

# FCC Test Report

FCC ID : UDX-60082010  
Equipment : Network Camera  
Brand Name : CISCO  
Model Name : MV32-HW  
Applicant/ : Cisco Systems  
Manufacturer : 170 West Tasman Drive  
San Jose, California. 95134  
United States  
Standard : 47 CFR FCC Part 15.247

The product was received on May 24, 2018, and testing was started from Oct. 24, 2018 and completed on Oct. 26, 2018. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

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



Approved by: Allen Lin

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

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

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TEL : 886-3-3273456  
FAX : 886-3-3270973  
Report Template No.: HE1-C9 Ver3.2  
FCC ID: UDX-60082010

## Summary of Test Result

| Report Clause | Ref. Std. Clause | Test Items                                         | Result (PASS/FAIL) | Remark                          |
|---------------|------------------|----------------------------------------------------|--------------------|---------------------------------|
| 1.1.2         | 15.203           | Antenna Requirement                                | PASS               | FCC 15.203                      |
| 3.1           | 15.207           | AC Power-line Conducted Emissions                  | PASS               | FCC 15.207                      |
| 3.2           | 15.247(a)        | 20dB Bandwidth                                     | PASS               | 15.247(a)                       |
| 3.2           | 15.247(a)        | Carrier Frequency Separation                       | PASS               | 15.247(a)                       |
| 3.3           | 15.247(b)        | Maximum Conducted Output Power                     | PASS               | 15.247(b)                       |
| 3.4           | 15.247(a)        | Number of Hopping Frequencies and Hopping Bandedge | PASS               | 15.247(a)                       |
| 3.5           | 15.247(a)        | Time of Occupancy (Dwell Time)                     | PASS               | 15.247(a)                       |
| 3.6           | 15.247(d)        | Emissions in Non-restricted Frequency Bands        | PASS               | 15.247(d)                       |
| 3.7           | 15.247(d)        | Emissions in Restricted Frequency Bands            | PASS               | Restricted Bands:<br>FCC 15.209 |

**Declaration of Conformity:**

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

**Comments and explanations:**

None

**Reviewed by: Sam Tsai**

**Report Producer: Michelle Tsai**

# 1 General Description

## 1.1 Information

### 1.1.1 RF General Information

| Frequency Range (MHz) | Bluetooth Version | Ch. Frequency (MHz) | Channel Number |
|-----------------------|-------------------|---------------------|----------------|
| 2400-2483.5           | BR / EDR          | 2402-2480           | 0-78 [79]      |

| Band          | Mode          | BWch (MHz) | Nant |
|---------------|---------------|------------|------|
| 2.4-2.4835GHz | BT-BR(1Mbps)  | 1          | 1TX  |
| 2.4-2.4835GHz | BT-EDR(2Mbps) | 1          | 1TX  |
| 2.4-2.4835GHz | BT-EDR(3Mbps) | 1          | 1TX  |

Note:

- ♦ Bluetooth BR uses a GFSK (1Mbps).
- ♦ Bluetooth EDR uses a combination of  $\pi/4$ -DQPSK (2Mbps) and 8DPSK (3Mbps).
- ♦ Bluetooth BR/EDR uses as a system using FHSS modulation.
- ♦ BWch is the nominal channel bandwidth.

### 1.1.2 Antenna Information

| Ant. | Brand     | Model Name        | Antenna Type   | Connector |
|------|-----------|-------------------|----------------|-----------|
| 1    | ARISTOTLE | RFA-25-AP628-P1-U | PIFA Antenna   | I-PEX     |
| 2    | ARISTOTLE | RFA-25-AP628-P2-U | Dipole Antenna | I-PEX     |

| Ant. | Gain (dBi) |       |       |
|------|------------|-------|-------|
|      | 2.4G       | 5G    | BT    |
| 1    | -2.22      | -1.69 | -2.22 |
| 2    | -1.4       | -1.36 | -     |

#### For 2.4 GHz function:

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

The EUT support diversity function, Ant. 1 or Ant. 2 can be used as transmitting/receiving antenna.

#### For 5 GHz function:

For IEEE 802.11a/n/ac mode (1TX/1RX)

The EUT support diversity function, Ant. 1 or Ant. 2 can be used as transmitting/receiving antenna.

#### For Bluetooth function:

For Bluetooth mode (1TX/1RX)

Only Ant. 1 can be used as transmitting/receiving antenna.

**1.1.3 EUT Information**

| Operational Condition               |                                                                               |                                         |  |
|-------------------------------------|-------------------------------------------------------------------------------|-----------------------------------------|--|
| EUT Power Type                      | From PoE                                                                      |                                         |  |
| EUT Function                        | <input checked="" type="checkbox"/> Point-to-multipoint                       | <input type="checkbox"/> Point-to-point |  |
| 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) $\geq 1/T$ |
|---------------|-------|---------|--------|--------------------|
| BT-BR(1Mbps)  | 0.754 | 1.226   | 2.887m | 1k                 |
| BT-EDR(2Mbps) | 0.756 | 1.215   | 2.888m | 1k                 |
| BT-EDR(3Mbps) | 0.785 | 1.051   | 2.891m | 1k                 |

## 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
- ♦ KDB 558074 D01 v05
- ♦ ANSI C63.10-2013

## 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       | Dexter        | 25°C / 59%       | 24/Oct/2018 |
| Radiated       | 03CH09-HY     | Andy          | 23.9°C / 61%     | 24/Oct/2018 |
| AC Conduction  | CO04-HY       | Andy          | 23.7°C / 61%     | 26/Oct/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% |
| Temperature                          | 0.7 °C      | Confidence levels of 95% |
| Humidity                             | 4 %         | Confidence levels of 95% |

## 2 Test Configuration of EUT

### 2.1 Test Condition

| RF Conducted | Abbreviation | Remark |
|--------------|--------------|--------|
| TnomVnom     | Tnom         | 20°C   |
| -            | Vnom         | 120V   |

### 2.2 Test Channel Mode

| Test Software Version | QRCT V3.0.93.0 |
|-----------------------|----------------|
|-----------------------|----------------|

| Mode          | PowerSetting |
|---------------|--------------|
| BT-BR(1Mbps)  | -            |
| 2402MHz       | 9            |
| 2441MHz       | 9            |
| 2480MHz       | 9            |
| BT-EDR(2Mbps) | -            |
| 2402MHz       | 9            |
| 2441MHz       | 9            |
| 2480MHz       | 9            |
| BT-EDR(3Mbps) | -            |
| 2402MHz       | 9            |
| 2441MHz       | 9            |
| 2480MHz       | 9            |

## 2.3 The Worst Case Measurement Configuration

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

| The Worst Case Mode for Following Conformance Tests |                                                                                                                                                                                                                        |
|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Tests Item</b>                                   | 20dB Bandwidth<br>Carrier Frequency Separation<br>Maximum Conducted Output Power<br>Number of Hopping Frequencies<br>Hopping Bandedge<br>Time of Occupancy (Dwell Time)<br>Emissions in Non-restricted Frequency Bands |
| <b>Test Condition</b>                               | Conducted measurement at transmit chains                                                                                                                                                                               |

| The Worst Case Mode for Following Conformance Tests |                                                                                                                                                                                                                                                     |                                                                                      |                                                                                       |
|-----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| <b>Tests Item</b>                                   | Emissions in Restricted Frequency Bands                                                                                                                                                                                                             |                                                                                      |                                                                                       |
| <b>Test Condition</b>                               | Radiated measurement<br>If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type. |                                                                                      |                                                                                       |
| <b>Operating Mode &lt; 1GHz</b>                     | CTX                                                                                                                                                                                                                                                 |                                                                                      |                                                                                       |
| 1                                                   | PoE Mode_PIFA Antenna                                                                                                                                                                                                                               |                                                                                      |                                                                                       |
| <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>                          |                                                                                                                                                                                                                                                     | <b>V</b>                                                                             |                                                                                       |

| The Worst Case Mode for Following Conformance Tests                                                                                 |                                    |
|-------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|
| <b>Tests Item</b>                                                                                                                   | Simultaneous Transmission Analysis |
| <b>Test Condition</b>                                                                                                               | Radiated measurement               |
| <b>Operating Mode</b>                                                                                                               | Normal Link                        |
| 1                                                                                                                                   | Bluetooth+WLAN 2.4GHz              |
| 2                                                                                                                                   | Bluetooth+WLAN 5GHz                |
| Refer to Sporton Test Report No.: FA851627 for Co-location RF Exposure Evaluation and Appendix G for Radiated Emission Co-location. |                                    |

Note.

**Non-AFH:** DH5 Packet permit maximum  $1600 / 79 / 6 = 3.37$  hops per second in each channel (5 time slots RX, 1 time slot TX). So, the dwell time is the time duration of the pulse times  $3.37 \times 1.185 = 4$  within 1.185 seconds.

**AFH:** DH5 Packet permit maximum  $800 / 20 / 6 = 6.67$  hops per second in each channel (5 time slots RX, 1 time slot TX). So, the dwell time is the time duration of the pulse times  $13.33 \times 8 = 106.6$  within 8 seconds.

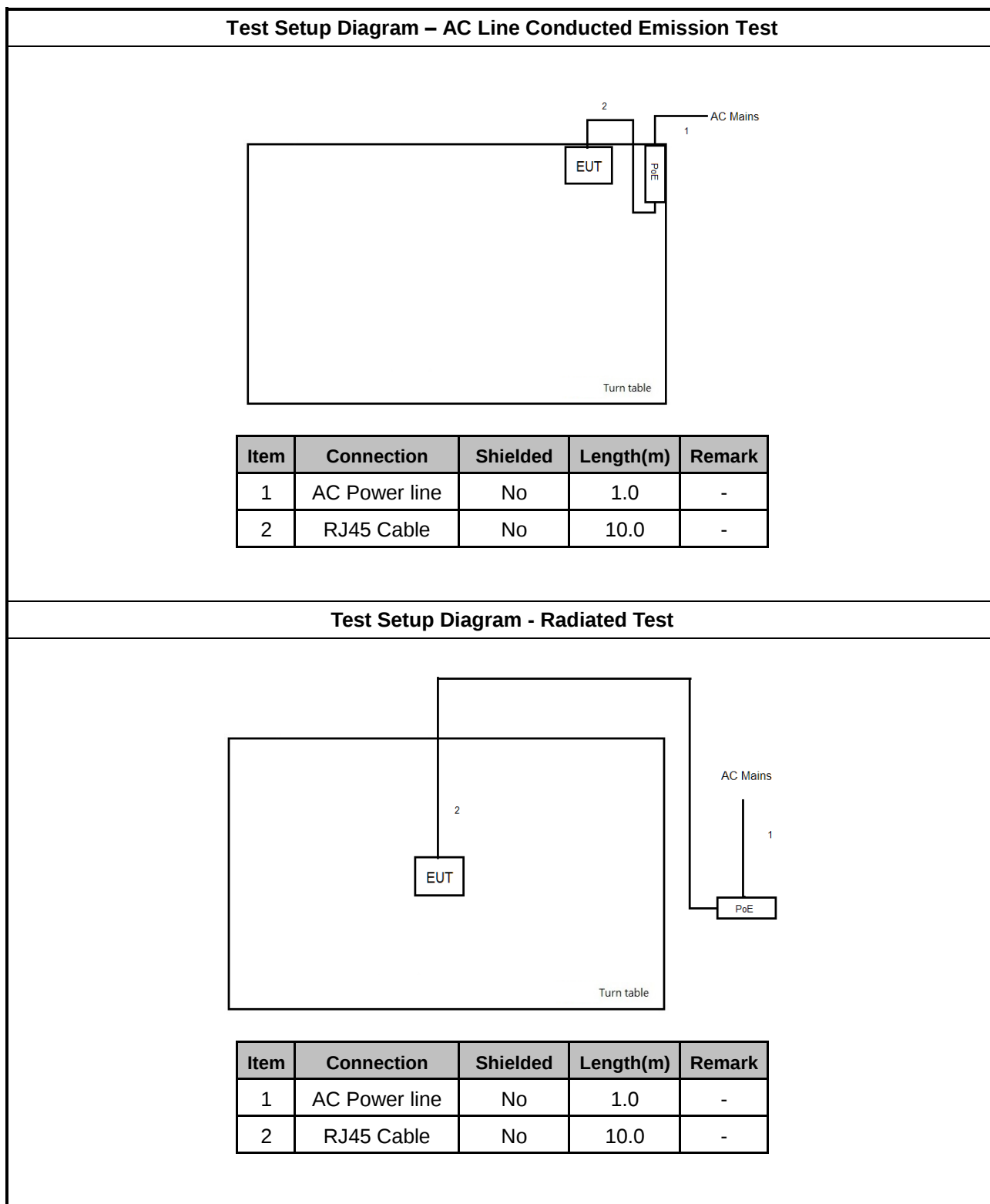
Under the above conditions, Non-AFH Mode configuration was found to be the worst case and measured during the test.

## 2.4 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                                | AC Power Source | GW         | APS-9102   | N/A    |

| Support Equipment – Radiated Emission and AC Conduction |                         |            |            |        |
|---------------------------------------------------------|-------------------------|------------|------------|--------|
| No.                                                     | Equipment               | Brand Name | Model Name | FCC ID |
| 1                                                       | PoE<br>(Client Provide) | CISCO      | MA-INJ-4   | N/A    |

## 2.5 Test Setup Diagram



### 3 Transmitter Test Result

### 3.1 AC Power-line Conducted Emissions

### 3.1.1 AC Power-line Conducted Emissions Limit

| AC Power-line Conducted Emissions Limit |            |           |
|-----------------------------------------|------------|-----------|
| Frequency Emission (MHz)                | Quasi-Peak | Average   |
| 0.15-0.5                                | 66 - 56 *  | 56 - 46 * |
| 0.5-5                                   | 56         | 46        |
| 5-30                                    | 60         | 50        |

Note 1: \* Decreases with the logarithm of the frequency.

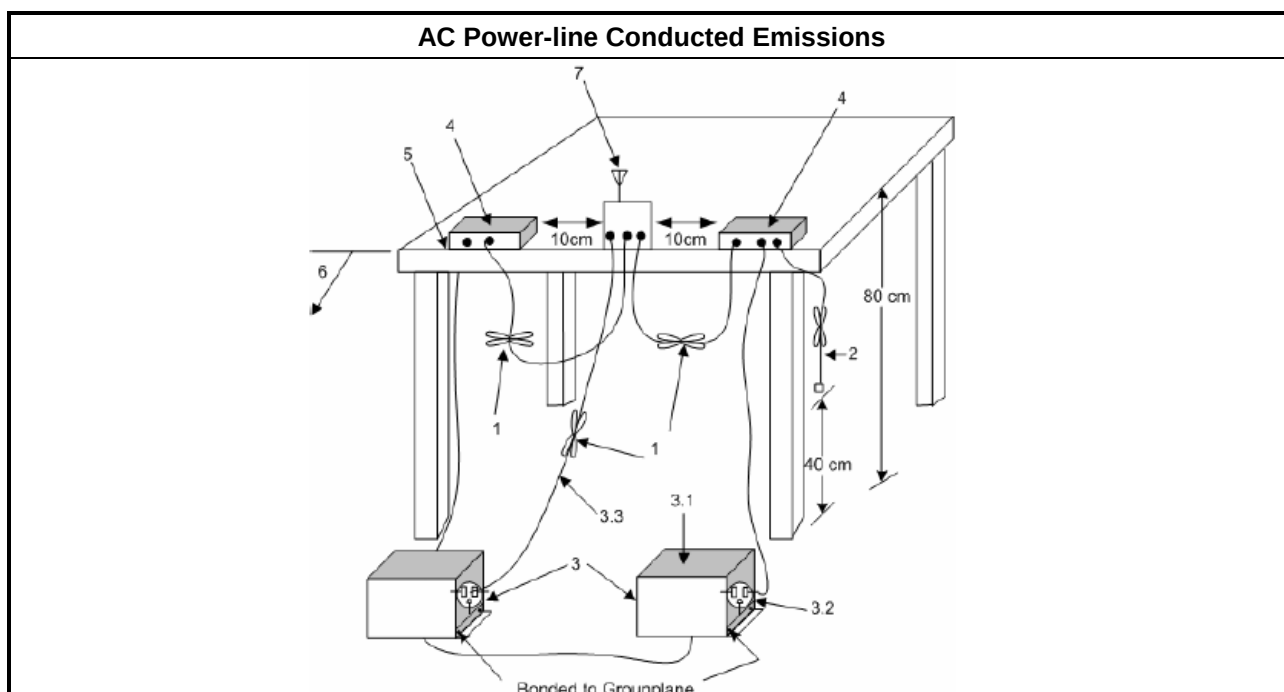
### 3.1.2 Measuring Instruments

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

### 3.1.3 Test Procedures

| Test Method                                                                                                                   |
|-------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>Refer as ANSI C63.10-2013, clause 6.2 foray power-line conducted emissions.</li> </ul> |

### 3.1.4 Test Setup



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

Refer as Appendix A

## 3.2 20dB Bandwidth and Carrier Frequency Separation

### 3.2.1 20dB Bandwidth and Carrier Frequency Separation Limit

| 20dB Bandwidth and Carrier Frequency Separation Limit for Frequency Hopping Systems |                                                                                                                                               |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>2400-2483.5 MHz Band:</li> </ul>             |                                                                                                                                               |
|                                                                                     | <ul style="list-style-type: none"> <li><math>N \geq 75</math> and <math>ChS \geq MAX</math> (20 dB bandwidth, 25 kHz).</li> </ul>             |
|                                                                                     | <ul style="list-style-type: none"> <li><math>75 &gt; N \geq 15</math> and <math>ChS \geq MAX</math> (20 dB bandwidth 2/3, 25 kHz).</li> </ul> |
| <b>N:</b> Number of Hopping Frequencies; <b>ChS:</b> Hopping Channel Separation     |                                                                                                                                               |

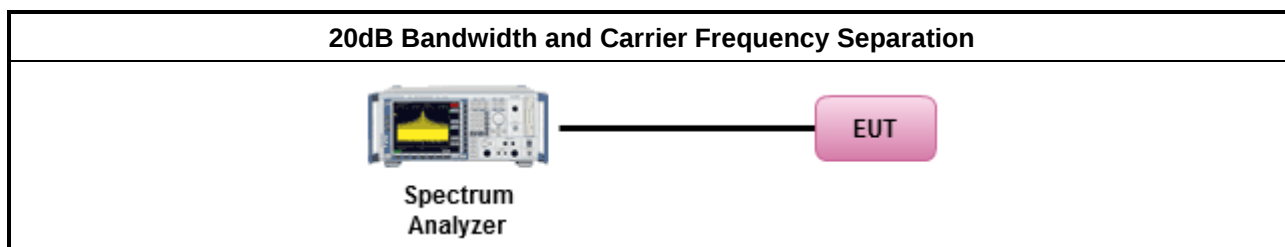
### 3.2.2 Measuring Instruments

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>Refer as ANSI C63.10-2013, clause 6.9.2 for 20 dB bandwidth measurement.</li> </ul>              |
| <ul style="list-style-type: none"> <li>Refer as ANSI C63.10-2013, clause 7.8.2 for carrier frequency separation measurement.</li> </ul> |

### 3.2.4 Test Setup



### 3.2.5 Test Result of 20dB Bandwidth

Refer as Appendix B

### 3.2.6 Test Result of Carrier Frequency Separation

Refer as Appendix B

### 3.3 Maximum Conducted Output Power

#### 3.3.1 Maximum Conducted Output Power Limit

| Maximum Conducted Output Power Limit                                    |                                                                                                           |
|-------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>2400-2483.5 MHz Band:</li> </ul> |                                                                                                           |
|                                                                         | <ul style="list-style-type: none"> <li><math>N \geq 75</math>; Power 30dBm; EIRP 36dBm</li> </ul>         |
|                                                                         | <ul style="list-style-type: none"> <li><math>75 &gt; N \geq 15</math>; Power 21dBm; EIRP 27dBm</li> </ul> |
| N: Number of Hopping Frequencies                                        |                                                                                                           |

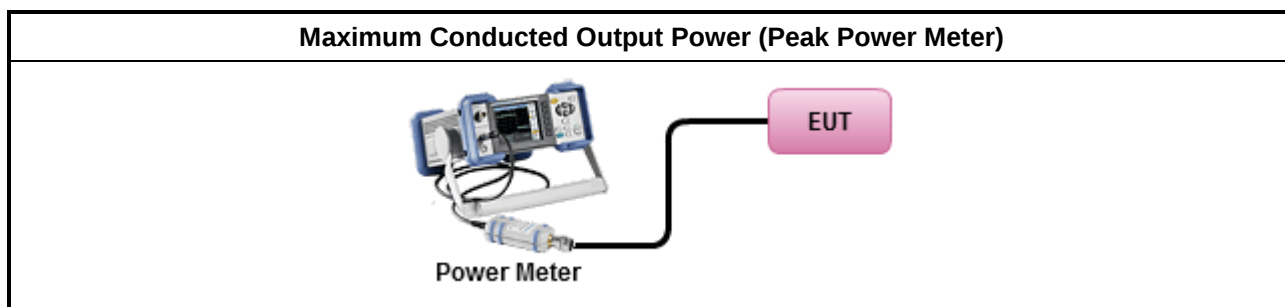
#### 3.3.2 Measuring Instruments

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

#### 3.3.3 Test Procedures

| Test Method                                                                                                             |
|-------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>Refer as ANSI C63.10-2013, clause 7.8.5 for output power measurement.</li> </ul> |

#### 3.3.4 Test Setup



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

Refer as Appendix C

### 3.4 Number of Hopping Frequencies and Hopping Bandedge

#### 3.4.1 Number of Hopping Frequencies Limit

| Number of Hopping Frequencies Limit                                |                                                                      |
|--------------------------------------------------------------------|----------------------------------------------------------------------|
| ▪ 2400-2483.5 MHz Band:                                            |                                                                      |
|                                                                    | ▪ $N \geq 75$ and $ChS \geq MAX$ (20 dB bandwidth, 25 kHz).          |
|                                                                    | ▪ $75 > N \geq 15$ and $ChS \geq MAX$ (20 dB bandwidth 2/3, 25 kHz). |
| N: Number of Hopping Frequencies; ChS : Hopping Channel Separation |                                                                      |

#### 3.4.2 Hopping Bandedge Limit

Refer clause 3.6.1 and clause 3.7.1

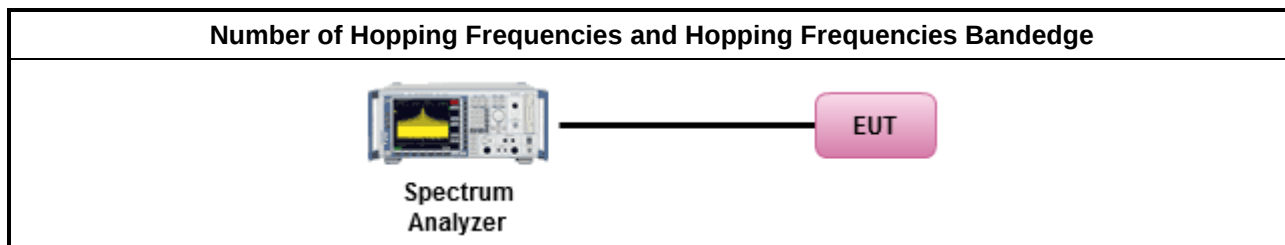
#### 3.4.3 Measuring Instruments

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

#### 3.4.4 Test Procedures

| Test Method                                                                              |
|------------------------------------------------------------------------------------------|
| ▪ Refer as ANSI C63.10-2013, clause 7.8.3 for number of hopping frequencies measurement. |
| ▪ Refer as ANSI C63.10-2013, clause 7.8.6 for hopping frequencies Bandedge measurement.  |

#### 3.4.5 Test Setup



#### 3.4.6 Test Result of Number of Hopping Frequencies

Refer as Appendix D

#### 3.4.7 Test Result of Number of Hopping Frequencies Bandedge

Refer as Appendix D

### 3.5 Time of Occupancy (Dwell Time)

#### 3.5.1 Time of Occupancy (Dwell Time) Limit

| Time of Occupancy (Dwell Time) Limit for Frequency Hopping Systems      |                                                                                                                            |
|-------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>2400-2483.5 MHz Band:</li> </ul> |                                                                                                                            |
|                                                                         | <ul style="list-style-type: none"> <li><math>N \geq 75</math>; 0.4s in <math>N \times 0.4</math> period</li> </ul>         |
|                                                                         | <ul style="list-style-type: none"> <li><math>75 &gt; N \geq 15</math>; 0.4s in <math>N \times 0.4</math> period</li> </ul> |
| N: Number of Hopping Frequencies                                        |                                                                                                                            |

