

# FCC Radio Test Report

FCC ID : TTUBEOPLAY500  
Equipment : Wireless Headphones  
Brand Name : Bang & Olufsen  
Model Name : Beoplay 500  
Applicant : Bang & Olufsen A/S  
Bang og Olufsen Allé 1, 7600 Struer, Denmark  
Manufacturer : Bang & Olufsen A/S  
Bang og Olufsen Allé 1, 7600 Struer, Denmark  
Standard : 47 CFR FCC Part 15.247

The product was received on Nov. 19, 2021, and testing was started from Dec. 07, 2021 and completed on Dec. 14, 2021. We, SPORTON INTERNATIONAL INC. Hsinhua 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 test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. Hsinhua Laboratory, the test report shall not be reproduced except in full.



Approved by: Jackson Tsai

**SPORTON INTERNATIONAL INC. Hsinhua Laboratory**

No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan (R.O.C.)



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Report Template No.: HE1-C9 Ver4.2  
FCC ID: TTUBEOPLAY500

## Summary of Test Result

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

**Declaration of Conformity:**

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

**Comments and explanations:**

None

**Reviewed by: Sam Tsai**

**Report Producer: Jenny Yang**

# 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 | Gain (dBi) |
|------|------------------------------|-----------------|--------------|-----------|------------|
| 1    | Sage Elephant Tech co., Ltd. | S306300001000-A | Chip         | N/A       | 0.81       |

Note 1: The EUT has one antenna.

**For BT function:**

For IEEE 802.15.1 Bluetooth mode (1TX/1RX)

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

**1.1.3 EUT Information**

| Operational Condition               |                                                                               |                                         |  |
|-------------------------------------|-------------------------------------------------------------------------------|-----------------------------------------|--|
| <b>EUT Power Type</b>               | From AC Adapter / From Host system / Battery                                  |                                         |  |
| <b>EUT Function</b>                 | <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)  | 0.318 | 4.98    | 396.875u | 3k                 |
| BT-EDR(2Mbps) | 0.829 | 0.81    | 2.899m   | 1k                 |
| BT-EDR(3Mbps) | 0.83  | 0.81    | 2.9m     | 1k                 |

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

## 1.2 Testing Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- ♦ 47 CFR FCC Part 15
- ♦ ANSI C63.10-2013

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

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

## 1.3 Testing Location Information

| Test Lab. : Sporton International Inc. Hsinhua Laboratory       |                                                                                         |               |                          |                         |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------|---------------|--------------------------|-------------------------|
| <input checked="" type="checkbox"/> Hsinhua<br>(TAF: 3785)      | ADD: No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan (R.O.C.)          |               |                          |                         |
|                                                                 | TEL: 886-3-327-3456                                                                     |               | FAX: 886-3-327-0973      |                         |
| Test site Designation No. TW3785 with FCC.                      |                                                                                         |               |                          |                         |
| Test Condition                                                  | Test Site No.                                                                           | Test Engineer | Test Environment         | Test Date               |
| AC Conduction                                                   | CO04-HY                                                                                 | Edward Wang   | 21.5~22.0°C / 50~54%     | 14/Dec/2021             |
| RF Conducted                                                    | TH07-HY                                                                                 | Johnny Yu     | 22.5~26.7°C / 47.8~62.4% | 07/Dec/2021             |
| <input checked="" type="checkbox"/> Wen 33rd.St.<br>(TAF: 3785) | ADD: No.14-1, Ln. 19, Wen 33rd St., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.) |               |                          |                         |
|                                                                 | TEL: 886-3-318-0787                                                                     |               | FAX: 886-3-318-0287      |                         |
| Test site Designation No. TW0008 with FCC.                      |                                                                                         |               |                          |                         |
| Test Condition                                                  | Test Site No.                                                                           | Test Engineer | Test Environment         | Test Date               |
| Radiated                                                        | 03CH09-HY                                                                               | Daniel Hsu    | 22.9~23.6°C / 48~62%     | 08/Dec/2021~09/Dec/2021 |

## 1.4 Measurement Uncertainty

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2))

| Test Items                           | Uncertainty | Remark                   |
|--------------------------------------|-------------|--------------------------|
| Conducted Emission (150kHz ~ 30MHz)  | 0.9 dB      | Confidence levels of 95% |
| Radiated Emission (9kHz ~ 30MHz)     | 2.4 dB      | Confidence levels of 95% |
| Radiated Emission (30MHz ~ 1,000MHz) | 3.7 dB      | Confidence levels of 95% |
| Radiated Emission (1GHz ~ 18GHz)     | 3.6 dB      | Confidence levels of 95% |
| Radiated Emission (18GHz ~ 40GHz)    | 3.5 dB      | Confidence levels of 95% |
| Conducted Emission                   | 1.0 dB      | Confidence levels of 95% |
| Temperature                          | 0.41 °C     | Confidence levels of 95% |
| Humidity                             | 3.4 %       | Confidence levels of 95% |

## 2 Test Configuration of EUT

### 2.1 Test Channel Mode

| Test Software Version | BlueTest 3    |
|-----------------------|---------------|
| Mode                  | Power Setting |
| BT-BR(1Mbps)          | -             |
| 2402MHz               | 5             |
| 2440MHz               | 5             |
| 2480MHz               | 5             |
| BT-EDR(2Mbps)         | -             |
| 2402MHz               | 5             |
| 2440MHz               | 5             |
| 2480MHz               | 5             |
| BT-EDR(3Mbps)         | -             |
| 2402MHz               | 5             |
| 2440MHz               | 5             |
| 2480MHz               | 5             |

## 2.2 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<br>Test Voltage: 120Vac / 60Hz |
| 1                                                   | USB mode, CTX                                                                           |
| 2                                                   | Adapter mode (Charging)                                                                 |

| 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<br><input checked="" type="checkbox"/> Non-adaptive frequency hopping systems (Non-AFH)<br><input checked="" type="checkbox"/> adaptive frequency hopping systems (AFH)       |
| Non-AFH Mode configuration was found to be the worst case and measured during the test. |                                                                                                                                                                                                                        |

| 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>                     |                                                                                                                                                                                                                                                     |                                                                                      |                                                                                       |
| 1                                                   | USB mode, CTX                                                                                                                                                                                                                                       |                                                                                      |                                                                                       |
| 2                                                   | Adapter mode (Charging)                                                                                                                                                                                                                             |                                                                                      |                                                                                       |
| <b>Operating Mode &gt; 1GHz</b>                     |                                                                                                                                                                                                                                                     |                                                                                      |                                                                                       |
| <b>Orthogonal Planes of EUT</b>                     | <b>X Plane</b>                                                                                                                                                                                                                                      | <b>Y Plane</b>                                                                       | <b>Z Plane</b>                                                                        |
|                                                     |                                                                                                                                                                  |  |  |
| <b>Worst Planes of EUT</b>                          |                                                                                                                                                                                                                                                     |                                                                                      | V                                                                                     |

## 2.3 Accessories

| Accessories |              |                                                 |            |                                  |
|-------------|--------------|-------------------------------------------------|------------|----------------------------------|
| Battery     | Brand Name   | Synergy                                         | Model Name | AHB723938PCT                     |
|             | Power Rating | 3.7 Vdc, 1110 mAh                               | Type       | Lithium-ion Polymer Battery Pack |
| USB Cable   | Brand Name   | Bang & Olufsen                                  | Model Name | 4021XW01810ZCU                   |
|             | Signal Line  | 1.2 meter, D-shielded cable, w/o ferrite core   |            |                                  |
| Audio Cable | Brand Name   | Bang & Olufsen                                  | Model Name | 4021XW01906ZAS                   |
|             | Signal Line  | 1.2 meter, non-shielded cable, w/o ferrite core |            |                                  |

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

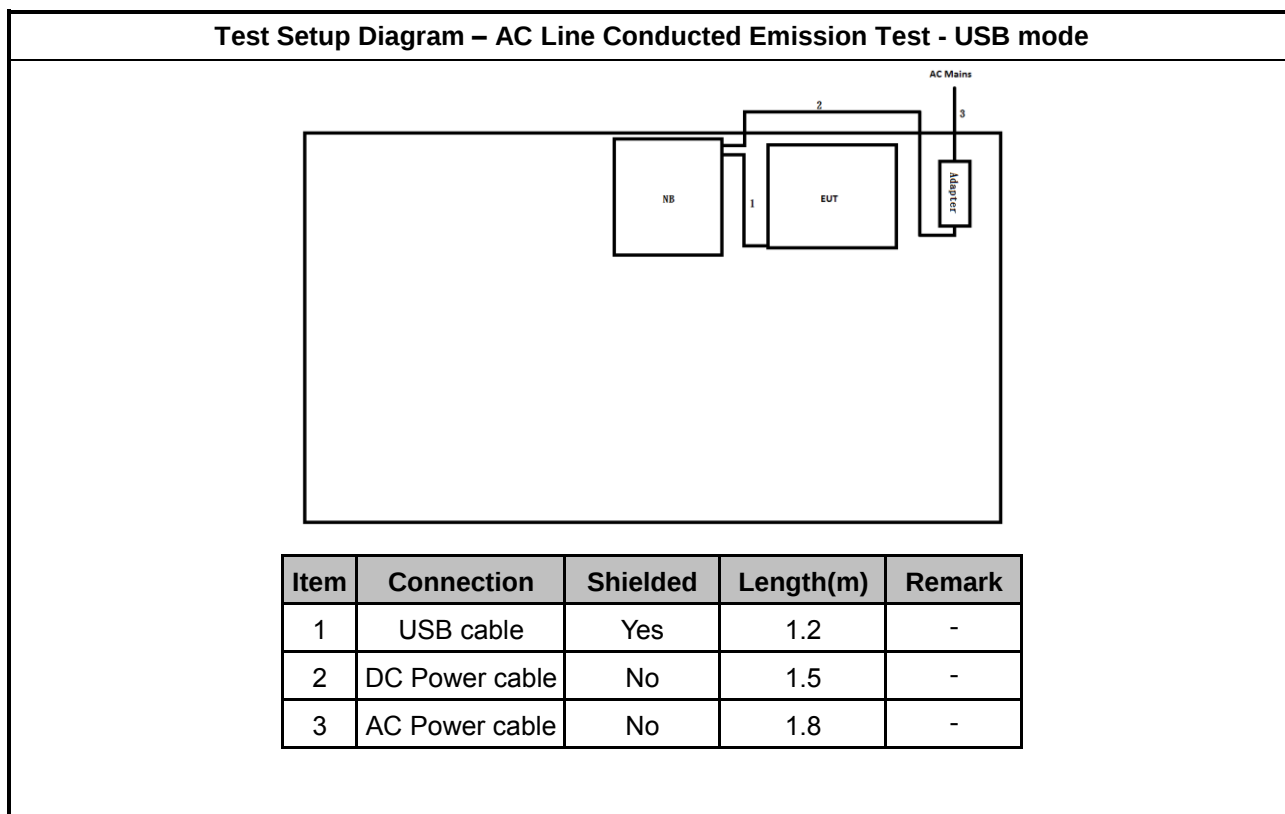
## 2.4 Support Equipment

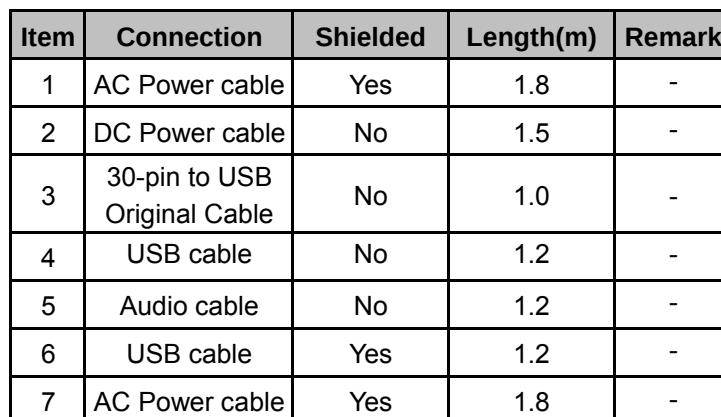
| Support Equipment – AC Conduction |                                 |            |            |        |        |
|-----------------------------------|---------------------------------|------------|------------|--------|--------|
| No.                               | Equipment                       | Brand Name | Model Name | FCC ID | Remark |
| 1                                 | Notebook                        | HP         | E5220      | -      | -      |
| 2                                 | AC Adapter<br>(for NB)          | HP         | PPP009D    | -      | -      |
| 3                                 | Mouse(USB)                      | lenovo     | MOGOUO     | -      | -      |
| 4                                 | iPod                            | Apple      | A1199      | -      | -      |
| 5                                 | AC power Cable                  | Power sync | TPCMRN0018 | -      | -      |
| 6                                 | AC adapter                      | APPLE      | A1385      | -      | -      |
| 7                                 | 30-pin to USB<br>Original Cable | APPLE      | MA591GC    | -      | -      |

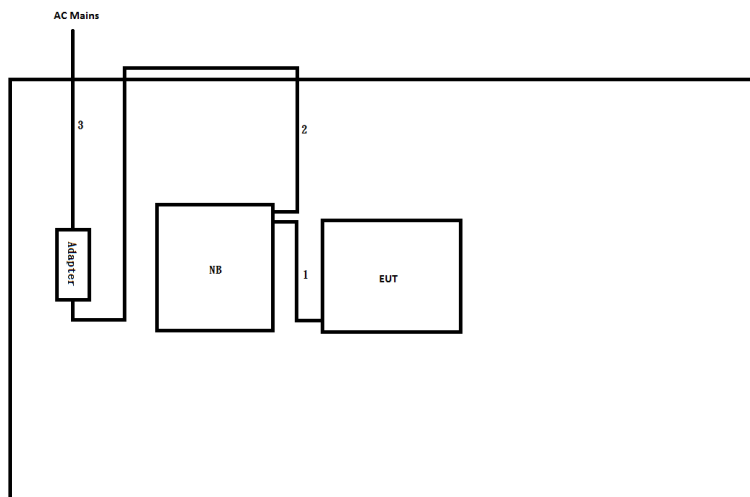
| Support Equipment – Conducted |                 |            |            |        |        |
|-------------------------------|-----------------|------------|------------|--------|--------|
| No.                           | Equipment       | Brand Name | Model Name | FCC ID | Remark |
| 1                             | Notebook        | HP         | HSTNN-142C | -      | -      |
| 2                             | Adapter for NB  | HP         | HSTNN-CA40 | -      | -      |
| 3                             | DC Power Supply | GW         | GPS-3030DD | -      | -      |

| Support Equipment – Radiated |                                 |            |            |        |        |
|------------------------------|---------------------------------|------------|------------|--------|--------|
| No.                          | Equipment                       | Brand Name | Model Name | FCC ID | Remark |
| 1                            | Notebook                        | HP         | E5220      | -      | -      |
| 2                            | AC Adapter<br>(for NB)          | HP         | PPP009D    | -      | -      |
| 3                            | Mouse(USB)                      | lenovo     | MOGOUO     | -      | -      |
| 4                            | iPod                            | Apple      | A1199      | -      | -      |
| 5                            | AC power Cable                  | Power sync | TPCMRN0018 | -      | -      |
| 6                            | AC adapter                      | APPLE      | A1385      | -      | -      |
| 7                            | 30-pin to USB<br>Original Cable | APPLE      | MA591GC    | -      | -      |

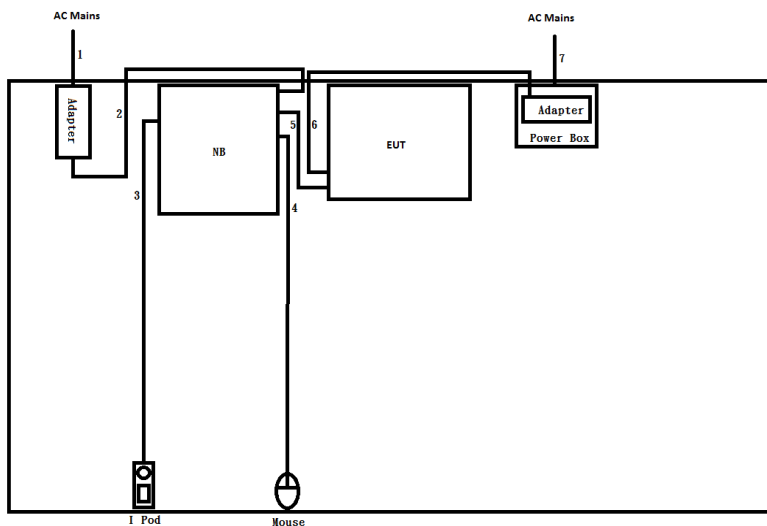
## 2.5 Test Setup Diagram





**Test Setup Diagram - Radiated Test - USB mode**


| Item | Connection     | Shielded | Length(m) | Remark |
|------|----------------|----------|-----------|--------|
| 1    | USB cable      | Yes      | 1.2       | -      |
| 2    | DC Power cable | No       | 1.5       | -      |
| 3    | AC Power cable | No       | 1.8       | -      |

**Test Setup Diagram - Radiated Test - Adapter mode**


| Item | Connection                      | Shielded | Length(m) | Remark |
|------|---------------------------------|----------|-----------|--------|
| 1    | AC Power cable                  | Yes      | 1.8       | -      |
| 2    | DC Power cable                  | No       | 1.5       | -      |
| 3    | 30-pin to USB<br>Original Cable | No       | 1.0       | -      |
| 4    | USB cable                       | No       | 1.2       | -      |
| 5    | Audio cable                     | No       | 1.2       | -      |
| 6    | USB cable                       | Yes      | 1.2       | -      |
| 7    | AC Power cable                  | Yes      | 1.8       | -      |

### 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

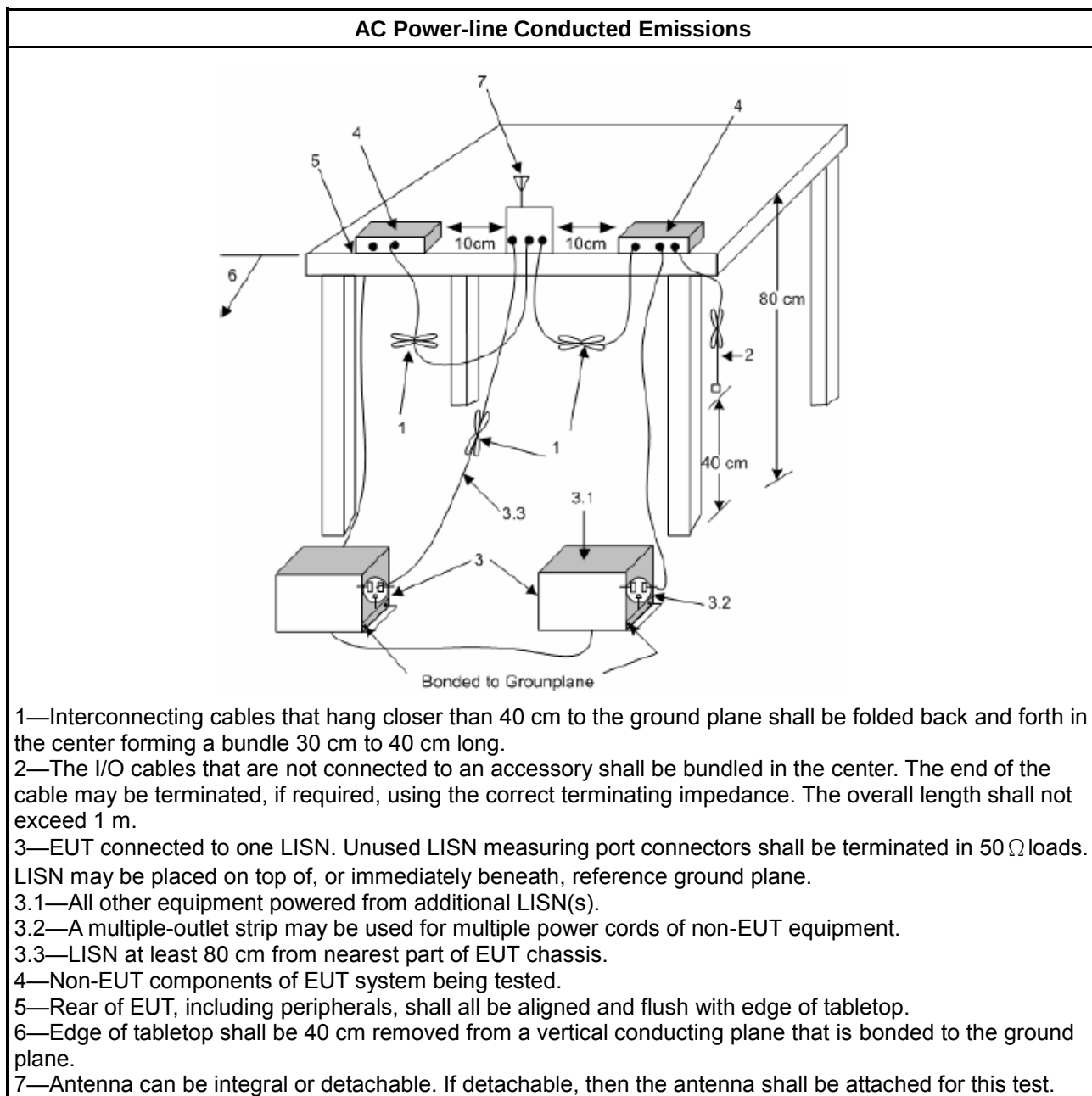
| Test Method                                                                    |
|--------------------------------------------------------------------------------|
| ▪ Refer as ANSI C63.10-2013, clause 6.2 for AC power-line conducted emissions. |

##### 3.1.4 Measurement Results Calculation

The measured Level is calculated using:

Corrected Reading: Raw(Read Level) + LISN(LISN Factor) + CL(Cable Loss) + AT(Attenuator).

