.402G       | 101.27            | Inf               | -Inf           | 30.98          | 3           | Vertical  | 17             | 1.12          | -        | 70.29         | 27.35      | 3.63       | -          |
| PK   | 2.3886G      | 54.40             | 74.00             | -19.60         | 30.93          | 3           | Vertical  | 17             | 1.12          | -        | 23.47         | 27.31      | 3.62       | -          |
| PK   | 2.4018G      | 102.38            | Inf               | -Inf           | 30.98          | 3           | Vertical  | 17             | 1.12          | -        | 71.40         | 27.34      | 3.63       | -          |

### BT-LE(1Mbps)

### 2402MHz\_TX

04/01/2018

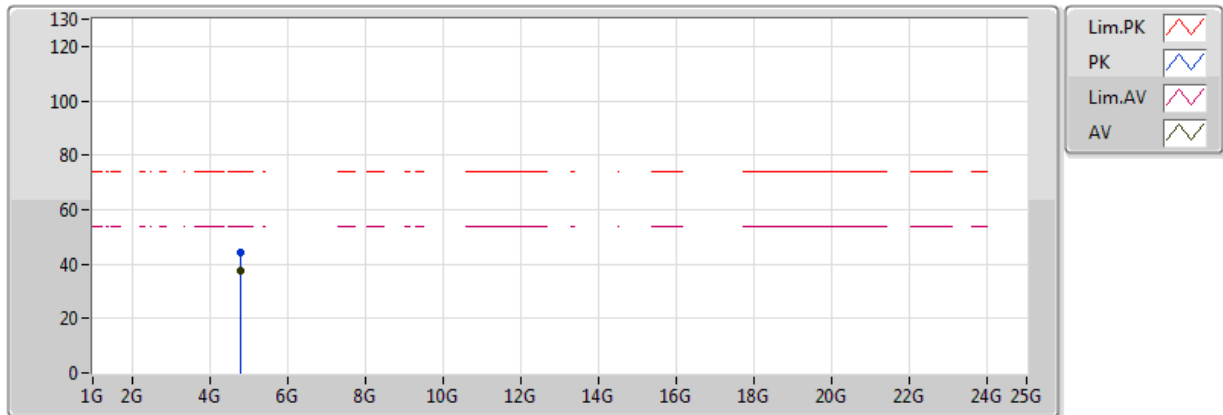


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments | Raw<br>(dBuV) | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|---------------|------------|------------|------------|
| AV   | 2.3886G      | 43.31             | 54.00             | -10.69         | 30.93          | 3           | Horizontal | 44             | 1.00          | -        | 12.38         | 27.31      | 3.62       | -          |
| AV   | 2.402G       | 100.95            | Inf               | -Inf           | 30.98          | 3           | Horizontal | 44             | 1.00          | -        | 69.97         | 27.35      | 3.63       | -          |
| PK   | 2.389G       | 54.26             | 74.00             | -19.74         | 30.93          | 3           | Horizontal | 44             | 1.00          | -        | 23.33         | 27.31      | 3.62       | -          |
| PK   | 2.4022G      | 102.30            | Inf               | -Inf           | 30.98          | 3           | Horizontal | 44             | 1.00          | -        | 71.32         | 27.35      | 3.63       | -          |