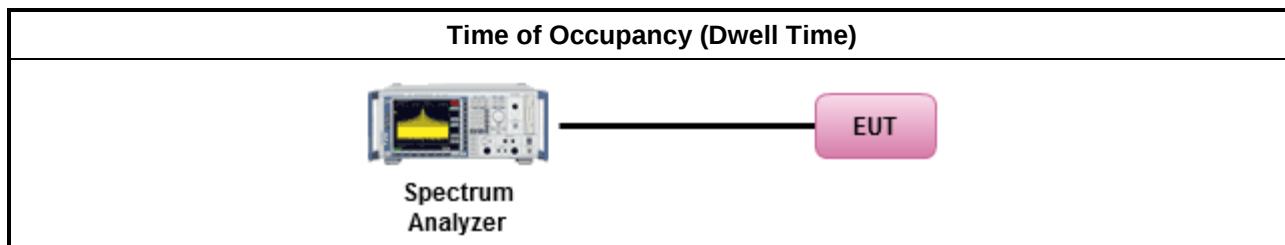
#### 3.5.2 Measuring Instruments

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

#### 3.5.3 Test Procedures

| Test Method                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>Refer as ANSI C63.10-2013, clause 7.8.4 for dwell time measurement.</li> </ul>                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <ul style="list-style-type: none"> <li>Bluetooth ACL packets can be 1, 3, or 5 time slots. Following as dwell time. Operate DH5 at maximum dwell time and maximum duty cycle.</li> </ul> |                                                                                                                                                                                                                                                                                                                                                                                                                        |
|                                                                                                                                                                                          | <ul style="list-style-type: none"> <li>The DH5 packet can cover up to 5 time slots. Operate DH5 at maximum dwell time and maximum duty cycle. A maximum length packet has duration of 5 time slots. The hopping rate is 1600 hops/second so the maximum dwell time is <math>5/1600</math> seconds, or 3.125ms. DH5 Packet permit maximum <math>1600 / 79 / 6 = 3.37</math> hops per second in each channel.</li> </ul> |

#### 3.5.4 Test Setup



#### 3.5.5 Test Result of Time of Occupancy (Dwell Time)

Refer as Appendix E

### 3.6 Emissions in Non-restricted Frequency Bands

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

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

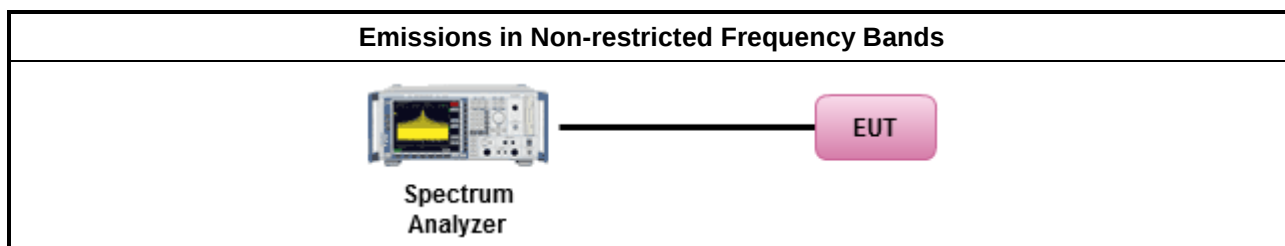
#### 3.6.2 Measuring Instruments

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

#### 3.6.3 Test Procedures

| Test Method                                                                                                                                 |
|---------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>Refer as ANSI C63.10-2013, clause 7.8.8 for unwanted emissions into non-restricted bands.</li> </ul> |

#### 3.6.4 Test Setup



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

Refer as Appendix F

### 3.7 Emissions in Restricted Frequency Bands

#### 3.7.1 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.

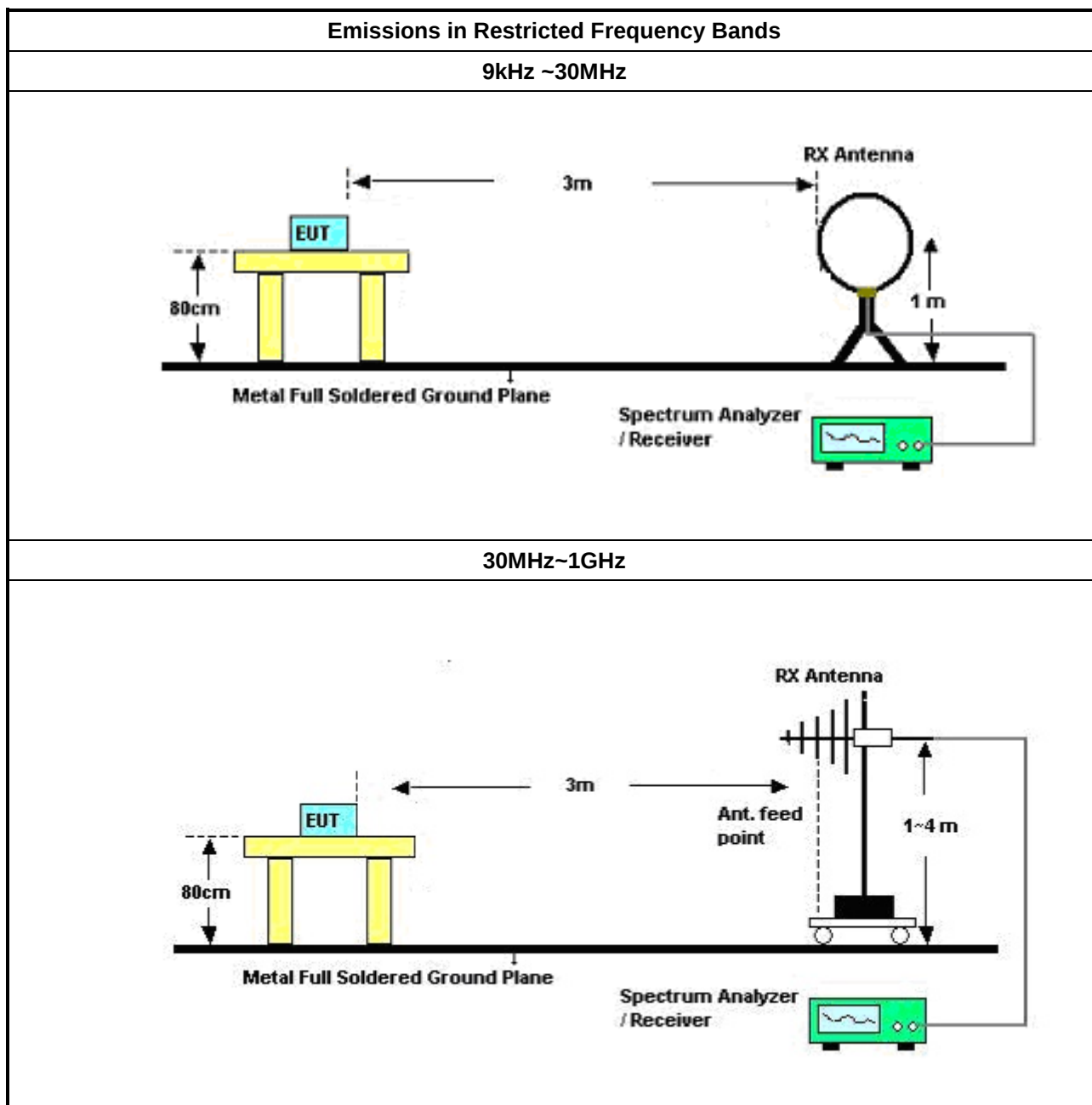
#### 3.7.2 Measuring Instruments

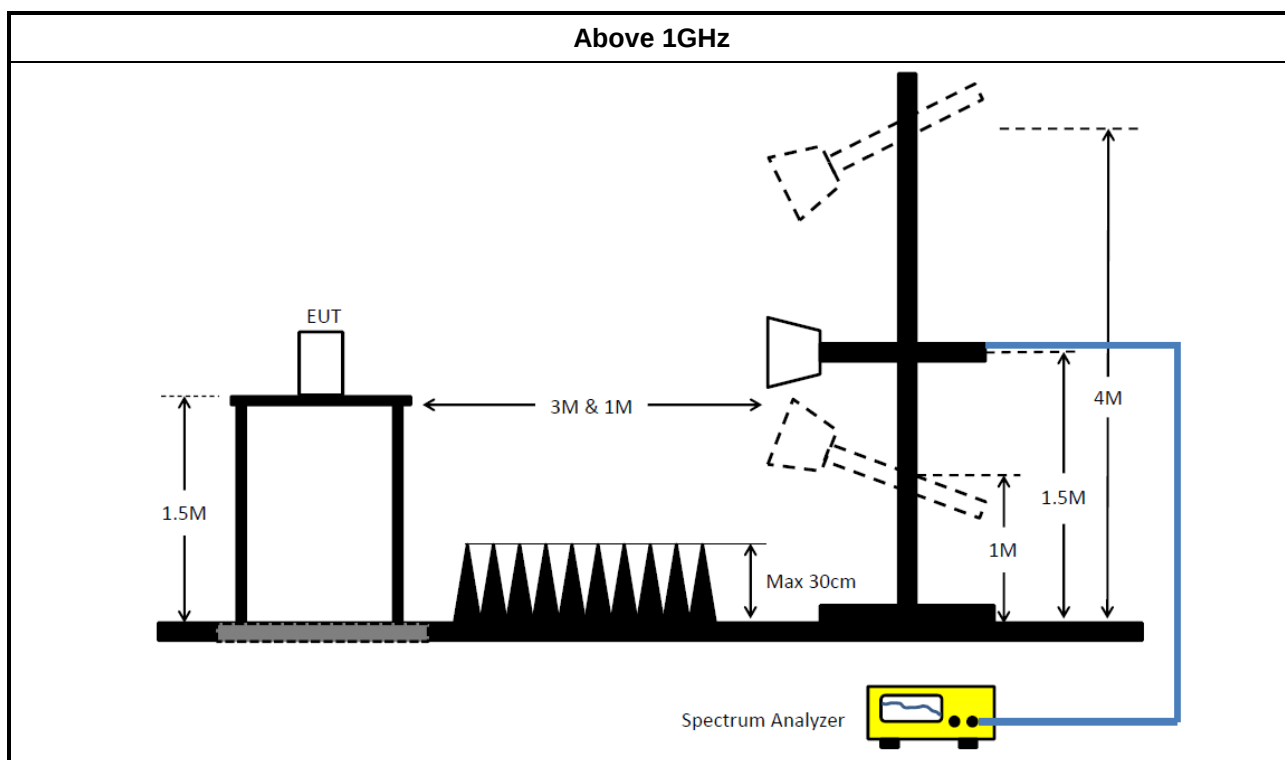
Refer a test equipment and calibration data table in this test report.

#### 3.7.3 Test Procedures

| Test Method                                                                                                                                                                                                                  |                                                                                                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"><li>▪ The average emission levels shall be measured in [hopping duty factor].</li></ul>                                                                                                    |                                                                                                                                     |
| <ul style="list-style-type: none"><li>▪ Refer as ANSI C63.10; clause 6.9.2.2 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 ANSI C63.10, clause 4.1.4.2.1 QP value.</li></ul>                                  |
|                                                                                                                                                                                                                              | <ul style="list-style-type: none"><li>▪ Refer as ANSI C63.10, clause 4.1.4.2.2 measurement procedure peak.</li></ul>                |
|                                                                                                                                                                                                                              | <ul style="list-style-type: none"><li>▪ Refer as ANSI C63.10, clause 4.1.4.2.4 average value of hopping pulsed emissions.</li></ul> |

### 3.7.4 Test Setup





### 3.7.5 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.

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

Refer as Appendix G

## 4 Test Equipment and Calibration Data

### Instrument for AC Conduction

| Instrument                           | Manufacturer | Model No.   | Serial No. | Spec.               | Calibration Date | Calibration Due Date |
|--------------------------------------|--------------|-------------|------------|---------------------|------------------|----------------------|
| EMC Receiver                         | R&S          | ESR         | 102051     | 9KHz ~ 3.6GHz       | 03/May/2018      | 02/May/2019          |
| LISN                                 | R&S          | ENV216      | 101295     | 9kHz ~ 30MHz        | 17/Nov/2017      | 16/Nov/2018          |
| RF Cable-CON                         | MTJ          | RG142       | CB002-CO   | 9kHz ~ 200MHz       | 17/Sep/2018      | 16/Sep/2019          |
| AC POWER                             | APC          | AFC-11005G  | F310050055 | 47Hz~63Hz<br>5~300V | NCR              | NCR                  |
| Impuls<br>Begrenzer<br>Pulse Limiter | SCHWARZBECK  | VTSD 9561-F | 9561-F041  | 9 kHz ~ 30 MHz      | 12/Oct/2018      | 11/Oct/2019          |

**NCR : Non-Calibration Require**

### Instrument for Radiated Test

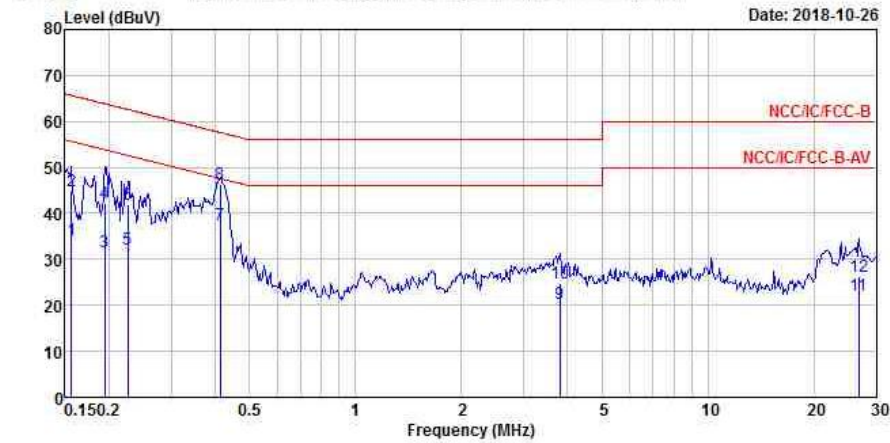
| Instrument                             | Manufacturer | Model No.                | Serial No.              | Spec.          | Calibration Date | Calibration Due Date |
|----------------------------------------|--------------|--------------------------|-------------------------|----------------|------------------|----------------------|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

**Instrument for Conducted Test**

| Instrument       | Manufacturer | Model No.    | Serial No. | Spec.           | Calibration Date | Calibration Due Date |
|------------------|--------------|--------------|------------|-----------------|------------------|----------------------|
| Signal Analyzer  | R&S          | FSV40        | 101500     | 10Hz ~ 40GHz    | 18/Jul/2018      | 17/Jul/2019          |
| Power Sensor     | Anritsu      | MA2411B      | 1339407    | 300MHz ~ 40GHz  | 06/Nov/2017      | 05/Nov/2018          |
| Power Meter      | Anritsu      | ML2495A      | 1517010    | 300MHz ~ 40GHz  | 06/Nov/2017      | 05/Nov/2018          |
| RF Cable-1.5m    | HUBER+SUHNER | SUCOFLEX_104 | MY12585/4  | 30MHz ~ 26.5GHz | 26/Jan/2018      | 25/Jan/2019          |
| RF Cable-0.2m    | HUBER+SUHNER | SUCOFLEX_104 | MY10710/4  | 30MHz ~ 26.5GHz | 26/Jan/2018      | 25/Jan/2019          |
| RF Cable-0.2m    | HUBER+SUHNER | SUCOFLEX_104 | MY10709/4  | 30MHz ~ 26.5GHz | 26/Jan/2018      | 25/Jan/2019          |
| Signal Generator | R&S          | SMB100A      | 175727     | 100kHz~40GHz    | 26/Oct/2017      | 25/Oct/2018          |

## AC Power-line Conducted Emissions Result

|                    |                       |             |         |
|--------------------|-----------------------|-------------|---------|
| Operating Mode     | 1                     | Power Phase | Neutral |
| Operating Function | PoE Mode_PIFA Antenna |             |         |

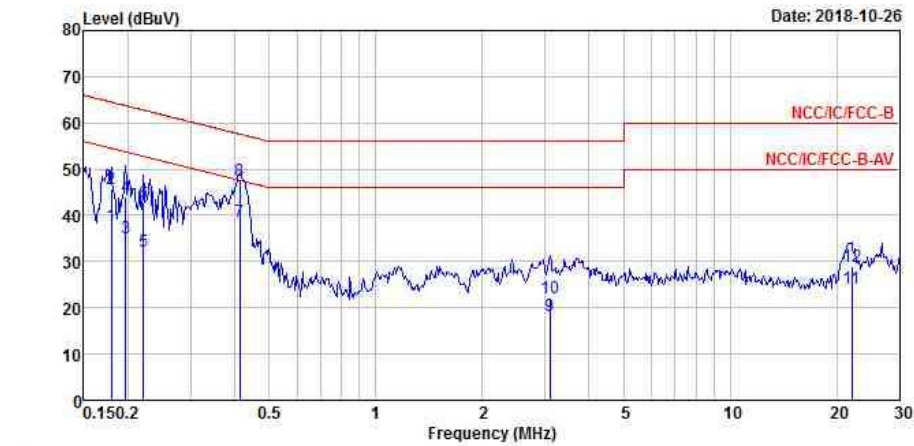


|       | Freq  | Level | Over   | Limit | Read  | LISN   | Cable | Remark  |
|-------|-------|-------|--------|-------|-------|--------|-------|---------|
|       | MHz   | dBuV  | Limit  | Line  | Level | Factor | Loss  |         |
|       |       |       | dB     | dBuV  | dBuV  | dB     | dB    |         |
| 1     | 0.16  | 34.31 | -21.34 | 55.65 | 24.64 | 9.63   | 0.04  | Average |
| 2     | 0.16  | 44.79 | -20.86 | 65.65 | 35.12 | 9.63   | 0.04  | QP      |
| 3     | 0.19  | 31.64 | -22.20 | 53.84 | 22.02 | 9.62   | 0.00  | Average |
| 4     | 0.19  | 42.30 | -21.54 | 63.84 | 32.68 | 9.62   | 0.00  | QP      |
| 5     | 0.23  | 32.05 | -20.56 | 52.61 | 22.41 | 9.62   | 0.02  | Average |
| 6     | 0.23  | 42.02 | -20.59 | 62.61 | 32.38 | 9.62   | 0.02  | QP      |
| 7 MAX | 0.41  | 37.53 | -10.06 | 47.59 | 27.82 | 9.61   | 0.10  | Average |
| 8     | 0.41  | 46.30 | -11.29 | 57.59 | 36.59 | 9.61   | 0.10  | QP      |
| 9     | 3.80  | 20.34 | -25.66 | 46.00 | 10.62 | 9.64   | 0.08  | Average |
| 10    | 3.80  | 24.72 | -31.28 | 56.00 | 15.00 | 9.64   | 0.08  | QP      |
| 11    | 26.84 | 22.21 | -27.79 | 50.00 | 12.40 | 9.70   | 0.11  | Average |
| 12    | 26.84 | 26.28 | -33.72 | 60.00 | 16.47 | 9.70   | 0.11  | QP      |

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

## AC Power-line Conducted Emissions Result

|                    |                       |             |      |
|--------------------|-----------------------|-------------|------|
| Operating Mode     | 1                     | Power Phase | Line |
| Operating Function | PoE Mode_PIFA Antenna |             |      |



|       | Freq  | Level | Over Limit | Limit Line | Read Level | LISM Factor | Cable Loss | Remark  |
|-------|-------|-------|------------|------------|------------|-------------|------------|---------|
|       | MHz   | dBuV  | dB         | dBuV       | dBuV       | dB          | dB         |         |
| 1     | 0.18  | 37.77 | -16.73     | 54.50      | 28.13      | 9.62        | 0.02       | Average |
| 2     | 0.18  | 45.67 | -18.83     | 64.50      | 36.03      | 9.62        | 0.02       | QP      |
| 3     | 0.20  | 35.19 | -18.57     | 53.76      | 25.57      | 9.62        | 0.00       | Average |
| 4     | 0.20  | 43.87 | -19.89     | 63.76      | 34.25      | 9.62        | 0.00       | QP      |
| 5     | 0.22  | 32.14 | -20.65     | 52.79      | 22.51      | 9.62        | 0.01       | Average |
| 6     | 0.22  | 42.83 | -19.96     | 62.79      | 33.20      | 9.62        | 0.01       | QP      |
| 7 MAX | 0.41  | 38.79 | -8.80      | 47.59      | 29.08      | 9.61        | 0.10       | Average |
| 8     | 0.41  | 47.59 | -10.00     | 57.59      | 37.88      | 9.61        | 0.10       | QP      |
| 9     | 3.11  | 18.25 | -27.75     | 46.00      | 8.57       | 9.63        | 0.05       | Average |
| 10    | 3.11  | 22.08 | -33.92     | 56.00      | 12.40      | 9.63        | 0.05       | QP      |
| 11    | 22.06 | 24.17 | -25.83     | 50.00      | 14.47      | 9.59        | 0.11       | Average |
| 12    | 22.06 | 28.99 | -31.01     | 60.00      | 19.29      | 9.59        | 0.11       | QP      |

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

**Summary**

| Mode          | Max-N dB<br>(Hz) | Max-OBW<br>(Hz) | ITU-Code | Min-N dB<br>(Hz) | Min-OBW<br>(Hz) |
|---------------|------------------|-----------------|----------|------------------|-----------------|
| 2.4-2.4835GHz | -                | -               | -        | -                | -               |
| BT-BR(1Mbps)  | 918.75k          | 900.8k          | 901KF1D  | 917.5k           | 893.303k        |
| BT-EDR(2Mbps) | 1.3M             | 1.193M          | 1M19G1D  | 1.253M           | 1.187M          |
| BT-EDR(3Mbps) | 1.255M           | 1.198M          | 1M20G1D  | 1.254M           | 1.191M          |

**Max-N dB** = Maximum 20dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth;

**Min-N dB** = Minimum 20dB down bandwidth; **Min-OBW** = Minimum 99% occupied bandwidth;

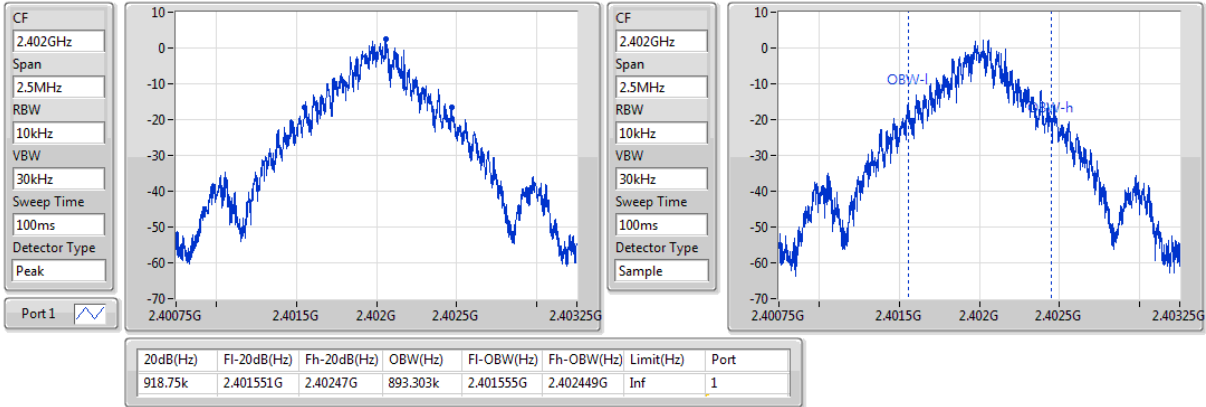
**Result**

| Mode             | Result | Limit<br>(Hz) | Port 1-N dB<br>(Hz) | Port 1-OBW<br>(Hz) |
|------------------|--------|---------------|---------------------|--------------------|
| BT-BR(1Mbps)     | -      | -             | -                   | -                  |
| 2402MHz_TnomVnom | Pass   | Inf           | 918.75k             | 893.303k           |
| 2441MHz_TnomVnom | Pass   | Inf           | 917.5k              | 895.802k           |
| 2480MHz_TnomVnom | Pass   | Inf           | 917.5k              | 900.8k             |
| BT-EDR(2Mbps)    | -      | -             | -                   | -                  |
| 2402MHz_TnomVnom | Pass   | Inf           | 1.279M              | 1.187M             |
| 2441MHz_TnomVnom | Pass   | Inf           | 1.3M                | 1.193M             |
| 2480MHz_TnomVnom | Pass   | Inf           | 1.253M              | 1.187M             |
| BT-EDR(3Mbps)    | -      | -             | -                   | -                  |
| 2402MHz_TnomVnom | Pass   | Inf           | 1.254M              | 1.191M             |
| 2441MHz_TnomVnom | Pass   | Inf           | 1.255M              | 1.196M             |
| 2480MHz_TnomVnom | Pass   | Inf           | 1.255M              | 1.198M             |