### 3.1.5 Test Setup



### 3.1.6 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> |
| N: Number of Hopping Frequencies; ChS: Hopping Channel Separation                   |                                                                                                                                               |

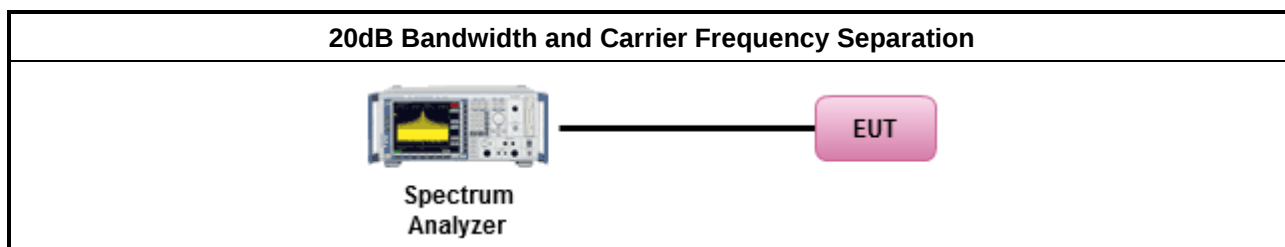
### 3.2.2 Measuring Instruments

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                                        |                                                                                                           |

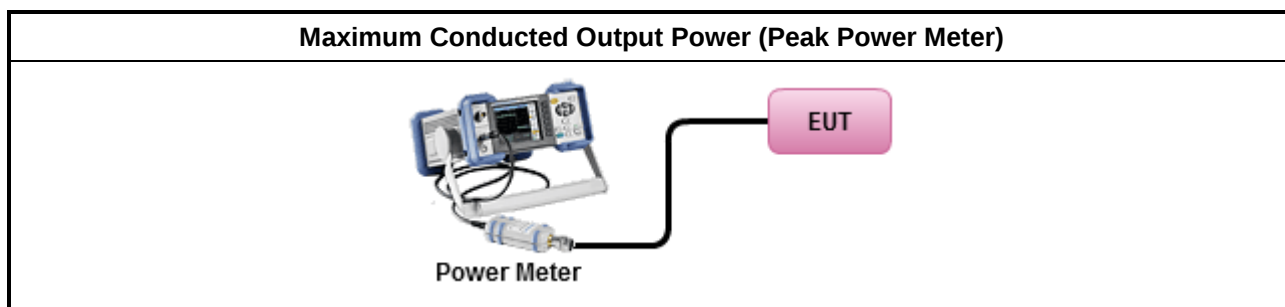
#### 3.3.2 Measuring Instruments

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

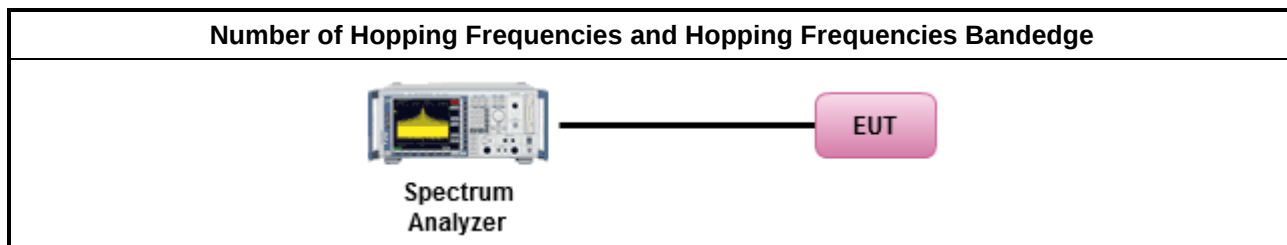
#### 3.4.3 Measuring Instruments

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                                        |                                                                                                                            |

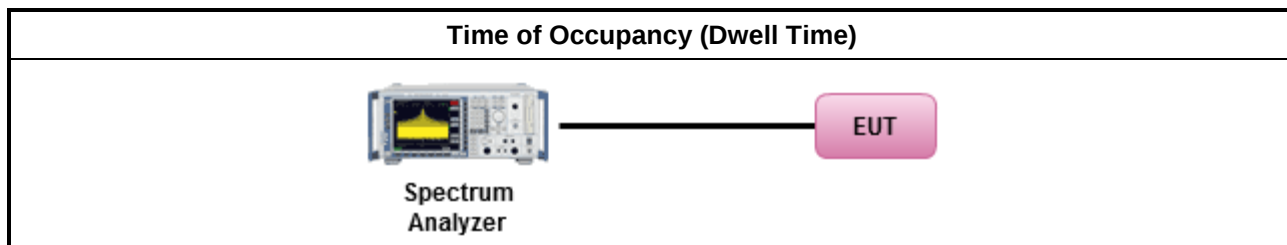
#### 3.5.2 Measuring Instruments

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. |            |

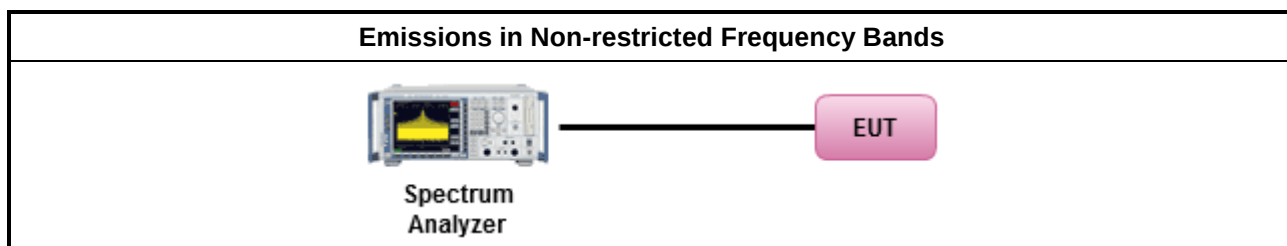
#### 3.6.2 Measuring Instruments

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

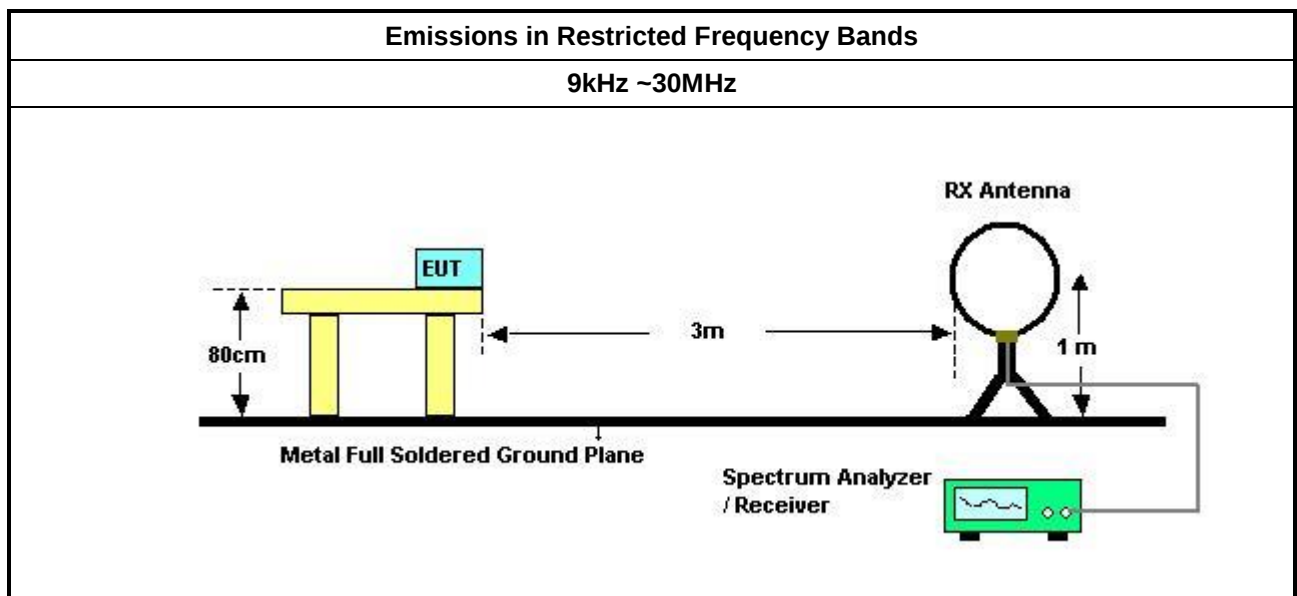
| Test Method                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>The average emission levels shall be measured in [hopping duty factor].</li> <li>Refer as ANSI C63.10; clause 6.10.3 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band.</li> <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>                                                                                                                   |
|                                                                                                                                                                                                                                                                                                                                                                                                               | <ul style="list-style-type: none"> <li>KDB 414788 Open-Field Test Sites and Chamber Correlation Justification.</li> </ul>                                                                                                                             |
|                                                                                                                                                                                                                                                                                                                                                                                                               | <ul style="list-style-type: none"> <li>Based on FCC 15.31(f)(2): measurements may be performed at a distance closer than that specified in regulations; however, an attempt should be made to avoid making measurements in the near field.</li> </ul> |
|                                                                                                                                                                                                                                                                                                                                                                                                               | <ul style="list-style-type: none"> <li>Open-field site and chamber correlation testing had been performed and chamber measured test result is the worst case test result.</li> </ul>                                                                  |

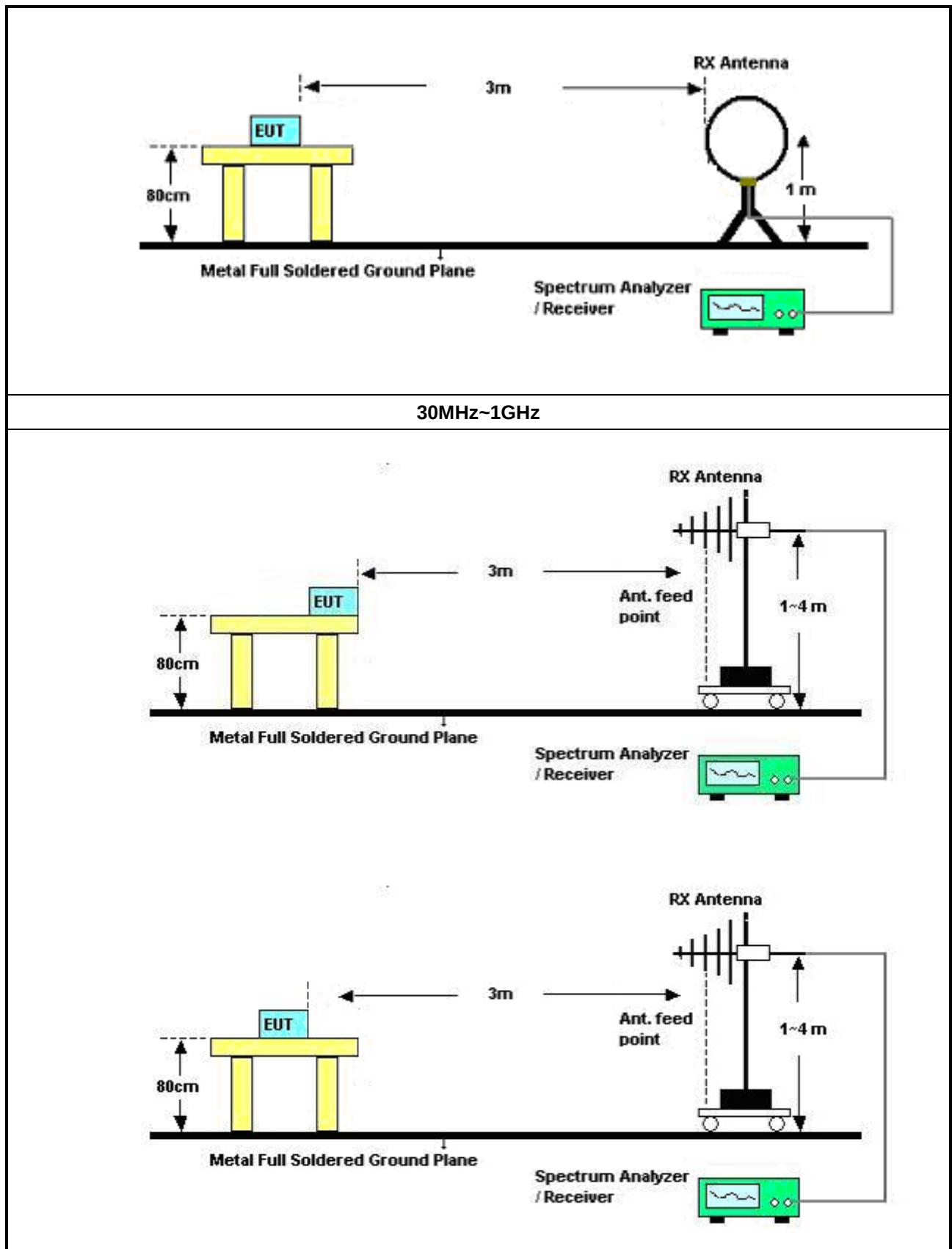
### 3.7.4 Measurement Results Calculation

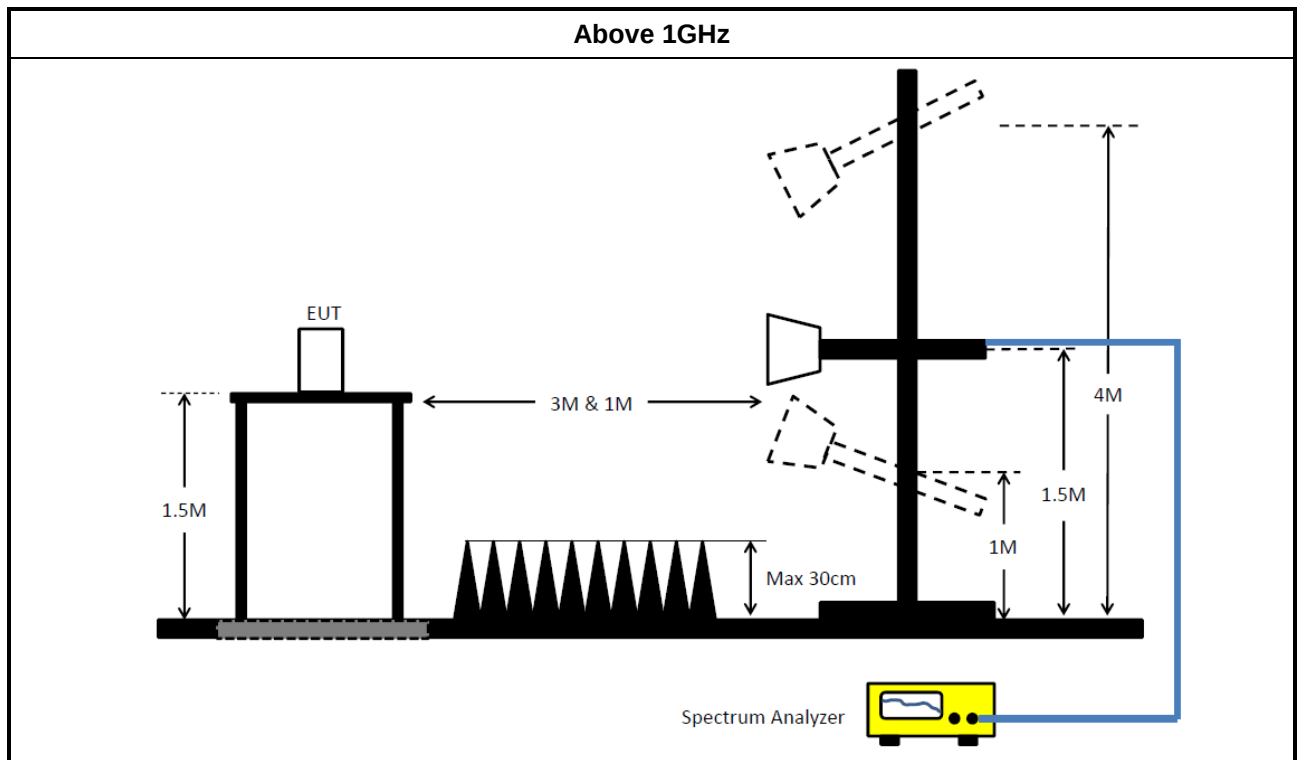
The measured Level is calculated using:

Corrected Reading: Raw(Read Level) + AF(Antenna Factor) + CL(Cable Loss) - PA(Preamplifier Factor)

### 3.7.5 Test Setup







### 3.7.6 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.

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

Refer as Appendix G

## 4 Test Equipment and Calibration Data

### Instrument for AC Conduction

| Instrument                     | Manufacturer /Brand          | Model No.   | Serial No.    | Spec.         | Calibration Date | Calibration Due Date |
|--------------------------------|------------------------------|-------------|---------------|---------------|------------------|----------------------|
| EMI Test Receiver              | R&S                          | ESR3        | 102051        | 9kHz ~ 3.6GHz | 21/May/2021      | 20/May/2022          |
| Two-Line V Network (LISN)      | R&S                          | ENV 216     | 101274        | 9kHz ~ 30MHz  | 13/May/2021      | 12/May/2022          |
| RF Cable 5m                    | TITAN                        | TITAN       | CO04-cable-01 | 0.1MHz~200MHz | 03/Mar/2021      | 02/Mar/2022          |
| Impuls Begrenzer Pulse Limiter | SCHWARZBECK                  | VTSD 9561-F | 9561-F041     | 9kHz ~ 30MHz  | 26/Oct/2021      | 25/Oct/2022          |
| LISN (Support Unit)            | SCHWARZBECK MESS-ELEKTRO NIK | NSLK 8127   | 8127477       | 9kHz ~ 30MHz  | 25/Feb/2021      | 24/Feb/2022          |

### Instrument for Conducted Test

| Instrument               | Manufacturer /Brand | Model No. | Serial No. | Spec.        | Calibration Date | Calibration Due Date |
|--------------------------|---------------------|-----------|------------|--------------|------------------|----------------------|
| Signal Analyzer          | R&S                 | FSV 40    | 101515     | 10Hz~40GHz   | 26/Mar/2021      | 25/Mar/2022          |
| SMB100A Signal Generator | R&S                 | SMB100A03 | 181147     | 100kHz~40GHz | 21/Oct/2021      | 20/Oct/2022          |
| Pulse Sensor             | Anritsu             | MA2411B   | 1027452    | 300MHz~40GHz | 25/Mar/2021      | 24/Mar/2022          |
| Power Meter              | Anritsu             | ML2495A   | 1124009    | 300MHz~40GHz | 25/Mar/2021      | 24/Mar/2022          |

**Instrument for Radiated Test**

| Instrument                       | Manufacturer /Brand | Model No.               | Serial No.         | Spec.            | Calibration Date | Calibration Due Date |
|----------------------------------|---------------------|-------------------------|--------------------|------------------|------------------|----------------------|
| 3m Semi Anechoic Chamber         | TDK                 | SAC-3M                  | 03CH09-HY          | 30MHz~1GHz<br>3m | 26/Mar/2021      | 25/Mar/2022          |
| 3m Semi Anechoic Chamber         | TDK                 | SAC-3M                  | 03CH09-HY          | 1GHz~18GHz<br>3m | 18/Mar/2021      | 17/Mar/2022          |
| EXA Signal Analyzer              | KEYSIGHT            | N9010A                  | MY54200885         | 10Hz~44GHz       | 13/Aug/2021      | 12/Aug/2022          |
| Amplifier                        | EMC                 | EMC9135                 | 980232             | 9kHz~1GHz        | 12/Apr/2021      | 11/Apr/2022          |
| Microwave Preamplifier           | Agilent             | 8449B                   | 3008A02096         | 1GHz~26.5GHz     | 23/Jul/2021      | 22/Jul/2022          |
| Bilog Antenna & 5dB Attenuator   | TESEQ & MTJ         | CBL6111D&MT<br>J6102-05 | 35418 & 3          | 30MHz~1GHz       | 04/Sep/2021      | 03/Sep/2022          |
| Double Ridged Guide Horn Antenna | SCHWARZBECK         | BBHA 9120 D             | BBHA9120 D<br>1534 | 1GHz~18GHz       | 18/May/2021      | 17/May/2022          |
| RF Cable-low                     | Jye Bao             | RG142                   | CB031+324530/4     | 9kHz~30MHz       | 30/Aug/2021      | 29/Aug/2022          |
| RF Cable-low                     | Jye Bao             | RG142                   | CB031+324530/4     | 30MHz~1GHz       | 09/Feb/2021      | 08/Feb/2022          |
| RF CABLE<br>5m+3m+1m             | HUBER+<br>SUHNER    | SUCOFLEX104             | CB009              | 1GHz~40GHz       | 13/Aug/2021      | 12/Aug/2022          |
| Broadband Horn Antenna           | SCHWARZBECK         | BBHA 9170               | BBHA 9170221       | 18GHz~40GHz      | 11/Mar/2021      | 10/Mar/2022          |
| Microwave Premplifier            | EMC<br>INSTRUMENTS  | EM18G40G                | 060604             | 18GHz ~ 40GHz    | 09/Mar/2021      | 08/Mar/2022          |
| Loop Antenna                     | TESEQ               | HLA 6120                | 31244              | 9kHz~30MHz       | 16/Mar/2021      | 15/Mar/2022          |
| EMI Test Receiver                | R&S                 | ESR3                    | 102052             | 9kHz~3.6GHz      | 19/Apr/2021      | 18/Apr/2022          |



## Conducted Emissions at Powerline

## Appendix A.1

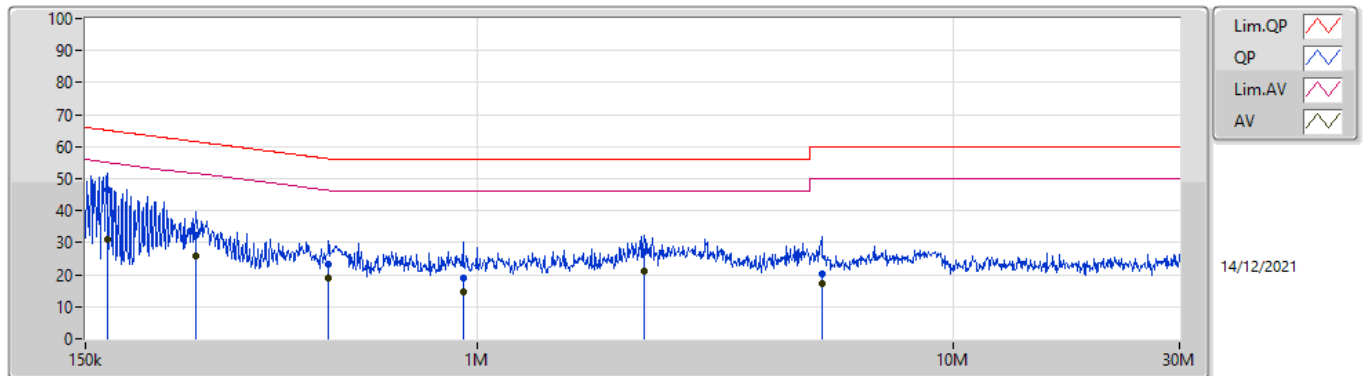
### Summary

| Mode    | Result | Type | Freq<br>(Hz) | Level<br>(dBuV) | Limit<br>(dBuV) | Margin<br>(dB) | Condition |
|---------|--------|------|--------------|-----------------|-----------------|----------------|-----------|
| Mode 1. | Pass   | QP   | 156.734k     | 48.75           | 65.64           | -16.89         | Neutral   |

**Result**

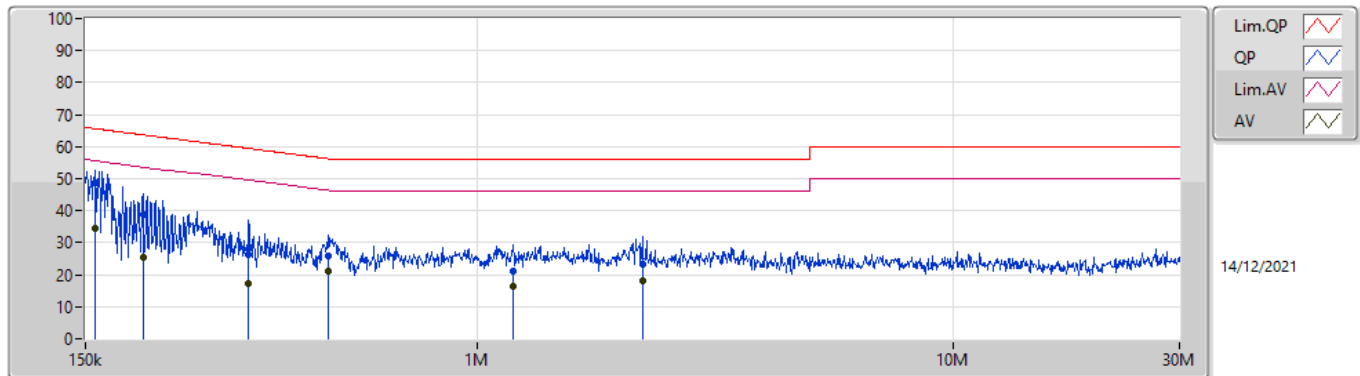
| Mode    | Result | Type | Freq (Hz) | Level (dBuV) | Limit (dBuV) | Margin (dB) | Condition | Comments |
|---------|--------|------|-----------|--------------|--------------|-------------|-----------|----------|
| Mode 1. | Pass   | QP   | 166.406k  | 46.61        | 65.14        | -18.53      | Line      | -        |
| Mode 1. | Pass   | AV   | 166.406k  | 30.93        | 55.14        | -24.21      | Line      | -        |
| Mode 1. | Pass   | QP   | 256.1k    | 32.42        | 61.56        | -29.14      | Line      | -        |
| Mode 1. | Pass   | AV   | 256.1k    | 25.87        | 51.56        | -25.69      | Line      | -        |
| Mode 1. | Pass   | QP   | 487.008k  | 23.49        | 56.21        | -32.72      | Line      | -        |
| Mode 1. | Pass   | AV   | 487.008k  | 19.13        | 46.21        | -27.08      | Line      | -        |
| Mode 1. | Pass   | QP   | 933.537k  | 18.82        | 56.00        | -37.18      | Line      | -        |
| Mode 1. | Pass   | AV   | 933.537k  | 14.77        | 46.00        | -31.23      | Line      | -        |
| Mode 1. | Pass   | QP   | 2.247M    | 27.11        | 56.00        | -28.89      | Line      | -        |
| Mode 1. | Pass   | AV   | 2.247M    | 20.93        | 46.00        | -25.07      | Line      | -        |
| Mode 1. | Pass   | QP   | 5.3M      | 20.15        | 60.00        | -39.85      | Line      | -        |
| Mode 1. | Pass   | AV   | 5.3M      | 17.21        | 50.00        | -32.79      | Line      | -        |
| Mode 1. | Pass   | QP   | 156.734k  | 48.75        | 65.64        | -16.89      | Neutral   | -        |
| Mode 1. | Pass   | AV   | 156.734k  | 34.60        | 55.64        | -21.04      | Neutral   | -        |
| Mode 1. | Pass   | QP   | 198.359k  | 39.00        | 63.69        | -24.69      | Neutral   | -        |
| Mode 1. | Pass   | AV   | 198.359k  | 25.56        | 53.69        | -28.13      | Neutral   | -        |
| Mode 1. | Pass   | QP   | 330.648k  | 26.27        | 59.44        | -33.17      | Neutral   | -        |
| Mode 1. | Pass   | AV   | 330.648k  | 17.18        | 49.44        | -32.26      | Neutral   | -        |
| Mode 1. | Pass   | QP   | 485.068k  | 25.91        | 56.25        | -30.34      | Neutral   | -        |
| Mode 1. | Pass   | AV   | 485.068k  | 21.06        | 46.25        | -25.19      | Neutral   | -        |
| Mode 1. | Pass   | QP   | 1.191M    | 21.08        | 56.00        | -34.92      | Neutral   | -        |
| Mode 1. | Pass   | AV   | 1.191M    | 16.22        | 46.00        | -29.78      | Neutral   | -        |
| Mode 1. | Pass   | QP   | 2.229M    | 23.34        | 56.00        | -32.66      | Neutral   | -        |
| Mode 1. | Pass   | AV   | 2.229M    | 18.21        | 46.00        | -27.79      | Neutral   | -        |