### BT-LE(1Mbps)

### 2402MHz\_TX

04/01/2018

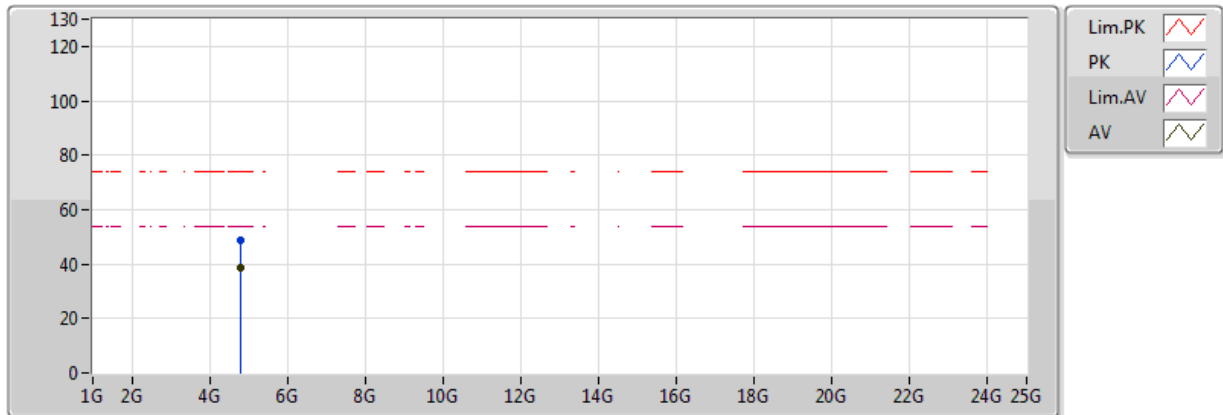


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments | Raw<br>(dBuV) | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|---------------|------------|------------|------------|
| AV   | 4.804G       | 37.61             | 54.00             | -16.39         | 9.42           | 3           | Vertical  | 310            | 1.50          | -        | 28.19         | 31.19      | 8.08       | 29.85      |
| PK   | 4.804G       | 44.21             | 74.00             | -29.79         | 9.42           | 3           | Vertical  | 310            | 1.50          | -        | 34.79         | 31.19      | 8.08       | 29.85      |

### BT-LE(1Mbps)

### 2402MHz\_TX

04/01/2018

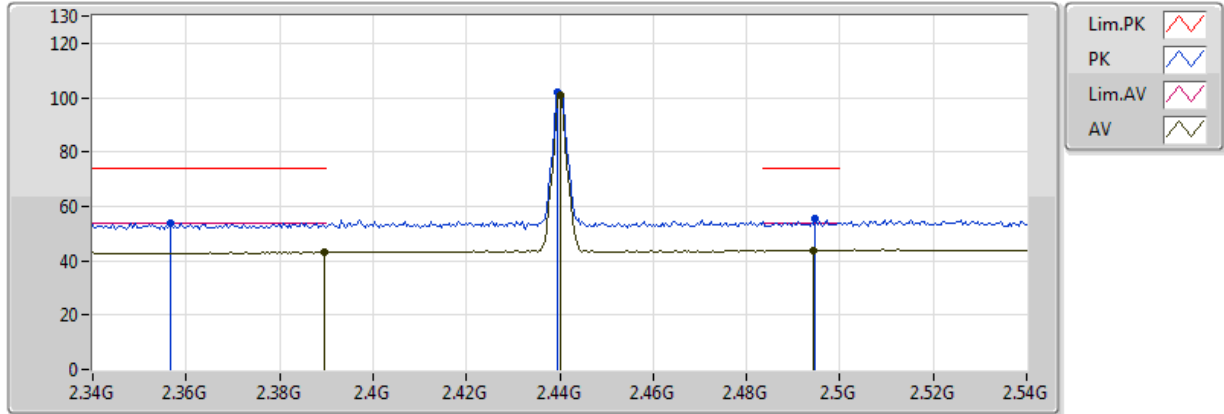


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments | Raw<br>(dBuV) | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|---------------|------------|------------|------------|
| AV   | 4.804G       | 38.70             | 54.00             | -15.30         | 9.42           | 3           | Horizontal | 290            | 1.02          | -        | 29.28         | 31.19      | 8.08       | 29.85      |
| PK   | 4.804G       | 48.53             | 74.00             | -25.47         | 9.42           | 3           | Horizontal | 290            | 1.02          | -        | 39.11         | 31.19      | 8.08       | 29.85      |