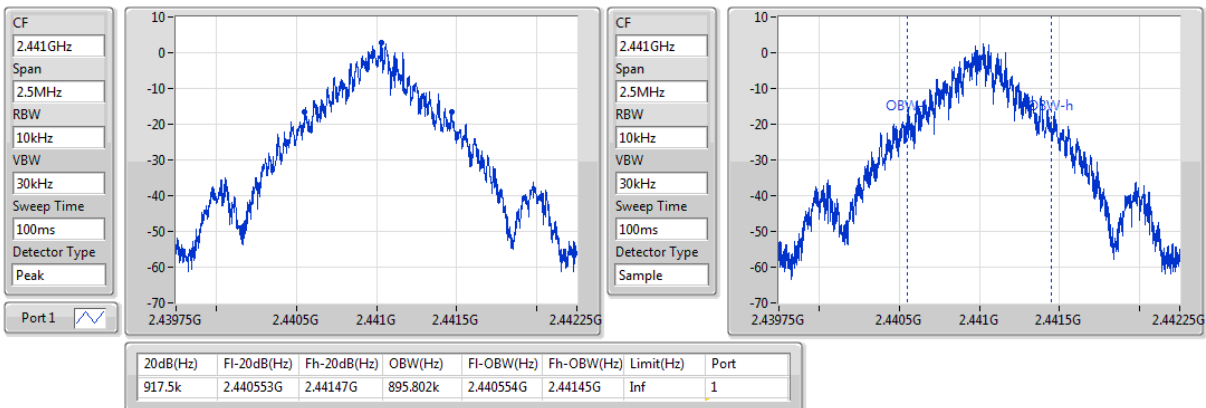
**Port X-N dB** = Port X 20dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;

**BT-BR(1Mbps)**
**2402MHz**

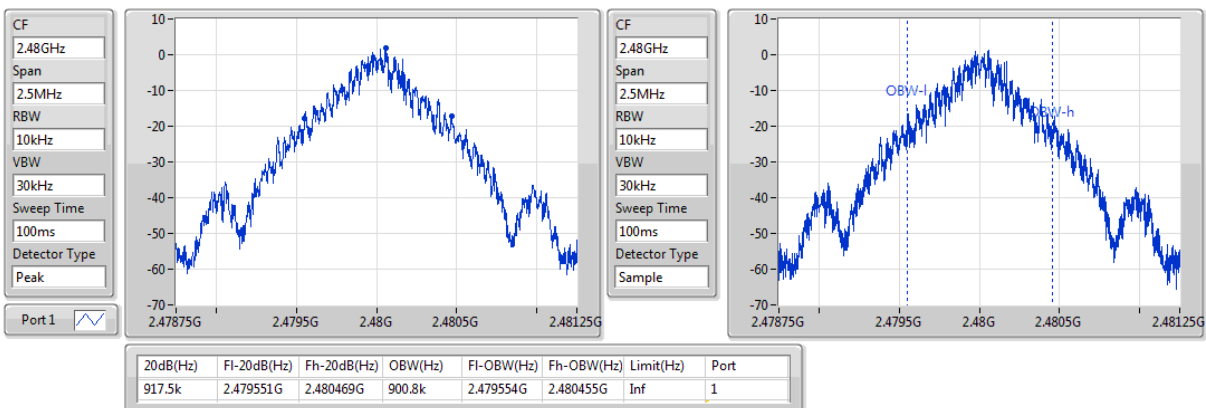
22/10/2018


**BT-BR(1Mbps)**
**2441MHz**

22/10/2018

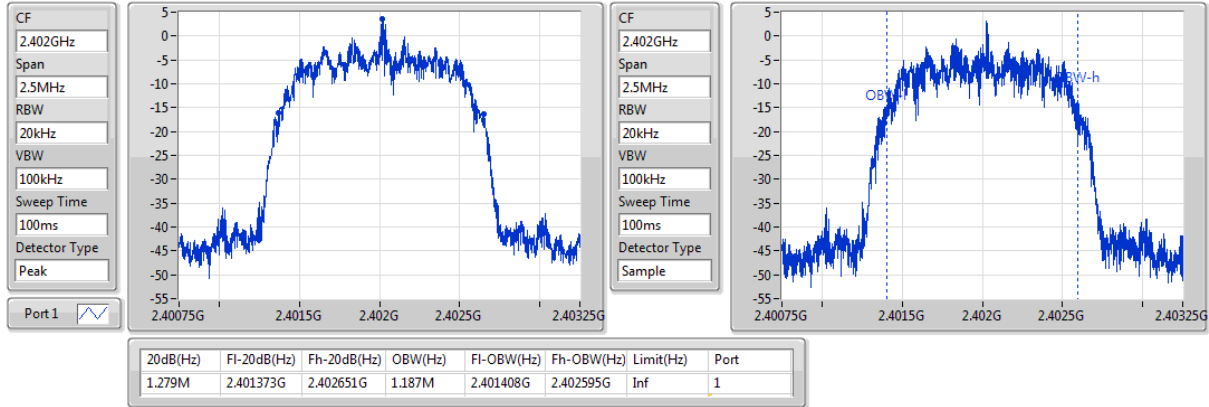

**BT-BR(1Mbps)**
**2480MHz**

22/10/2018

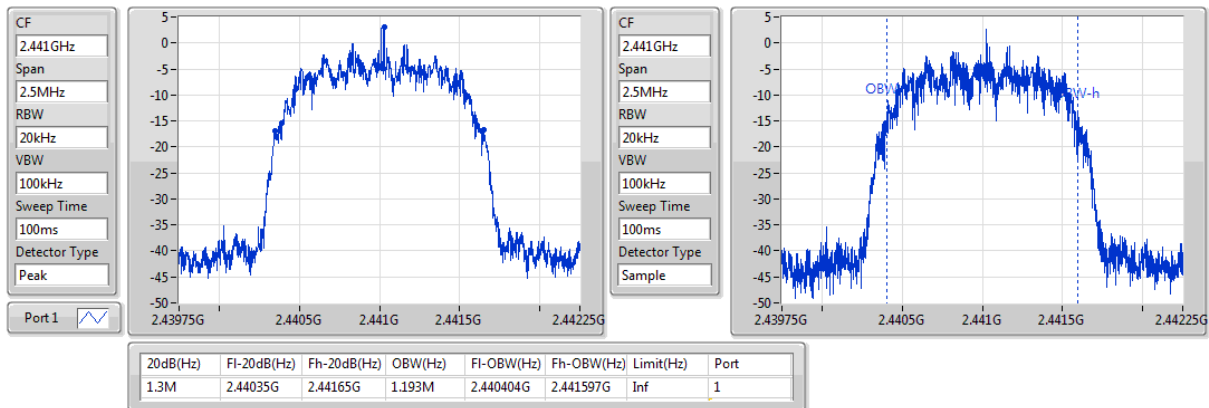


**BT-EDR(2Mbps)**
**EBW**
**2402MHz**

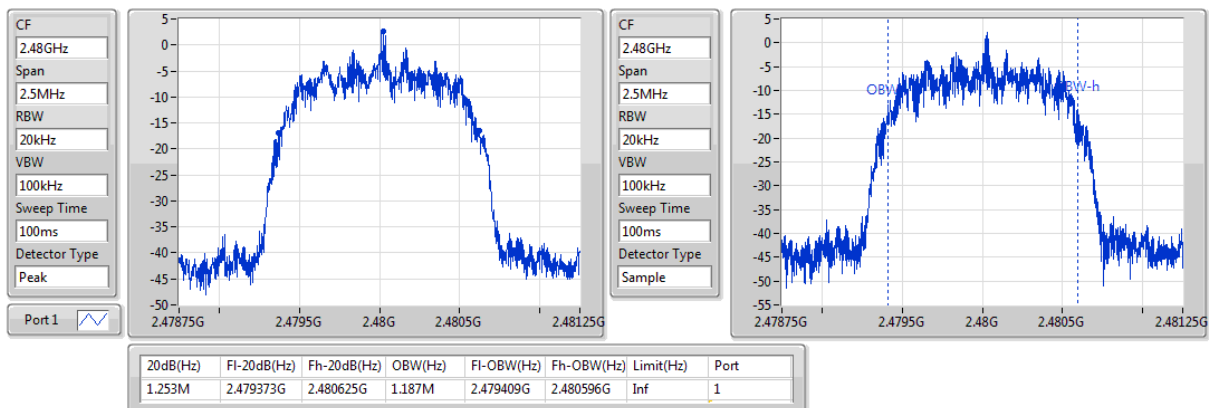
22/10/2018


**BT-EDR(2Mbps)**
**EBW**
**2441MHz**

22/10/2018

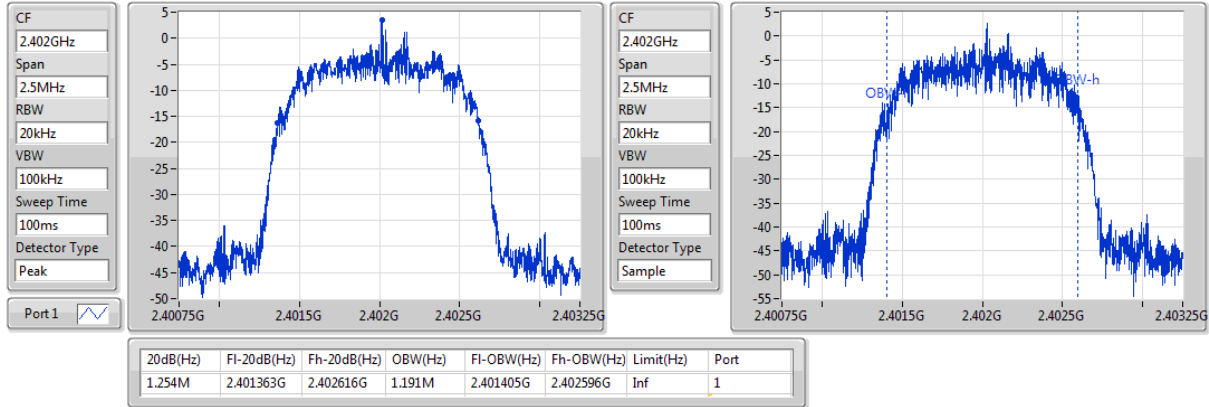

**BT-EDR(2Mbps)**
**EBW**
**2480MHz**

22/10/2018

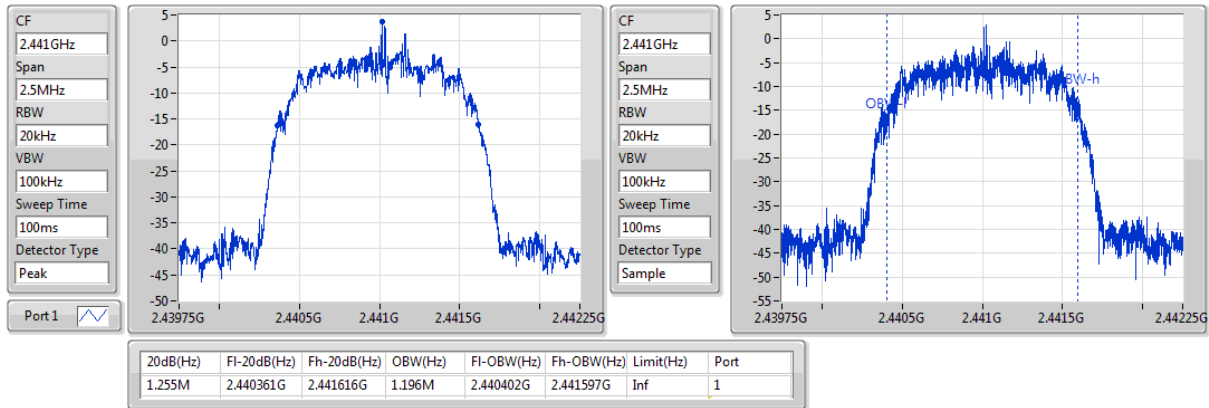


**BT-EDR(3Mbps)**
**EBW**
**2402MHz**

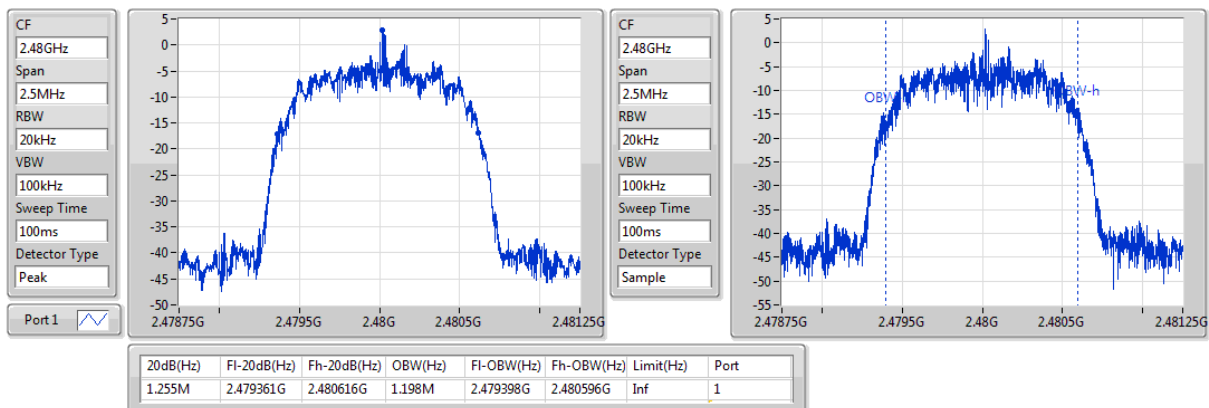
22/10/2018


**BT-EDR(3Mbps)**
**EBW**
**2441MHz**

22/10/2018


**BT-EDR(3Mbps)**
**EBW**
**2480MHz**

22/10/2018



**Summary**

| Mode          | Max-Space<br>(Hz) | Min-Space<br>(Hz) |
|---------------|-------------------|-------------------|
| 2.4-2.4835GHz | -                 | -                 |
| BT-BR(1Mbps)  | 1.002M            | 1.0005M           |
| BT-EDR(2Mbps) | 1.002M            | 1.0005M           |
| BT-EDR(3Mbps) | 999k              | 999k              |

**Result**

| Mode             | Result | Fl<br>(Hz) | Fh<br>(Hz) | Ch.Space<br>(Hz) | Limit<br>(Hz) |
|------------------|--------|------------|------------|------------------|---------------|
| BT-BR(1Mbps)     | -      | -          | -          | -                | -             |
| 2402MHz_TnomVnom | Pass   | 2.402016G  | 2.403018G  | 1.002M           | 611.8875k     |
| 2441MHz_TnomVnom | Pass   | 2.441017G  | 2.442018G  | 1.0005M          | 611.055k      |
| 2480MHz_TnomVnom | Pass   | 2.479016G  | 2.480016G  | 1.0005M          | 611.055k      |
| BT-EDR(2Mbps)    | -      | -          | -          | -                | -             |
| 2402MHz_TnomVnom | Pass   | 2.402016G  | 2.403018G  | 1.002M           | 851.814k      |
| 2441MHz_TnomVnom | Pass   | 2.441016G  | 2.442016G  | 1.0005M          | 865.8k        |
| 2480MHz_TnomVnom | Pass   | 2.479017G  | 2.480018G  | 1.0005M          | 834.498k      |
| BT-EDR(3Mbps)    | -      | -          | -          | -                | -             |
| 2402MHz_TnomVnom | Pass   | 2.402017G  | 2.403016G  | 999k             | 835.164k      |
| 2441MHz_TnomVnom | Pass   | 2.441017G  | 2.442016G  | 999k             | 835.83k       |
| 2480MHz_TnomVnom | Pass   | 2.479017G  | 2.480016G  | 999k             | 835.83k       |

## BT-BR(1Mbps)

## Channel Separation

2.402G/2.403GHz



## BT-BR(1Mbps)

## Channel Separation

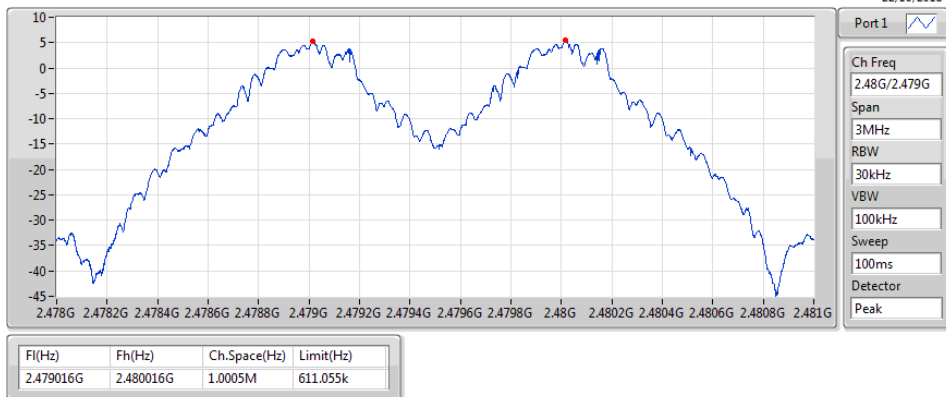
2.441G/2.442GHz



## BT-BR(1Mbps)

## Channel Separation

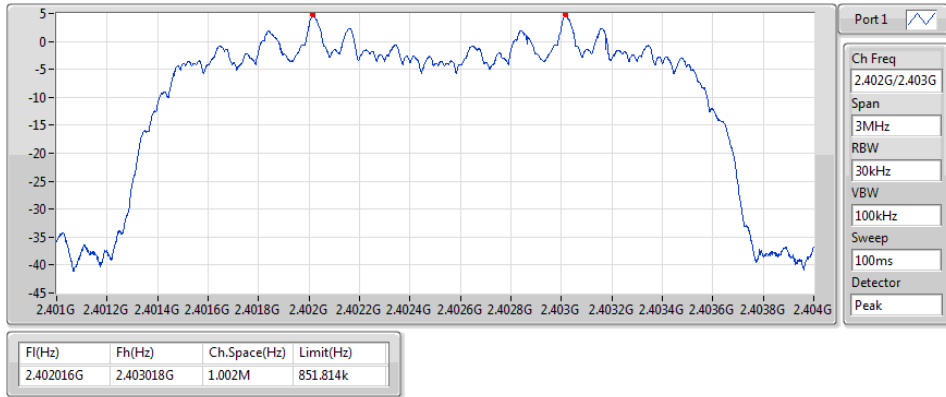
2.48G/2.479GHz



## BT-EDR(2Mbps)

## Channel Separation

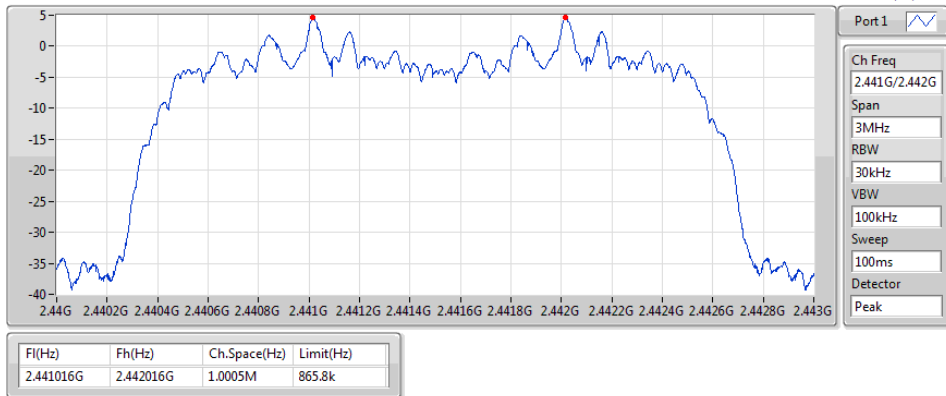
2.402G/2.403GHz



## BT-EDR(2Mbps)

## Channel Separation

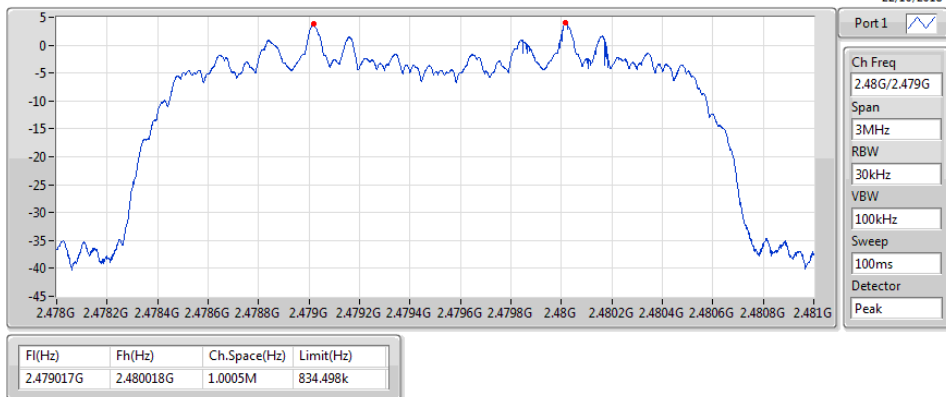
2.441G/2.442GHz



## BT-EDR(2Mbps)

## Channel Separation

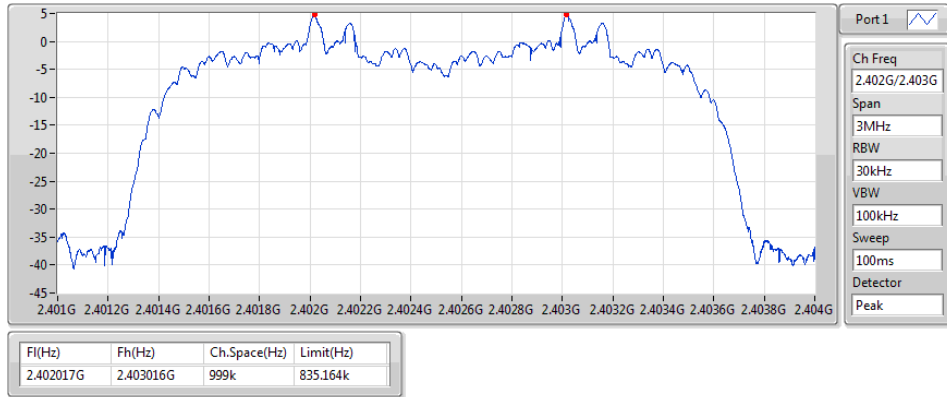
2.48G/2.479GHz



## BT-EDR(3Mbps)

## Channel Separation

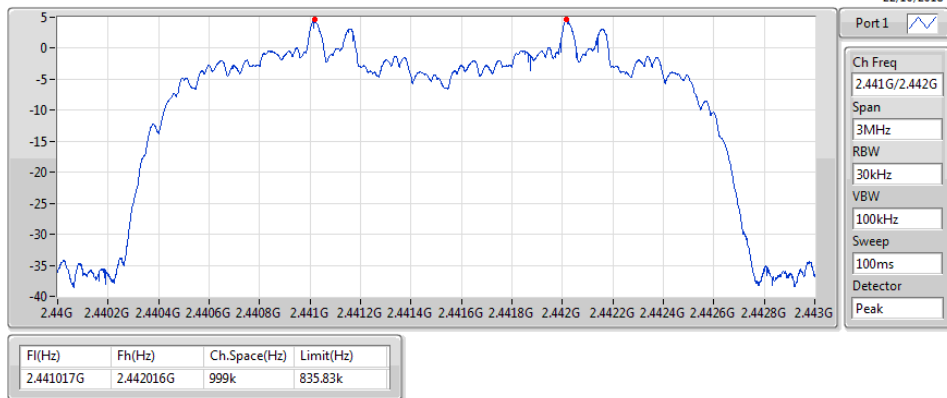
2.402G/2.403GHz



## BT-EDR(3Mbps)

## Channel Separation

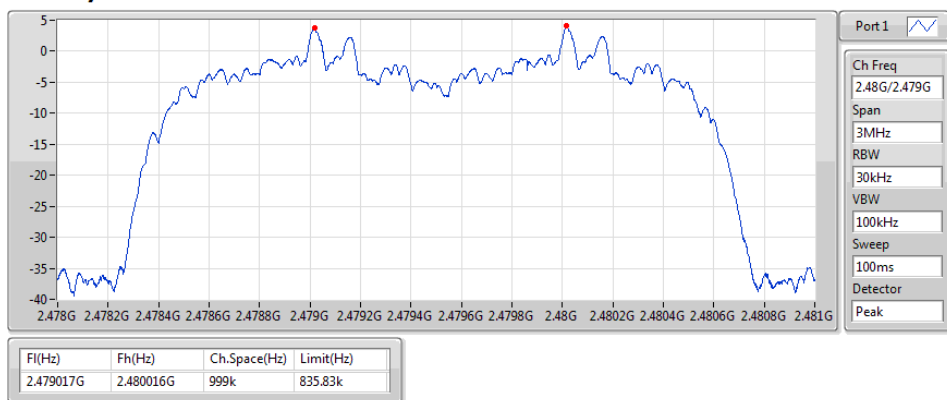
2.441G/2.442GHz



## BT-EDR(3Mbps)

## Channel Separation

2.48G/2.479GHz



**Summary**

| Mode          | Power<br>(dBm) | Power<br>(W) |
|---------------|----------------|--------------|
| 2.4-2.4835GHz | -              | -            |
| BT-BR(1Mbps)  | 8.65           | 0.00733      |
| BT-EDR(2Mbps) | 8.72           | 0.00745      |
| BT-EDR(3Mbps) | 9.00           | 0.00794      |