### Conducted Emissions at Powerline\_Mode 1



| Type | Freq<br>(Hz) | Level<br>(dBuV) | Limit<br>(dBuV) | Margin<br>(dB) | Factor<br>(dB) | Condition | Comment | Raw<br>(dBuV) | LISN<br>(dB) | CL<br>(dB) | AT<br>(dB) |  |  |  |
|------|--------------|-----------------|-----------------|----------------|----------------|-----------|---------|---------------|--------------|------------|------------|--|--|--|
| QP   | 166.406k     | 46.61           | 65.14           | -18.53         | 19.64          | Line      | -       | 26.97         | 9.69         | 0.04       | 9.91       |  |  |  |
| AV   | 166.406k     | 30.93           | 55.14           | -24.21         | 19.64          | Line      | -       | 11.29         | 9.69         | 0.04       | 9.91       |  |  |  |
| QP   | 256.1k       | 32.42           | 61.56           | -29.14         | 19.64          | Line      | -       | 12.78         | 9.68         | 0.05       | 9.91       |  |  |  |
| AV   | 256.1k       | 25.87           | 51.56           | -25.69         | 19.64          | Line      | -       | 6.23          | 9.68         | 0.05       | 9.91       |  |  |  |
| QP   | 487.008k     | 23.49           | 56.21           | -32.72         | 19.65          | Line      | -       | 3.84          | 9.68         | 0.06       | 9.91       |  |  |  |
| AV   | 487.008k     | 19.13           | 46.21           | -27.08         | 19.65          | Line      | -       | -0.52         | 9.68         | 0.06       | 9.91       |  |  |  |
| QP   | 933.537k     | 18.82           | 56.00           | -37.18         | 19.68          | Line      | -       | -0.86         | 9.68         | 0.08       | 9.92       |  |  |  |
| AV   | 933.537k     | 14.77           | 46.00           | -31.23         | 19.68          | Line      | -       | -4.91         | 9.68         | 0.08       | 9.92       |  |  |  |
| QP   | 2.247M       | 27.11           | 56.00           | -28.89         | 19.72          | Line      | -       | 7.39          | 9.69         | 0.11       | 9.92       |  |  |  |
| AV   | 2.247M       | 20.93           | 46.00           | -25.07         | 19.72          | Line      | -       | 1.21          | 9.69         | 0.11       | 9.92       |  |  |  |
| QP   | 5.3M         | 20.15           | 60.00           | -39.85         | 19.79          | Line      | -       | 0.36          | 9.71         | 0.16       | 9.92       |  |  |  |
| AV   | 5.3M         | 17.21           | 50.00           | -32.79         | 19.79          | Line      | -       | -2.58         | 9.71         | 0.16       | 9.92       |  |  |  |

### Conducted Emissions at Powerline\_Mode 1



| Type | Freq<br>(Hz) | Level<br>(dBuV) | Limit<br>(dBuV) | Margin<br>(dB) | Factor<br>(dB) | Condition | Comment | Raw<br>(dBuV) | LISN<br>(dB) | CL<br>(dB) | AT<br>(dB) |  |  |  |
|------|--------------|-----------------|-----------------|----------------|----------------|-----------|---------|---------------|--------------|------------|------------|--|--|--|
| QP   | 156.734k     | 48.75           | 65.64           | -16.89         | 19.64          | Neutral   | -       | 29.11         | 9.69         | 0.04       | 9.91       |  |  |  |
| AV   | 156.734k     | 34.60           | 55.64           | -21.04         | 19.64          | Neutral   | -       | 14.96         | 9.69         | 0.04       | 9.91       |  |  |  |
| QP   | 198.359k     | 39.00           | 63.69           | -24.69         | 19.62          | Neutral   | -       | 19.38         | 9.67         | 0.04       | 9.91       |  |  |  |
| AV   | 198.359k     | 25.56           | 53.69           | -28.13         | 19.62          | Neutral   | -       | 5.94          | 9.67         | 0.04       | 9.91       |  |  |  |
| QP   | 330.648k     | 26.27           | 59.44           | -33.17         | 19.63          | Neutral   | -       | 6.64          | 9.67         | 0.05       | 9.91       |  |  |  |
| AV   | 330.648k     | 17.18           | 49.44           | -32.26         | 19.63          | Neutral   | -       | -2.45         | 9.67         | 0.05       | 9.91       |  |  |  |
| QP   | 485.068k     | 25.91           | 56.25           | -30.34         | 19.64          | Neutral   | -       | 6.27          | 9.67         | 0.06       | 9.91       |  |  |  |
| AV   | 485.068k     | 21.06           | 46.25           | -25.19         | 19.64          | Neutral   | -       | 1.42          | 9.67         | 0.06       | 9.91       |  |  |  |
| QP   | 1.191M       | 21.08           | 56.00           | -34.92         | 19.68          | Neutral   | -       | 1.40          | 9.67         | 0.09       | 9.92       |  |  |  |
| AV   | 1.191M       | 16.22           | 46.00           | -29.78         | 19.68          | Neutral   | -       | -3.46         | 9.67         | 0.09       | 9.92       |  |  |  |
| QP   | 2.229M       | 23.34           | 56.00           | -32.66         | 19.71          | Neutral   | -       | 3.63          | 9.68         | 0.11       | 9.92       |  |  |  |
| AV   | 2.229M       | 18.21           | 46.00           | -27.79         | 19.71          | Neutral   | -       | -1.50         | 9.68         | 0.11       | 9.92       |  |  |  |



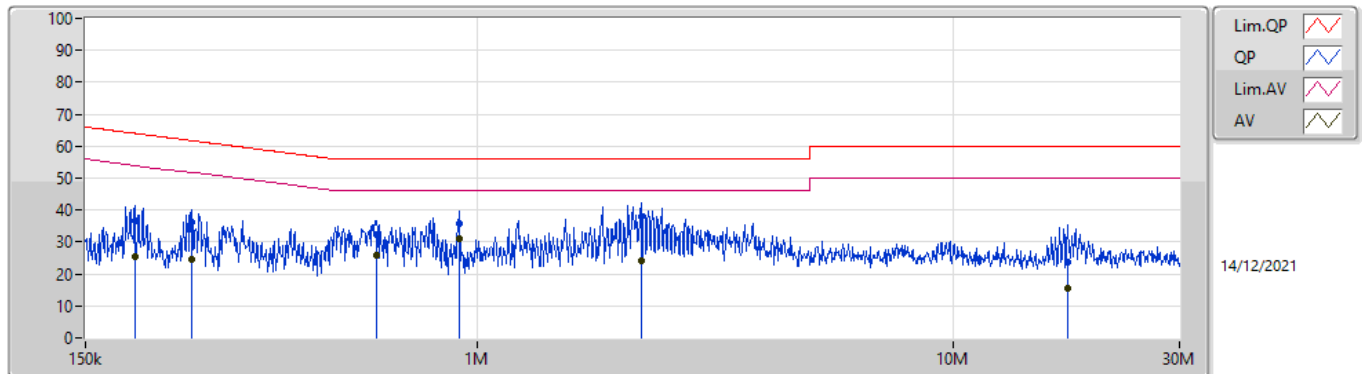
**Summary**

| Mode   | Result | Type | Freq<br>(Hz) | Level<br>(dBuV) | Limit<br>(dBuV) | Margin<br>(dB) | Condition |
|--------|--------|------|--------------|-----------------|-----------------|----------------|-----------|
| Mode 2 | Pass   | AV   | 2.15M        | 31.07           | 46.00           | -14.93         | Neutral   |

**Result**

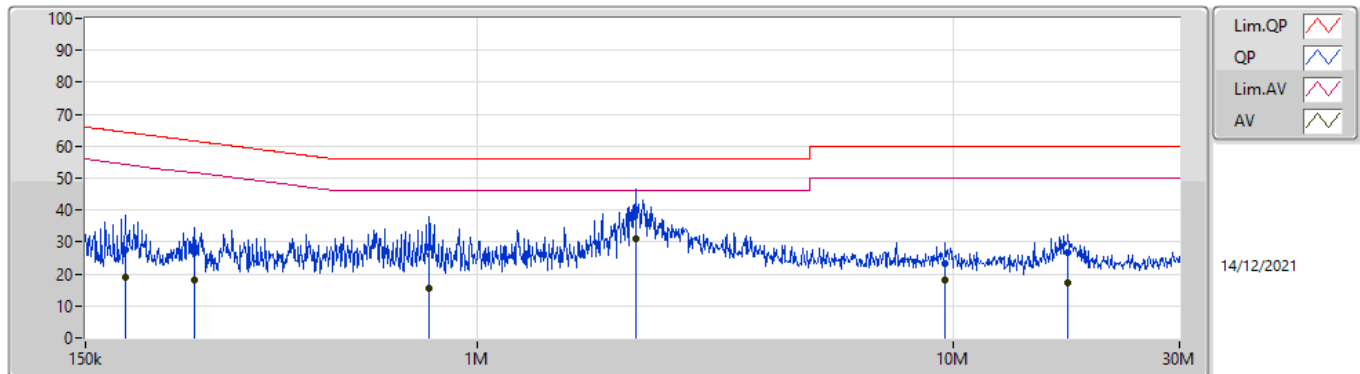
| Mode   | Result | Type | Freq<br>(Hz) | Level<br>(dBuV) | Limit<br>(dBuV) | Margin<br>(dB) | Condition | Comments |
|--------|--------|------|--------------|-----------------|-----------------|----------------|-----------|----------|
| Mode 2 | Pass   | QP   | 190.596k     | 36.67           | 64.01           | -27.34         | Line      | -        |
| Mode 2 | Pass   | AV   | 190.596k     | 25.47           | 54.01           | -28.54         | Line      | -        |
| Mode 2 | Pass   | QP   | 251.038k     | 36.16           | 61.72           | -25.56         | Line      | -        |
| Mode 2 | Pass   | AV   | 251.038k     | 24.64           | 51.72           | -27.08         | Line      | -        |
| Mode 2 | Pass   | QP   | 613.892k     | 32.25           | 56.00           | -23.75         | Line      | -        |
| Mode 2 | Pass   | AV   | 613.892k     | 25.83           | 46.00           | -20.17         | Line      | -        |
| Mode 2 | Pass   | QP   | 915.089k     | 35.91           | 56.00           | -20.09         | Line      | -        |
| Mode 2 | Pass   | AV   | 915.089k     | 31.02           | 46.00           | -14.98         | Line      | -        |
| Mode 2 | Pass   | QP   | 2.211M       | 37.82           | 56.00           | -18.18         | Line      | -        |
| Mode 2 | Pass   | AV   | 2.211M       | 24.25           | 46.00           | -21.75         | Line      | -        |
| Mode 2 | Pass   | QP   | 17.416M      | 23.71           | 60.00           | -36.29         | Line      | -        |
| Mode 2 | Pass   | AV   | 17.416M      | 15.66           | 50.00           | -34.34         | Line      | -        |
| Mode 2 | Pass   | QP   | 181.681k     | 27.48           | 64.41           | -36.93         | Neutral   | -        |
| Mode 2 | Pass   | AV   | 181.681k     | 19.13           | 54.41           | -35.28         | Neutral   | -        |
| Mode 2 | Pass   | QP   | 255.079k     | 26.69           | 61.58           | -34.89         | Neutral   | -        |
| Mode 2 | Pass   | AV   | 255.079k     | 17.98           | 51.58           | -33.60         | Neutral   | -        |
| Mode 2 | Pass   | QP   | 792.592k     | 28.47           | 56.00           | -27.53         | Neutral   | -        |
| Mode 2 | Pass   | AV   | 792.592k     | 15.57           | 46.00           | -30.43         | Neutral   | -        |
| Mode 2 | Pass   | QP   | 2.15M        | 40.12           | 56.00           | -15.88         | Neutral   | -        |
| Mode 2 | Pass   | AV   | 2.15M        | 31.07           | 46.00           | -14.93         | Neutral   | -        |
| Mode 2 | Pass   | QP   | 9.646M       | 23.20           | 60.00           | -36.80         | Neutral   | -        |
| Mode 2 | Pass   | AV   | 9.646M       | 17.95           | 50.00           | -32.05         | Neutral   | -        |
| Mode 2 | Pass   | QP   | 17.485M      | 26.56           | 60.00           | -33.44         | Neutral   | -        |
| Mode 2 | Pass   | AV   | 17.485M      | 17.19           | 50.00           | -32.81         | Neutral   | -        |

### Conducted Emissions at Powerline\_Mode 2



| Type | Freq<br>(Hz) | Level<br>(dBuV) | Limit<br>(dBuV) | Margin<br>(dB) | Factor<br>(dB) | Condition | Comment | Raw<br>(dBuV) | LISN<br>(dB) | CL<br>(dB) | AT<br>(dB) |  |  |  |
|------|--------------|-----------------|-----------------|----------------|----------------|-----------|---------|---------------|--------------|------------|------------|--|--|--|
| QP   | 190.596k     | 36.67           | 64.01           | -27.34         | 19.63          | Line      | -       | 17.04         | 9.68         | 0.04       | 9.91       |  |  |  |
| AV   | 190.596k     | 25.47           | 54.01           | -28.54         | 19.63          | Line      | -       | 5.84          | 9.68         | 0.04       | 9.91       |  |  |  |
| QP   | 251.038k     | 36.16           | 61.72           | -25.56         | 19.64          | Line      | -       | 16.52         | 9.68         | 0.05       | 9.91       |  |  |  |
| AV   | 251.038k     | 24.64           | 51.72           | -27.08         | 19.64          | Line      | -       | 5.00          | 9.68         | 0.05       | 9.91       |  |  |  |
| QP   | 613.892k     | 32.25           | 56.00           | -23.75         | 19.66          | Line      | -       | 12.59         | 9.68         | 0.07       | 9.91       |  |  |  |
| AV   | 613.892k     | 25.83           | 46.00           | -20.17         | 19.66          | Line      | -       | 6.17          | 9.68         | 0.07       | 9.91       |  |  |  |
| QP   | 915.089k     | 35.91           | 56.00           | -20.09         | 19.68          | Line      | -       | 16.23         | 9.68         | 0.08       | 9.92       |  |  |  |
| AV   | 915.089k     | 31.02           | 46.00           | -14.98         | 19.68          | Line      | -       | 11.34         | 9.68         | 0.08       | 9.92       |  |  |  |
| QP   | 2.211M       | 37.82           | 56.00           | -18.18         | 19.72          | Line      | -       | 18.10         | 9.69         | 0.11       | 9.92       |  |  |  |
| AV   | 2.211M       | 24.25           | 46.00           | -21.75         | 19.72          | Line      | -       | 4.53          | 9.69         | 0.11       | 9.92       |  |  |  |
| QP   | 17.416M      | 23.71           | 60.00           | -36.29         | 19.90          | Line      | -       | 3.81          | 9.69         | 0.28       | 9.93       |  |  |  |
| AV   | 17.416M      | 15.66           | 50.00           | -34.34         | 19.90          | Line      | -       | -4.24         | 9.69         | 0.28       | 9.93       |  |  |  |

### Conducted Emissions at Powerline\_Mode 2



| Type | Freq<br>(Hz) | Level<br>(dBuV) | Limit<br>(dBuV) | Margin<br>(dB) | Factor<br>(dB) | Condition | Comment | Raw<br>(dBuV) | LISN<br>(dB) | CL<br>(dB) | AT<br>(dB) |  |  |  |
|------|--------------|-----------------|-----------------|----------------|----------------|-----------|---------|---------------|--------------|------------|------------|--|--|--|
| QP   | 181.681k     | 27.48           | 64.41           | -36.93         | 19.63          | Neutral   | -       | 7.85          | 9.68         | 0.04       | 9.91       |  |  |  |
| AV   | 181.681k     | 19.13           | 54.41           | -35.28         | 19.63          | Neutral   | -       | -0.50         | 9.68         | 0.04       | 9.91       |  |  |  |
| QP   | 255.079k     | 26.69           | 61.58           | -34.89         | 19.63          | Neutral   | -       | 7.06          | 9.67         | 0.05       | 9.91       |  |  |  |
| AV   | 255.079k     | 17.98           | 51.58           | -33.60         | 19.63          | Neutral   | -       | -1.65         | 9.67         | 0.05       | 9.91       |  |  |  |
| QP   | 792.592k     | 28.47           | 56.00           | -27.53         | 19.66          | Neutral   | -       | 8.81          | 9.67         | 0.07       | 9.92       |  |  |  |
| AV   | 792.592k     | 15.57           | 46.00           | -30.43         | 19.66          | Neutral   | -       | -4.09         | 9.67         | 0.07       | 9.92       |  |  |  |
| QP   | 2.15M        | 40.12           | 56.00           | -15.88         | 19.70          | Neutral   | -       | 20.42         | 9.68         | 0.10       | 9.92       |  |  |  |
| AV   | 2.15M        | 31.07           | 46.00           | -14.93         | 19.70          | Neutral   | -       | 11.37         | 9.68         | 0.10       | 9.92       |  |  |  |
| QP   | 9.646M       | 23.20           | 60.00           | -36.80         | 19.87          | Neutral   | -       | 3.33          | 9.74         | 0.20       | 9.93       |  |  |  |
| AV   | 9.646M       | 17.95           | 50.00           | -32.05         | 19.87          | Neutral   | -       | -1.92         | 9.74         | 0.20       | 9.93       |  |  |  |
| QP   | 17.485M      | 26.56           | 60.00           | -33.44         | 19.95          | Neutral   | -       | 6.61          | 9.74         | 0.28       | 9.93       |  |  |  |
| AV   | 17.485M      | 17.19           | 50.00           | -32.81         | 19.95          | Neutral   | -       | -2.76         | 9.74         | 0.28       | 9.93       |  |  |  |



**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)  | 941.25k          | 865.817k        | 866KF1D  | 940k             | 859.57k         |
| BT-EDR(2Mbps) | 1.33M            | 1.239M          | 1M24G1D  | 1.328M           | 1.227M          |
| BT-EDR(3Mbps) | 1.33M            | 1.223M          | 1M22G1D  | 1.328M           | 1.219M          |

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       | Pass   | Inf           | 940k                | 865.817k           |
| 2440MHz       | Pass   | Inf           | 940k                | 860.82k            |
| 2480MHz       | Pass   | Inf           | 941.25k             | 859.57k            |
| BT-EDR(2Mbps) | -      | -             | -                   | -                  |
| 2402MHz       | Pass   | Inf           | 1.33M               | 1.227M             |
| 2440MHz       | Pass   | Inf           | 1.33M               | 1.239M             |
| 2480MHz       | Pass   | Inf           | 1.328M              | 1.229M             |
| BT-EDR(3Mbps) | -      | -             | -                   | -                  |
| 2402MHz       | Pass   | Inf           | 1.33M               | 1.219M             |
| 2440MHz       | Pass   | Inf           | 1.329M              | 1.223M             |
| 2480MHz       | Pass   | Inf           | 1.328M              | 1.219M             |

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

BT-BR(1Mbps)

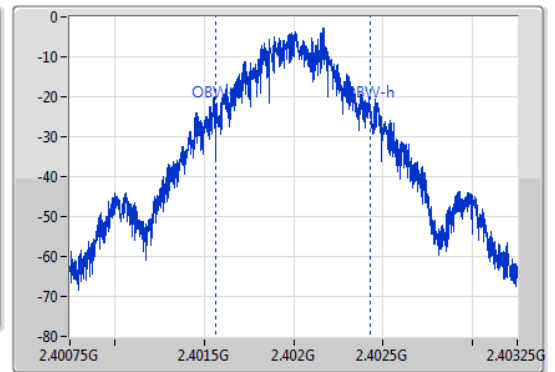
2402MHz



| 20dB(Hz) | FI-20dB(Hz) | Fh-20dB(Hz) | OBW(Hz)  | FI-OBW(Hz) | Fh-OBW(Hz) | Limit(Hz) | Port |
|----------|-------------|-------------|----------|------------|------------|-----------|------|
| 940k     | 2.401533G   | 2.402473G   | 865.817k | 2.401561G  | 2.402427G  | Inf       | 1    |

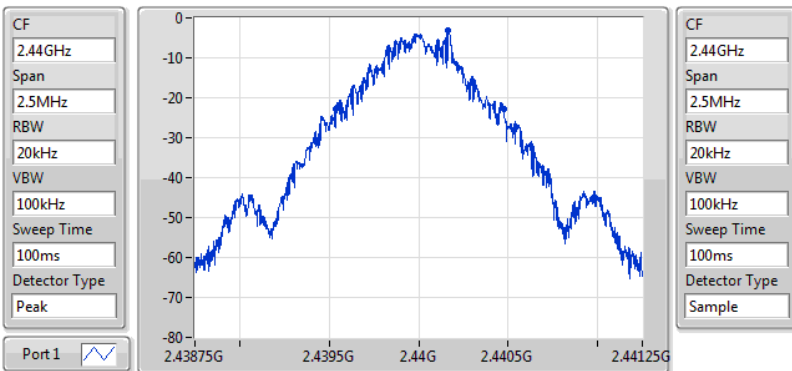
EBW-FS

07/12/2021



BT-BR(1Mbps)

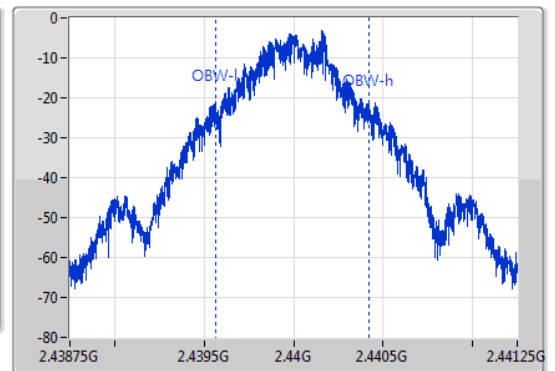
2440MHz



| 20dB(Hz) | FI-20dB(Hz) | Fh-20dB(Hz) | OBW(Hz) | FI-OBW(Hz) | Fh-OBW(Hz) | Limit(Hz) | Port |
|----------|-------------|-------------|---------|------------|------------|-----------|------|
| 940k     | 2.439535G   | 2.440475G   | 860.82k | 2.439563G  | 2.440424G  | Inf       | 1    |

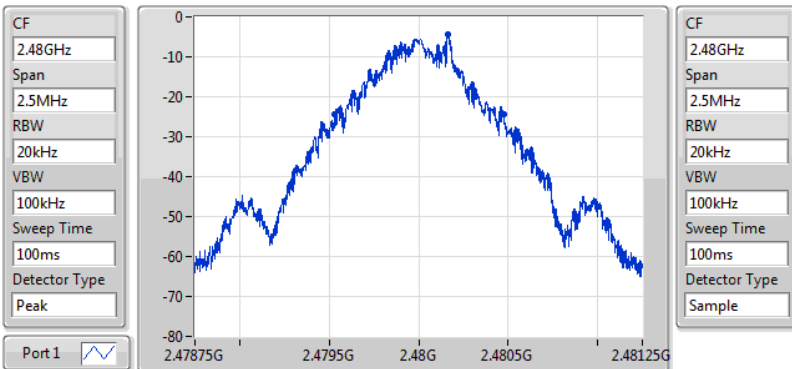
EBW-FS

07/12/2021



## BT-BR(1Mbps)

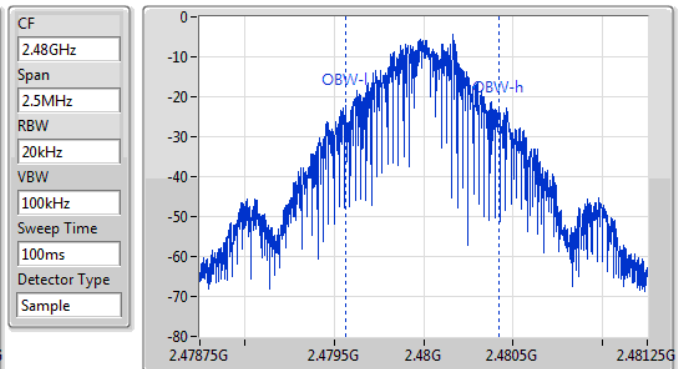
2480MHz



| 20dB(Hz) | Fl-20dB(Hz) | Fh-20dB(Hz) | OBW(Hz) | Fl-OBW(Hz) | Fh-OBW(Hz) | Limit(Hz) | Port |
|----------|-------------|-------------|---------|------------|------------|-----------|------|
| 941.25k  | 2.479533G   | 2.480474G   | 859.57k | 2.479565G  | 2.480425G  | Inf       | 1    |