### BT-LE(1Mbps)

### 2440MHz\_TX

04/01/2018

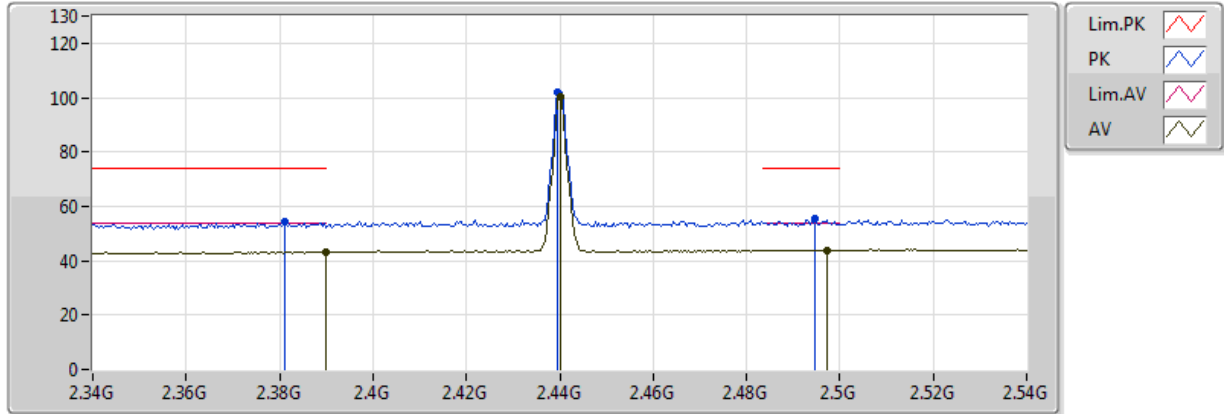


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments | Raw<br>(dBuV) | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|---------------|------------|------------|------------|
| AV   | 2.3896G      | 43.07             | 54.00             | -10.93         | 30.93          | 3           | Vertical  | 195            | 1.87          | -        | 12.14         | 27.31      | 3.62       | -          |
| AV   | 2.4944G      | 43.86             | 54.00             | -10.14         | 31.31          | 3           | Vertical  | 195            | 1.87          | -        | 12.55         | 27.59      | 3.72       | -          |
| AV   | 2.44G        | 100.79            | Inf               | -Inf           | 31.11          | 3           | Vertical  | 195            | 1.87          | -        | 69.68         | 27.44      | 3.67       | -          |
| PK   | 2.3568G      | 53.87             | 74.00             | -20.13         | 30.82          | 3           | Vertical  | 195            | 1.87          | -        | 23.06         | 27.23      | 3.59       | -          |
| PK   | 2.4948G      | 55.71             | 74.00             | -18.29         | 31.31          | 3           | Vertical  | 195            | 1.87          | -        | 24.40         | 27.59      | 3.72       | -          |
| PK   | 2.4396G      | 102.13            | Inf               | -Inf           | 31.11          | 3           | Vertical  | 195            | 1.87          | -        | 71.02         | 27.44      | 3.67       | -          |