**Result**

| Mode             | Result | Gain<br>(dBi) | Power<br>(dBm) | Power Limit<br>(dBm) |
|------------------|--------|---------------|----------------|----------------------|
| BT-BR(1Mbps)     | -      | -             | -              | -                    |
| 2402MHz_TnomVnom | Pass   | -2.22         | 8.65           | 21.00                |
| 2441MHz_TnomVnom | Pass   | -2.22         | 8.47           | 21.00                |
| 2480MHz_TnomVnom | Pass   | -2.22         | 7.81           | 21.00                |
| BT-EDR(2Mbps)    | -      | -             | -              | -                    |
| 2402MHz_TnomVnom | Pass   | -2.22         | 8.72           | 21.00                |
| 2441MHz_TnomVnom | Pass   | -2.22         | 8.52           | 21.00                |
| 2480MHz_TnomVnom | Pass   | -2.22         | 7.76           | 21.00                |
| BT-EDR(3Mbps)    | -      | -             | -              | -                    |
| 2402MHz_TnomVnom | Pass   | -2.22         | 9.00           | 21.00                |
| 2441MHz_TnomVnom | Pass   | -2.22         | 8.78           | 21.00                |
| 2480MHz_TnomVnom | Pass   | -2.22         | 8.04           | 21.00                |

**Summary**

| Mode          | Power | Power   |
|---------------|-------|---------|
|               | (dBm) | (W)     |
| 2.4-2.4835GHz | -     | -       |
| BT-BR(1Mbps)  | 8.91  | 0.00778 |
| BT-EDR(2Mbps) | 6.77  | 0.00475 |
| BT-EDR(3Mbps) | 6.70  | 0.00468 |

**Result**

| Mode             | Result | Gain<br>(dBi) | Power<br>(dBm) | Power Limit<br>(dBm) |
|------------------|--------|---------------|----------------|----------------------|
| BT-BR(1Mbps)     | -      | -             | -              | -                    |
| 2402MHz_TnomVnom | Pass   | -2.22         | 8.91           | 30.00                |
| 2441MHz_TnomVnom | Pass   | -2.22         | 8.73           | 30.00                |
| 2480MHz_TnomVnom | Pass   | -2.22         | 8.09           | 30.00                |
| BT-EDR(2Mbps)    | -      | -             | -              | -                    |
| 2402MHz_TnomVnom | Pass   | -2.22         | 6.77           | 30.00                |
| 2441MHz_TnomVnom | Pass   | -2.22         | 6.58           | 30.00                |
| 2480MHz_TnomVnom | Pass   | -2.22         | 6.00           | 30.00                |
| BT-EDR(3Mbps)    | -      | -             | -              | -                    |
| 2402MHz_TnomVnom | Pass   | -2.22         | 6.70           | 30.00                |
| 2441MHz_TnomVnom | Pass   | -2.22         | 6.63           | 30.00                |
| 2480MHz_TnomVnom | Pass   | -2.22         | 5.96           | 30.00                |

**Summary**

| Mode          | Max-Hop No |
|---------------|------------|
| 2.4-2.4835GHz | -          |
| BT-BR(1Mbps)  | 79         |
| BT-EDR(2Mbps) | 79         |
| BT-EDR(3Mbps) | 79         |

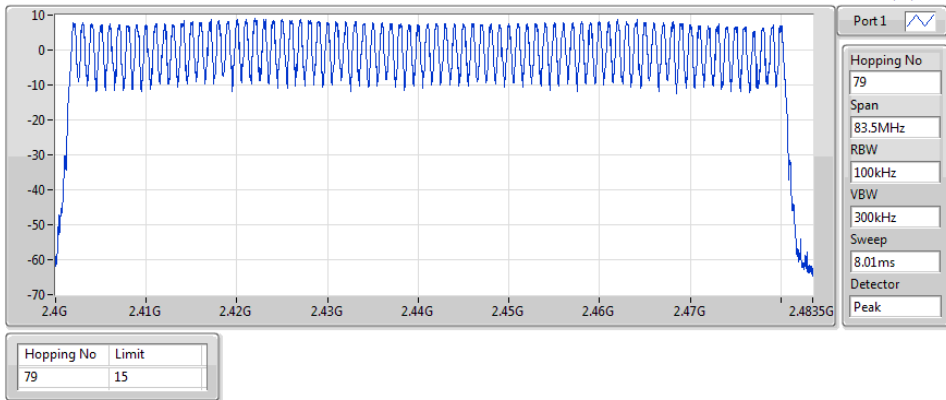
**Result**

| Mode             | Result | Hopping No | Limit |
|------------------|--------|------------|-------|
| BT-BR(1Mbps)     | -      | -          | -     |
| 2441MHz_TnomVnom | Pass   | 79         | 15    |
| BT-EDR(2Mbps)    | -      | -          | -     |
| 2441MHz_TnomVnom | Pass   | 79         | 15    |
| BT-EDR(3Mbps)    | -      | -          | -     |
| 2441MHz_TnomVnom | Pass   | 79         | 15    |

**BT-BR(1Mbps)**

**2441MHz**

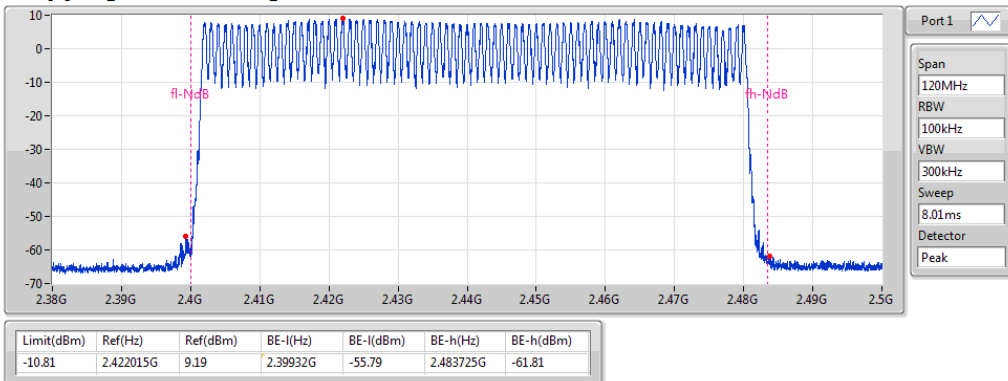
**Hopping Ch**



**BT-BR(1Mbps)**

**2441MHz**

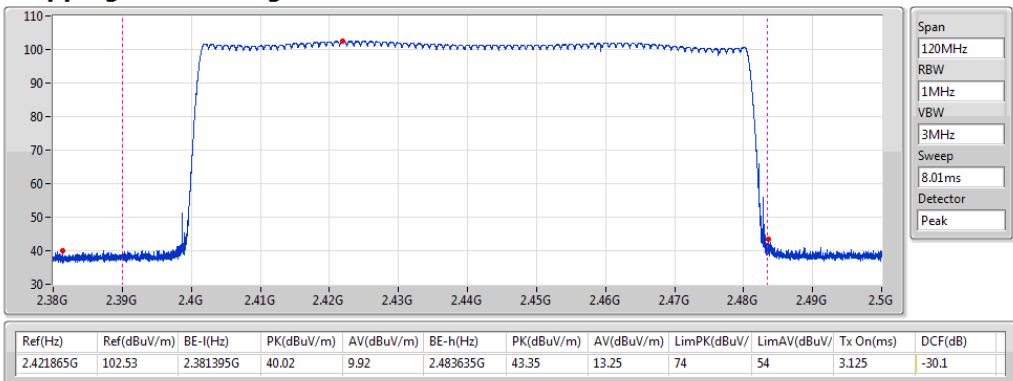
**Hopping Ch Bandedge (Non-restricted Band)**



**BT-BR(1Mbps)**

**2441MHz**

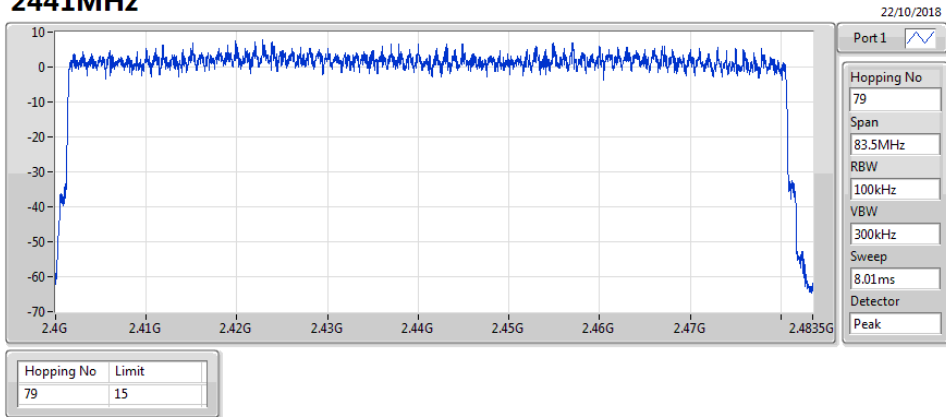
**Hopping Ch Bandedge (Restricted Band)**



### BT-EDR(2Mbps)

2441MHz

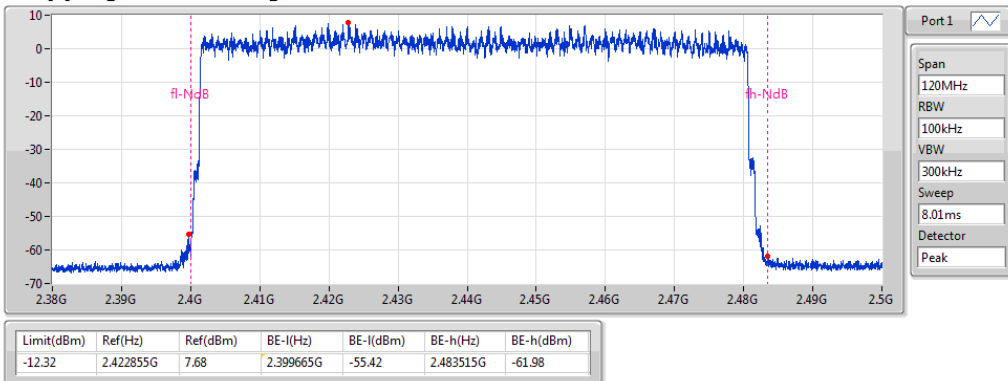
### Hopping Ch



### BT-EDR(2Mbps)

2441MHz

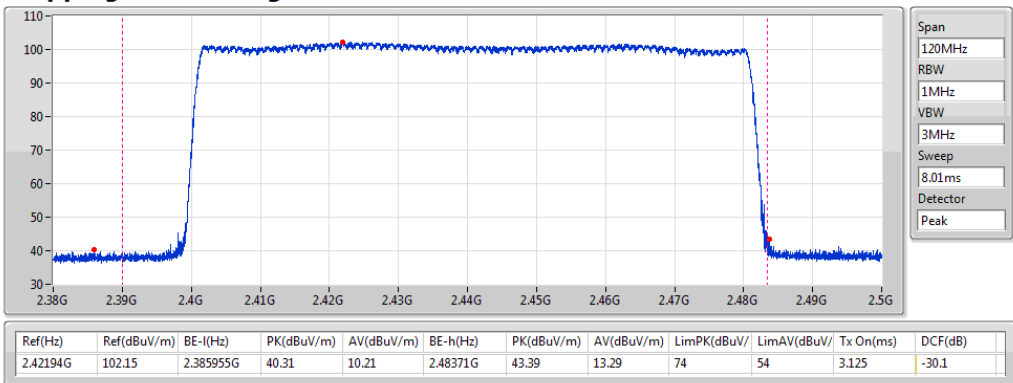
### Hopping Ch Bandedge (Non-restricted Band)



### BT-EDR(2Mbps)

2441MHz

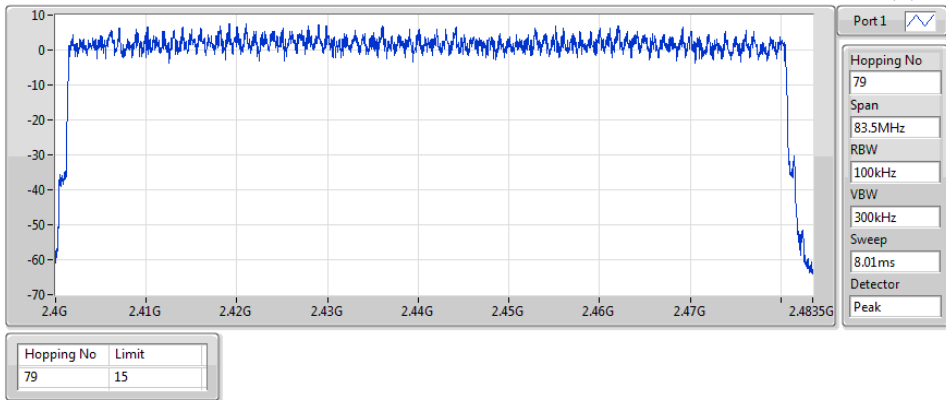
### Hopping Ch Bandedge (Restricted Band)



BT-EDR(3Mbps)

2441MHz

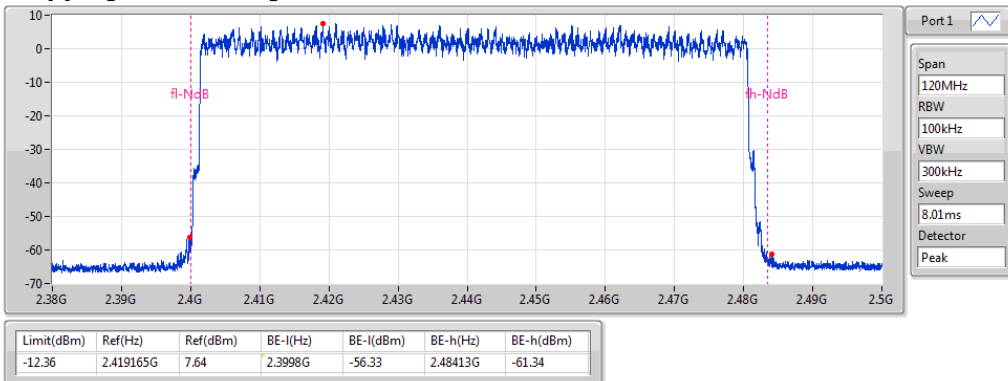
Hopping Ch



BT-EDR(3Mbps)

2441MHz

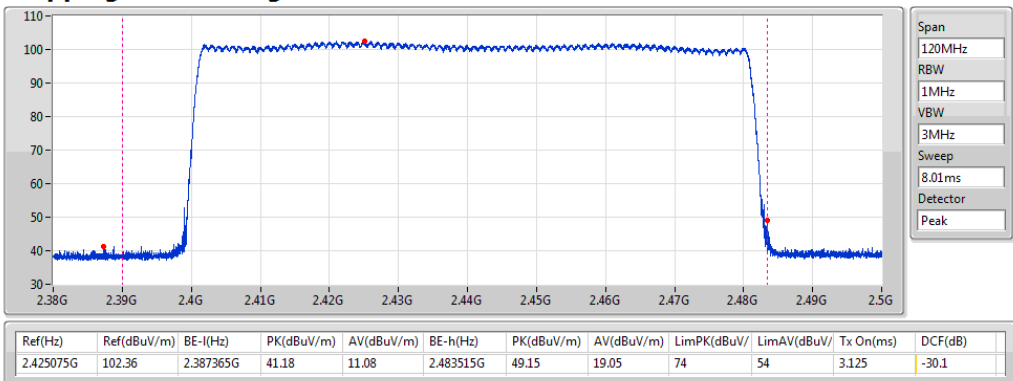
Hopping Ch Bandedge (Non-restricted Band)



BT-EDR(3Mbps)

2441MHz

Hopping Ch Bandedge (Restricted Band)



**Summary**

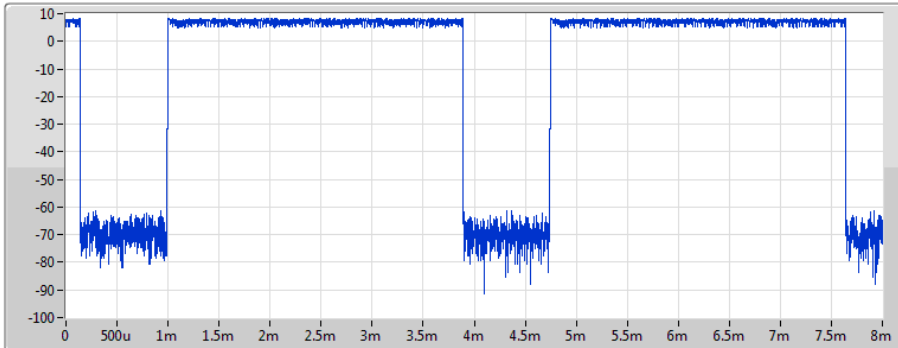
| Mode          | Max-Dwell<br>(s) |
|---------------|------------------|
| 2.4-2.4835GHz | -                |
| BT-BR(1Mbps)  | 308.1806m        |
| BT-EDR(2Mbps) | 308.3938m        |
| BT-EDR(3Mbps) | 308.5004m        |

**Result**

| Mode             | Result | Period<br>(s) | Dwell<br>(s) | Limit<br>(s) | Tx On<br>(s) |
|------------------|--------|---------------|--------------|--------------|--------------|
| BT-BR(1Mbps)     | -      | -             | -            | -            | -            |
| 2441MHz_TnomVnom | Pass   | 31.6          | 308.1806m    | 400m         | 2.891m       |
| BT-EDR(2Mbps)    | -      | -             | -            | -            | -            |
| 2441MHz_TnomVnom | Pass   | 31.6          | 308.3938m    | 400m         | 2.893m       |
| BT-EDR(3Mbps)    | -      | -             | -            | -            | -            |
| 2441MHz_TnomVnom | Pass   | 31.6          | 308.5004m    | 400m         | 2.894m       |

## BT-BR(1Mbps)

2441MHz



| Period(s) | Dwell(s)  | Limit(s) | Tx On(s) |
|-----------|-----------|----------|----------|
| 31.6      | 308.1806m | 400m     | 2.891m   |

## Dwell

22/10/2018

Port 1 

Ch Freq  
2.441GHz

RBW  
300kHz

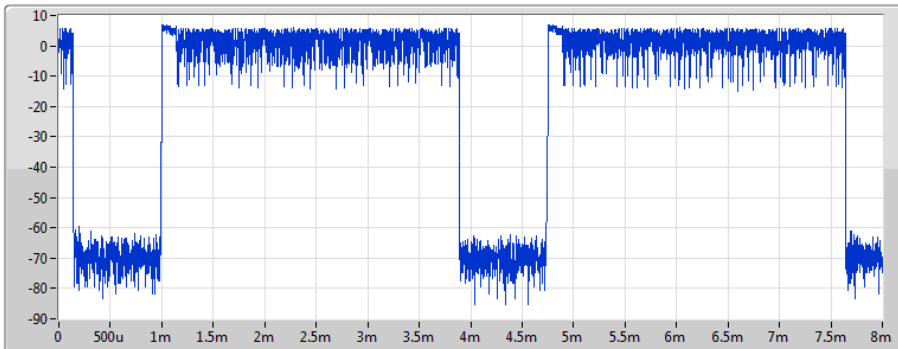
VBW  
1MHz

Sweep Time  
8ms

TX Time  
2.891ms

## BT-EDR(2Mbps)

2441MHz



| Period(s) | Dwell(s)  | Limit(s) | Tx On(s) |
|-----------|-----------|----------|----------|
| 31.6      | 308.3938m | 400m     | 2.893m   |

## Dwell

22/10/2018

Port 1 

Ch Freq  
2.441GHz

RBW  
300kHz

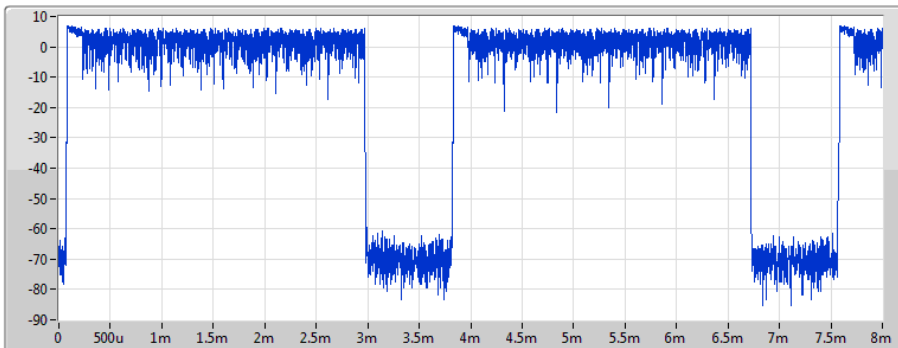
VBW  
1MHz

Sweep Time  
8ms

TX Time  
2.893ms

## BT-EDR(3Mbps)

2441MHz



| Period(s) | Dwell(s)  | Limit(s) | Tx On(s) |
|-----------|-----------|----------|----------|
| 31.6      | 308.5004m | 400m     | 2.894m   |

## Dwell

22/10/2018

Port 1 

Ch Freq  
2.441GHz

RBW  
300kHz

VBW  
1MHz

Sweep Time  
8ms

TX Time  
2.894ms

**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-BR(1Mbps)  | Pass   | 2.402G      | 7.85         | -12.15         | 2.39711G     | -62.66         | 2.39998G     | -48.98         | 2.48364G     | -63.29         | 16.47545G    | -50.25         | 1    |
| BT-EDR(2Mbps) | Pass   | 2.40188G    | 5.12         | -14.88         | 2.39652G     | -63.48         | 2.39998G     | -50.50         | 2.4844G      | -62.81         | 17.56177G    | -50.75         | 1    |
| BT-EDR(3Mbps) | Pass   | 2.4018G     | 4.15         | -15.85         | 2.39741G     | -63.93         | 2.39997G     | -50.78         | 2.48506G     | -62.86         | 16.77658G    | -50.41         | 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-BR(1Mbps)     | -      | -           | -            | -              | -            | -              | -            | -              | -            | -              | -            | -              | -    |
| 2402MHz_TnomVnom | Pass   | 2.402G      | 7.85         | -12.15         | 2.39711G     | -62.66         | 2.39998G     | -48.98         | 2.48364G     | -63.29         | 16.47545G    | -50.25         | 1    |
| 2441MHz_TnomVnom | Pass   | 2.44104G    | 7.98         | -12.02         | 2.14729G     | -63.91         | 2.39936G     | -63.80         | 2.48547G     | -62.42         | 15.26248G    | -51.56         | 1    |
| 2480MHz_TnomVnom | Pass   | 2.48003G    | 7.09         | -12.91         | 2.11621G     | -65.41         | 2.39958G     | -63.80         | 2.48382G     | -58.00         | 16.43605G    | -51.43         | 1    |
| BT-EDR(2Mbps)    | -      | -           | -            | -              | -            | -              | -            | -              | -            | -              | -            | -              | -    |
| 2402MHz_TnomVnom | Pass   | 2.40188G    | 5.12         | -14.88         | 2.39652G     | -63.48         | 2.39998G     | -50.50         | 2.4844G      | -62.81         | 17.56177G    | -50.75         | 1    |
| 2441MHz_TnomVnom | Pass   | 2.44087G    | 6.70         | -13.30         | 2.16594G     | -64.93         | 2.39965G     | -63.91         | 2.48454G     | -62.66         | 17.01017G    | -51.38         | 1    |
| 2480MHz_TnomVnom | Pass   | 2.48016G    | 5.97         | -14.03         | 2.398G       | -65.05         | 2.39988G     | -63.73         | 2.48354G     | -59.71         | 15.27655G    | -50.87         | 1    |
| BT-EDR(3Mbps)    | -      | -           | -            | -              | -            | -              | -            | -              | -            | -              | -            | -              | -    |
| 2402MHz_TnomVnom | Pass   | 2.4018G     | 4.15         | -15.85         | 2.39741G     | -63.93         | 2.39997G     | -50.78         | 2.48506G     | -62.86         | 16.77658G    | -50.41         | 1    |
| 2441MHz_TnomVnom | Pass   | 2.44117G    | 6.80         | -13.20         | 2.39267G     | -64.12         | 2.39887G     | -63.22         | 2.48461G     | -63.26         | 15.21745G    | -51.35         | 1    |
| 2480MHz_TnomVnom | Pass   | 2.4802G     | 4.01         | -15.99         | 2.16298G     | -64.54         | 2.39856G     | -63.44         | 2.48358G     | -58.92         | 15.26248G    | -51.07         | 1    |