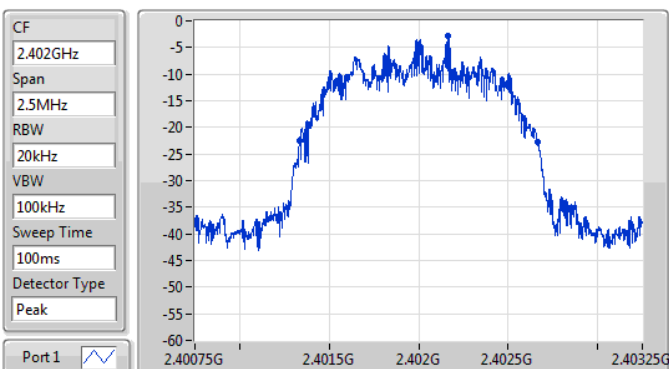
## EBW-FS

07/12/2021



## BT-EDR(2Mbps)

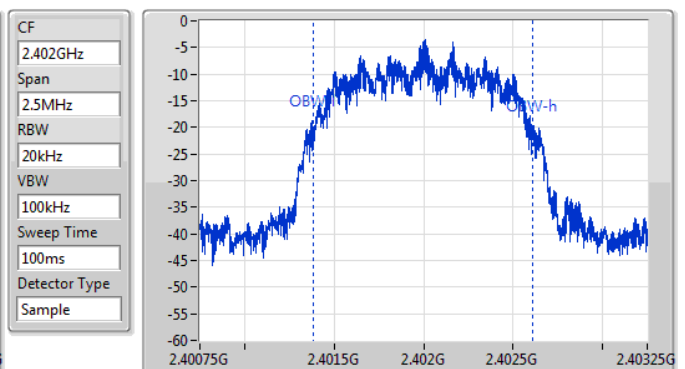
2402MHz



| 20dB(Hz) | Fl-20dB(Hz) | Fh-20dB(Hz) | OBW(Hz) | Fl-OBW(Hz) | Fh-OBW(Hz) | Limit(Hz) | Port |
|----------|-------------|-------------|---------|------------|------------|-----------|------|
| 1.33M    | 2.401335G   | 2.402665G   | 1.227M  | 2.401384G  | 2.402611G  | Inf       | 1    |

## EBW-FS

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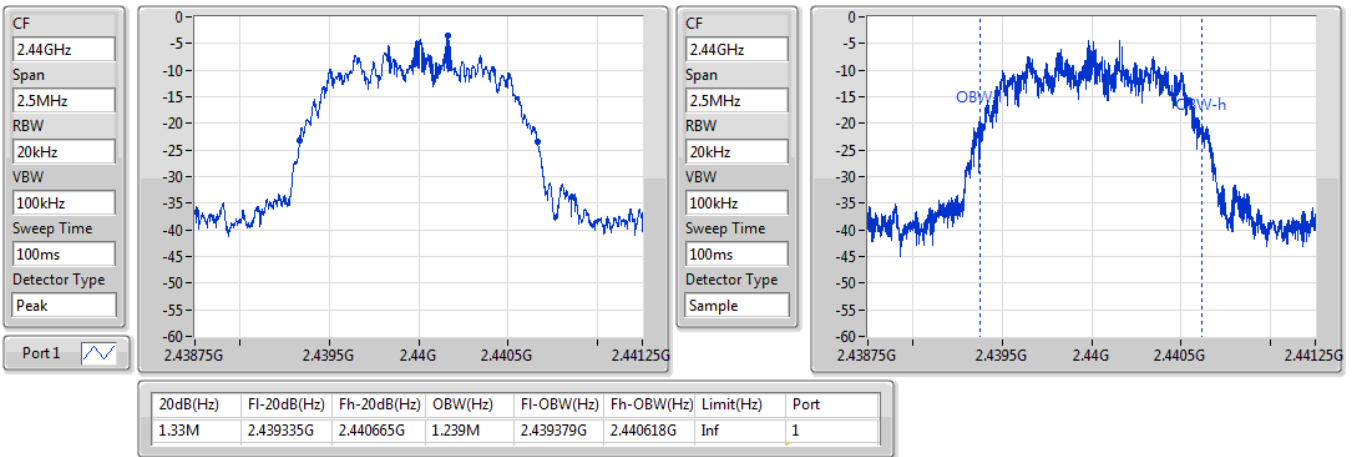


BT-EDR(2Mbps)

EBW-FS

2440MHz

07/12/2021

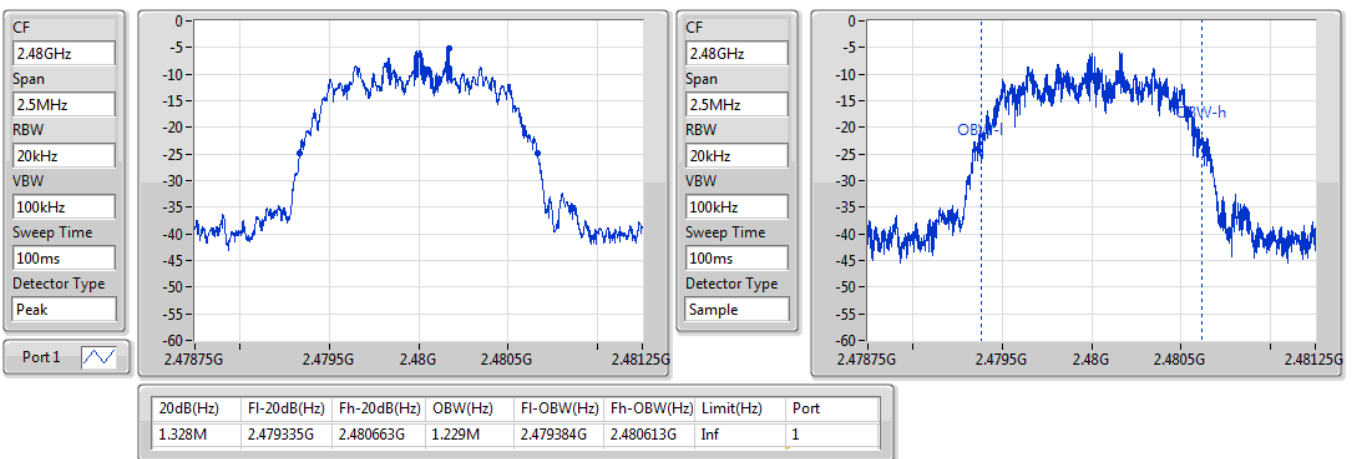


BT-EDR(2Mbps)

EBW-FS

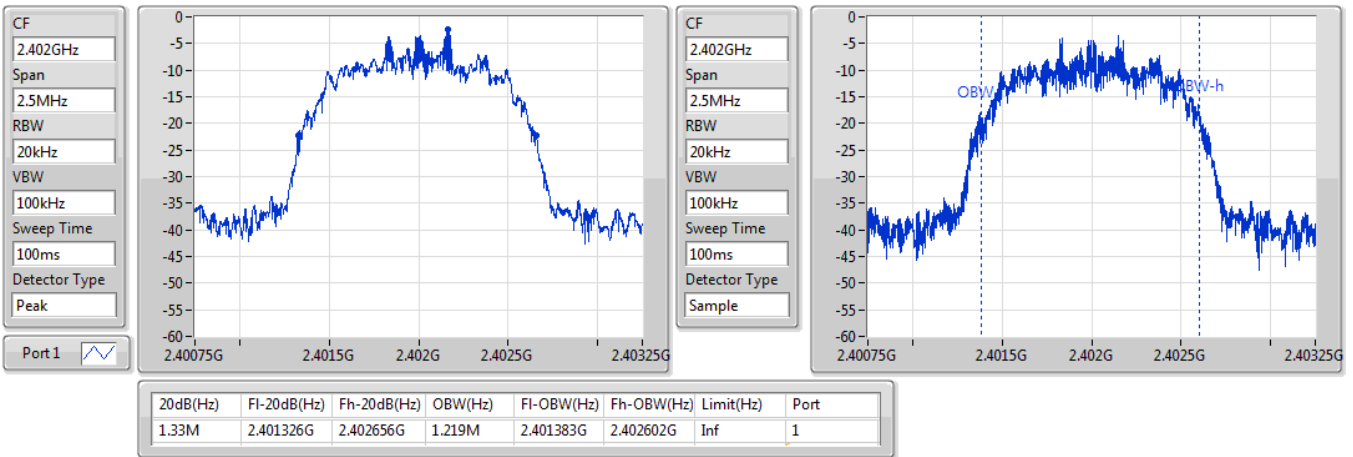
2480MHz

07/12/2021

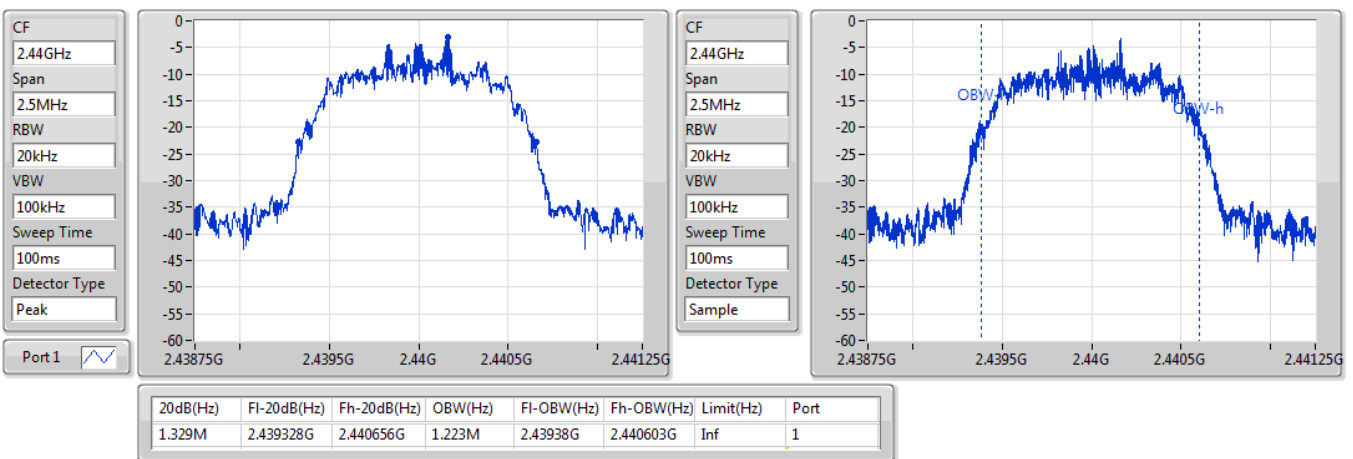


**BT-EDR(3Mbps)**
**EBW-FS**
**2402MHz**

07/12/2021

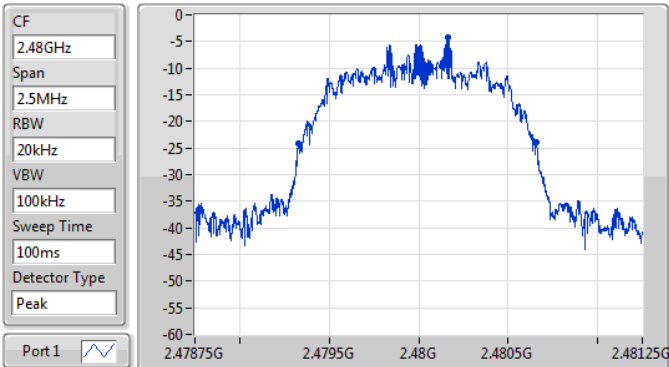

**BT-EDR(3Mbps)**
**EBW-FS**
**2440MHz**

07/12/2021



## BT-EDR(3Mbps)

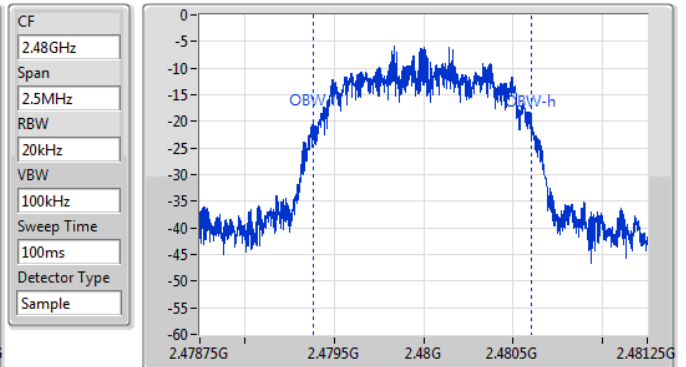
2480MHz



| 20dB(Hz) | Fl-20dB(Hz) | Fh-20dB(Hz) | OBW(Hz) | Fl-OBW(Hz) | Fh-OBW(Hz) | Limit(Hz) | Port |
|----------|-------------|-------------|---------|------------|------------|-----------|------|
| 1.328M   | 2.479329G   | 2.480656G   | 1.219M  | 2.479385G  | 2.480605G  | Inf       | 1    |

## EBW-FS

07/12/2021





**Summary**

| Mode          | Max-Space<br>(Hz) | Min-Space<br>(Hz) |
|---------------|-------------------|-------------------|
| 2.4-2.4835GHz | -                 | -                 |
| BT-BR(1Mbps)  | 1.002M            | 1.0005M           |
| BT-EDR(2Mbps) | 1.0035M           | 996k              |
| BT-EDR(3Mbps) | 1.0005M           | 1.0005M           |

### Result

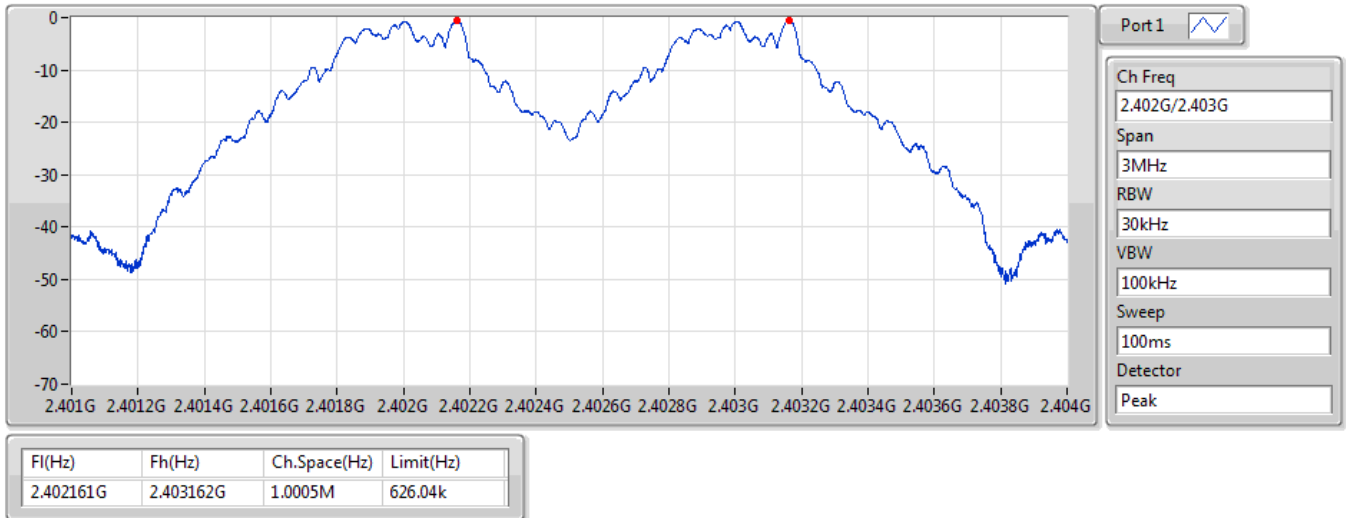
| Mode          | Result | Fl<br>(Hz) | Fh<br>(Hz) | Ch.Space<br>(Hz) | Limit<br>(Hz) |
|---------------|--------|------------|------------|------------------|---------------|
| BT-BR(1Mbps)  | -      | -          | -          | -                | -             |
| 2402MHz       | Pass   | 2.402161G  | 2.403162G  | 1.0005M          | 626.04k       |
| 2440MHz       | Pass   | 2.44016G   | 2.441162G  | 1.002M           | 626.04k       |
| 2480MHz       | Pass   | 2.479161G  | 2.480162G  | 1.0005M          | 626.8725k     |
| BT-EDR(2Mbps) | -      | -          | -          | -                | -             |
| 2402MHz       | Pass   | 2.402007G  | 2.403003G  | 996k             | 885.78k       |
| 2440MHz       | Pass   | 2.440004G  | 2.441006G  | 1.002M           | 885.78k       |
| 2480MHz       | Pass   | 2.479002G  | 2.480006G  | 1.0035M          | 884.448k      |
| BT-EDR(3Mbps) | -      | -          | -          | -                | -             |
| 2402MHz       | Pass   | 2.402161G  | 2.403162G  | 1.0005M          | 885.78k       |
| 2440MHz       | Pass   | 2.440161G  | 2.441162G  | 1.0005M          | 885.114k      |
| 2480MHz       | Pass   | 2.479163G  | 2.480163G  | 1.0005M          | 884.448k      |