## BT-LE(1Mbps)

## 2440MHz\_TX

04/01/2018

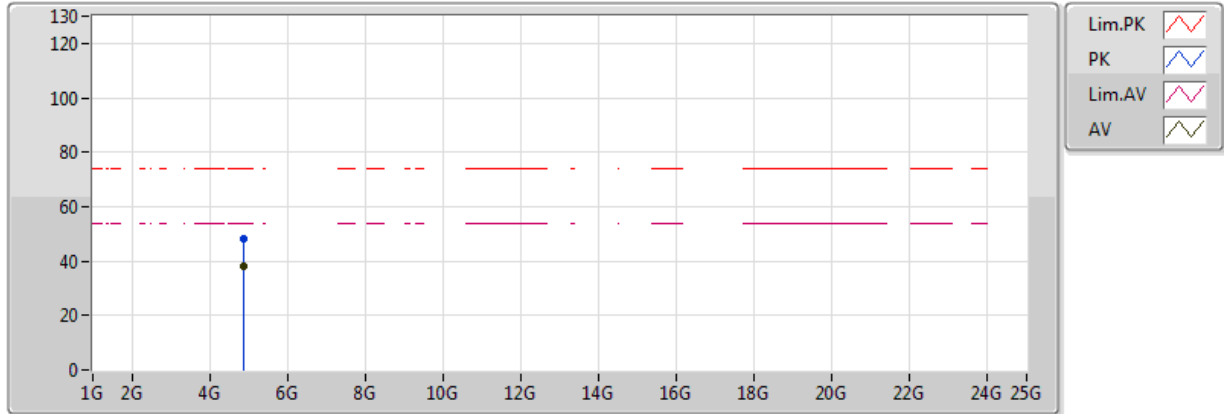


| Type | Freq    | Level    | Limit    | Margin | Factor | Dist | Condition  | Azimuth | Height | Comments | Raw    | AF    | CL   | PA   |
|------|---------|----------|----------|--------|--------|------|------------|---------|--------|----------|--------|-------|------|------|
|      | (Hz)    | (dBuV/m) | (dBuV/m) | (dB)   | (dB)   | (m)  |            | (°)     | (m)    |          | (dBuV) | (dB)  | (dB) | (dB) |
| AV   | 2.39G   | 43.36    | 54.00    | -10.64 | 30.93  | 3    | Horizontal | 154     | 1.34   | -        | 12.43  | 27.31 | 3.62 | -    |
| AV   | 2.4972G | 43.96    | 54.00    | -10.04 | 31.32  | 3    | Horizontal | 154     | 1.34   | -        | 12.64  | 27.59 | 3.73 | -    |
| AV   | 2.44G   | 100.39   | Inf      | -Inf   | 31.11  | 3    | Horizontal | 154     | 1.34   | -        | 69.28  | 27.44 | 3.67 | -    |
| PK   | 2.3812G | 54.13    | 74.00    | -19.87 | 30.90  | 3    | Horizontal | 154     | 1.34   | -        | 23.23  | 27.29 | 3.61 | -    |
| PK   | 2.4948G | 55.58    | 74.00    | -18.42 | 31.31  | 3    | Horizontal | 154     | 1.34   | -        | 24.27  | 27.59 | 3.72 | -    |
| PK   | 2.4396G | 101.75   | Inf      | -Inf   | 31.11  | 3    | Horizontal | 154     | 1.34   | -        | 70.64  | 27.44 | 3.67 | -    |

### BT-LE(1Mbps)

### 2440MHz\_TX

04/01/2018



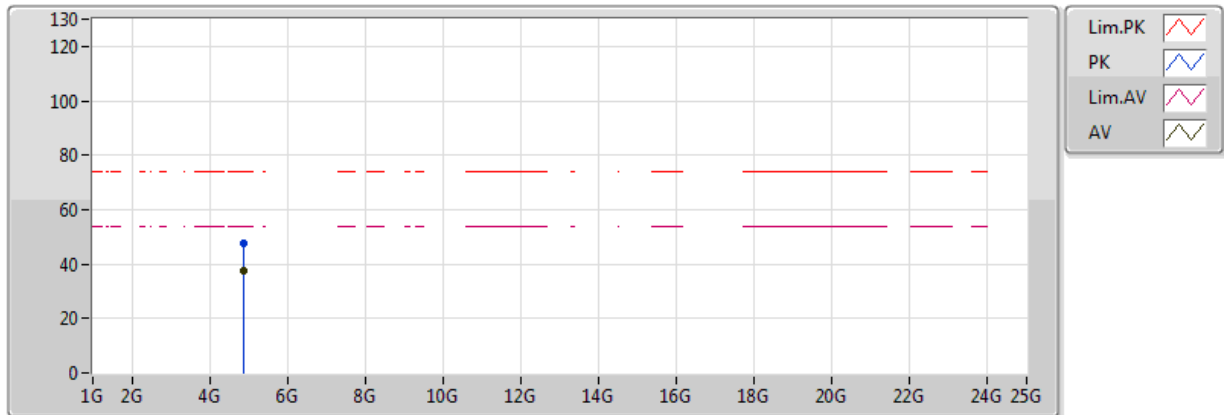
| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments | Raw<br>(dBuV) | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|---------------|------------|------------|------------|
| AV   | 4.88G        | 38.23             | 54.00             | -15.77         | 9.65           | 3           | Vertical  | 60             | 3.69          | -        | 28.59         | 31.31      | 8.18       | 29.84      |
| PK   | 4.88G        | 48.44             | 74.00             | -25.56         | 9.65           | 3           | Vertical  | 60             | 3.69          | -        | 38.79         | 31.31      | 8.18       | 29.84      |