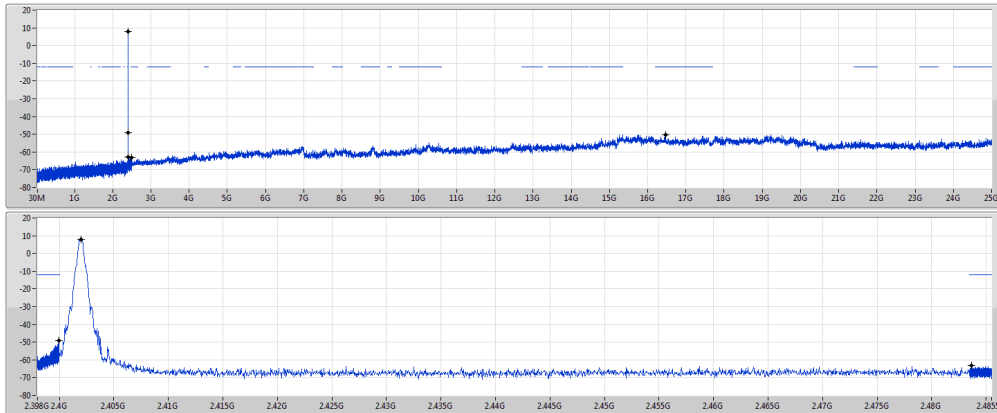
BT-BR(1Mbps)

2402MHz

CSE NdB

22/10/2018

Port 1



| Ref(Hz) | Ref(dBm) | Limit(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz) | Level(dBm) | Port |
|---------|----------|------------|----------|------------|----------|------------|----------|------------|----------|------------|------|
| 2402G   | 7.85     | -12.15     | 239711G  | -62.66     | 239998G  | -48.98     | 248364G  | -63.29     | 1647545G | -50.25     | 1    |

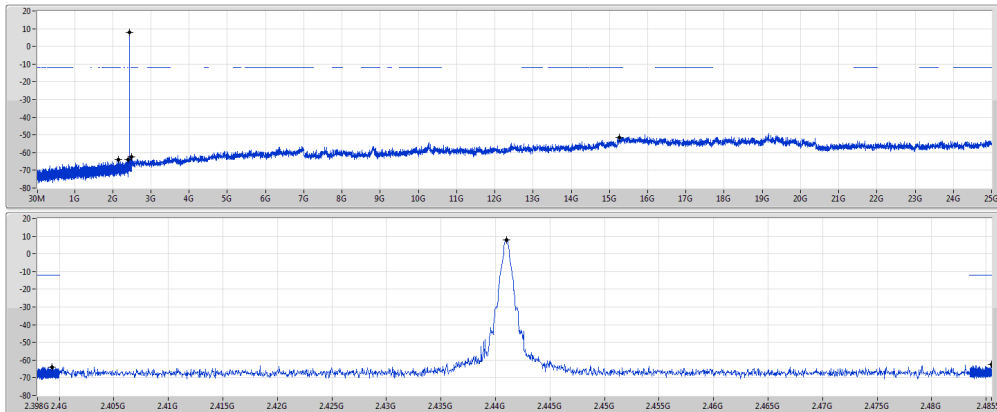
BT-BR(1Mbps)

2441MHz

CSE NdB

22/10/2018

Port 1



| Ref(Hz) | Ref(dBm) | Limit(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz) | Level(dBm) | Port |
|---------|----------|------------|----------|------------|----------|------------|----------|------------|----------|------------|------|
| 244104G | 7.98     | -12.02     | 214729G  | -63.91     | 239936G  | -63.80     | 248547G  | -62.42     | 1526248G | -51.56     | 1    |

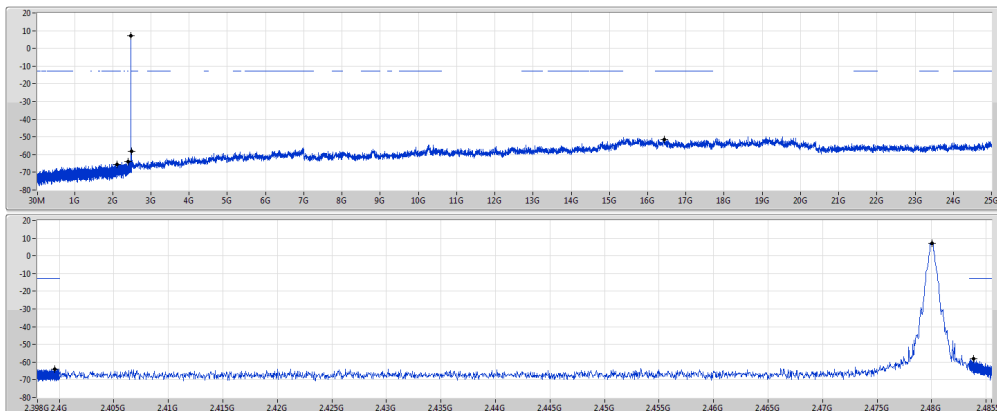
BT-BR(1Mbps)

2480MHz

CSE NdB

22/10/2018

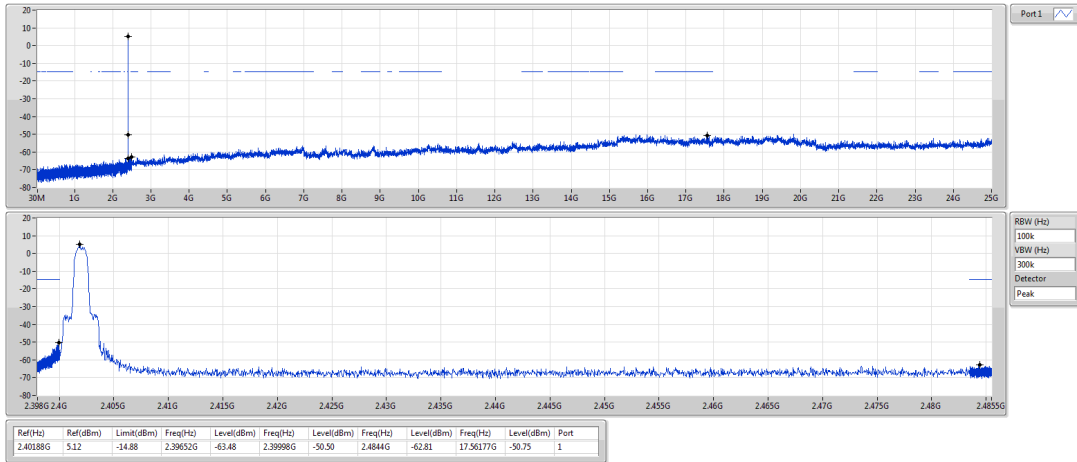
Port 1



| Ref(Hz) | Ref(dBm) | Limit(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz) | Level(dBm) | Port |
|---------|----------|------------|----------|------------|----------|------------|----------|------------|----------|------------|------|
| 248003G | 7.09     | -12.91     | 211621G  | -65.41     | 239959G  | -63.80     | 248382G  | -58.00     | 1643605G | -51.43     | 1    |

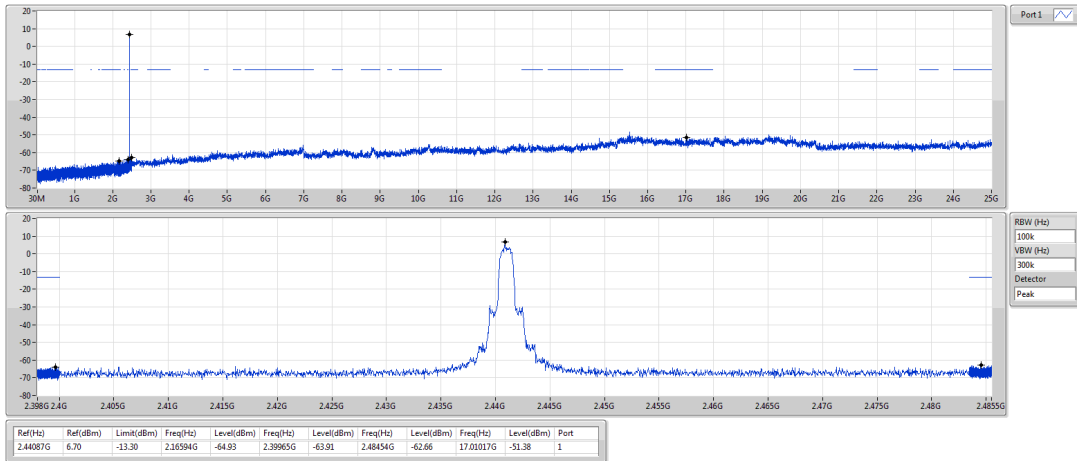
BT-EDR(2Mbps)  
2402MHz

CSE NdB



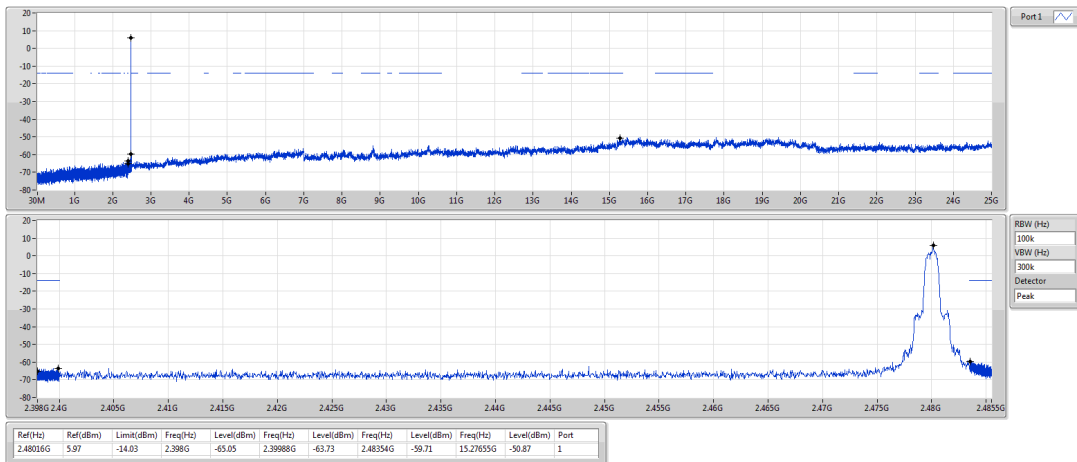
BT-EDR(2Mbps)  
2441MHz

CSE NdB



BT-EDR(2Mbps)  
2480MHz

CSE NdB

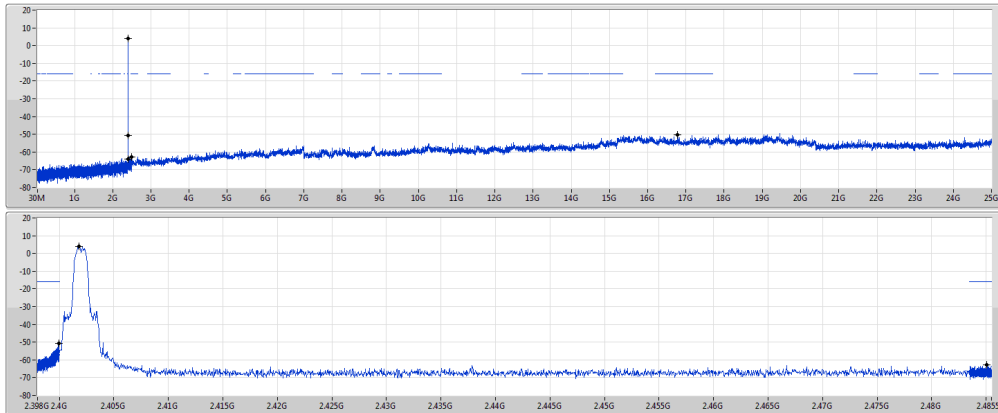


BT-EDR(3Mbps)  
2402MHz

CSE NdB

22/10/2018

Port 1



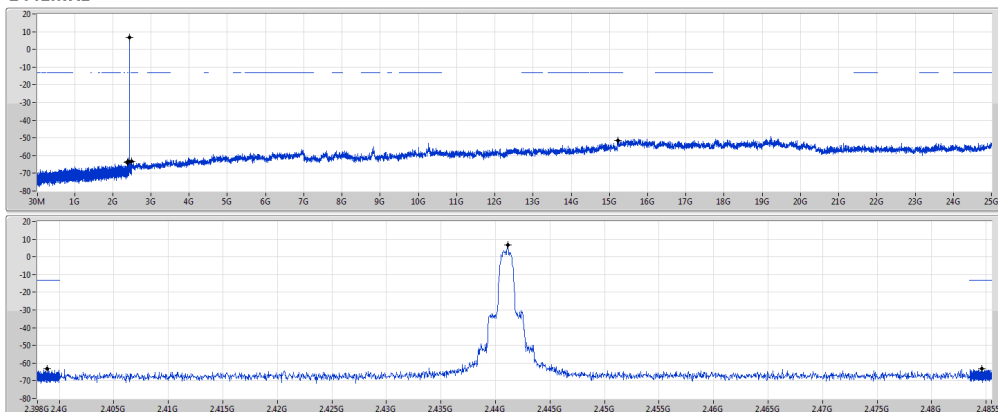
| Ref(Hz) | Ref(dBm) | Limit(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz)  | Level(dBm) | Port |
|---------|----------|------------|----------|------------|----------|------------|----------|------------|-----------|------------|------|
| 24028G  | 4.15     | -15.85     | 2.39741G | -63.93     | 2.39997G | -50.78     | 2.48506G | -62.86     | 16.77638G | -50.41     | 1    |

BT-EDR(3Mbps)  
2441MHz

CSE NdB

22/10/2018

Port 1



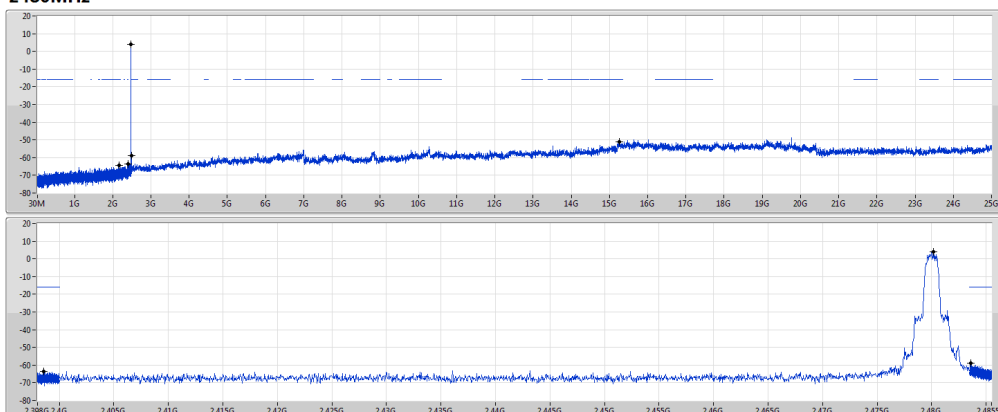
| Ref(Hz) | Ref(dBm) | Limit(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz)  | Level(dBm) | Port |
|---------|----------|------------|----------|------------|----------|------------|----------|------------|-----------|------------|------|
| 244117G | 6.80     | -13.20     | 2.39267G | -64.12     | 2.39887G | -63.22     | 2.48461G | -63.26     | 15.21745G | -51.35     | 1    |

BT-EDR(3Mbps)  
2480MHz

CSE NdB

22/10/2018

Port 1



| Ref(Hz) | Ref(dBm) | Limit(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz)  | Level(dBm) | Port |
|---------|----------|------------|----------|------------|----------|------------|----------|------------|-----------|------------|------|
| 24802G  | 4.01     | -15.99     | 2.38638G | -64.54     | 2.39636G | -63.44     | 2.48336G | -58.92     | 15.26248G | -51.07     | 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-BR(1Mbps)  | Pass   | QP   | 41.64M       | 35.91             | 40.00             | -4.09          | -19.21         | 3           | Vertical  | 152            | 1.42          | -        |

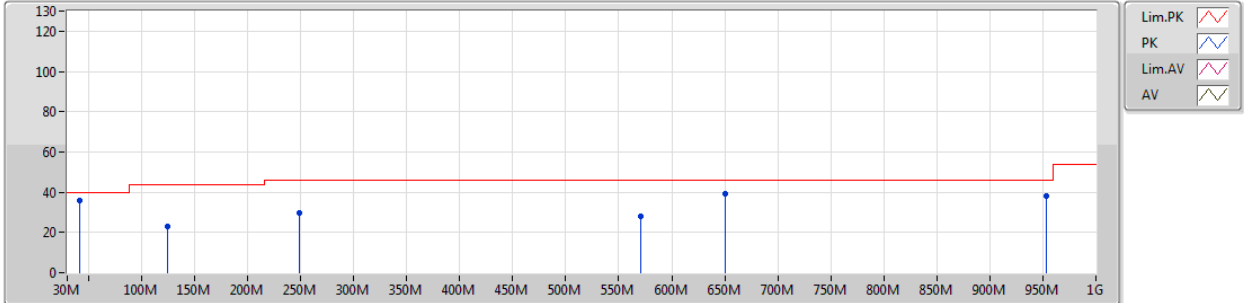
**Result**

| Mode         | Result | Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|--------------|--------|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| BT-BR(1Mbps) | -      | -    | -            | -                 | -                 | -              | -              | -           | -          | -              | -             | -        |
| 2441MHz      | Pass   | PK   | 125.06M      | 22.82             | 43.50             | -20.68         | -19.21         | 3           | Vertical   | 360            | 1.00          | -        |
| 2441MHz      | Pass   | PK   | 249.22M      | 29.56             | 46.00             | -16.44         | -17.26         | 3           | Vertical   | 360            | 1.00          | -        |
| 2441MHz      | Pass   | PK   | 571.26M      | 27.82             | 46.00             | -18.18         | -10.68         | 3           | Vertical   | 360            | 1.00          | -        |
| 2441MHz      | Pass   | PK   | 650.8M       | 39.50             | 46.00             | -6.50          | -9.96          | 3           | Vertical   | 360            | 1.00          | -        |
| 2441MHz      | Pass   | PK   | 953.44M      | 38.31             | 46.00             | -7.69          | -4.71          | 3           | Vertical   | 360            | 1.00          | -        |
| 2441MHz      | Pass   | QP   | 41.64M       | 35.91             | 40.00             | -4.09          | -19.21         | 3           | Vertical   | 152            | 1.42          | -        |
| 2441MHz      | Pass   | PK   | 43.58M       | 23.56             | 40.00             | -16.44         | -20.25         | 3           | Horizontal | 0              | 1.00          | -        |
| 2441MHz      | Pass   | PK   | 125.06M      | 23.95             | 43.50             | -19.55         | -19.21         | 3           | Horizontal | 0              | 1.00          | -        |
| 2441MHz      | Pass   | PK   | 249.22M      | 31.17             | 46.00             | -14.83         | -17.26         | 3           | Horizontal | 0              | 1.00          | -        |
| 2441MHz      | Pass   | PK   | 319.06M      | 20.88             | 46.00             | -25.12         | -16.42         | 3           | Horizontal | 0              | 1.00          | -        |
| 2441MHz      | Pass   | PK   | 650.8M       | 41.90             | 46.00             | -4.10          | -9.96          | 3           | Horizontal | 0              | 1.00          | -        |
| 2441MHz      | Pass   | PK   | 693.48M      | 33.35             | 46.00             | -12.65         | -9.81          | 3           | Horizontal | 0              | 1.00          | -        |

## BT-BR(1Mbps)

## 2441MHz\_PoE

24/10/2018

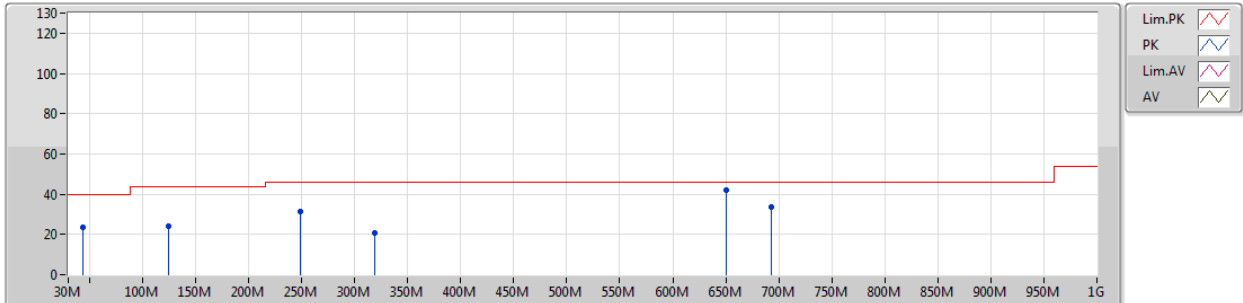


| Type | Freq    | Level    | Limit    | Margin | Factor | Dist | Condition | Azimuth | Height | Comments |  |  |  |  |  |  |  |  |  |
|------|---------|----------|----------|--------|--------|------|-----------|---------|--------|----------|--|--|--|--|--|--|--|--|--|
|      | (Hz)    | (dBuV/m) | (dBuV/m) | (dB)   | (dB)   | (m)  |           | (°)     | (m)    |          |  |  |  |  |  |  |  |  |  |
| PK   | 125.06M | 22.82    | 43.50    | -20.68 | -19.21 | 3    | Vertical  | 360     | 1.00   | -        |  |  |  |  |  |  |  |  |  |
| PK   | 249.22M | 29.56    | 46.00    | -16.44 | -17.26 | 3    | Vertical  | 360     | 1.00   | -        |  |  |  |  |  |  |  |  |  |
| PK   | 571.26M | 27.82    | 46.00    | -18.18 | -10.68 | 3    | Vertical  | 360     | 1.00   | -        |  |  |  |  |  |  |  |  |  |
| PK   | 650.8M  | 39.50    | 46.00    | -6.50  | -9.96  | 3    | Vertical  | 360     | 1.00   | -        |  |  |  |  |  |  |  |  |  |
| PK   | 953.44M | 38.31    | 46.00    | -7.69  | -4.71  | 3    | Vertical  | 360     | 1.00   | -        |  |  |  |  |  |  |  |  |  |
| QP   | 41.64M  | 35.91    | 40.00    | -4.09  | -19.21 | 3    | Vertical  | 152     | 1.42   | -        |  |  |  |  |  |  |  |  |  |

## BT-BR(1Mbps)

## 2441MHz\_PoE

24/10/2018



| 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 |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| PK   | 43.58M       | 23.56             | 40.00             | -16.44         | -20.25         | 3           | Horizontal | 0              | 1.00          | -        |
| PK   | 125.06M      | 23.95             | 43.50             | -19.55         | -19.21         | 3           | Horizontal | 0              | 1.00          | -        |
| PK   | 249.22M      | 31.17             | 46.00             | -14.83         | -17.26         | 3           | Horizontal | 0              | 1.00          | -        |
| PK   | 319.06M      | 20.88             | 46.00             | -25.12         | -16.42         | 3           | Horizontal | 0              | 1.00          | -        |
| PK   | 650.8M       | 41.90             | 46.00             | -4.10          | -9.96          | 3           | Horizontal | 0              | 1.00          | -        |
| PK   | 693.48M      | 33.35             | 46.00             | -12.65         | -9.81          | 3           | Horizontal | 0              | 1.00          | -        |

**Summary**

| Mode          | Result | Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|---------------|--------|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| 2.4-2.4835GHz | -      | -    | -            | -                 | -                 | -              | -              | -           | -          | -              | -             | -        |
| BT-BR(1Mbps)  | Pass   | AV   | 2.4898G      | 43.93             | 54.00             | -10.07         | 31.13          | 3           | Vertical   | 143            | 1.55          | -        |
| BT-EDR(2Mbps) | Pass   | AV   | 2.4894G      | 44.09             | 54.00             | -9.91          | 31.13          | 3           | Vertical   | 144            | 1.55          | -        |
| BT-EDR(3Mbps) | Pass   | AV   | 2.4974G      | 44.04             | 54.00             | -9.96          | 31.16          | 3           | Horizontal | 49             | 1.38          | -        |