## BT-BR(1Mbps)

2.402G/2.403GHz

## Channel Separation-FS

07/12/2021

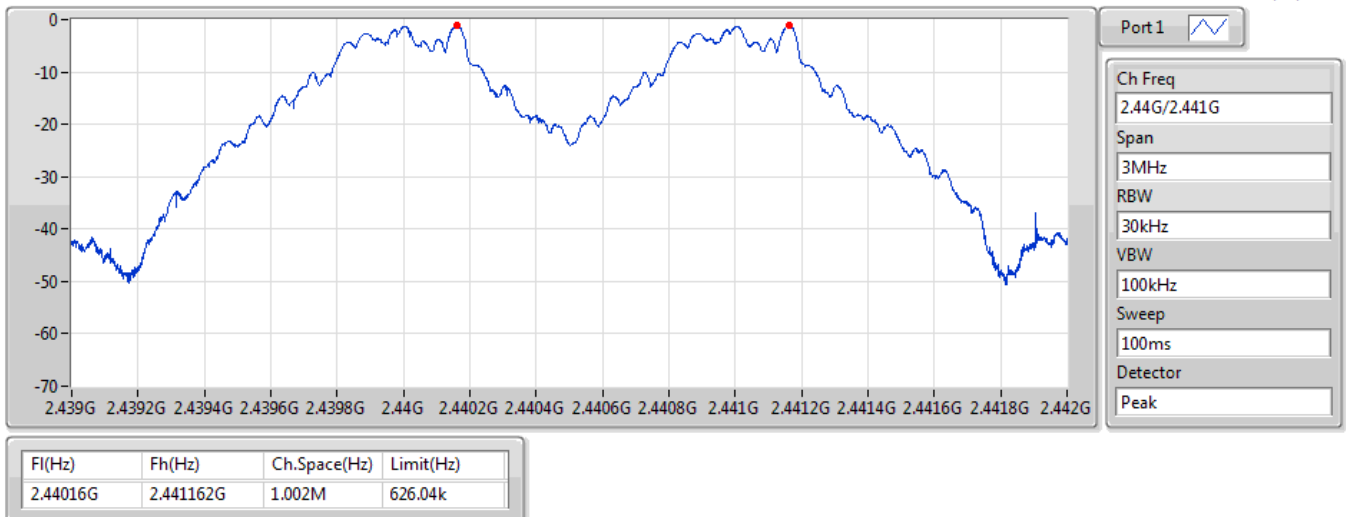


## BT-BR(1Mbps)

2.44G/2.441GHz

## Channel Separation-FS

07/12/2021

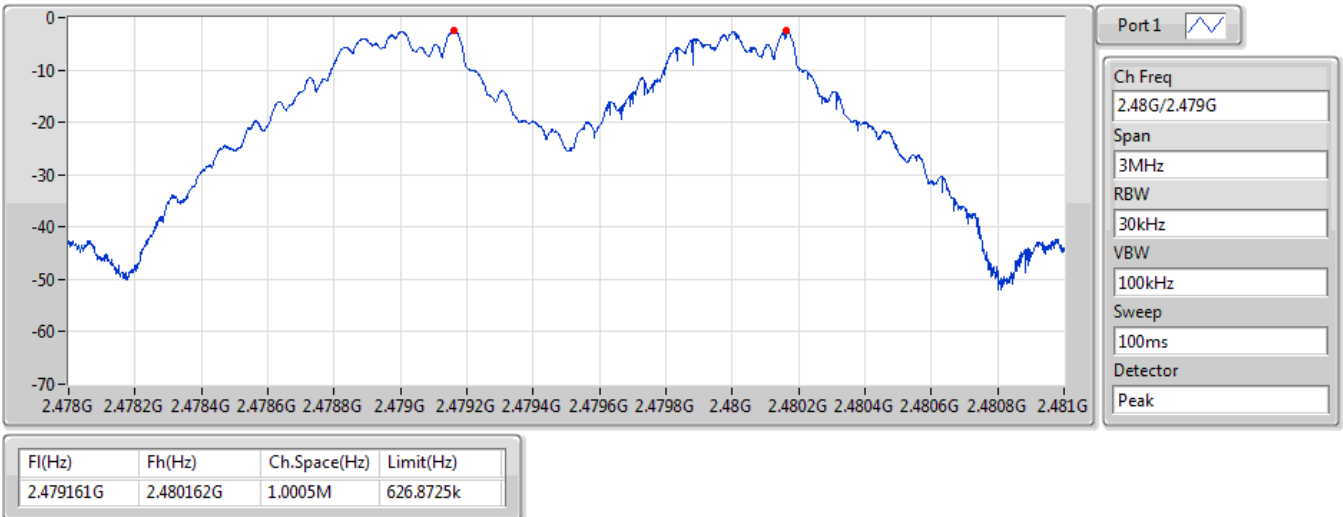


## BT-BR(1Mbps)

2.48G/2.479GHz

## Channel Separation-FS

07/12/2021

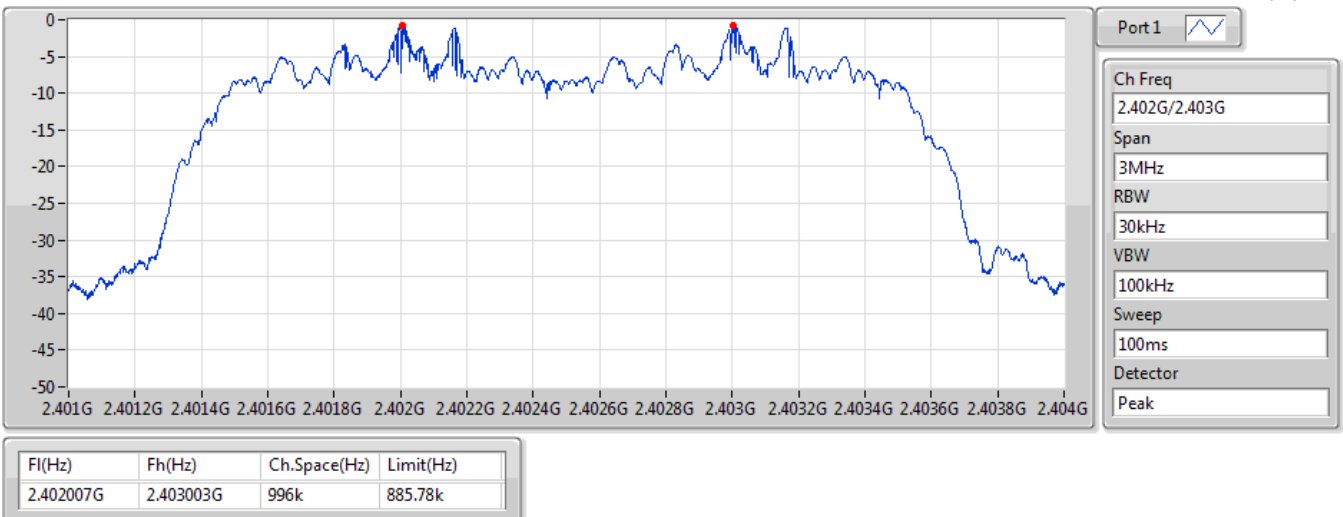


## BT-EDR(2Mbps)

2.402G/2.403GHz

## Channel Separation-FS

07/12/2021



## BT-EDR(2Mbps)

2.44G/2.441GHz

## Channel Separation-FS

07/12/2021



## BT-EDR(2Mbps)

2.48G/2.479GHz

## Channel Separation-FS

07/12/2021

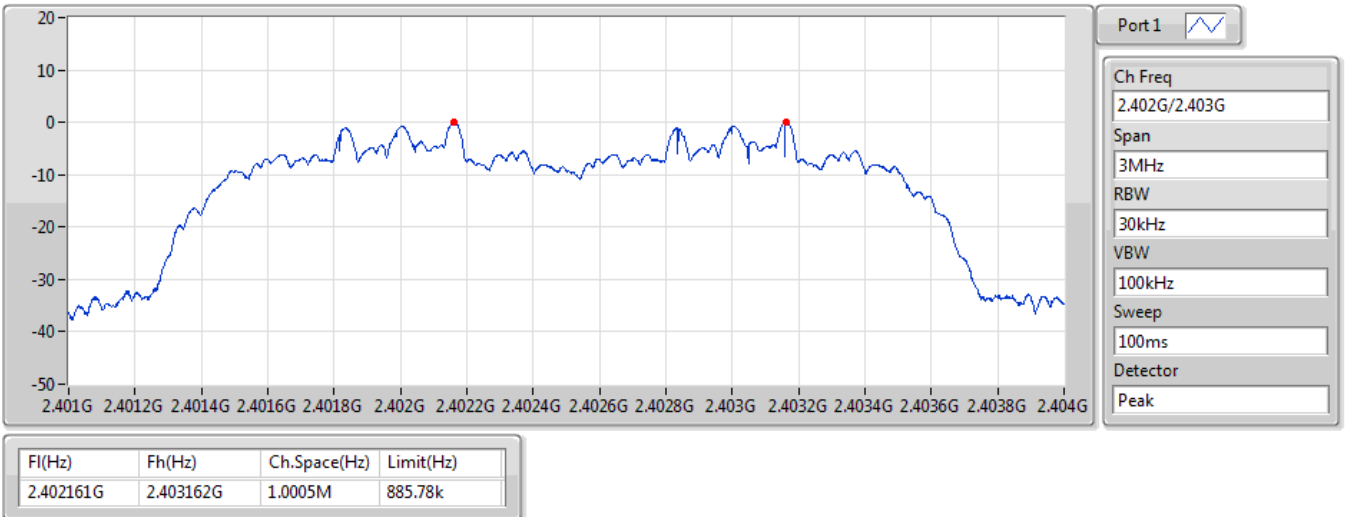


## BT-EDR(3Mbps)

2.402G/2.403GHz

## Channel Separation-FS

07/12/2021

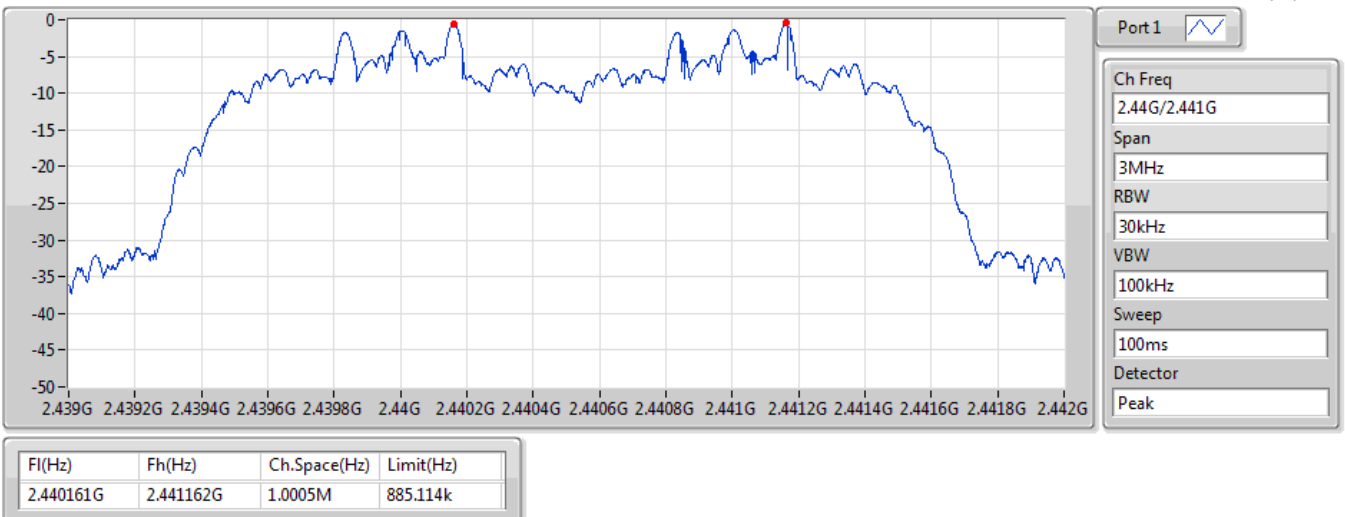


## BT-EDR(3Mbps)

2.44G/2.441GHz

## Channel Separation-FS

07/12/2021

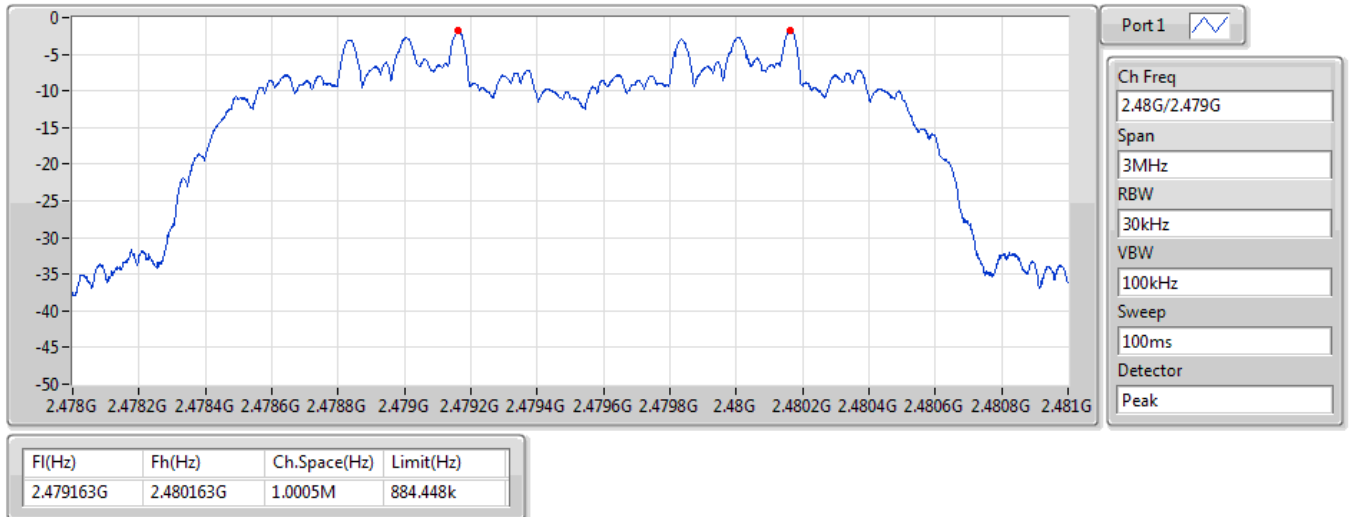


## BT-EDR(3Mbps)

2.48G/2.479GHz

## Channel Separation-FS

07/12/2021





**Summary**

| Mode          | Power<br>(dBm) | Power<br>(W) |
|---------------|----------------|--------------|
| 2.4-2.4835GHz | -              | -            |
| BT-BR(1Mbps)  | 2.55           | 0.00180      |
| BT-EDR(2Mbps) | 4.15           | 0.00260      |
| BT-EDR(3Mbps) | 4.69           | 0.00294      |

**Result**

| Mode          | Result | Gain<br>(dBi) | Power<br>(dBm) | Power Limit<br>(dBm) |
|---------------|--------|---------------|----------------|----------------------|
| BT-BR(1Mbps)  | -      | -             | -              | -                    |
| 2402MHz       | Pass   | 0.81          | 2.55           | 21.00                |
| 2440MHz       | Pass   | 0.81          | 2.31           | 21.00                |
| 2480MHz       | Pass   | 0.81          | 0.98           | 21.00                |
| BT-EDR(2Mbps) | -      | -             | -              | -                    |
| 2402MHz       | Pass   | 0.81          | 4.15           | 21.00                |
| 2440MHz       | Pass   | 0.81          | 3.84           | 21.00                |
| 2480MHz       | Pass   | 0.81          | 2.79           | 21.00                |
| BT-EDR(3Mbps) | -      | -             | -              | -                    |
| 2402MHz       | Pass   | 0.81          | 4.69           | 21.00                |
| 2440MHz       | Pass   | 0.81          | 4.48           | 21.00                |
| 2480MHz       | Pass   | 0.81          | 3.82           | 21.00                |

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



**Summary**

| Mode          | Power<br>(dBm) | Power<br>(W) |
|---------------|----------------|--------------|
| 2.4-2.4835GHz | -              | -            |
| BT-BR(1Mbps)  | 2.44           | 0.00175      |
| BT-EDR(2Mbps) | 2.36           | 0.00172      |
| BT-EDR(3Mbps) | 2.33           | 0.00171      |

**Result**

| Mode          | Result | Gain<br>(dBi) | Power<br>(dBm) | Power Limit<br>(dBm) |
|---------------|--------|---------------|----------------|----------------------|
| BT-BR(1Mbps)  | -      | -             | -              | -                    |
| 2402MHz       | Pass   | 0.81          | 2.44           | 21.00                |
| 2440MHz       | Pass   | 0.81          | 2.00           | 21.00                |
| 2480MHz       | Pass   | 0.81          | 0.86           | 21.00                |
| BT-EDR(2Mbps) | -      | -             | -              | -                    |
| 2402MHz       | Pass   | 0.81          | 2.36           | 21.00                |
| 2440MHz       | Pass   | 0.81          | 1.97           | 21.00                |
| 2480MHz       | Pass   | 0.81          | 0.49           | 21.00                |
| BT-EDR(3Mbps) | -      | -             | -              | -                    |
| 2402MHz       | Pass   | 0.81          | 2.33           | 21.00                |
| 2440MHz       | Pass   | 0.81          | 1.95           | 21.00                |
| 2480MHz       | Pass   | 0.81          | 0.91           | 21.00                |

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



**Summary**

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

**Result**

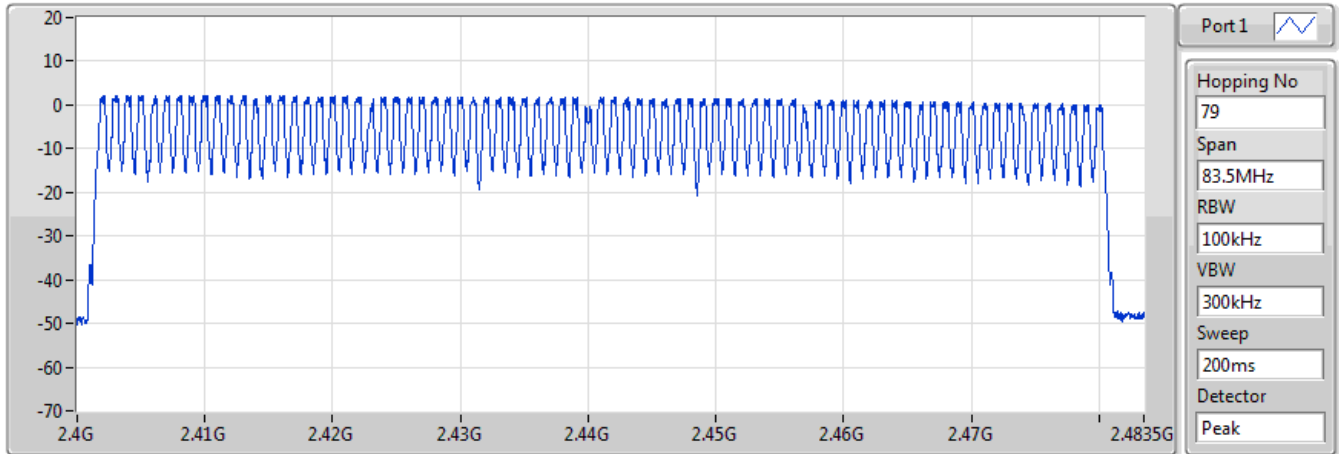
| Mode          | Result | Hopping No | Limit |
|---------------|--------|------------|-------|
| BT-BR(1Mbps)  | -      | -          | -     |
| 2440MHz       | Pass   | 79         | 15    |
| BT-EDR(2Mbps) | -      | -          | -     |
| 2440MHz       | Pass   | 79         | 15    |
| BT-EDR(3Mbps) | -      | -          | -     |
| 2440MHz       | Pass   | 79         | 15    |

### BT-BR(1Mbps)

2440MHz

### Hopping-FS

07/12/2021



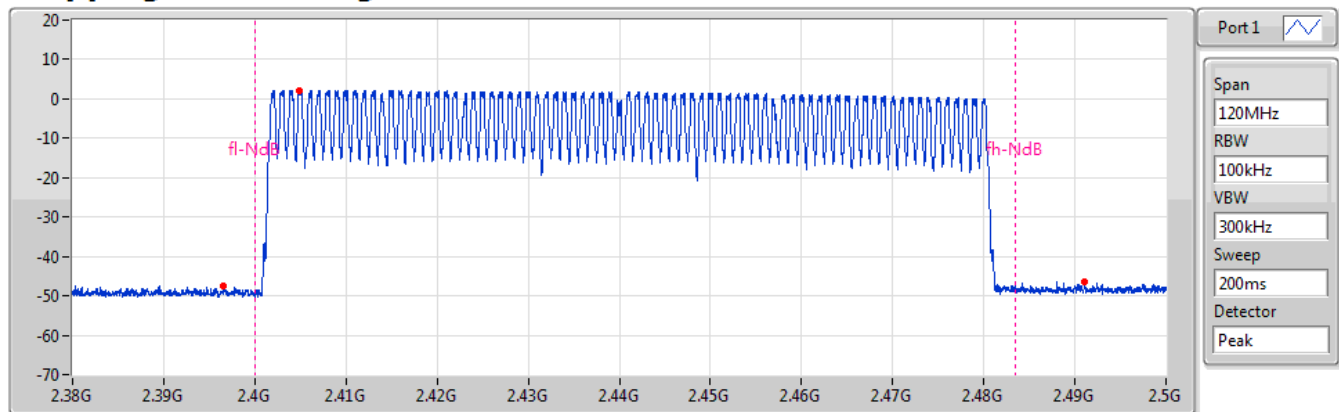
| Hopping No | Limit |
|------------|-------|
| 79         | 15    |

### BT-BR(1Mbps)

2440MHz

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

07/12/2021



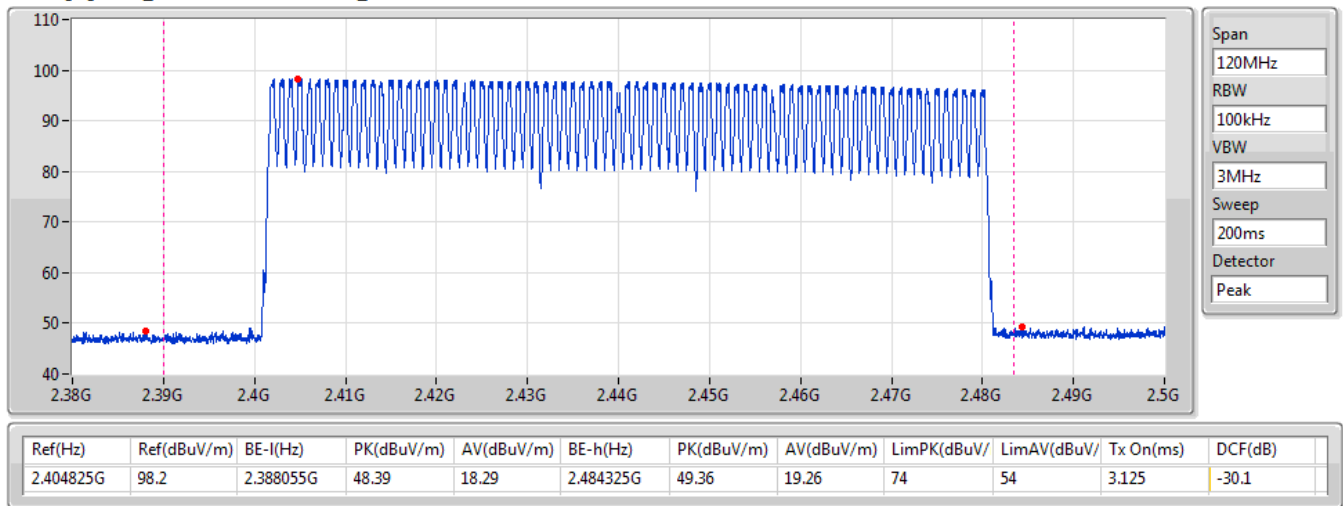
| Limit(dBm) | Ref(Hz)   | Ref(dBm) | BE-l(Hz)  | BE-l(dBm) | BE-h(Hz)  | BE-h(dBm) |
|------------|-----------|----------|-----------|-----------|-----------|-----------|
| -17.81     | 2.404825G | 2.19     | 2.396575G | -47.43    | 2.491075G | -46.45    |