### BT-LE(1Mbps)

### 2440MHz\_TX

04/01/2018

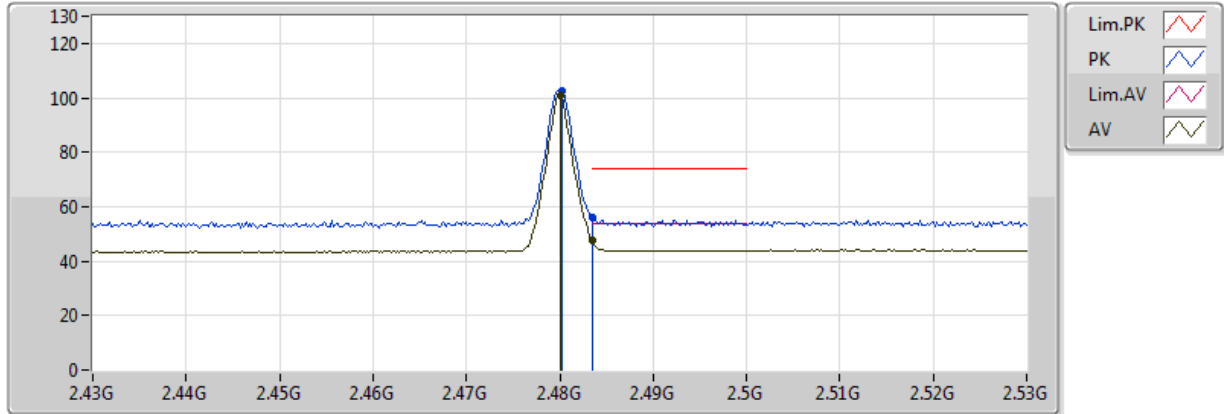


| Type | Freq  | Level    | Limit    | Margin | Factor | Dist | Condition  | Azimuth | Height | Comments | Raw    | AF    | CL   | PA    |
|------|-------|----------|----------|--------|--------|------|------------|---------|--------|----------|--------|-------|------|-------|
|      | (Hz)  | (dBuV/m) | (dBuV/m) | (dB)   | (dB)   | (m)  |            | (°)     | (m)    |          | (dBuV) | (dB)  | (dB) | (dB)  |
| AV   | 4.88G | 37.77    | 54.00    | -16.23 | 9.65   | 3    | Horizontal | 289     | 1.13   | -        | 28.13  | 31.31 | 8.18 | 29.84 |
| PK   | 4.88G | 47.51    | 74.00    | -26.49 | 9.65   | 3    | Horizontal | 289     | 1.13   | -        | 37.87  | 31.31 | 8.18 | 29.84 |