**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-BR(1Mbps)  | -      | -    | -            | -                 | -                 | -              | -              | -           | -          | -              | -             | -        |
| 2402MHz       | Pass   | AV   | 2.3616G      | 43.24             | 54.00             | -10.76         | 30.67          | 3           | Vertical   | 141            | 1.34          | -        |
| 2402MHz       | Pass   | AV   | 2.402G       | 99.72             | Inf               | -Inf           | 30.82          | 3           | Vertical   | 141            | 1.34          | -        |
| 2402MHz       | Pass   | PK   | 2.3688G      | 56.39             | 74.00             | -17.61         | 30.70          | 3           | Vertical   | 141            | 1.34          | -        |
| 2402MHz       | Pass   | PK   | 2.4018G      | 100.17            | Inf               | -Inf           | 30.82          | 3           | Vertical   | 141            | 1.34          | -        |
| 2402MHz       | Pass   | AV   | 2.3842G      | 43.25             | 54.00             | -10.75         | 30.76          | 3           | Horizontal | 336            | 2.49          | -        |
| 2402MHz       | Pass   | AV   | 2.402G       | 100.45            | Inf               | -Inf           | 30.82          | 3           | Horizontal | 336            | 2.49          | -        |
| 2402MHz       | Pass   | PK   | 2.36G        | 55.75             | 74.00             | -18.25         | 30.67          | 3           | Horizontal | 336            | 2.49          | -        |
| 2402MHz       | Pass   | PK   | 2.4018G      | 100.88            | Inf               | -Inf           | 30.82          | 3           | Horizontal | 336            | 2.49          | -        |
| 2402MHz       | Pass   | AV   | 4.80198G     | 30.76             | 54.00             | -23.24         | 2.07           | 3           | Vertical   | 122            | 1.85          | -        |
| 2402MHz       | Pass   | PK   | 4.80229G     | 43.56             | 74.00             | -30.44         | 2.07           | 3           | Vertical   | 122            | 1.85          | -        |
| 2402MHz       | Pass   | AV   | 4.80156G     | 30.78             | 54.00             | -23.22         | 2.07           | 3           | Horizontal | 1              | 1.18          | -        |
| 2402MHz       | Pass   | PK   | 4.80312G     | 43.13             | 74.00             | -30.87         | 2.07           | 3           | Horizontal | 1              | 1.18          | -        |
| 2441MHz       | Pass   | AV   | 2.3898G      | 43.19             | 54.00             | -10.81         | 30.77          | 3           | Vertical   | 143            | 1.55          | -        |
| 2441MHz       | Pass   | AV   | 2.441G       | 96.27             | Inf               | -Inf           | 30.95          | 3           | Vertical   | 143            | 1.55          | -        |
| 2441MHz       | Pass   | AV   | 2.4898G      | 43.93             | 54.00             | -10.07         | 31.13          | 3           | Vertical   | 143            | 1.55          | -        |
| 2441MHz       | Pass   | PK   | 2.3742G      | 55.77             | 74.00             | -18.23         | 30.72          | 3           | Vertical   | 143            | 1.55          | -        |
| 2441MHz       | Pass   | PK   | 2.441G       | 96.69             | Inf               | -Inf           | 30.95          | 3           | Vertical   | 143            | 1.55          | -        |
| 2441MHz       | Pass   | PK   | 2.4918G      | 57.01             | 74.00             | -16.99         | 31.14          | 3           | Vertical   | 143            | 1.55          | -        |
| 2441MHz       | Pass   | AV   | 2.3882G      | 43.17             | 54.00             | -10.83         | 30.77          | 3           | Horizontal | 47             | 1.78          | -        |
| 2441MHz       | Pass   | AV   | 2.441G       | 100.75            | Inf               | -Inf           | 30.95          | 3           | Horizontal | 47             | 1.78          | -        |
| 2441MHz       | Pass   | AV   | 2.4874G      | 43.85             | 54.00             | -10.15         | 31.12          | 3           | Horizontal | 47             | 1.78          | -        |
| 2441MHz       | Pass   | PK   | 2.3522G      | 55.82             | 74.00             | -18.18         | 30.65          | 3           | Horizontal | 47             | 1.78          | -        |
| 2441MHz       | Pass   | PK   | 2.441G       | 101.49            | Inf               | -Inf           | 30.95          | 3           | Horizontal | 47             | 1.78          | -        |
| 2441MHz       | Pass   | PK   | 2.4918G      | 56.48             | 74.00             | -17.52         | 31.14          | 3           | Horizontal | 47             | 1.78          | -        |
| 2441MHz       | Pass   | AV   | 4.88188G     | 32.52             | 54.00             | -21.48         | 2.27           | 3           | Vertical   | 3              | 2.52          | -        |
| 2441MHz       | Pass   | PK   | 4.8814G      | 43.53             | 74.00             | -30.47         | 2.27           | 3           | Vertical   | 3              | 2.52          | -        |
| 2441MHz       | Pass   | AV   | 4.88206G     | 35.45             | 54.00             | -18.55         | 2.27           | 3           | Horizontal | 10             | 2.32          | -        |
| 2441MHz       | Pass   | PK   | 4.88234G     | 44.70             | 74.00             | -29.30         | 2.27           | 3           | Horizontal | 10             | 2.32          | -        |
| 2480MHz       | Pass   | AV   | 2.48G        | 98.17             | Inf               | -Inf           | 31.09          | 3           | Vertical   | 94             | 1.99          | -        |
| 2480MHz       | Pass   | AV   | 2.4896G      | 43.81             | 54.00             | -10.19         | 31.13          | 3           | Vertical   | 94             | 1.99          | -        |
| 2480MHz       | Pass   | PK   | 2.4798G      | 98.56             | Inf               | -Inf           | 31.09          | 3           | Vertical   | 94             | 1.99          | -        |
| 2480MHz       | Pass   | PK   | 2.4842G      | 56.25             | 74.00             | -17.75         | 31.12          | 3           | Vertical   | 94             | 1.99          | -        |
| 2480MHz       | Pass   | AV   | 2.48G        | 102.55            | Inf               | -Inf           | 31.09          | 3           | Horizontal | 47             | 1.38          | -        |
| 2480MHz       | Pass   | AV   | 2.4888G      | 43.90             | 54.00             | -10.10         | 31.13          | 3           | Horizontal | 47             | 1.38          | -        |
| 2480MHz       | Pass   | PK   | 2.4798G      | 102.93            | Inf               | -Inf           | 31.09          | 3           | Horizontal | 47             | 1.38          | -        |
| 2480MHz       | Pass   | PK   | 2.4852G      | 56.48             | 74.00             | -17.52         | 31.12          | 3           | Horizontal | 47             | 1.38          | -        |
| 2480MHz       | Pass   | AV   | 4.96195G     | 30.29             | 54.00             | -23.71         | 2.47           | 3           | Vertical   | 323            | 1.23          | -        |
| 2480MHz       | Pass   | PK   | 4.9595G      | 43.69             | 74.00             | -30.31         | 2.47           | 3           | Vertical   | 323            | 1.23          | -        |
| 2480MHz       | Pass   | AV   | 4.95984G     | 30.53             | 54.00             | -23.47         | 2.47           | 3           | Horizontal | 290            | 1.54          | -        |
| 2480MHz       | Pass   | PK   | 4.96087G     | 43.51             | 74.00             | -30.49         | 2.47           | 3           | Horizontal | 290            | 1.54          | -        |
| BT-EDR(2Mbps) | -      | -    | -            | -                 | -                 | -              | -              | -           | -          | -              | -             | -        |
| 2402MHz       | Pass   | AV   | 2.3786G      | 43.26             | 54.00             | -10.74         | 30.74          | 3           | Vertical   | 221            | 1.70          | -        |
| 2402MHz       | Pass   | AV   | 2.402G       | 95.28             | Inf               | -Inf           | 30.82          | 3           | Vertical   | 221            | 1.70          | -        |
| 2402MHz       | Pass   | PK   | 2.3772G      | 56.23             | 74.00             | -17.77         | 30.73          | 3           | Vertical   | 221            | 1.70          | -        |
| 2402MHz       | Pass   | PK   | 2.4018G      | 98.81             | Inf               | -Inf           | 30.82          | 3           | Vertical   | 221            | 1.70          | -        |
| 2402MHz       | Pass   | AV   | 2.377G       | 43.31             | 54.00             | -10.69         | 30.73          | 3           | Horizontal | 336            | 2.42          | -        |
| 2402MHz       | Pass   | AV   | 2.402G       | 96.14             | Inf               | -Inf           | 30.82          | 3           | Horizontal | 336            | 2.42          | -        |

| Mode          | Result | Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|---------------|--------|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| 2402MHz       | Pass   | PK   | 2.3846G      | 56.15             | 74.00             | -17.85         | 30.76          | 3           | Horizontal | 336            | 2.42          | -        |
| 2402MHz       | Pass   | PK   | 2.4018G      | 99.62             | Inf               | -Inf           | 30.82          | 3           | Horizontal | 336            | 2.42          | -        |
| 2441MHz       | Pass   | AV   | 2.3558G      | 43.11             | 54.00             | -10.89         | 30.66          | 3           | Vertical   | 144            | 1.55          | -        |
| 2441MHz       | Pass   | AV   | 2.441G       | 92.44             | Inf               | -Inf           | 30.95          | 3           | Vertical   | 144            | 1.55          | -        |
| 2441MHz       | Pass   | AV   | 2.4894G      | 44.09             | 54.00             | -9.91          | 31.13          | 3           | Vertical   | 144            | 1.55          | -        |
| 2441MHz       | Pass   | PK   | 2.3878G      | 55.73             | 74.00             | -18.27         | 30.77          | 3           | Vertical   | 144            | 1.55          | -        |
| 2441MHz       | Pass   | PK   | 2.441G       | 95.86             | Inf               | -Inf           | 30.95          | 3           | Vertical   | 144            | 1.55          | -        |
| 2441MHz       | Pass   | PK   | 2.499G       | 55.91             | 74.00             | -18.09         | 31.17          | 3           | Vertical   | 144            | 1.55          | -        |
| 2441MHz       | Pass   | AV   | 2.3866G      | 43.18             | 54.00             | -10.82         | 30.76          | 3           | Horizontal | 47             | 1.80          | -        |
| 2441MHz       | Pass   | AV   | 2.441G       | 97.32             | Inf               | -Inf           | 30.95          | 3           | Horizontal | 47             | 1.80          | -        |
| 2441MHz       | Pass   | AV   | 2.4866G      | 43.90             | 54.00             | -10.10         | 31.12          | 3           | Horizontal | 47             | 1.80          | -        |
| 2441MHz       | Pass   | PK   | 2.3698G      | 55.50             | 74.00             | -18.50         | 30.71          | 3           | Horizontal | 47             | 1.80          | -        |
| 2441MHz       | Pass   | PK   | 2.441G       | 100.73            | Inf               | -Inf           | 30.95          | 3           | Horizontal | 47             | 1.80          | -        |
| 2441MHz       | Pass   | PK   | 2.4986G      | 56.45             | 74.00             | -17.55         | 31.17          | 3           | Horizontal | 47             | 1.80          | -        |
| 2480MHz       | Pass   | AV   | 2.48G        | 94.02             | Inf               | -Inf           | 31.09          | 3           | Vertical   | 86             | 1.33          | -        |
| 2480MHz       | Pass   | AV   | 2.4884G      | 43.84             | 54.00             | -10.16         | 31.13          | 3           | Vertical   | 86             | 1.33          | -        |
| 2480MHz       | Pass   | PK   | 2.4798G      | 97.48             | Inf               | -Inf           | 31.09          | 3           | Vertical   | 86             | 1.33          | -        |
| 2480MHz       | Pass   | PK   | 2.4918G      | 56.15             | 74.00             | -17.85         | 31.14          | 3           | Vertical   | 86             | 1.33          | -        |
| 2480MHz       | Pass   | AV   | 2.48G        | 98.35             | Inf               | -Inf           | 31.09          | 3           | Horizontal | 48             | 1.37          | -        |
| 2480MHz       | Pass   | AV   | 2.4984G      | 44.04             | 54.00             | -9.96          | 31.17          | 3           | Horizontal | 48             | 1.37          | -        |
| 2480MHz       | Pass   | PK   | 2.48G        | 101.83            | Inf               | -Inf           | 31.09          | 3           | Horizontal | 48             | 1.37          | -        |
| 2480MHz       | Pass   | PK   | 2.4946G      | 55.96             | 74.00             | -18.04         | 31.15          | 3           | Horizontal | 48             | 1.37          | -        |
| BT-EDR(3Mbps) | -      | -    | -            | -                 | -                 | -              | -              | -           | -          | -              | -             | -        |
| 2402MHz       | Pass   | AV   | 2.3868G      | 43.33             | 54.00             | -10.67         | 30.76          | 3           | Vertical   | 220            | 1.70          | -        |
| 2402MHz       | Pass   | AV   | 2.402G       | 95.13             | Inf               | -Inf           | 30.82          | 3           | Vertical   | 220            | 1.70          | -        |
| 2402MHz       | Pass   | PK   | 2.388G       | 56.21             | 74.00             | -17.79         | 30.77          | 3           | Vertical   | 220            | 1.70          | -        |
| 2402MHz       | Pass   | PK   | 2.4018G      | 98.72             | Inf               | -Inf           | 30.82          | 3           | Vertical   | 220            | 1.70          | -        |
| 2402MHz       | Pass   | AV   | 2.3828G      | 43.12             | 54.00             | -10.88         | 30.75          | 3           | Horizontal | 337            | 2.41          | -        |
| 2402MHz       | Pass   | AV   | 2.402G       | 95.91             | Inf               | -Inf           | 30.82          | 3           | Horizontal | 337            | 2.41          | -        |
| 2402MHz       | Pass   | PK   | 2.3882G      | 56.14             | 74.00             | -17.86         | 30.77          | 3           | Horizontal | 337            | 2.41          | -        |
| 2402MHz       | Pass   | PK   | 2.402G       | 99.49             | Inf               | -Inf           | 30.82          | 3           | Horizontal | 337            | 2.41          | -        |
| 2441MHz       | Pass   | AV   | 2.389G       | 43.12             | 54.00             | -10.88         | 30.77          | 3           | Vertical   | 143            | 1.54          | -        |
| 2441MHz       | Pass   | AV   | 2.441G       | 91.76             | Inf               | -Inf           | 30.95          | 3           | Vertical   | 143            | 1.54          | -        |
| 2441MHz       | Pass   | AV   | 2.4858G      | 43.93             | 54.00             | -10.07         | 31.12          | 3           | Vertical   | 143            | 1.54          | -        |
| 2441MHz       | Pass   | PK   | 2.3818G      | 56.26             | 74.00             | -17.74         | 30.75          | 3           | Vertical   | 143            | 1.54          | -        |
| 2441MHz       | Pass   | PK   | 2.441G       | 95.27             | Inf               | -Inf           | 30.95          | 3           | Vertical   | 143            | 1.54          | -        |
| 2441MHz       | Pass   | PK   | 2.4998G      | 56.57             | 74.00             | -17.43         | 31.17          | 3           | Vertical   | 143            | 1.54          | -        |
| 2441MHz       | Pass   | AV   | 2.3822G      | 43.21             | 54.00             | -10.79         | 30.75          | 3           | Horizontal | 52             | 1.78          | -        |
| 2441MHz       | Pass   | AV   | 2.441G       | 97.17             | Inf               | -Inf           | 30.95          | 3           | Horizontal | 52             | 1.78          | -        |
| 2441MHz       | Pass   | AV   | 2.4902G      | 43.91             | 54.00             | -10.09         | 31.13          | 3           | Horizontal | 52             | 1.78          | -        |
| 2441MHz       | Pass   | PK   | 2.3874G      | 55.87             | 74.00             | -18.13         | 30.76          | 3           | Horizontal | 52             | 1.78          | -        |
| 2441MHz       | Pass   | PK   | 2.441G       | 100.70            | Inf               | -Inf           | 30.95          | 3           | Horizontal | 52             | 1.78          | -        |
| 2441MHz       | Pass   | PK   | 2.4934G      | 56.29             | 74.00             | -17.71         | 31.14          | 3           | Horizontal | 52             | 1.78          | -        |
| 2480MHz       | Pass   | AV   | 2.48G        | 93.23             | Inf               | -Inf           | 31.09          | 3           | Vertical   | 92             | 1.30          | -        |
| 2480MHz       | Pass   | AV   | 2.4856G      | 43.81             | 54.00             | -10.19         | 31.12          | 3           | Vertical   | 92             | 1.30          | -        |
| 2480MHz       | Pass   | PK   | 2.48G        | 96.81             | Inf               | -Inf           | 31.09          | 3           | Vertical   | 92             | 1.30          | -        |
| 2480MHz       | Pass   | PK   | 2.496G       | 56.54             | 74.00             | -17.46         | 31.16          | 3           | Vertical   | 92             | 1.30          | -        |
| 2480MHz       | Pass   | AV   | 2.48G        | 98.68             | Inf               | -Inf           | 31.09          | 3           | Horizontal | 49             | 1.38          | -        |
| 2480MHz       | Pass   | AV   | 2.4974G      | 44.04             | 54.00             | -9.96          | 31.16          | 3           | Horizontal | 49             | 1.38          | -        |



## RSE TX above 1GHz Result

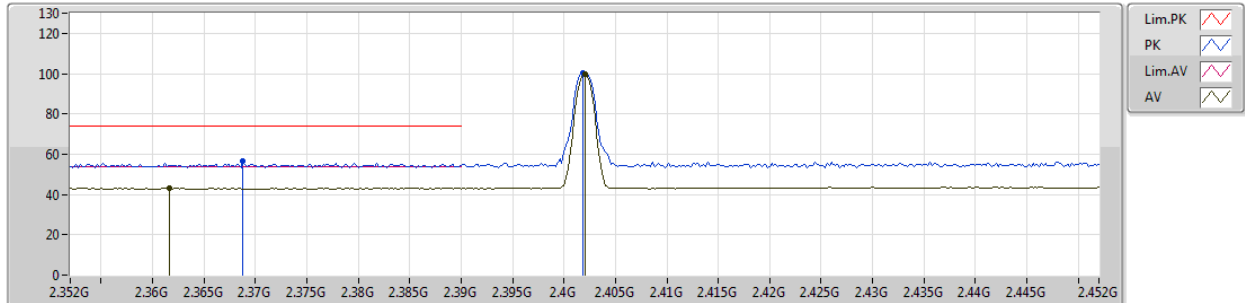
## Appendix G.2

| 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 |
|---------|--------|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| 2480MHz | Pass   | PK   | 2.48G        | 102.26            | Inf               | -Inf           | 31.09          | 3           | Horizontal | 49             | 1.38          | -        |
| 2480MHz | Pass   | PK   | 2.4854G      | 56.68             | 74.00             | -17.32         | 31.12          | 3           | Horizontal | 49             | 1.38          | -        |

### BT-BR(1Mbps)

### 2402MHz\_TX

23/10/2018

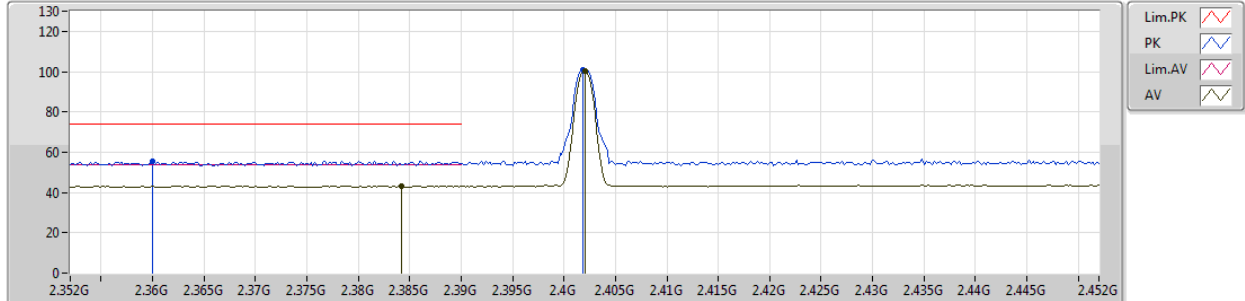


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |  |  |  |  |  |  |  |  |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|--|--|--|--|--|--|--|--|
| AV   | 2.3616G      | 43.24             | 54.00             | -10.76         | 30.67          | 3           | Vertical  | 141            | 1.34          | -        |  |  |  |  |  |  |  |  |
| AV   | 2.402G       | 99.72             | Inf               | -Inf           | 30.82          | 3           | Vertical  | 141            | 1.34          | -        |  |  |  |  |  |  |  |  |
| PK   | 2.3688G      | 56.39             | 74.00             | -17.61         | 30.70          | 3           | Vertical  | 141            | 1.34          | -        |  |  |  |  |  |  |  |  |
| PK   | 2.4018G      | 100.17            | Inf               | -Inf           | 30.82          | 3           | Vertical  | 141            | 1.34          | -        |  |  |  |  |  |  |  |  |

### BT-BR(1Mbps)

### 2402MHz\_TX

23/10/2018

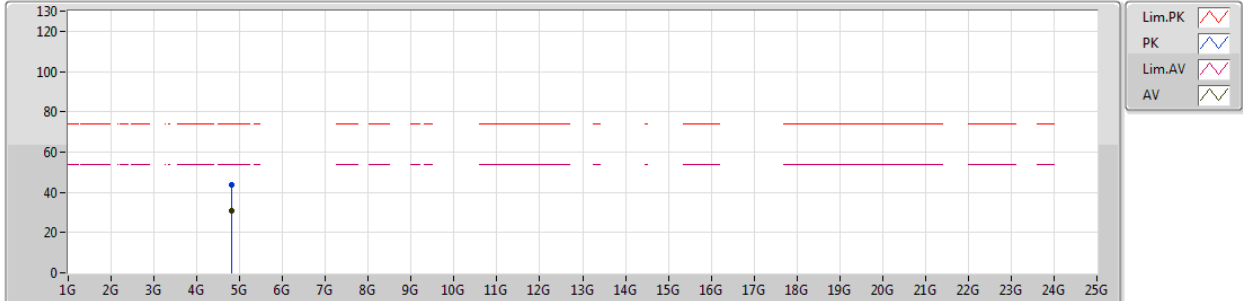


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| AV   | 2.3842G      | 43.25             | 54.00             | -10.75         | 30.76          | 3           | Horizontal | 336            | 2.49          | -        |
| AV   | 2.402G       | 100.45            | Inf               | -Inf           | 30.82          | 3           | Horizontal | 336            | 2.49          | -        |
| PK   | 2.36G        | 55.75             | 74.00             | -18.25         | 30.67          | 3           | Horizontal | 336            | 2.49          | -        |
| PK   | 2.4018G      | 100.88            | Inf               | -Inf           | 30.82          | 3           | Horizontal | 336            | 2.49          | -        |

### BT-BR(1Mbps)

### 2402MHz\_TX

23/10/2018

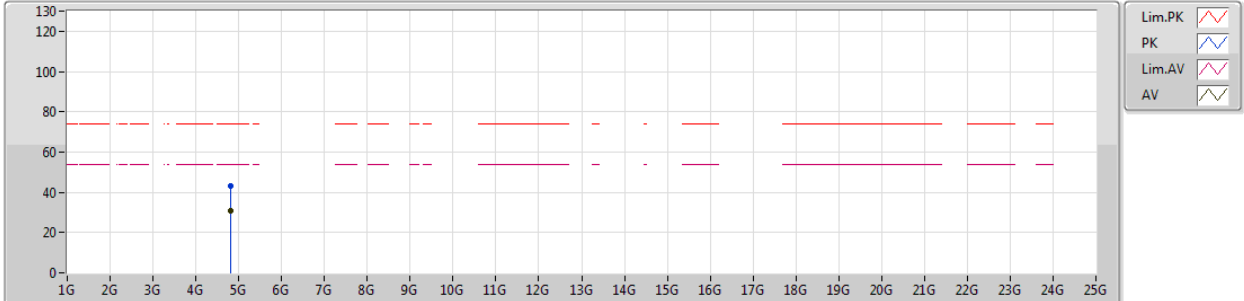


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |  |  |  |  |  |  |  |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|--|--|--|--|--|--|--|
| AV   | 4.80198G     | 30.76             | 54.00             | -23.24         | 2.07           | 3           | Vertical  | 122            | 1.85          | -        |  |  |  |  |  |  |  |
| PK   | 4.80229G     | 43.56             | 74.00             | -30.44         | 2.07           | 3           | Vertical  | 122            | 1.85          | -        |  |  |  |  |  |  |  |