## BT-BR(1Mbps)

2440MHz

## Hopping Ch Bandedge (Restricted Band)

07/12/2021

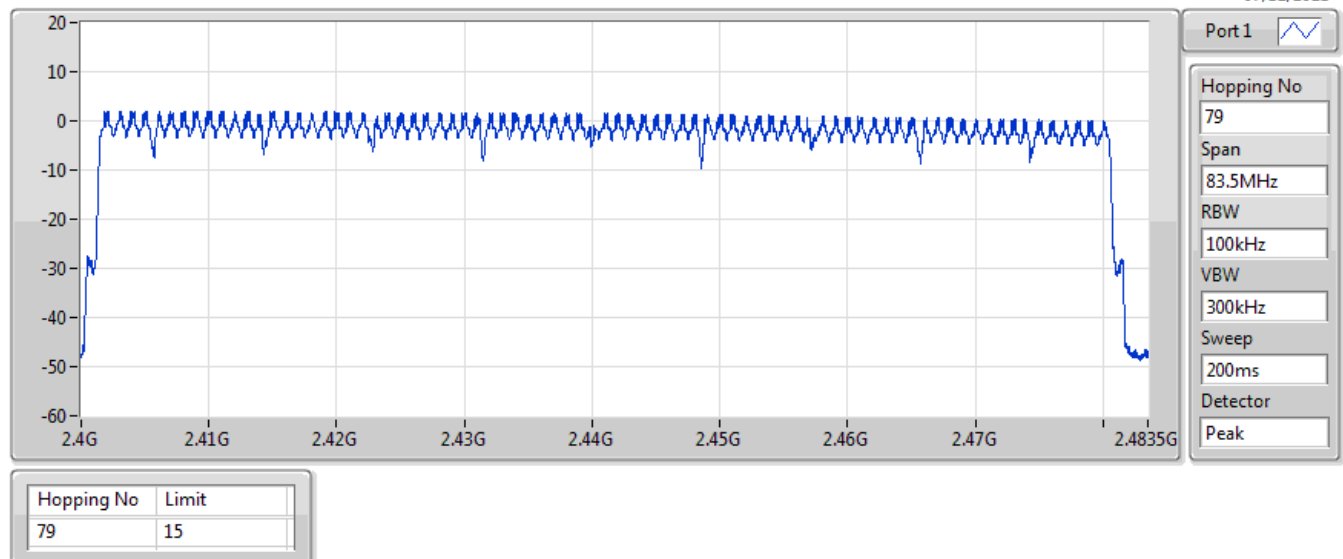


## BT-EDR(2Mbps)

2440MHz

## Hopping-FS

07/12/2021

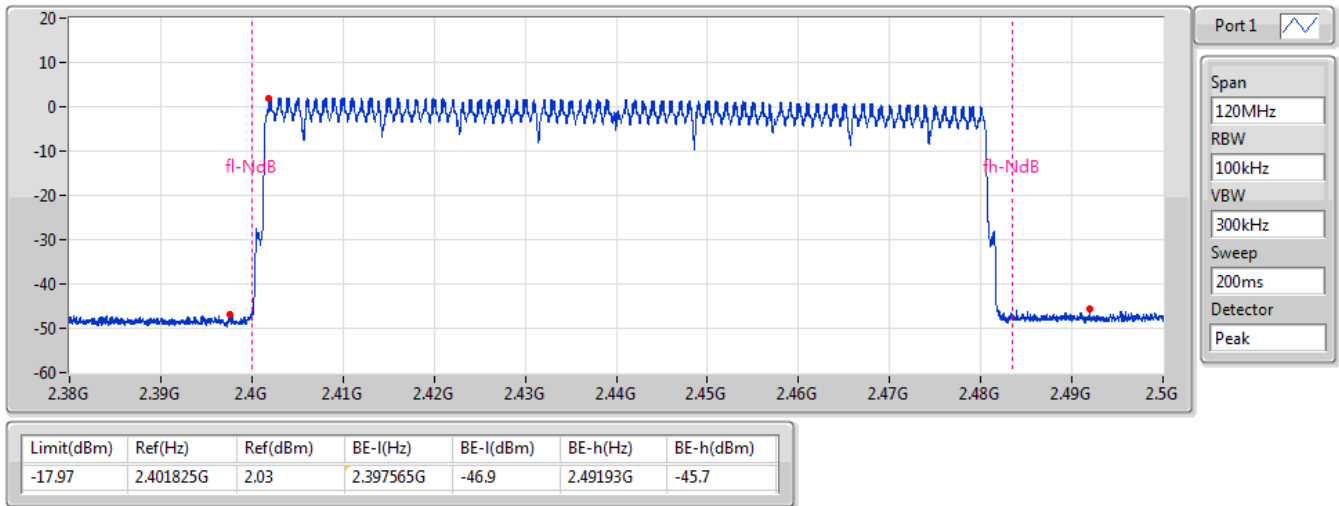


## BT-EDR(2Mbps)

2440MHz

## Hopping Ch Bandedge (Non-restricted Band)

07/12/2021

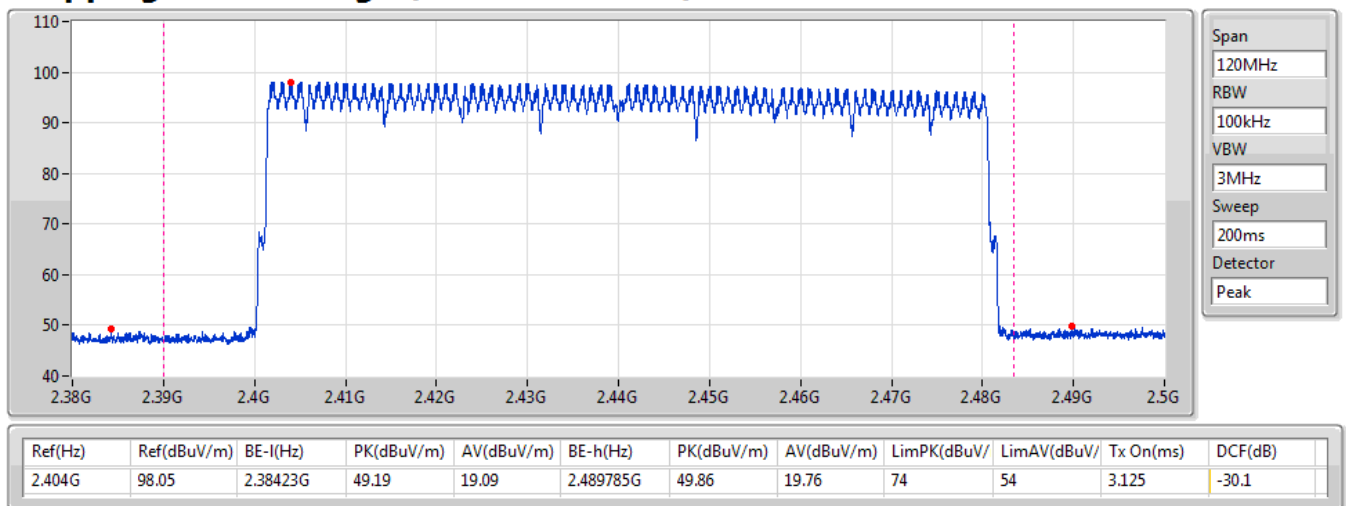


## BT-EDR(2Mbps)

2440MHz

## Hopping Ch Bandedge (Restricted Band)

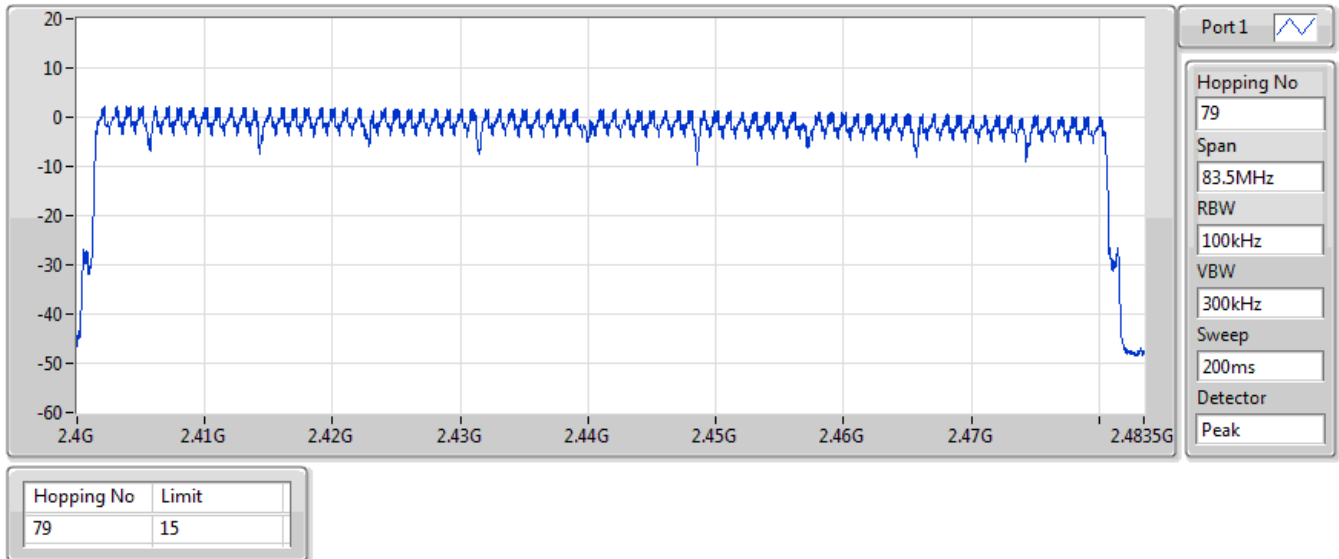
07/12/2021



### BT-EDR(3Mbps) 2440MHz

### Hopping-FS

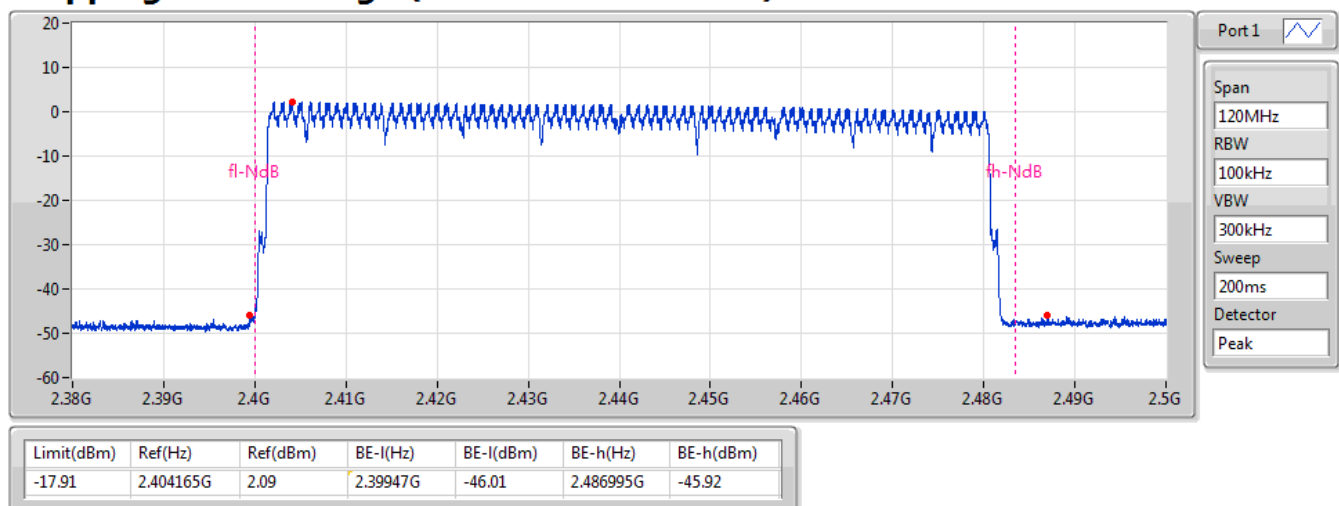
07/12/2021



### BT-EDR(3Mbps) 2440MHz

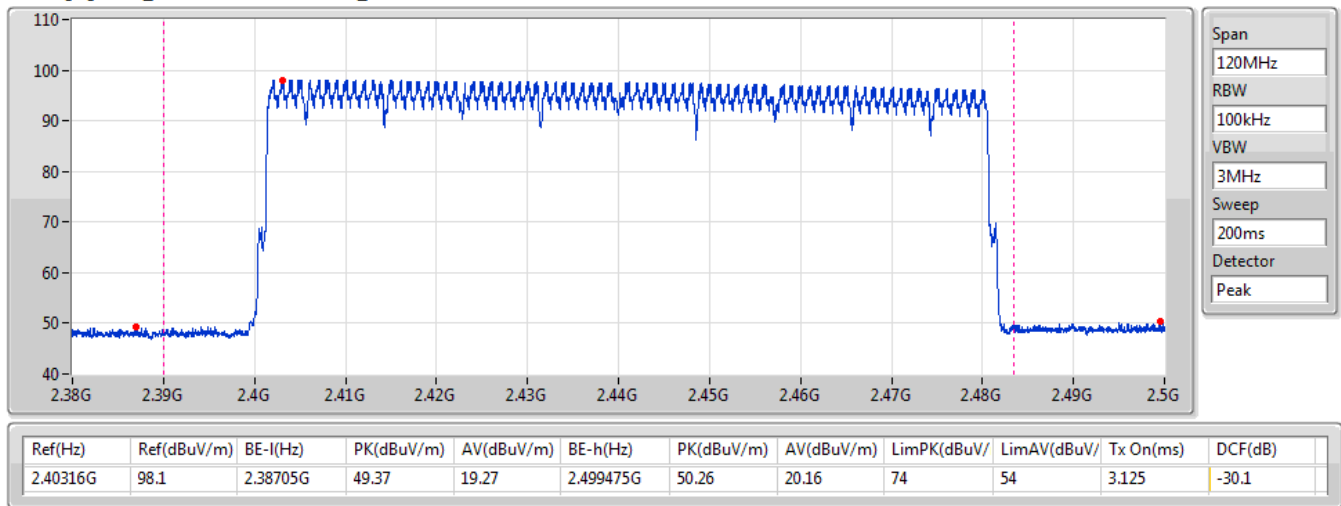
### Hopping Ch Bandedge (Non-restricted Band)

07/12/2021



**BT-EDR(3Mbps)****2440MHz****Hopping Ch Bandedge (Restricted Band)**

07/12/2021





**Summary**

| Mode          | Max-Dwell<br>(s) |
|---------------|------------------|
| 2.4-2.4835GHz | -                |
| BT-BR(1Mbps)  | 42.45345m_DH5    |
| BT-EDR(2Mbps) | 309.27325m_DH5   |
| BT-EDR(3Mbps) | 309.43315m_DH5   |

**Result**

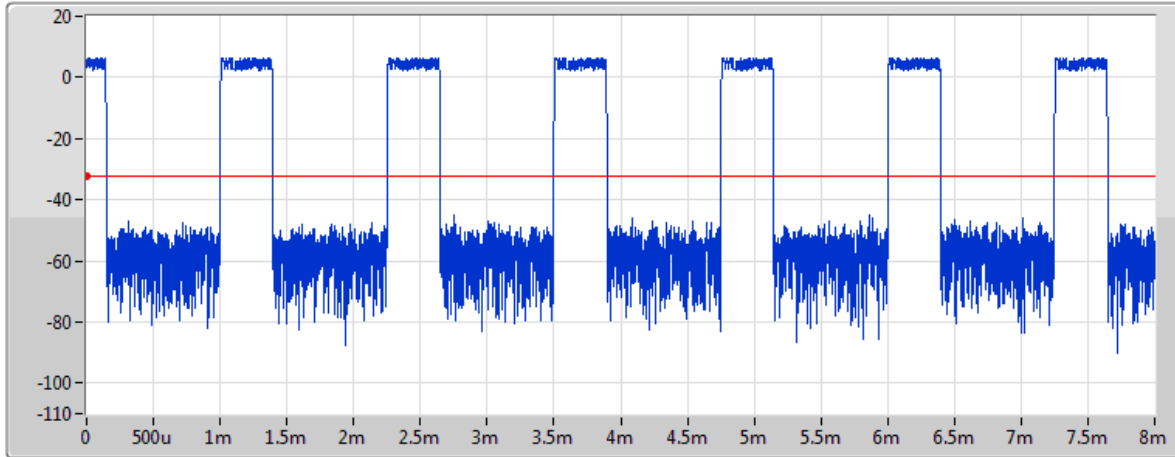
| Mode          | Result | Period<br>(s) | Dwell<br>(s)        | Limit<br>(s) | Tx On<br>(s) |
|---------------|--------|---------------|---------------------|--------------|--------------|
| BT-BR(1Mbps)  | -      | -             | -                   | -            | -            |
| 2440MHz       | Pass   | 31.6          | 42.45345m_DH5       | 400m         | 398.25u      |
| 2440MHz       | Pass   | 8             | 21.24005m_DH5-AFH   | 400m         | 398.5u       |
| BT-EDR(2Mbps) | -      | -             | -                   | -            | -            |
| 2440MHz       | Pass   | 31.6          | 309.27325m_DH5      | 400m         | 2.90125m     |
| 2440MHz       | Pass   | 8             | 154.663275m_DH5-AFH | 400m         | 2.90175m     |
| BT-EDR(3Mbps) | -      | -             | -                   | -            | -            |
| 2440MHz       | Pass   | 31.6          | 309.43315m_DH5      | 400m         | 2.90275m     |
| 2440MHz       | Pass   | 8             | 154.70325m_DH5-AFH  | 400m         | 2.9025m      |

## BT-BR(1Mbps)

2440MHz

## Dwell-FS

07/12/2021



Port 1 

Ch Freq  
2.44GHz

RBW  
300kHz

VBW  
1MHz

Sweep Time  
8ms

TX Time  
398.25us

| Period(s) | Dwell(s)      | Limit(s) | Tx On(s) |
|-----------|---------------|----------|----------|
| 31.6      | 42.45345m_DH5 | 400m     | 398.25u  |

**DH5**

## BT-BR(1Mbps)

2440MHz

## Dwell-FS

07/12/2021



Port 1 

Ch Freq  
2.44GHz

RBW  
300kHz

VBW  
1MHz

Sweep Time  
8ms

TX Time  
398.5us

| Period(s) | Dwell(s)          | Limit(s) | Tx On(s) |
|-----------|-------------------|----------|----------|
| 8         | 21.24005m_DH5-AFH | 400m     | 398.5u   |

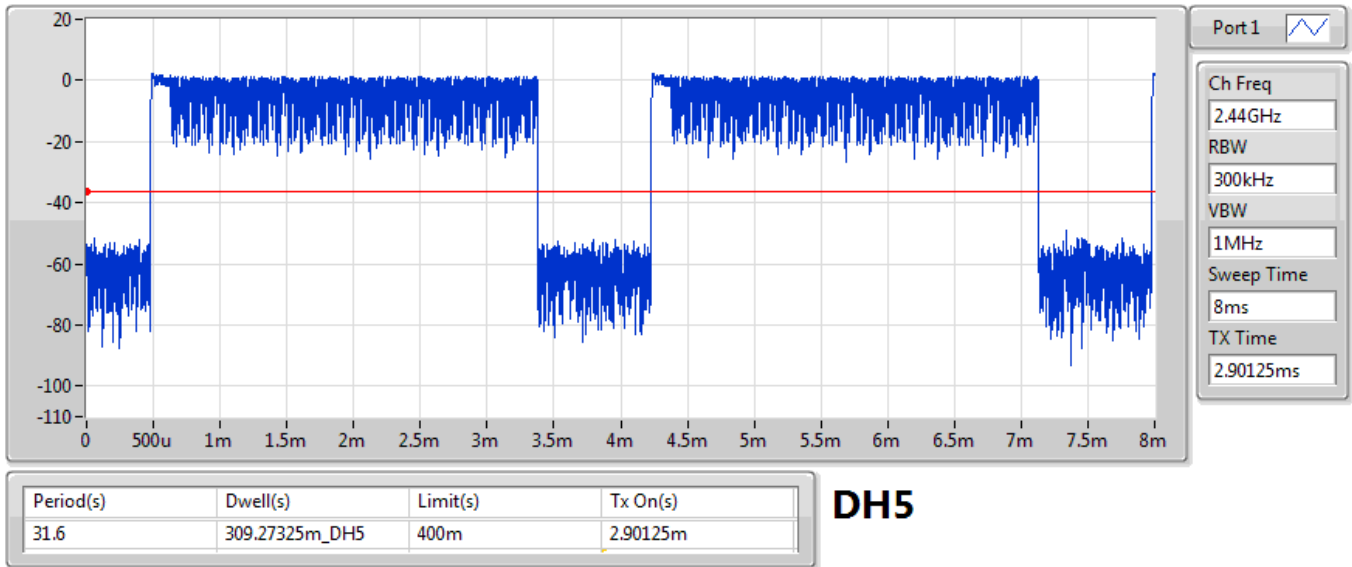
**DH5-AFH**

## BT-EDR(2Mbps)

2440MHz

## Dwell-FS

07/12/2021

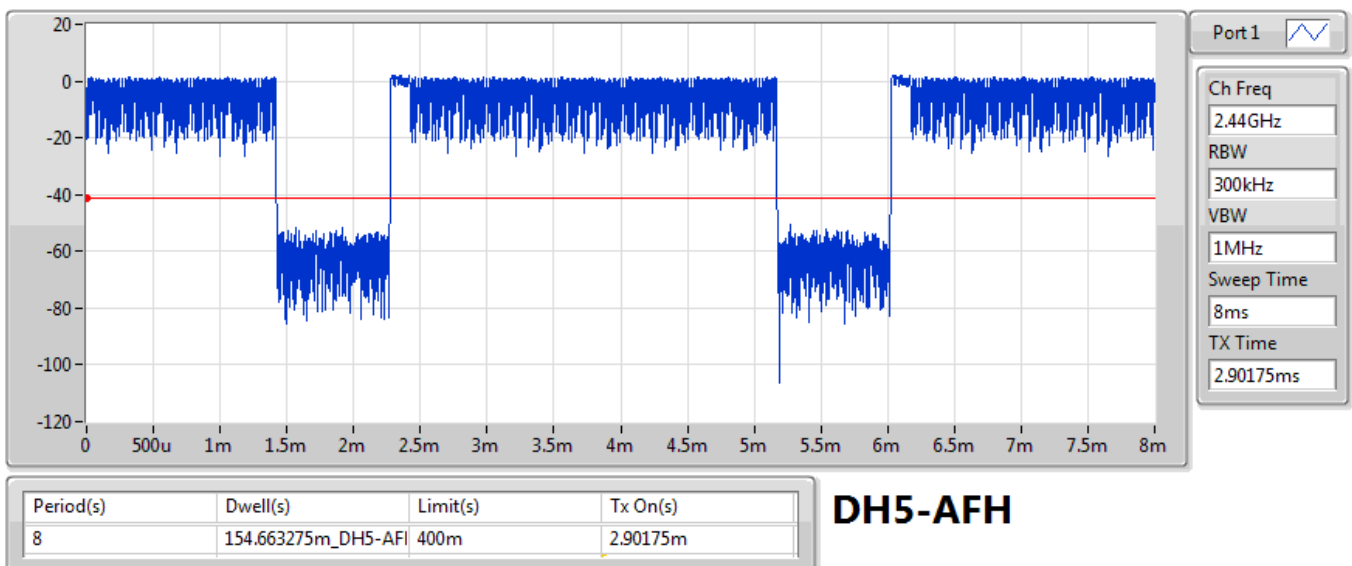


## BT-EDR(2Mbps)

2440MHz

## Dwell-FS

07/12/2021

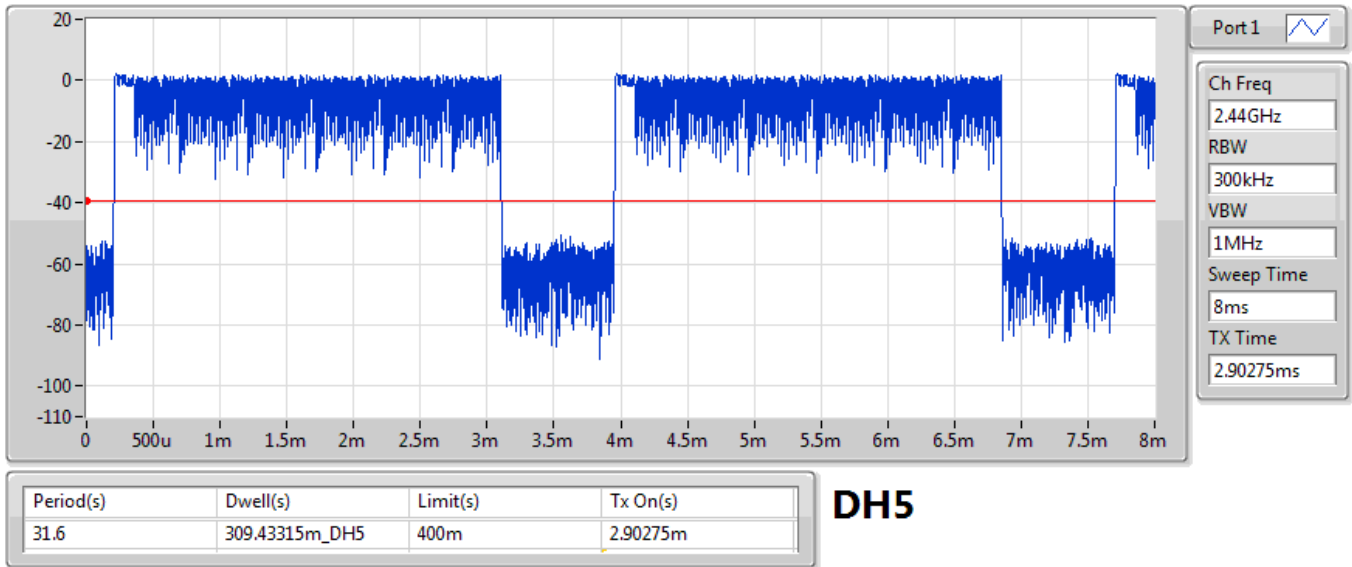


## BT-EDR(3Mbps)

2440MHz

## Dwell-FS

07/12/2021



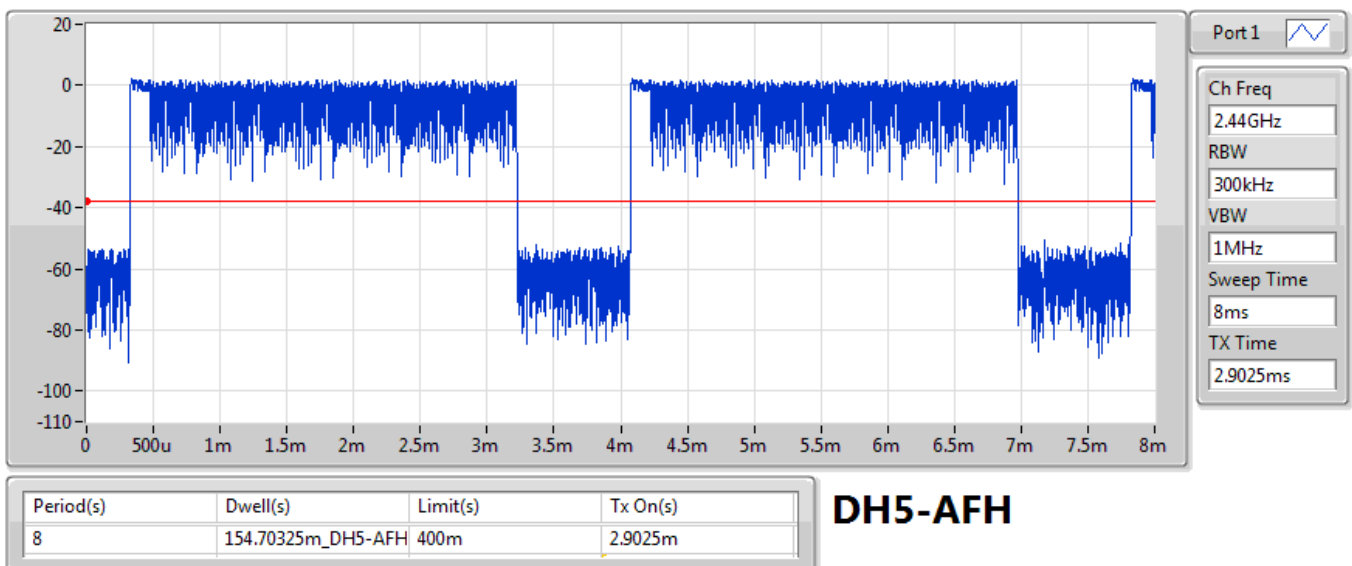
DH5

## BT-EDR(3Mbps)

2440MHz

## Dwell-FS

07/12/2021



DH5-AFH



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) | Freq<br>(Hz) | Level<br>(dBm) | Port |
|---------------|--------|-------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|------|
| 2.4-2.4835GHz | -      | -           | -            | -              | -            | -              | -            | -              | -            | -              | -            | -              | -            | -              | -    |
| BT-BR(1Mbps)  | Pass   | 2.48016G    | -0.10        | -20.10         | 2.13883G     | -55.55         | 2.39489G     | -54.82         | 2.4835G      | -56.36         | 2.48804G     | -52.45         | 16.41759G    | -44.46         | 1    |
| BT-EDR(2Mbps) | Pass   | 2.40196G    | 1.12         | -18.88         | 2.10769G     | -55.38         | 2.39966G     | -49.10         | 2.4G         | -49.90         | 2.49559G     | -53.62         | 23.24246G    | -43.16         | 1    |
| BT-EDR(3Mbps) | Pass   | 2.40196G    | 1.56         | -18.44         | 2.30333G     | -55.56         | 2.39998G     | -47.54         | 2.4G         | -47.30         | 2.49129G     | -53.90         | 23.3212G     | -43.80         | 1    |