### BT-LE(1Mbps)

### 2480MHz\_TX

04/01/2018

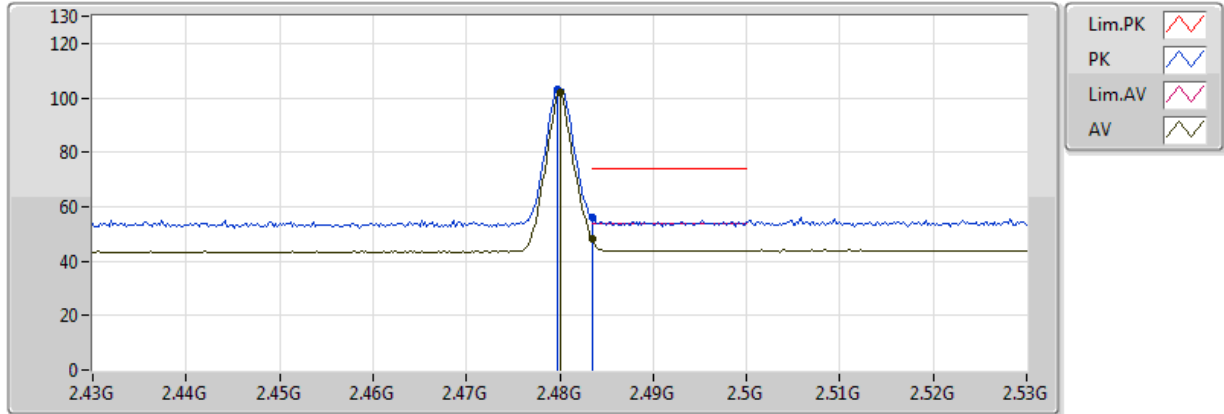


| Type | Freq      | Level    | Limit    | Margin | Factor | Dist | Condition | Azimuth | Height | Comments | Raw    | AF    | CL   | PA   |
|------|-----------|----------|----------|--------|--------|------|-----------|---------|--------|----------|--------|-------|------|------|
|      | (Hz)      | (dBuV/m) | (dBuV/m) | (dB)   | (dB)   | (m)  |           | (°)     | (m)    |          | (dBuV) | (dB)  | (dB) | (dB) |
| AV   | 2.483502G | 47.80    | 54.00    | -6.20  | 31.27  | 3    | Vertical  | 245     | 1.16   | -        | 16.53  | 27.56 | 3.71 | -    |
| AV   | 2.48G     | 100.99   | Inf      | -Inf   | 31.26  | 3    | Vertical  | 245     | 1.16   | -        | 69.73  | 27.55 | 3.71 | -    |
| PK   | 2.483502G | 56.26    | 74.00    | -17.74 | 31.27  | 3    | Vertical  | 245     | 1.16   | -        | 24.99  | 27.56 | 3.71 | -    |
| PK   | 2.4802G   | 102.37   | Inf      | -Inf   | 31.26  | 3    | Vertical  | 245     | 1.16   | -        | 71.11  | 27.55 | 3.71 | -    |