### BT-BR(1Mbps)

### 2402MHz\_TX

23/10/2018

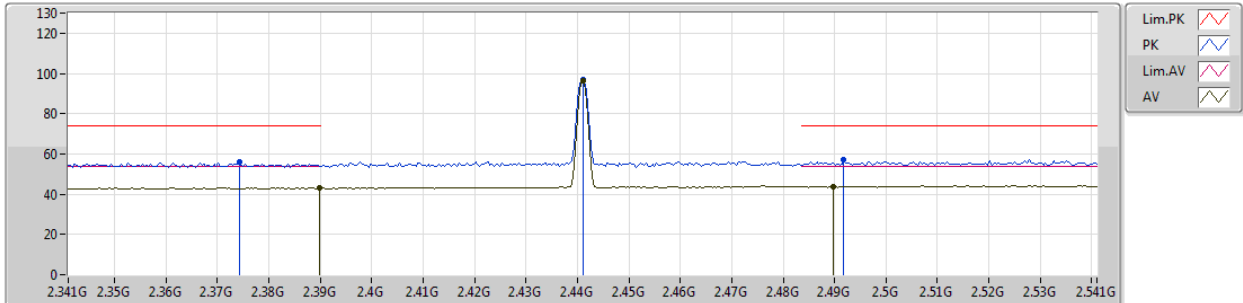


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |  |  |  |  |  |  |  |  |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|--|--|--|--|--|--|--|--|
| AV   | 4.80156G     | 30.78             | 54.00             | -23.22         | 2.07           | 3           | Horizontal | 1              | 1.18          | -        |  |  |  |  |  |  |  |  |
| PK   | 4.80312G     | 43.13             | 74.00             | -30.87         | 2.07           | 3           | Horizontal | 1              | 1.18          | -        |  |  |  |  |  |  |  |  |

## BT-BR(1Mbps)

## 2441MHz\_TX

23/10/2018

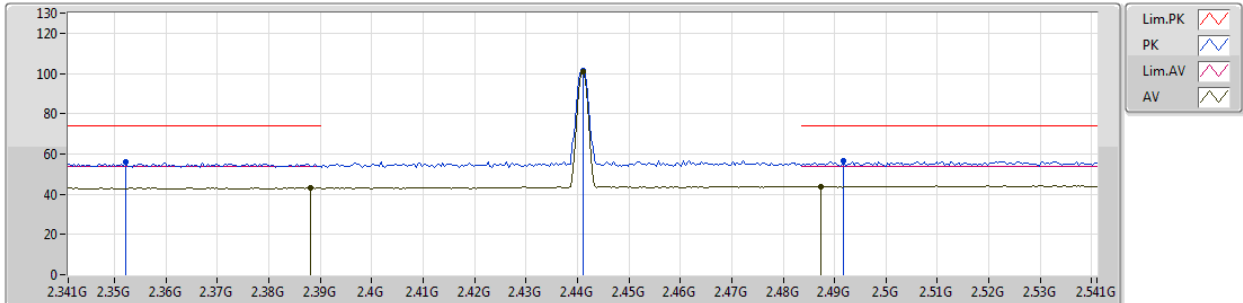


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |  |  |  |  |  |  |  |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|--|--|--|--|--|--|--|
| AV   | 2.3898G      | 43.19             | 54.00             | -10.81         | 30.77          | 3           | Vertical  | 143            | 1.55          | -        |  |  |  |  |  |  |  |
| AV   | 2.441G       | 96.27             | Inf               | -Inf           | 30.95          | 3           | Vertical  | 143            | 1.55          | -        |  |  |  |  |  |  |  |
| AV   | 2.4898G      | 43.93             | 54.00             | -10.07         | 31.13          | 3           | Vertical  | 143            | 1.55          | -        |  |  |  |  |  |  |  |
| PK   | 2.3742G      | 55.77             | 74.00             | -18.23         | 30.72          | 3           | Vertical  | 143            | 1.55          | -        |  |  |  |  |  |  |  |
| PK   | 2.441G       | 96.69             | Inf               | -Inf           | 30.95          | 3           | Vertical  | 143            | 1.55          | -        |  |  |  |  |  |  |  |
| PK   | 2.4918G      | 57.01             | 74.00             | -16.99         | 31.14          | 3           | Vertical  | 143            | 1.55          | -        |  |  |  |  |  |  |  |

## BT-BR(1Mbps)

## 2441MHz\_TX

23/10/2018

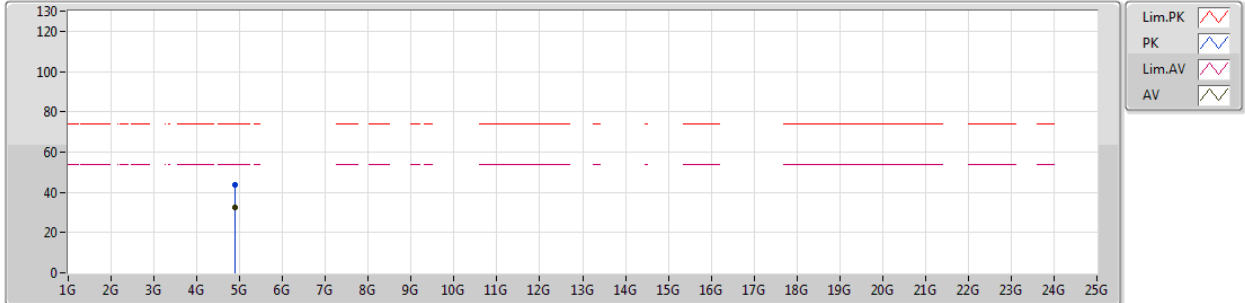


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| AV   | 2.3882G      | 43.17             | 54.00             | -10.83         | 30.77          | 3           | Horizontal | 47             | 1.78          | -        |
| AV   | 2.441G       | 100.75            | Inf               | -Inf           | 30.95          | 3           | Horizontal | 47             | 1.78          | -        |
| AV   | 2.4874G      | 43.85             | 54.00             | -10.15         | 31.12          | 3           | Horizontal | 47             | 1.78          | -        |
| PK   | 2.3522G      | 55.82             | 74.00             | -18.18         | 30.65          | 3           | Horizontal | 47             | 1.78          | -        |
| PK   | 2.441G       | 101.49            | Inf               | -Inf           | 30.95          | 3           | Horizontal | 47             | 1.78          | -        |
| PK   | 2.4918G      | 56.48             | 74.00             | -17.52         | 31.14          | 3           | Horizontal | 47             | 1.78          | -        |

### BT-BR(1Mbps)

23/10/2018

### 2441MHz\_TX

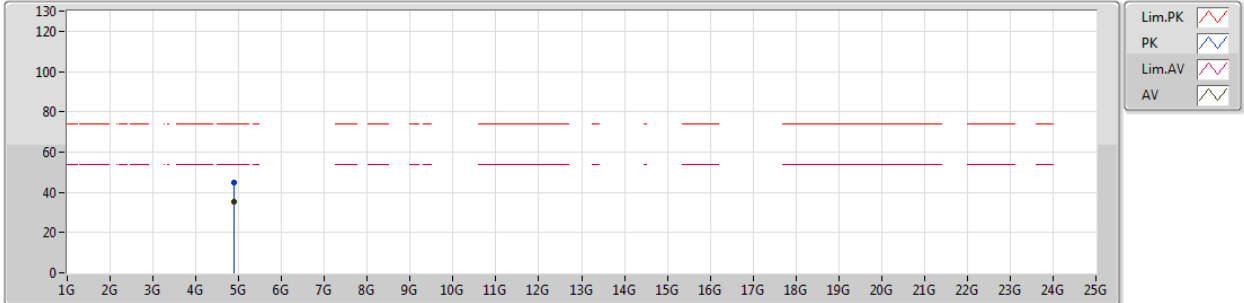


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 4.88188G     | 32.52             | 54.00             | -21.48         | 2.27           | 3           | Vertical  | 3              | 2.52          | -        |
| PK   | 4.8814G      | 43.53             | 74.00             | -30.47         | 2.27           | 3           | Vertical  | 3              | 2.52          | -        |

### BT-BR(1Mbps)

### 2441MHz\_TX

23/10/2018

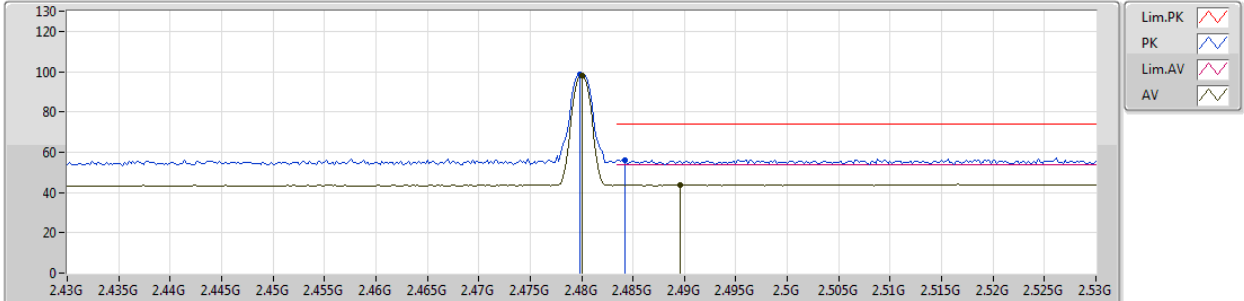


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |  |  |  |  |  |  |  |  |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|--|--|--|--|--|--|--|--|
| AV   | 4.88206G     | 35.45             | 54.00             | -18.55         | 2.27           | 3           | Horizontal | 10             | 2.32          | -        |  |  |  |  |  |  |  |  |
| PK   | 4.88234G     | 44.70             | 74.00             | -29.30         | 2.27           | 3           | Horizontal | 10             | 2.32          | -        |  |  |  |  |  |  |  |  |

### BT-BR(1Mbps)

### 2480MHz\_TX

23/10/2018

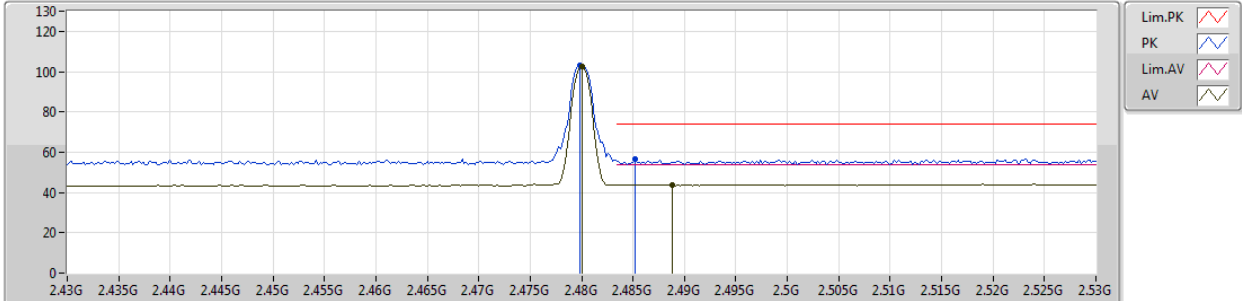


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 2.48G        | 98.17             | Inf               | -Inf           | 31.09          | 3           | Vertical  | 94             | 1.99          | -        |
| AV   | 2.4896G      | 43.81             | 54.00             | -10.19         | 31.13          | 3           | Vertical  | 94             | 1.99          | -        |
| PK   | 2.4798G      | 98.56             | Inf               | -Inf           | 31.09          | 3           | Vertical  | 94             | 1.99          | -        |
| PK   | 2.4842G      | 56.25             | 74.00             | -17.75         | 31.12          | 3           | Vertical  | 94             | 1.99          | -        |

### BT-BR(1Mbps)

### 2480MHz\_TX

23/10/2018

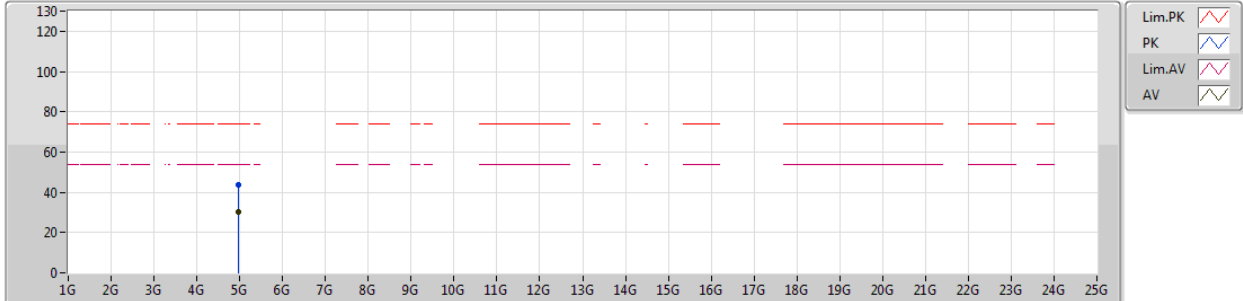


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| AV   | 2.48G        | 102.55            | Inf               | -Inf           | 31.09          | 3           | Horizontal | 47             | 1.38          | -        |
| AV   | 2.4888G      | 43.90             | 54.00             | -10.10         | 31.13          | 3           | Horizontal | 47             | 1.38          | -        |
| PK   | 2.4798G      | 102.93            | Inf               | -Inf           | 31.09          | 3           | Horizontal | 47             | 1.38          | -        |
| PK   | 2.4852G      | 56.48             | 74.00             | -17.52         | 31.12          | 3           | Horizontal | 47             | 1.38          | -        |

### BT-BR(1Mbps)

### 2480MHz\_TX

23/10/2018

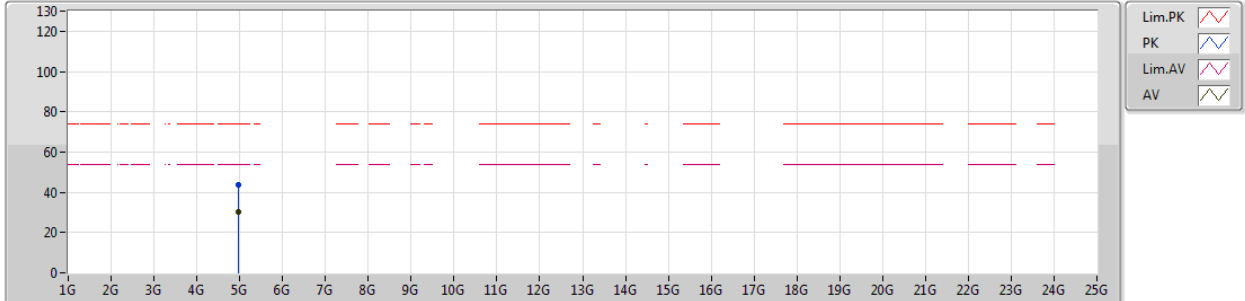


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 4.96195G     | 30.29             | 54.00             | -23.71         | 2.47           | 3           | Vertical  | 323            | 1.23          | -        |
| PK   | 4.9595G      | 43.69             | 74.00             | -30.31         | 2.47           | 3           | Vertical  | 323            | 1.23          | -        |

### BT-BR(1Mbps)

### 2480MHz\_TX

23/10/2018

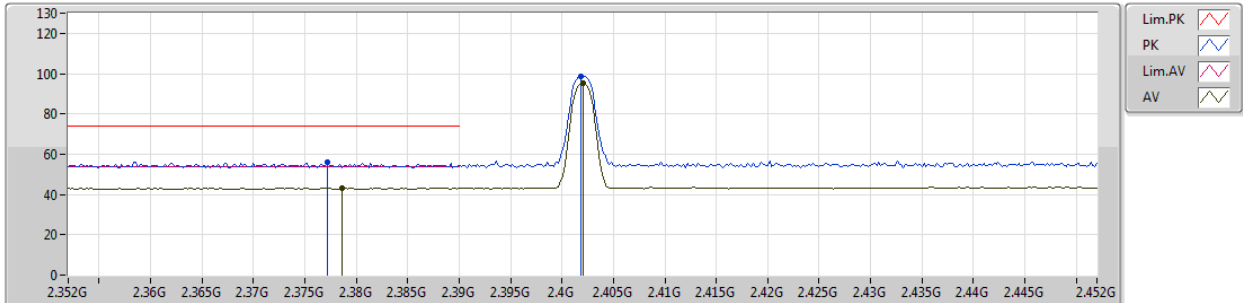


| Type | Freq     | Level    | Limit    | Margin | Factor | Dist | Condition  | Azimuth | Height | Comments |  |  |  |  |  |  |  |
|------|----------|----------|----------|--------|--------|------|------------|---------|--------|----------|--|--|--|--|--|--|--|
|      | (Hz)     | (dBuV/m) | (dBuV/m) | (dB)   | (dB)   | (m)  |            | (°)     | (m)    |          |  |  |  |  |  |  |  |
| AV   | 4.95984G | 30.53    | 54.00    | -23.47 | 2.47   | 3    | Horizontal | 290     | 1.54   | -        |  |  |  |  |  |  |  |
| PK   | 4.96087G | 43.51    | 74.00    | -30.49 | 2.47   | 3    | Horizontal | 290     | 1.54   | -        |  |  |  |  |  |  |  |

### BT-EDR(2Mbps)

### 2402MHz\_TX

23/10/2018

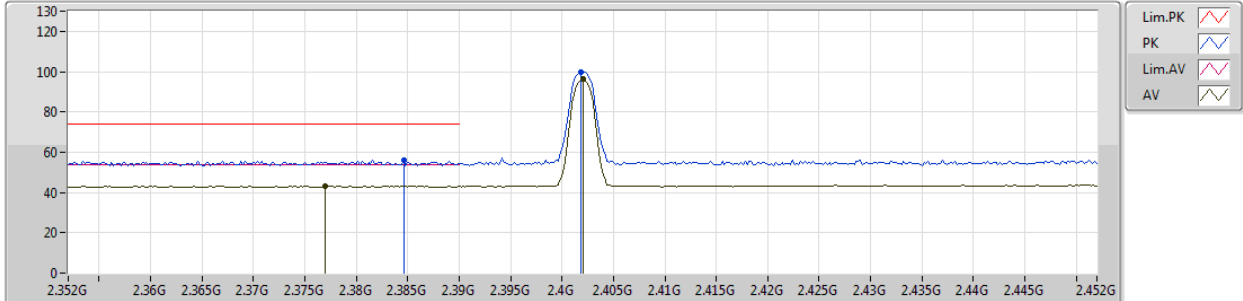


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |  |  |  |  |  |  |  |  |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|--|--|--|--|--|--|--|--|
| AV   | 2.3786G      | 43.26             | 54.00             | -10.74         | 30.74          | 3           | Vertical  | 221            | 1.70          | -        |  |  |  |  |  |  |  |  |
| AV   | 2.402G       | 95.28             | Inf               | -Inf           | 30.82          | 3           | Vertical  | 221            | 1.70          | -        |  |  |  |  |  |  |  |  |
| PK   | 2.3772G      | 56.23             | 74.00             | -17.77         | 30.73          | 3           | Vertical  | 221            | 1.70          | -        |  |  |  |  |  |  |  |  |
| PK   | 2.4018G      | 98.81             | Inf               | -Inf           | 30.82          | 3           | Vertical  | 221            | 1.70          | -        |  |  |  |  |  |  |  |  |

### BT-EDR(2Mbps)

### 2402MHz\_TX

23/10/2018

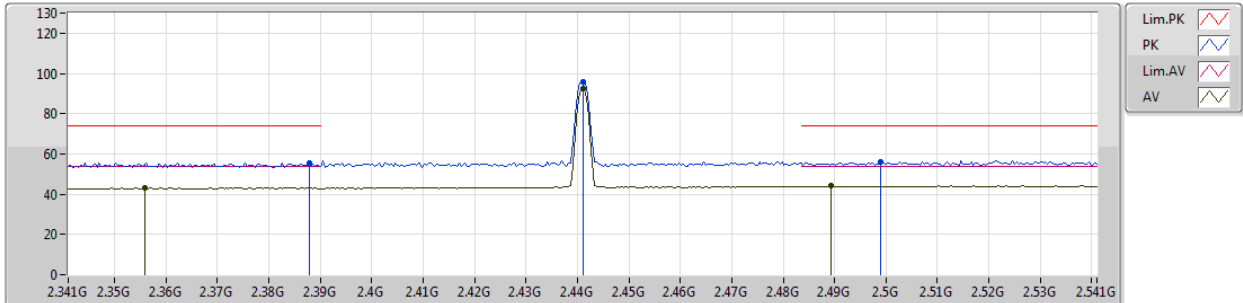


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| AV   | 2.377G       | 43.31             | 54.00             | -10.69         | 30.73          | 3           | Horizontal | 336            | 2.42          | -        |
| AV   | 2.402G       | 96.14             | Inf               | -Inf           | 30.82          | 3           | Horizontal | 336            | 2.42          | -        |
| PK   | 2.3846G      | 56.15             | 74.00             | -17.85         | 30.76          | 3           | Horizontal | 336            | 2.42          | -        |
| PK   | 2.4018G      | 99.62             | Inf               | -Inf           | 30.82          | 3           | Horizontal | 336            | 2.42          | -        |

### BT-EDR(2Mbps)

23/10/2018

### 2441MHz\_TX

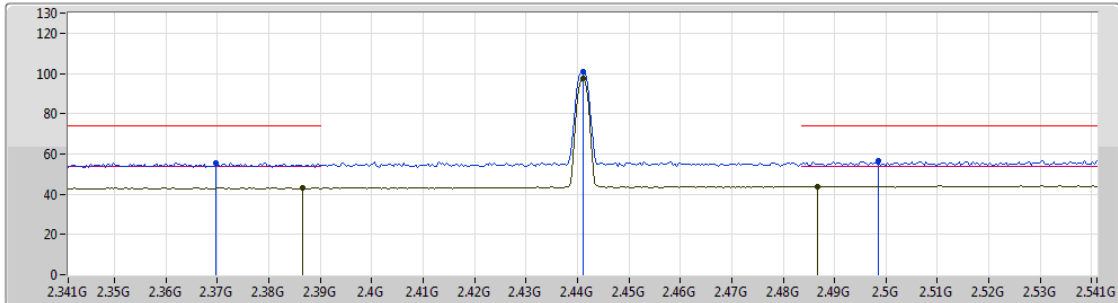


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 2.3558G      | 43.11             | 54.00             | -10.89         | 30.66          | 3           | Vertical  | 144            | 1.55          | -        |
| AV   | 2.441G       | 92.44             | Inf               | -Inf           | 30.95          | 3           | Vertical  | 144            | 1.55          | -        |
| AV   | 2.4894G      | 44.09             | 54.00             | -9.91          | 31.13          | 3           | Vertical  | 144            | 1.55          | -        |
| PK   | 2.3878G      | 55.73             | 74.00             | -18.27         | 30.77          | 3           | Vertical  | 144            | 1.55          | -        |
| PK   | 2.441G       | 95.86             | Inf               | -Inf           | 30.95          | 3           | Vertical  | 144            | 1.55          | -        |
| PK   | 2.499G       | 55.91             | 74.00             | -18.09         | 31.17          | 3           | Vertical  | 144            | 1.55          | -        |

### BT-EDR(2Mbps)

23/10/2018

### 2441MHz\_TX



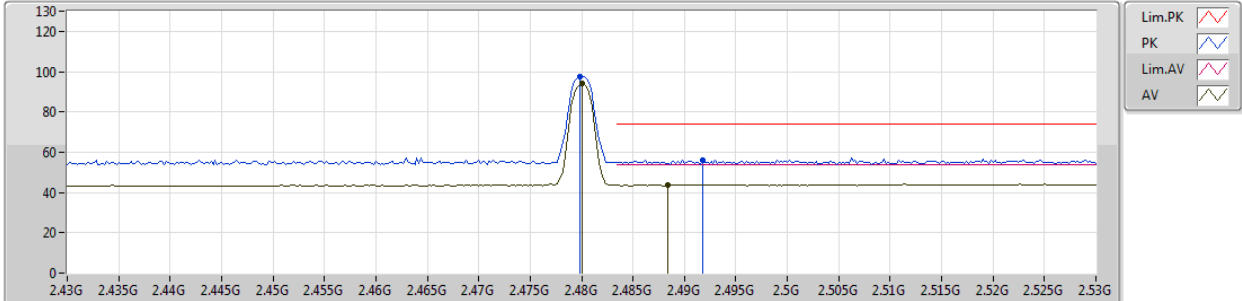
|        |                                                                                     |
|--------|-------------------------------------------------------------------------------------|
| Lim.PK |  |
| PK     |  |
| Lim.AV |  |
| AV     |  |

| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |  |  |  |  |  |  |  |  |  |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|--|--|--|--|--|--|--|--|--|
| AV   | 2.3866G      | 43.18             | 54.00             | -10.82         | 30.76          | 3           | Horizontal | 47             | 1.80          | -        |  |  |  |  |  |  |  |  |  |
| AV   | 2.441G       | 97.32             | Inf               | -Inf           | 30.95          | 3           | Horizontal | 47             | 1.80          | -        |  |  |  |  |  |  |  |  |  |
| AV   | 2.4866G      | 43.90             | 54.00             | -10.10         | 31.12          | 3           | Horizontal | 47             | 1.80          | -        |  |  |  |  |  |  |  |  |  |
| PK   | 2.3698G      | 55.50             | 74.00             | -18.50         | 30.71          | 3           | Horizontal | 47             | 1.80          | -        |  |  |  |  |  |  |  |  |  |
| PK   | 2.441G       | 100.73            | Inf               | -Inf           | 30.95          | 3           | Horizontal | 47             | 1.80          | -        |  |  |  |  |  |  |  |  |  |
| PK   | 2.4986G      | 56.45             | 74.00             | -17.55         | 31.17          | 3           | Horizontal | 47             | 1.80          | -        |  |  |  |  |  |  |  |  |  |