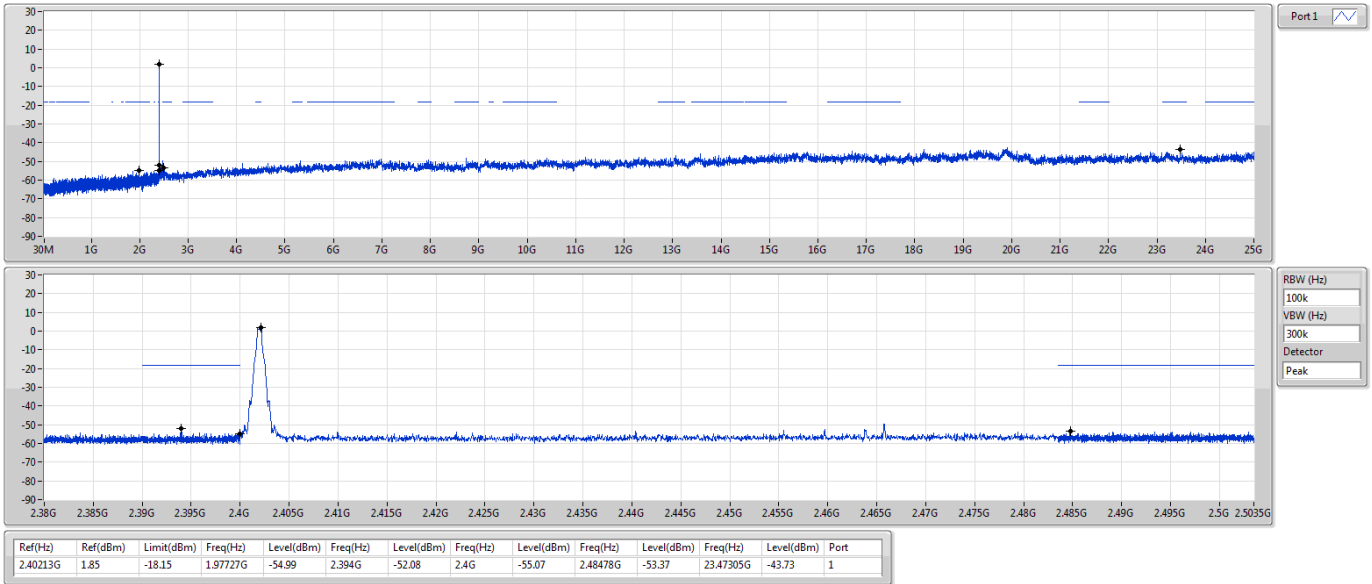
## Result

| 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) | Freq<br>(Hz) | Level<br>(dBm) | Port |
|---------------|--------|-------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|------|
| BT-BR(1Mbps)  | -      | -           | -            | -              | -            | -              | -            | -              | -            | -              | -            | -              | -            | -              | -    |
| 2402MHz       | Pass   | 2.40213G    | 1.85         | -18.15         | 1.97727G     | -54.99         | 2.394G       | -52.08         | 2.4G         | -55.07         | 2.48478G     | -53.37         | 23.47305G    | -43.73         | 1    |
| 2440MHz       | Pass   | 2.44016G    | 1.05         | -18.95         | 2.06216G     | -55.91         | 2.39548G     | -53.91         | 2.4835G      | -55.93         | 2.49248G     | -53.90         | 16.78597G    | -44.49         | 1    |
| 2480MHz       | Pass   | 2.48016G    | -0.10        | -20.10         | 2.13883G     | -55.55         | 2.39489G     | -54.82         | 2.4835G      | -56.36         | 2.48804G     | -52.45         | 16.41759G    | -44.46         | 1    |
| BT-EDR(2Mbps) | -      | -           | -            | -              | -            | -              | -            | -              | -            | -              | -            | -              | -            | -              | -    |
| 2402MHz       | Pass   | 2.40196G    | 1.12         | -18.88         | 2.10769G     | -55.38         | 2.39966G     | -49.10         | 2.4G         | -49.90         | 2.49559G     | -53.62         | 23.24246G    | -43.16         | 1    |
| 2440MHz       | Pass   | 2.44G       | 1.07         | -18.93         | 2.11592G     | -55.70         | 2.39919G     | -54.66         | 2.4G         | -57.59         | 2.48641G     | -53.51         | 24.92407G    | -44.84         | 1    |
| 2480MHz       | Pass   | 2.47987G    | -0.94        | -20.94         | 2.30598G     | -55.90         | 2.39014G     | -54.76         | 2.4835G      | -56.33         | 2.48994G     | -53.00         | 24.42634G    | -43.73         | 1    |
| BT-EDR(3Mbps) | -      | -           | -            | -              | -            | -              | -            | -              | -            | -              | -            | -              | -            | -              | -    |
| 2402MHz       | Pass   | 2.40196G    | 1.56         | -18.44         | 2.30333G     | -55.56         | 2.39998G     | -47.54         | 2.4G         | -47.30         | 2.49129G     | -53.90         | 23.3212G     | -43.80         | 1    |
| 2440MHz       | Pass   | 2.44016G    | 1.15         | -18.85         | 720.61M      | -54.23         | 2.39799G     | -54.69         | 2.4835G      | -57.42         | 2.49832G     | -53.38         | 23.19466G    | -44.03         | 1    |
| 2480MHz       | Pass   | 2.4802G     | -0.05        | -20.05         | 2.13678G     | -56.14         | 2.39094G     | -54.36         | 2.4835G      | -53.50         | 2.48367G     | -53.66         | 24.91564G    | -43.82         | 1    |

BT-BR(1Mbps)

CSENdB-FS

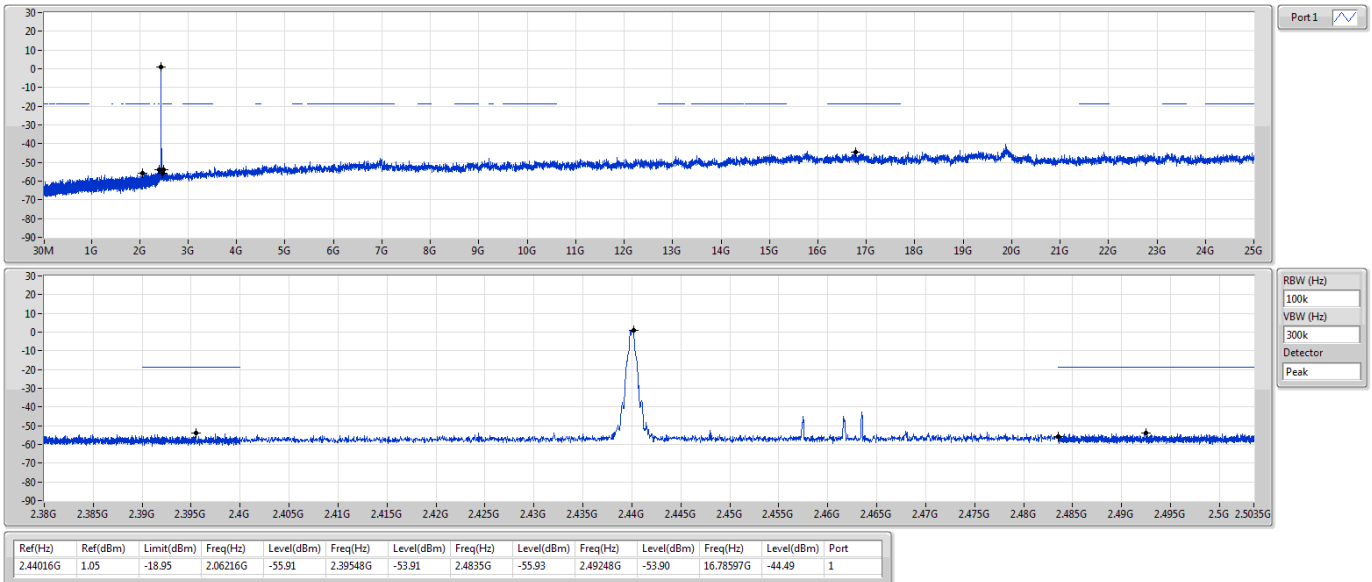
2402MHz



BT-BR(1Mbps)

CSENdB-FS

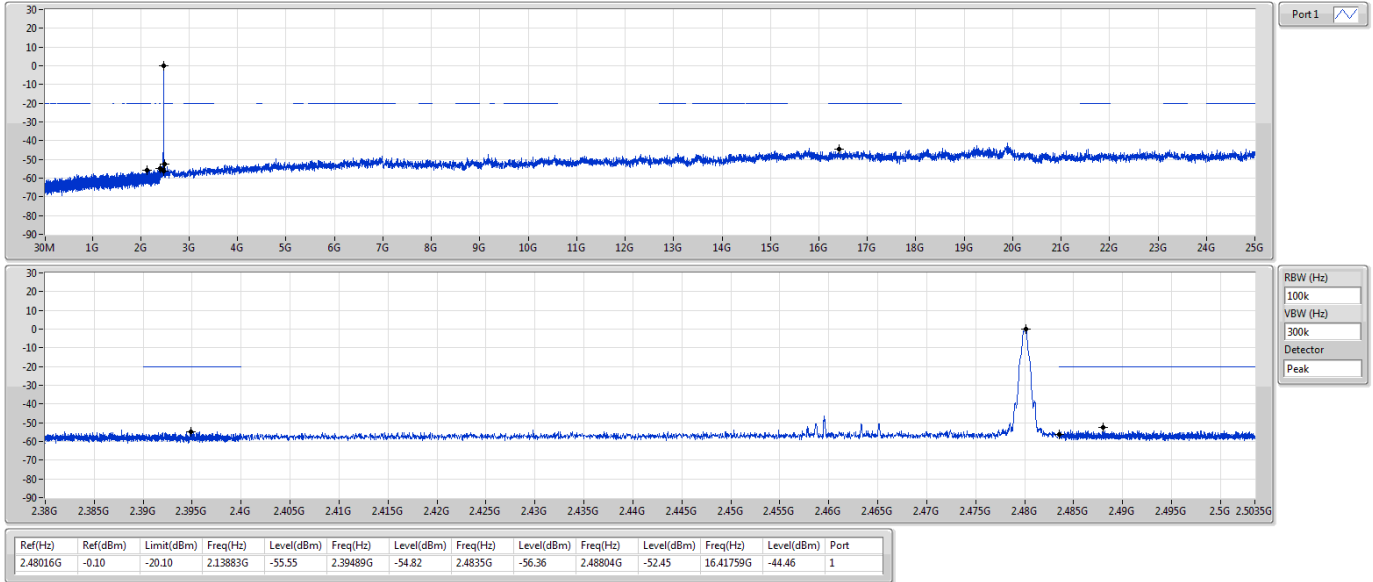
2440MHz



BT-BR(1Mbps)

CSEndB-FS

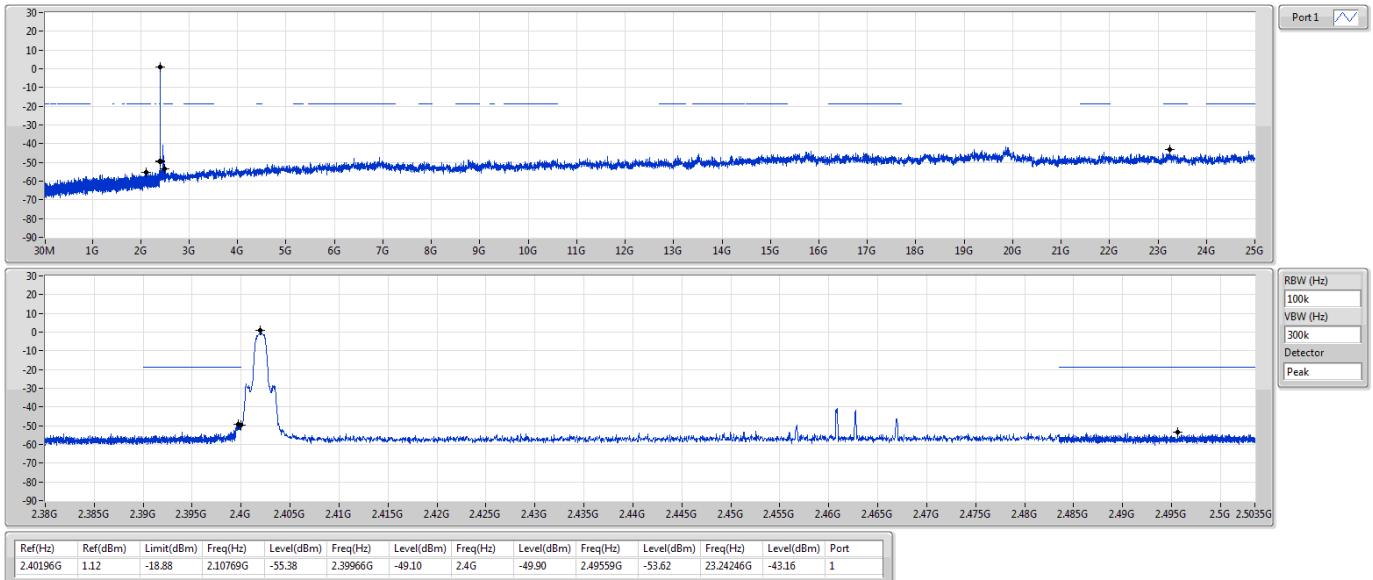
2480MHz



BT-EDR(2Mbps)

CSEndB-FS

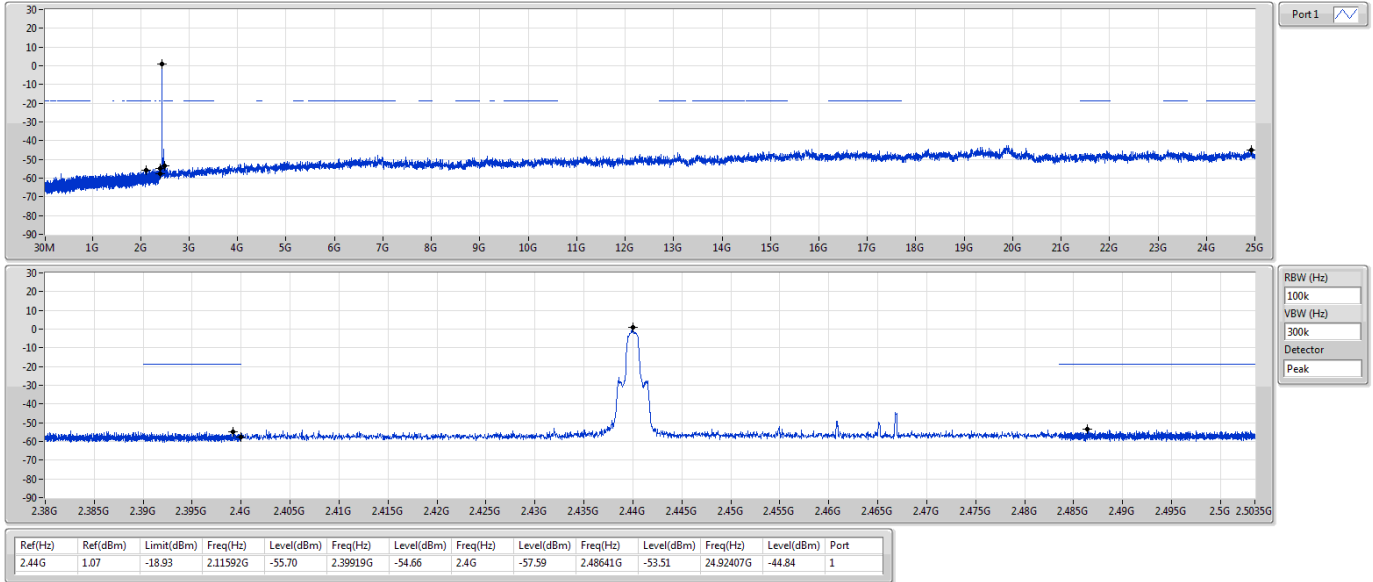
2402MHz



BT-EDR(2Mbps)

CSEndB-FS

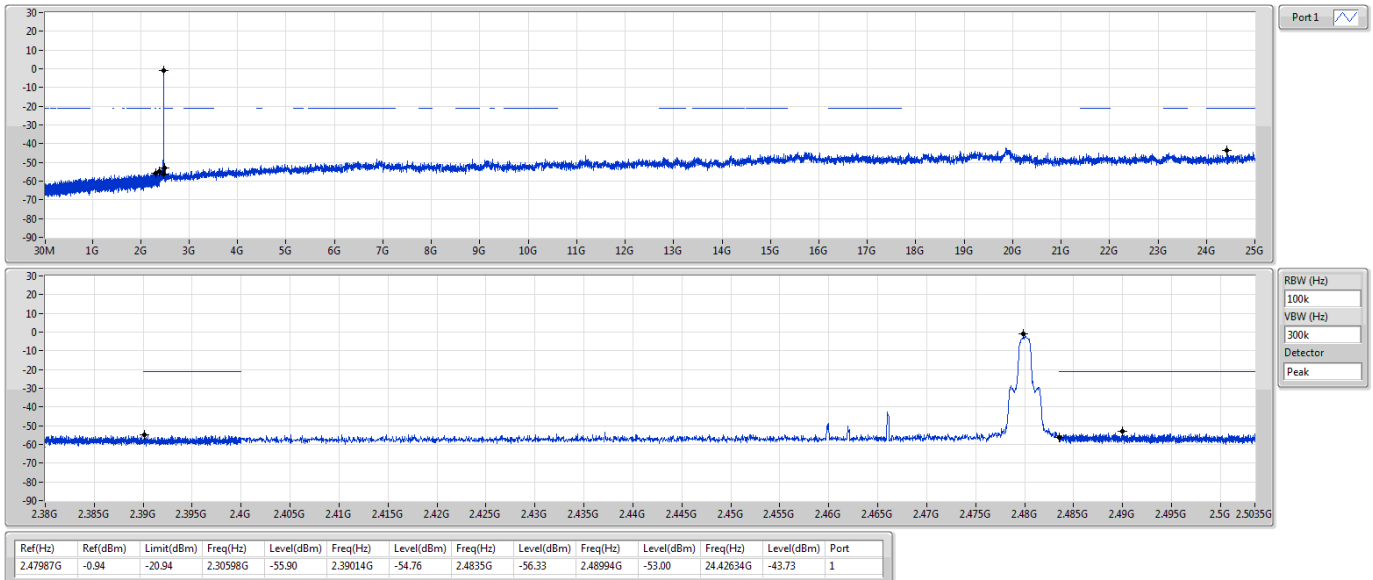
2440MHz



BT-EDR(2Mbps)

CSEndB-FS

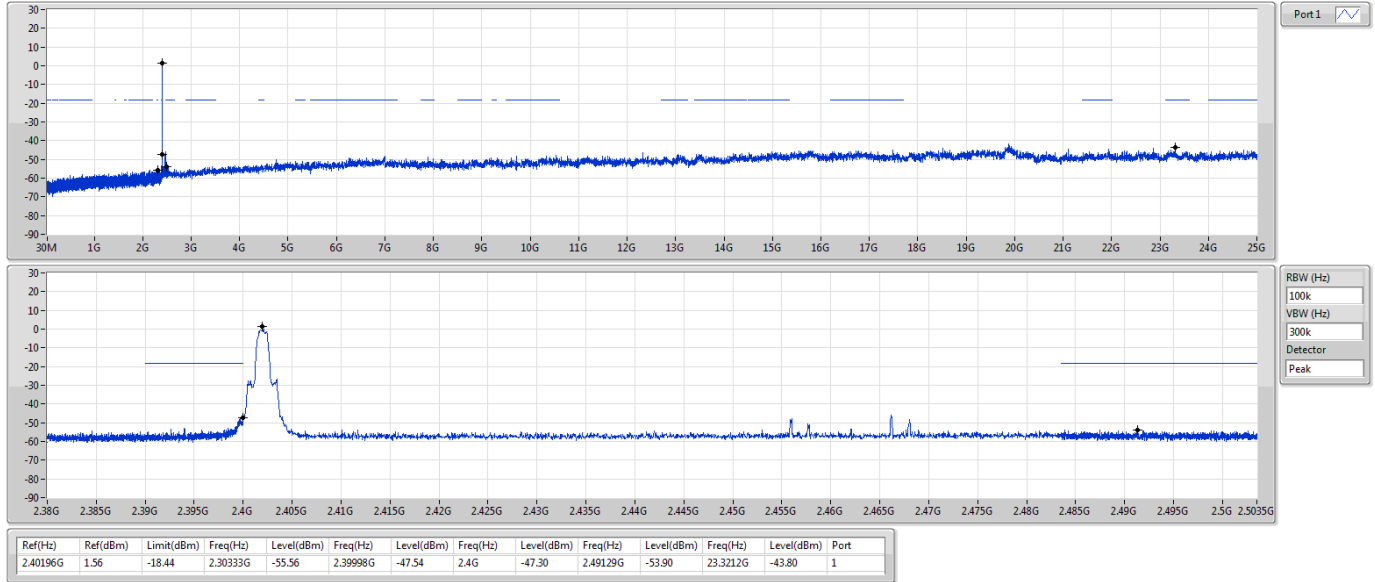
2480MHz



**BT-EDR(3Mbps)**

**CSEndB-FS**

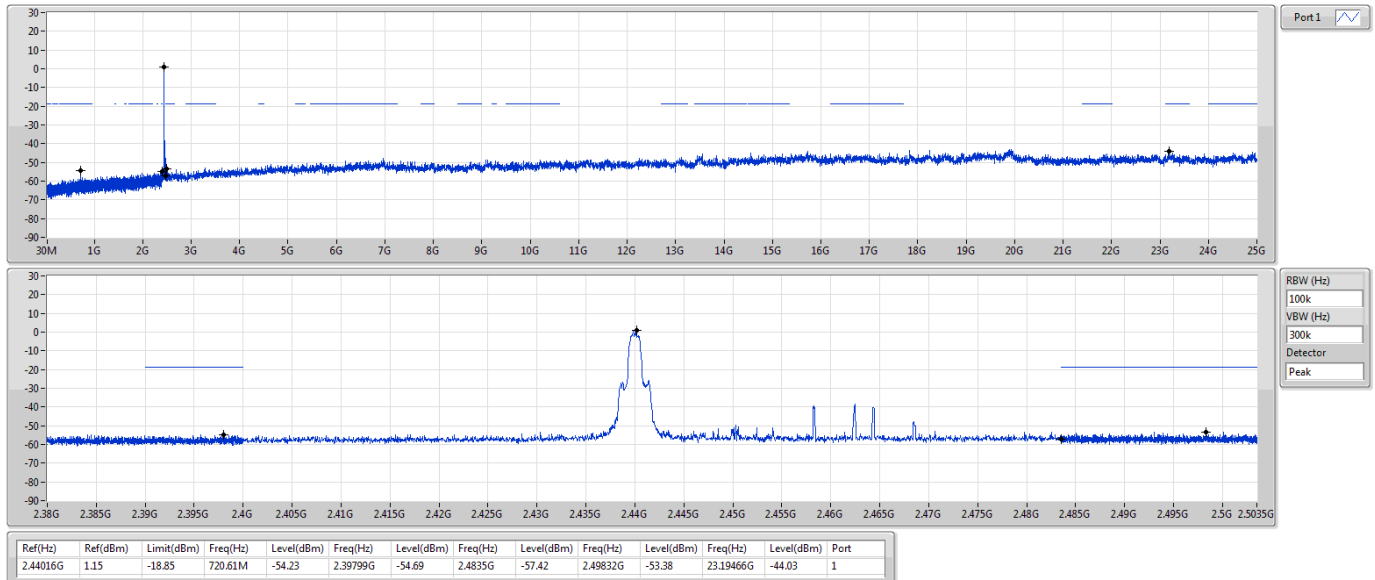
**2402MHz**



**BT-EDR(3Mbps)**

**CSEndB-FS**

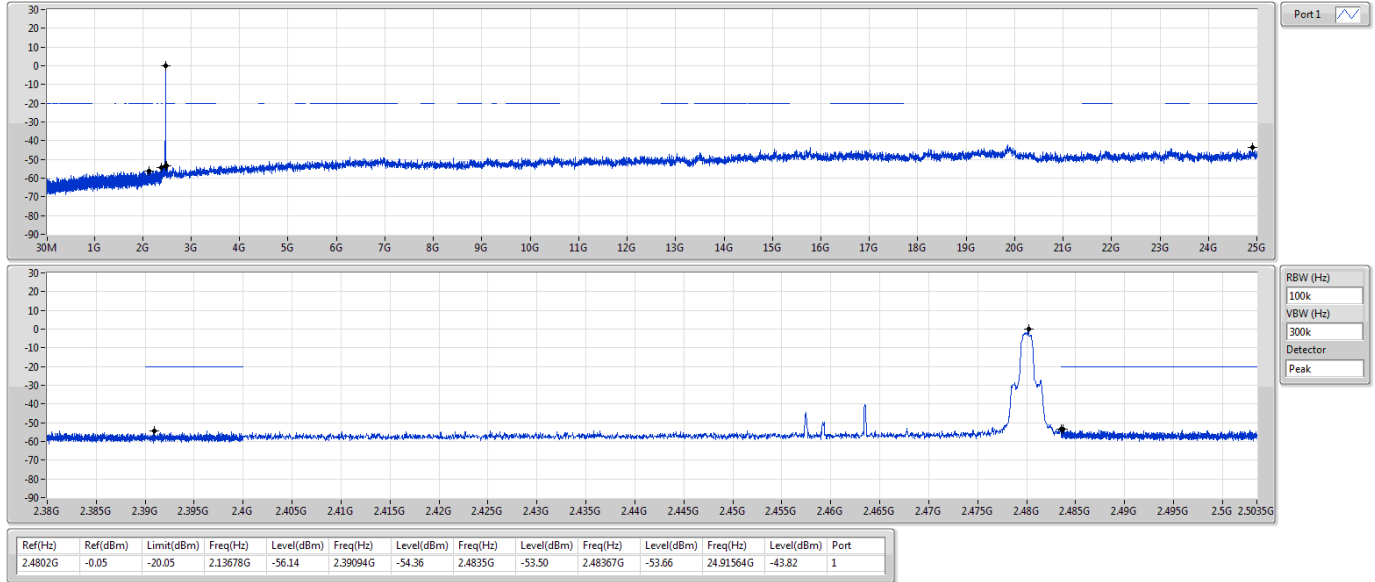
**2440MHz**



BT-EDR(3Mbps)