## BT-LE(1Mbps)

## 2480MHz\_TX

04/01/2018

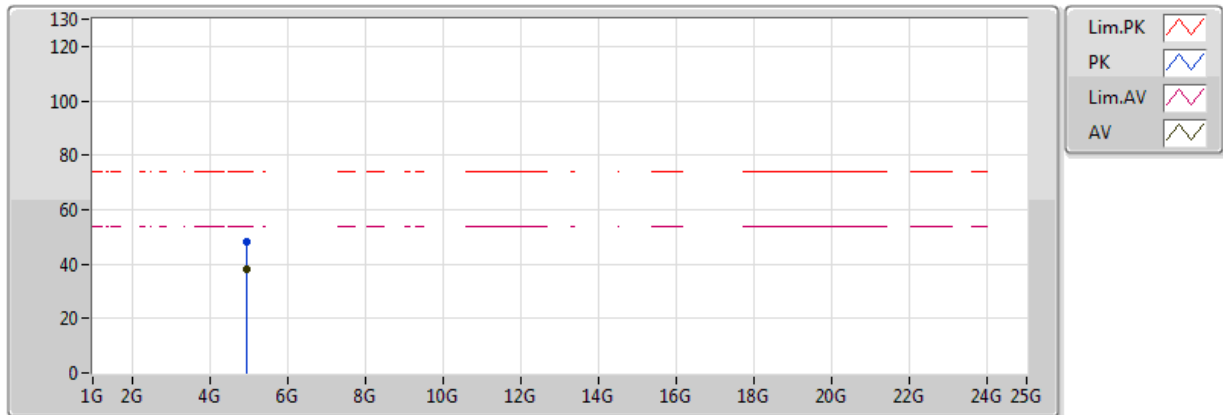


| Type | Freq      | Level    | Limit    | Margin | Factor | Dist | Condition  | Azimuth | Height | Comments | Raw    | AF    | CL   | PA   |
|------|-----------|----------|----------|--------|--------|------|------------|---------|--------|----------|--------|-------|------|------|
|      | (Hz)      | (dBuV/m) | (dBuV/m) | (dB)   | (dB)   | (m)  |            | (°)     | (m)    |          | (dBuV) | (dB)  | (dB) | (dB) |
| AV   | 2.483502G | 48.10    | 54.00    | -5.90  | 31.27  | 3    | Horizontal | 157     | 1.00   | -        | 16.82  | 27.56 | 3.71 | -    |
| AV   | 2.48G     | 101.86   | Inf      | -Inf   | 31.26  | 3    | Horizontal | 157     | 1.00   | -        | 70.60  | 27.55 | 3.71 | -    |
| PK   | 2.483502G | 55.95    | 74.00    | -18.05 | 31.27  | 3    | Horizontal | 157     | 1.00   | -        | 24.68  | 27.56 | 3.71 | -    |
| PK   | 2.4798G   | 103.22   | Inf      | -Inf   | 31.26  | 3    | Horizontal | 157     | 1.00   | -        | 71.97  | 27.55 | 3.71 | -    |

### BT-LE(1Mbps)

### 2480MHz\_TX

04/01/2018

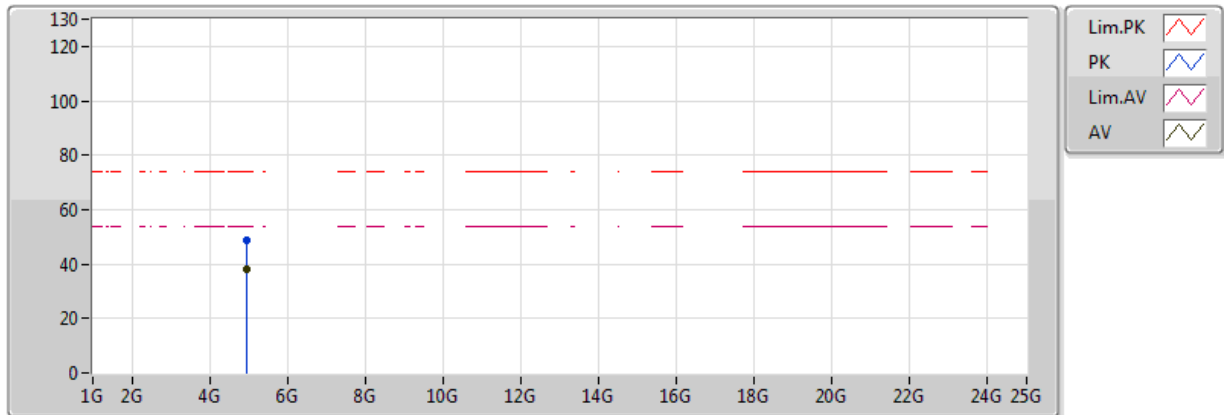


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments | Raw<br>(dBuV) | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|---------------|------------|------------|------------|
| AV   | 4.96G        | 38.10             | 54.00             | -15.90         | 9.88           | 3           | Vertical  | 60             | 1.06          | -        | 28.21         | 31.44      | 8.27       | 29.82      |
| PK   | 4.96G        | 48.22             | 74.00             | -25.78         | 9.88           | 3           | Vertical  | 60             | 1.06          | -        | 38.34         | 31.44      | 8.27       | 29.82      |

### BT-LE(1Mbps)

### 2480MHz\_TX

04/01/2018



| Type | Freq  | Level    | Limit    | Margin | Factor | Dist | Condition  | Azimuth | Height | Comments | Raw    | AF    | CL   | PA    |
|------|-------|----------|----------|--------|--------|------|------------|---------|--------|----------|--------|-------|------|-------|
|      | (Hz)  | (dBuV/m) | (dBuV/m) | (dB)   | (dB)   | (m)  |            | (°)     | (m)    |          | (dBuV) | (dB)  | (dB) | (dB)  |
| AV   | 4.96G | 38.34    | 54.00    | -15.66 | 9.88   | 3    | Horizontal | 289     | 1.06   | -        | 28.46  | 31.44 | 8.27 | 29.82 |
| PK   | 4.96G | 48.50    | 74.00    | -25.50 | 9.88   | 3    | Horizontal | 289     | 1.06   | -        | 38.62  | 31.44 | 8.27 | 29.82 |