### BT-EDR(2Mbps)

### 2480MHz\_TX

23/10/2018

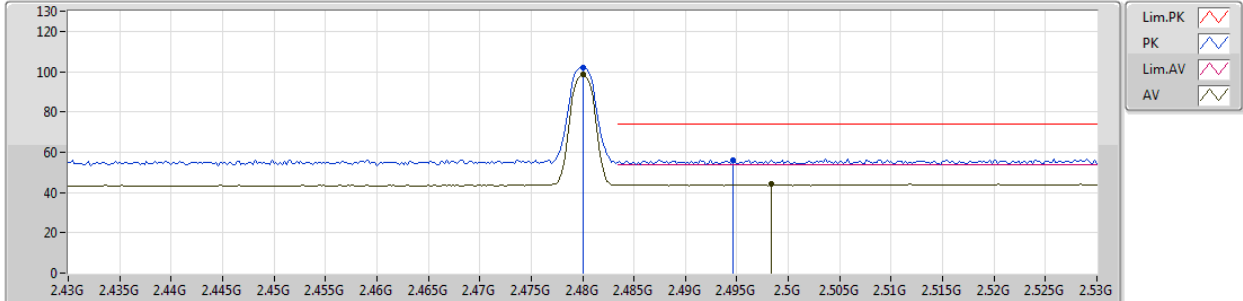


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 2.48G        | 94.02             | Inf               | -Inf           | 31.09          | 3           | Vertical  | 86             | 1.33          | -        |
| AV   | 2.4884G      | 43.84             | 54.00             | -10.16         | 31.13          | 3           | Vertical  | 86             | 1.33          | -        |
| PK   | 2.4798G      | 97.48             | Inf               | -Inf           | 31.09          | 3           | Vertical  | 86             | 1.33          | -        |
| PK   | 2.4918G      | 56.15             | 74.00             | -17.85         | 31.14          | 3           | Vertical  | 86             | 1.33          | -        |

### BT-EDR(2Mbps)

### 2480MHz\_TX

23/10/2018

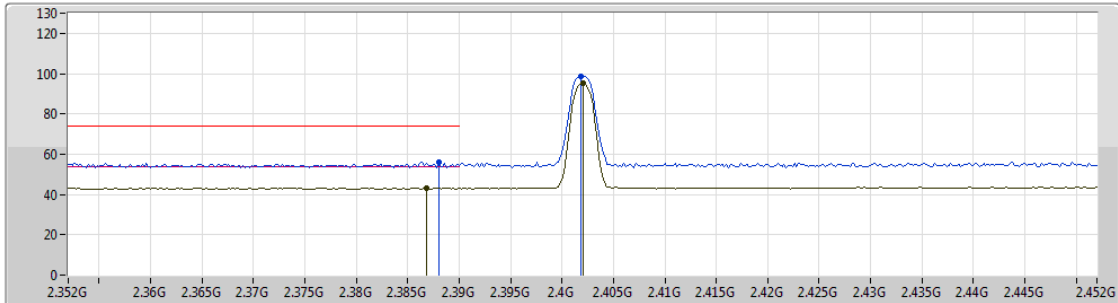


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| AV   | 2.48G        | 98.35             | Inf               | -Inf           | 31.09          | 3           | Horizontal | 48             | 1.37          | -        |
| AV   | 2.4984G      | 44.04             | 54.00             | -9.96          | 31.17          | 3           | Horizontal | 48             | 1.37          | -        |
| PK   | 2.48G        | 101.83            | Inf               | -Inf           | 31.09          | 3           | Horizontal | 48             | 1.37          | -        |
| PK   | 2.4946G      | 55.96             | 74.00             | -18.04         | 31.15          | 3           | Horizontal | 48             | 1.37          | -        |

### BT-EDR(3Mbps)

### 2402MHz\_TX

23/10/2018



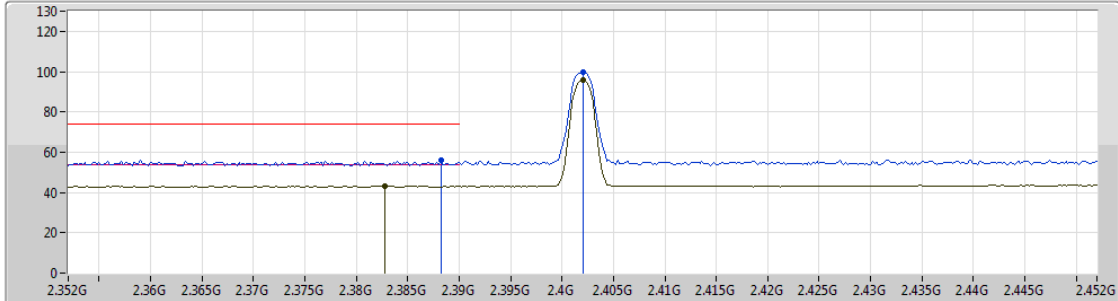
|        |                                                                                     |
|--------|-------------------------------------------------------------------------------------|
| Lim.PK |  |
| PK     |  |
| Lim.AV |  |
| AV     |  |

| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |  |  |  |  |  |  |  |  |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|--|--|--|--|--|--|--|--|
| AV   | 2.3868G      | 43.33             | 54.00             | -10.67         | 30.76          | 3           | Vertical  | 220            | 1.70          | -        |  |  |  |  |  |  |  |  |
| AV   | 2.402G       | 95.13             | Inf               | -Inf           | 30.82          | 3           | Vertical  | 220            | 1.70          | -        |  |  |  |  |  |  |  |  |
| PK   | 2.388G       | 56.21             | 74.00             | -17.79         | 30.77          | 3           | Vertical  | 220            | 1.70          | -        |  |  |  |  |  |  |  |  |
| PK   | 2.4018G      | 98.72             | Inf               | -Inf           | 30.82          | 3           | Vertical  | 220            | 1.70          | -        |  |  |  |  |  |  |  |  |

## BT-EDR(3Mbps)

## 2402MHz\_TX

23/10/2018



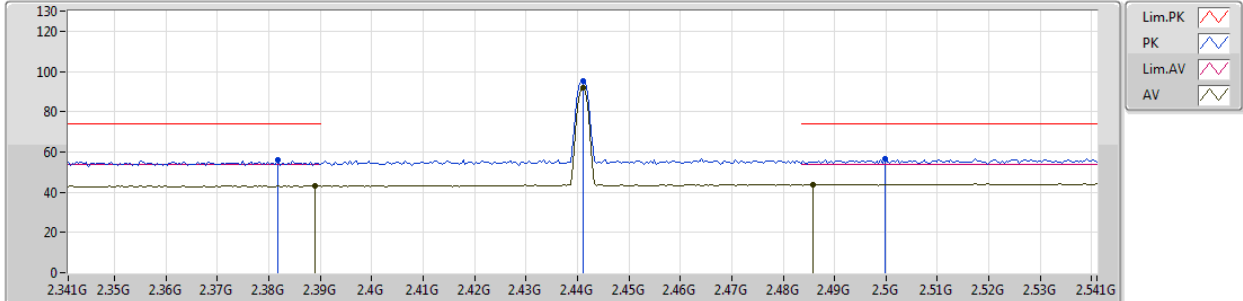
|        |                                                                                     |
|--------|-------------------------------------------------------------------------------------|
| Lim.PK |  |
| PK     |  |
| Lim.AV |  |
| AV     |  |

| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |  |  |  |  |  |  |  |  |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|--|--|--|--|--|--|--|--|
| AV   | 2.3828G      | 43.12             | 54.00             | -10.88         | 30.75          | 3           | Horizontal | 337            | 2.41          | -        |  |  |  |  |  |  |  |  |
| AV   | 2.402G       | 95.91             | Inf               | -Inf           | 30.82          | 3           | Horizontal | 337            | 2.41          | -        |  |  |  |  |  |  |  |  |
| PK   | 2.3882G      | 56.14             | 74.00             | -17.86         | 30.77          | 3           | Horizontal | 337            | 2.41          | -        |  |  |  |  |  |  |  |  |
| PK   | 2.402G       | 99.49             | Inf               | -Inf           | 30.82          | 3           | Horizontal | 337            | 2.41          | -        |  |  |  |  |  |  |  |  |

### BT-EDR(3Mbps)

23/10/2018

### 2441MHz\_TX

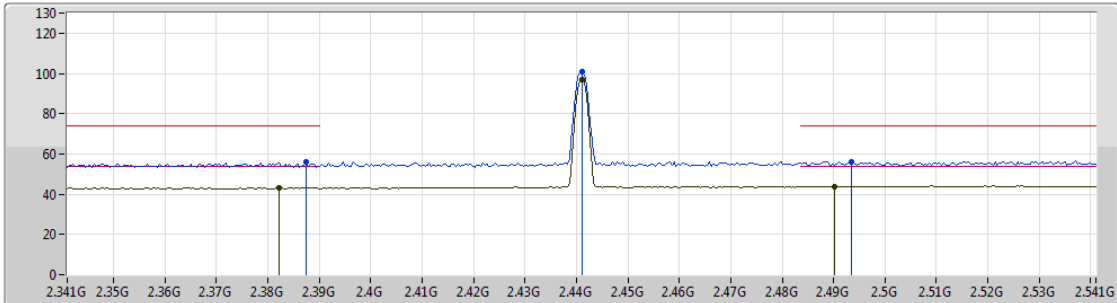


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 2.389G       | 43.12             | 54.00             | -10.88         | 30.77          | 3           | Vertical  | 143            | 1.54          | -        |
| AV   | 2.441G       | 91.76             | Inf               | -Inf           | 30.95          | 3           | Vertical  | 143            | 1.54          | -        |
| AV   | 2.4858G      | 43.93             | 54.00             | -10.07         | 31.12          | 3           | Vertical  | 143            | 1.54          | -        |
| PK   | 2.3818G      | 56.26             | 74.00             | -17.74         | 30.75          | 3           | Vertical  | 143            | 1.54          | -        |
| PK   | 2.441G       | 95.27             | Inf               | -Inf           | 30.95          | 3           | Vertical  | 143            | 1.54          | -        |
| PK   | 2.4998G      | 56.57             | 74.00             | -17.43         | 31.17          | 3           | Vertical  | 143            | 1.54          | -        |

### BT-EDR(3Mbps)

23/10/2018

### 2441MHz\_TX



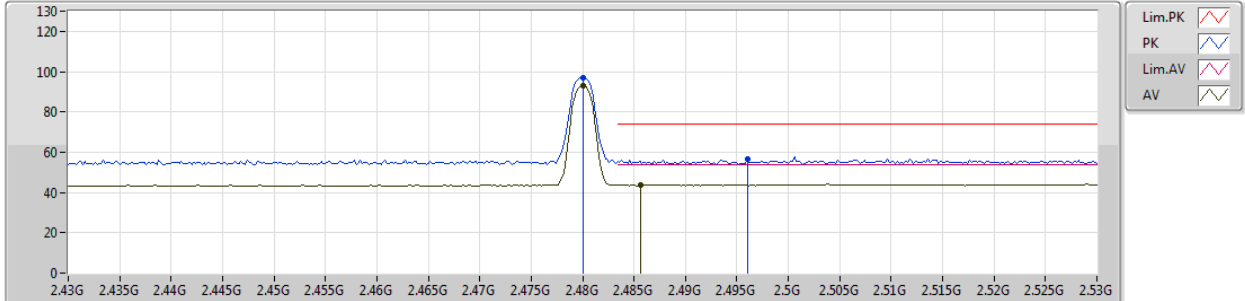
|        |                                                                                     |
|--------|-------------------------------------------------------------------------------------|
| Lim.PK |  |
| PK     |  |
| Lim.AV |  |
| AV     |  |

| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |  |  |  |  |  |  |  |  |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|--|--|--|--|--|--|--|--|
| AV   | 2.3822G      | 43.21             | 54.00             | -10.79         | 30.75          | 3           | Horizontal | 52             | 1.78          | -        |  |  |  |  |  |  |  |  |
| AV   | 2.441G       | 97.17             | Inf               | -Inf           | 30.95          | 3           | Horizontal | 52             | 1.78          | -        |  |  |  |  |  |  |  |  |
| AV   | 2.4902G      | 43.91             | 54.00             | -10.09         | 31.13          | 3           | Horizontal | 52             | 1.78          | -        |  |  |  |  |  |  |  |  |
| PK   | 2.3874G      | 55.87             | 74.00             | -18.13         | 30.76          | 3           | Horizontal | 52             | 1.78          | -        |  |  |  |  |  |  |  |  |
| PK   | 2.441G       | 100.70            | Inf               | -Inf           | 30.95          | 3           | Horizontal | 52             | 1.78          | -        |  |  |  |  |  |  |  |  |
| PK   | 2.4934G      | 56.29             | 74.00             | -17.71         | 31.14          | 3           | Horizontal | 52             | 1.78          | -        |  |  |  |  |  |  |  |  |

### BT-EDR(3Mbps)

### 2480MHz\_TX

23/10/2018

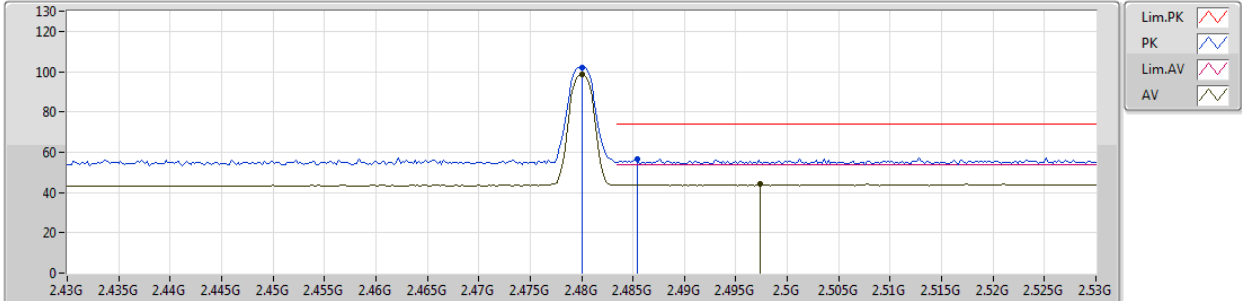


| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |  |  |  |  |  |  |  |  |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|--|--|--|--|--|--|--|--|
| AV   | 2.48G        | 93.23             | Inf               | -Inf           | 31.09          | 3           | Vertical  | 92             | 1.30          | -        |  |  |  |  |  |  |  |  |
| AV   | 2.4856G      | 43.81             | 54.00             | -10.19         | 31.12          | 3           | Vertical  | 92             | 1.30          | -        |  |  |  |  |  |  |  |  |
| PK   | 2.48G        | 96.81             | Inf               | -Inf           | 31.09          | 3           | Vertical  | 92             | 1.30          | -        |  |  |  |  |  |  |  |  |
| PK   | 2.496G       | 56.54             | 74.00             | -17.46         | 31.16          | 3           | Vertical  | 92             | 1.30          | -        |  |  |  |  |  |  |  |  |

## BT-EDR(3Mbps)

## 2480MHz\_TX

23/10/2018



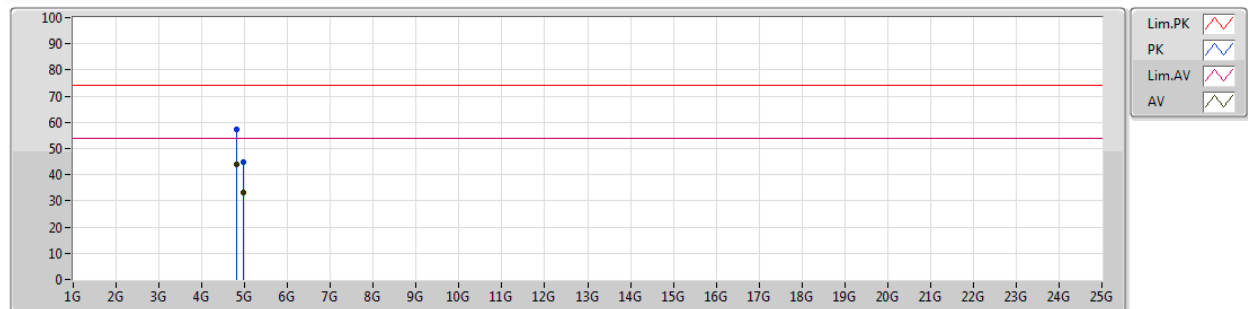
| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| AV   | 2.48G        | 98.68             | Inf               | -Inf           | 31.09          | 3           | Horizontal | 49             | 1.38          | -        |
| AV   | 2.4974G      | 44.04             | 54.00             | -9.96          | 31.16          | 3           | Horizontal | 49             | 1.38          | -        |
| PK   | 2.48G        | 102.26            | Inf               | -Inf           | 31.09          | 3           | Horizontal | 49             | 1.38          | -        |
| PK   | 2.4854G      | 56.68             | 74.00             | -17.32         | 31.12          | 3           | Horizontal | 49             | 1.38          | -        |

**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) |
|--------|--------|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|
| Mode 1 | Pass   | AV   | 4.8224G      | 44.12             | 54.00             | -9.88          | 2.13           | 3           | Vertical  | 357            | 2.20          |
| Mode 2 | Pass   | AV   | 10.35995G    | 47.61             | 54.00             | -6.39          | 12.63          | 3           | Vertical  | 17             | 2.44          |

### Mode 1

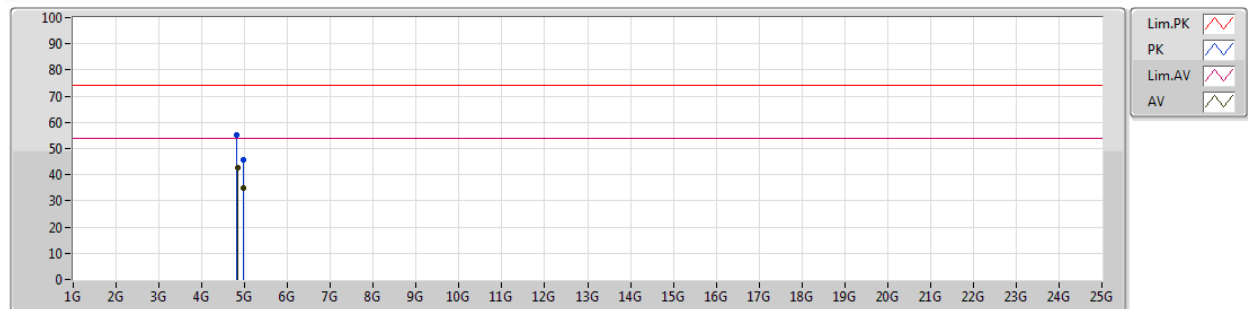
24/10/2018



| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 4.8224G      | 44.12             | 54.00             | -9.88          | 2.13           | 3           | Vertical  | 357            | 2.20          | -        |
| AV   | 4.95988G     | 33.39             | 54.00             | -20.61         | 2.47           | 3           | Vertical  | 358            | 2.34          | -        |
| PK   | 4.82G        | 57.52             | 74.00             | -16.48         | 2.12           | 3           | Vertical  | 357            | 2.20          | -        |
| PK   | 4.96004G     | 44.64             | 74.00             | -29.36         | 2.47           | 3           | Vertical  | 358            | 2.34          | -        |

### Mode 1

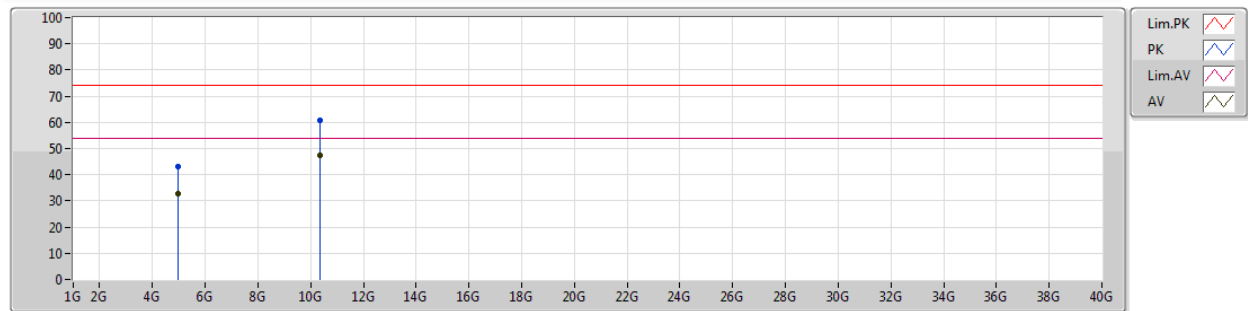
24/10/2018



| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| AV   | 4.8256G      | 42.74             | 54.00             | -11.26         | 2.14           | 3           | Horizontal | 357            | 1.17          | -        |
| AV   | 4.96G        | 34.78             | 54.00             | -19.22         | 2.47           | 3           | Horizontal | 6              | 2.32          | -        |
| PK   | 4.8234G      | 55.34             | 74.00             | -18.66         | 2.13           | 3           | Horizontal | 357            | 1.17          | -        |
| PK   | 4.96002G     | 45.56             | 74.00             | -28.44         | 2.47           | 3           | Horizontal | 6              | 2.32          | -        |

### Mode 2

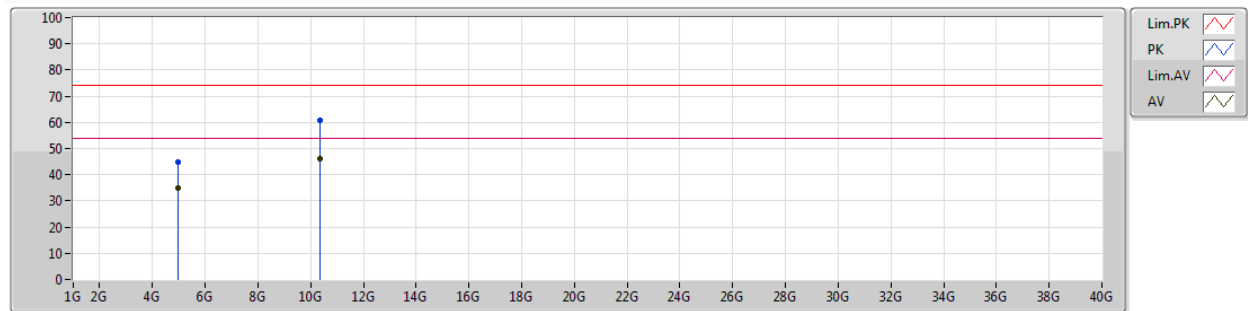
24/10/2018



| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|----------|
| AV   | 4.95964G     | 32.68             | 54.00             | -21.32         | 2.47           | 3           | Vertical  | 320            | 1.05          | -        |
| AV   | 10.35995G    | 47.61             | 54.00             | -6.39          | 12.63          | 3           | Vertical  | 17             | 2.44          | -        |
| PK   | 4.95964G     | 43.05             | 74.00             | -30.95         | 2.47           | 3           | Vertical  | 320            | 1.05          | -        |
| PK   | 10.3612G     | 60.99             | 74.00             | -13.01         | 12.64          | 3           | Vertical  | 17             | 2.44          | -        |

### Mode 2

24/10/2018



| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|----------|
| AV   | 4.95877G     | 35.04             | 54.00             | -18.96         | 2.46           | 3           | Horizontal | 146            | 1.21          | -        |
| AV   | 10.36025G    | 46.04             | 54.00             | -7.96          | 12.63          | 3           | Horizontal | 32             | 2.82          | -        |
| PK   | 4.95877G     | 45.04             | 74.00             | -28.96         | 2.46           | 3           | Horizontal | 146            | 1.21          | -        |
| PK   | 10.3612G     | 60.93             | 74.00             | -13.07         | 12.64          | 3           | Horizontal | 32             | 2.82          | -        |