CSEndB-FS

2480MHz





**Summary**

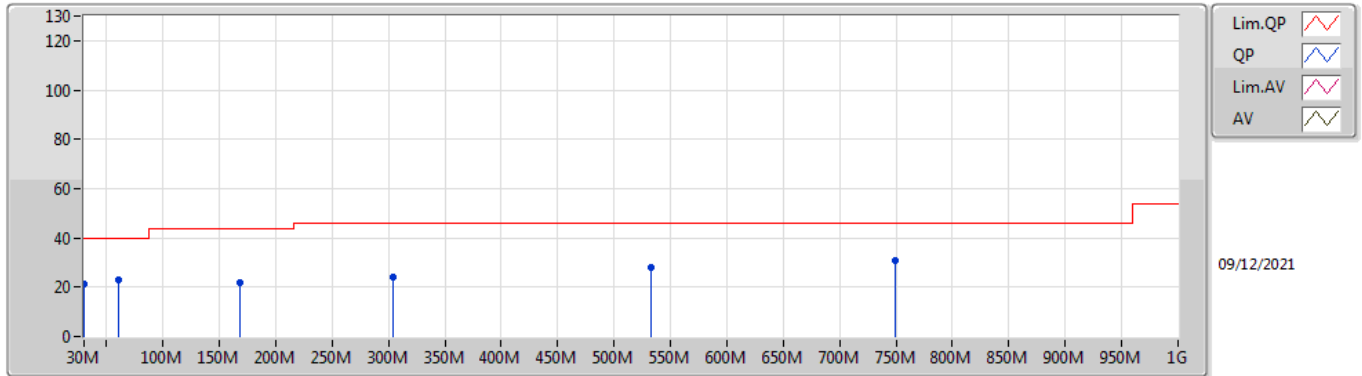
| Mode          | Result | Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|---------------|--------|------|--------------|-------------------|-------------------|----------------|-------------|------------|----------------|---------------|----------|
| 2.4-2.4835GHz | -      | -    | -            | -                 | -                 | -              | -           | -          | -              | -             | -        |
| BT-EDR(3Mbps) | Pass   | PK   | 749.74M      | 34.63             | 46.00             | -11.37         | 3           | Horizontal | 0              | 1.00          | -        |

**Result**

| Mode          | Result | Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|---------------|--------|------|--------------|-------------------|-------------------|----------------|-------------|------------|----------------|---------------|----------|
| BT-EDR(3Mbps) | -      | -    | -            | -                 | -                 | -              | -           | -          | -              | -             | -        |
| 2440MHz       | Pass   | PK   | 30M          | 21.20             | 40.00             | -18.80         | 3           | Vertical   | 360            | 1.00          | -        |
| 2440MHz       | Pass   | PK   | 61.04M       | 23.03             | 40.00             | -16.97         | 3           | Vertical   | 360            | 1.00          | -        |
| 2440MHz       | Pass   | PK   | 167.74M      | 21.94             | 43.50             | -21.56         | 3           | Vertical   | 360            | 1.00          | -        |
| 2440MHz       | Pass   | PK   | 303.54M      | 23.93             | 46.00             | -22.07         | 3           | Vertical   | 360            | 1.00          | -        |
| 2440MHz       | Pass   | PK   | 532.46M      | 27.82             | 46.00             | -18.18         | 3           | Vertical   | 360            | 1.00          | -        |
| 2440MHz       | Pass   | PK   | 749.74M      | 31.00             | 46.00             | -15.00         | 3           | Vertical   | 360            | 1.00          | -        |
| 2440MHz       | Pass   | PK   | 74.62M       | 24.86             | 40.00             | -15.14         | 3           | Horizontal | 0              | 1.00          | -        |
| 2440MHz       | Pass   | PK   | 134.76M      | 24.63             | 43.50             | -18.87         | 3           | Horizontal | 0              | 1.00          | -        |
| 2440MHz       | Pass   | PK   | 167.74M      | 30.44             | 43.50             | -13.06         | 3           | Horizontal | 0              | 1.00          | -        |
| 2440MHz       | Pass   | PK   | 233.7M       | 30.97             | 46.00             | -15.03         | 3           | Horizontal | 0              | 1.00          | -        |
| 2440MHz       | Pass   | PK   | 311.3M       | 33.15             | 46.00             | -12.85         | 3           | Horizontal | 0              | 1.00          | -        |
| 2440MHz       | Pass   | PK   | 749.74M      | 34.63             | 46.00             | -11.37         | 3           | Horizontal | 0              | 1.00          | -        |

## BT-EDR(3Mbps)

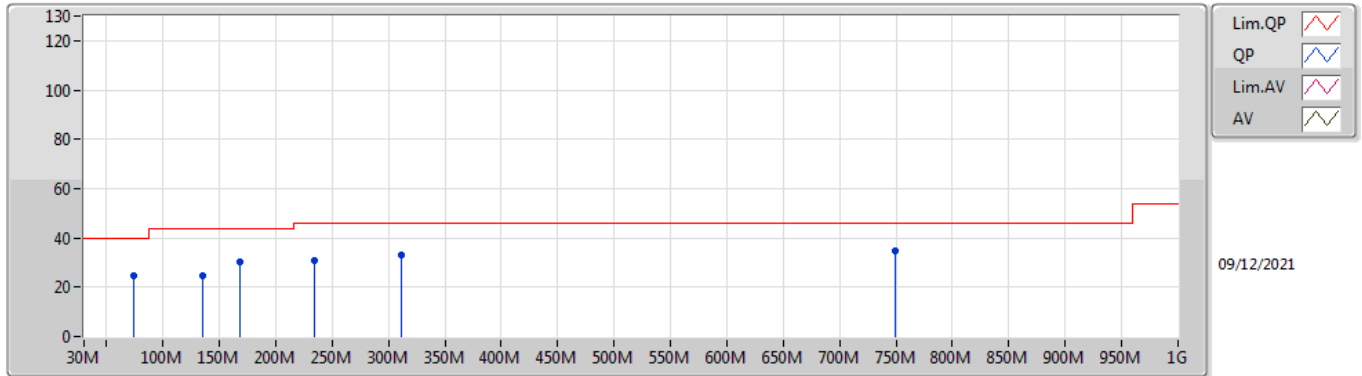
### 2440MHz\_USB



| Type | Freq    | Level    | Limit    | Margin | Factor | Dist | Condition | Azimuth | Height | Comment | Raw    | AF    | CL   | PA    |
|------|---------|----------|----------|--------|--------|------|-----------|---------|--------|---------|--------|-------|------|-------|
|      | (Hz)    | (dBuV/m) | (dBuV/m) | (dB)   | (dB)   | (m)  |           | (°)     | (m)    |         | (dBuV) | (dB)  | (dB) | (dB)  |
| PK   | 30M     | 21.20    | 40.00    | -18.80 | -12.86 | 3    | Vertical  | 360     | 1.00   | -       | 34.06  | 23.73 | 0.56 | 37.15 |
| PK   | 61.04M  | 23.03    | 40.00    | -16.97 | -25.19 | 3    | Vertical  | 360     | 1.00   | -       | 48.22  | 11.04 | 0.82 | 37.05 |
| PK   | 167.74M | 21.94    | 43.50    | -21.56 | -20.08 | 3    | Vertical  | 360     | 1.00   | -       | 42.02  | 15.06 | 1.25 | 36.39 |
| PK   | 303.54M | 23.93    | 46.00    | -22.07 | -16.39 | 3    | Vertical  | 360     | 1.00   | -       | 40.32  | 18.38 | 1.68 | 36.45 |
| PK   | 532.46M | 27.82    | 46.00    | -18.18 | -11.65 | 3    | Vertical  | 360     | 1.00   | -       | 39.47  | 23.07 | 2.33 | 37.05 |
| PK   | 749.74M | 31.00    | 46.00    | -15.00 | -7.58  | 3    | Vertical  | 360     | 1.00   | -       | 38.58  | 27.24 | 2.79 | 37.61 |

## BT-EDR(3Mbps)

### 2440MHz\_USB



| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comment | Raw<br>(dBuV) | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|---------|---------------|------------|------------|------------|
| PK   | 74.62M       | 24.86             | 40.00             | -15.14         | -24.10         | 3           | Horizontal | 0              | 1.00          | -       | 48.96         | 11.97      | 0.86       | 36.93      |
| PK   | 134.76M      | 24.63             | 43.50             | -18.87         | -18.61         | 3           | Horizontal | 0              | 1.00          | -       | 43.24         | 16.72      | 1.15       | 36.48      |
| PK   | 167.74M      | 30.44             | 43.50             | -13.06         | -20.08         | 3           | Horizontal | 0              | 1.00          | -       | 50.52         | 15.06      | 1.25       | 36.39      |
| PK   | 233.7M       | 30.97             | 46.00             | -15.03         | -19.21         | 3           | Horizontal | 0              | 1.00          | -       | 50.18         | 15.70      | 1.44       | 36.35      |
| PK   | 311.3M       | 33.15             | 46.00             | -12.85         | -16.33         | 3           | Horizontal | 0              | 1.00          | -       | 49.48         | 18.44      | 1.69       | 36.46      |
| PK   | 749.74M      | 34.63             | 46.00             | -11.37         | -7.58          | 3           | Horizontal | 0              | 1.00          | -       | 42.21         | 27.24      | 2.79       | 37.61      |

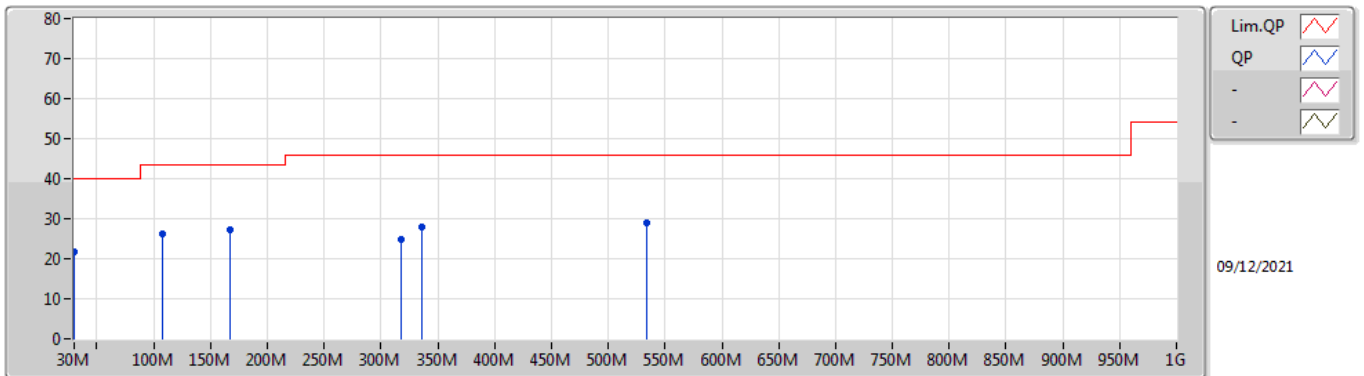
**Summary**

| Mode   | Result | Type | Freq (Hz) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Condition  |
|--------|--------|------|-----------|----------------|----------------|-------------|------------|
| Mode 2 | Pass   | PK   | 303.54M   | 33.18          | 46.00          | -12.82      | Horizontal |

**Mode Configure**

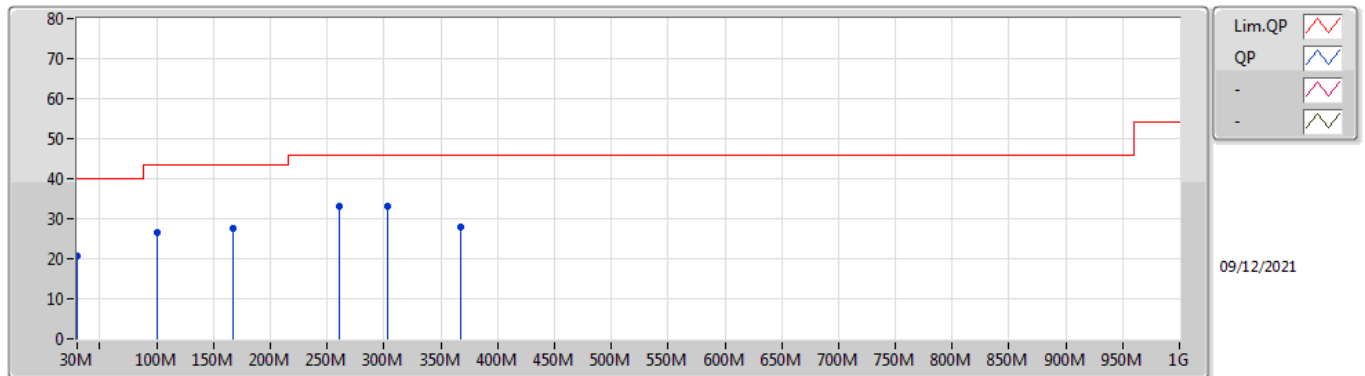
| Mode   | Result | Type | Freq (Hz) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Dist (m) | Condition  | Azimuth (°) | Height (m) | Comments |
|--------|--------|------|-----------|----------------|----------------|-------------|----------|------------|-------------|------------|----------|
| Mode 2 | Pass   | PK   | 30M       | 21.71          | 40.00          | -18.29      | 3        | Vertical   | 360         | 1.00       | -        |
| Mode 2 | Pass   | PK   | 107.6M    | 26.23          | 43.50          | -17.27      | 3        | Vertical   | 360         | 1.00       | -        |
| Mode 2 | Pass   | PK   | 167.74M   | 27.17          | 43.50          | -16.33      | 3        | Vertical   | 360         | 1.00       | -        |
| Mode 2 | Pass   | PK   | 317.12M   | 24.98          | 46.00          | -21.02      | 3        | Vertical   | 360         | 1.00       | -        |
| Mode 2 | Pass   | PK   | 336.52M   | 27.86          | 46.00          | -18.14      | 3        | Vertical   | 360         | 1.00       | -        |
| Mode 2 | Pass   | PK   | 534.4M    | 28.87          | 46.00          | -17.13      | 3        | Vertical   | 360         | 1.00       | -        |
| Mode 2 | Pass   | PK   | 30M       | 20.55          | 40.00          | -19.45      | 3        | Horizontal | 0           | 1.00       | -        |
| Mode 2 | Pass   | PK   | 99.84M    | 26.40          | 43.50          | -17.10      | 3        | Horizontal | 0           | 1.00       | -        |
| Mode 2 | Pass   | PK   | 167.74M   | 27.47          | 43.50          | -16.03      | 3        | Horizontal | 0           | 1.00       | -        |
| Mode 2 | Pass   | PK   | 260.86M   | 33.10          | 46.00          | -12.90      | 3        | Horizontal | 0           | 1.00       | -        |
| Mode 2 | Pass   | PK   | 303.54M   | 33.18          | 46.00          | -12.82      | 3        | Horizontal | 0           | 1.00       | -        |
| Mode 2 | Pass   | PK   | 367.56M   | 27.99          | 46.00          | -18.01      | 3        | Horizontal | 0           | 1.00       | -        |

## Radiated Emissions below 1GHz\_Mode 2



| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comment | Raw<br>(dBuV/m) | AF<br>(dB/m) | CL<br>(dB) | PA<br>(dB) |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|---------|-----------------|--------------|------------|------------|
| PK   | 30M          | 21.71             | 40.00             | -18.29         | -12.86         | 3           | Vertical  | 360            | 1.00          | -       | 34.57           | 23.73        | 0.56       | 37.15      |
| PK   | 107.6M       | 26.23             | 43.50             | -17.27         | -19.63         | 3           | Vertical  | 360            | 1.00          | -       | 45.86           | 16.00        | 1.01       | 36.64      |
| PK   | 167.74M      | 27.17             | 43.50             | -16.33         | -20.08         | 3           | Vertical  | 360            | 1.00          | -       | 47.25           | 15.06        | 1.25       | 36.39      |
| PK   | 317.12M      | 24.98             | 46.00             | -21.02         | -16.22         | 3           | Vertical  | 360            | 1.00          | -       | 41.20           | 18.55        | 1.70       | 36.47      |
| PK   | 336.52M      | 27.86             | 46.00             | -18.14         | -15.65         | 3           | Vertical  | 360            | 1.00          | -       | 43.51           | 19.12        | 1.74       | 36.51      |
| PK   | 534.4M       | 28.87             | 46.00             | -17.13         | -11.64         | 3           | Vertical  | 360            | 1.00          | -       | 40.51           | 23.08        | 2.33       | 37.05      |

## Radiated Emissions below 1GHz\_Mode 2



| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comment | Raw<br>(dBuV/m) | AF<br>(dB/m) | CL<br>(dB) | PA<br>(dB) |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|---------|-----------------|--------------|------------|------------|
| PK   | 30M          | 20.55             | 40.00             | -19.45         | -12.86         | 3           | Horizontal | 0              | 1.00          | -       | 33.41           | 23.73        | 0.56       | 37.15      |
| PK   | 99.84M       | 26.40             | 43.50             | -17.10         | -20.52         | 3           | Horizontal | 0              | 1.00          | -       | 46.92           | 15.13        | 0.97       | 36.62      |
| PK   | 167.74M      | 27.47             | 43.50             | -16.03         | -20.08         | 3           | Horizontal | 0              | 1.00          | -       | 47.55           | 15.06        | 1.25       | 36.39      |
| PK   | 260.86M      | 33.10             | 46.00             | -12.90         | -15.47         | 3           | Horizontal | 0              | 1.00          | -       | 48.57           | 19.39        | 1.54       | 36.40      |
| PK   | 303.54M      | 33.18             | 46.00             | -12.82         | -16.39         | 3           | Horizontal | 0              | 1.00          | -       | 49.57           | 18.38        | 1.68       | 36.45      |
| PK   | 367.56M      | 27.99             | 46.00             | -18.01         | -14.78         | 3           | Horizontal | 0              | 1.00          | -       | 42.77           | 19.94        | 1.82       | 36.54      |



**Summary**

| Mode          | Result | Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comments |
|---------------|--------|------|--------------|-------------------|-------------------|----------------|-------------|------------|----------------|---------------|----------|
| 2.4-2.4835GHz | -      | -    | -            | -                 | -                 | -              | -           | -          | -              | -             | -        |
| BT-BR(1Mbps)  | Pass   | PK   | 2.3684G      | 57.42             | 74.00             | -16.58         | 3           | Vertical   | 215            | 1.73          | -        |
| BT-EDR(3Mbps) | Pass   | PK   | 2.494G       | 58.79             | 74.00             | -15.21         | 3           | Horizontal | 306            | 1.05          | -        |

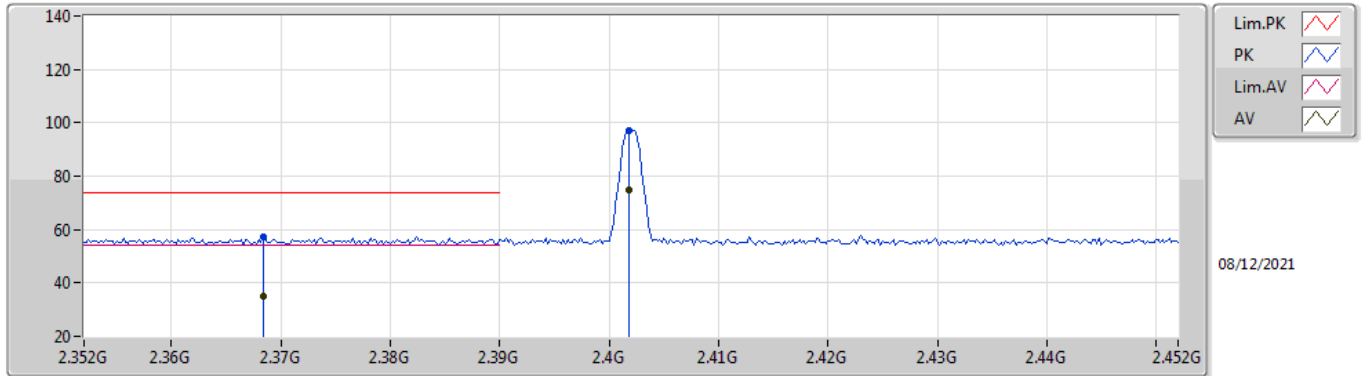
## Result

| Mode          | Result | Type | Freq (Hz) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Dist (m) | Condition  | Azimuth (°) | Height (m) | Comments |
|---------------|--------|------|-----------|----------------|----------------|-------------|----------|------------|-------------|------------|----------|
| BT-BR(1Mbps)  | -      | -    | -         | -              | -              | -           | -        | -          | -           | -          | -        |
| 2402MHz       | Pass   | AV   | 2.3684G   | 34.92          | 54.00          | -19.08      | 3        | Vertical   | 215         | 1.73       | -        |
| 2402MHz       | Pass   | AV   | 2.4018G   | 74.70          | Inf            | -Inf        | 3        | Vertical   | 215         | 1.73       | -        |
| 2402MHz       | Pass   | PK   | 2.3684G   | 57.42          | 74.00          | -16.58      | 3        | Vertical   | 215         | 1.73       | -        |
| 2402MHz       | Pass   | PK   | 2.4018G   | 97.20          | Inf            | -Inf        | 3        | Vertical   | 215         | 1.73       | -        |
| 2402MHz       | Pass   | AV   | 2.3886G   | 34.62          | 54.00          | -19.38      | 3        | Horizontal | 244         | 1.19       | -        |
| 2402MHz       | Pass   | AV   | 2.402G    | 75.42          | Inf            | -Inf        | 3        | Horizontal | 244         | 1.19       | -        |
| 2402MHz       | Pass   | PK   | 2.3886G   | 57.12          | 74.00          | -16.88      | 3        | Horizontal | 244         | 1.19       | -        |
| 2402MHz       | Pass   | PK   | 2.402G    | 97.92          | Inf            | -Inf        | 3        | Horizontal | 244         | 1.19       | -        |
| 2402MHz       | Pass   | AV   | 4.80419G  | 25.97          | 54.00          | -28.03      | 3        | Vertical   | 18          | 1.00       | -        |
| 2402MHz       | Pass   | PK   | 4.80419G  | 48.47          | 74.00          | -25.53      | 3        | Vertical   | 18          | 1.00       | -        |
| 2402MHz       | Pass   | AV   | 4.80418G  | 24.93          | 54.00          | -29.07      | 3        | Horizontal | 36          | 2.37       | -        |
| 2402MHz       | Pass   | PK   | 4.80418G  | 47.43          | 74.00          | -26.57      | 3        | Horizontal | 36          | 2.37       | -        |
| 2440MHz       | Pass   | AV   | 2.3652G   | 34.42          | 54.00          | -19.58      | 3        | Vertical   | 220         | 2.29       | -        |
| 2440MHz       | Pass   | AV   | 2.44G     | 77.16          | Inf            | -Inf        | 3        | Vertical   | 220         | 2.29       | -        |
| 2440MHz       | Pass   | AV   | 2.4992G   | 34.04          | 54.00          | -19.96      | 3        | Vertical   | 220         | 2.29       | -        |
| 2440MHz       | Pass   | PK   | 2.3652G   | 56.92          | 74.00          | -17.08      | 3        | Vertical   | 220         | 2.29       | -        |
| 2440MHz       | Pass   | PK   | 2.44G     | 99.66          | Inf            | -Inf        | 3        | Vertical   | 220         | 2.29       | -        |
| 2440MHz       | Pass   | PK   | 2.4992G   | 56.54          | 74.00          | -17.46      | 3        | Vertical   | 220         | 2.29       | -        |
| 2440MHz       | Pass   | AV   | 2.374G    | 34.81          | 54.00          | -19.19      | 3        | Horizontal | 252         | 1.58       | -        |
| 2440MHz       | Pass   | AV   | 2.44G     | 76.39          | Inf            | -Inf        | 3        | Horizontal | 252         | 1.58       | -        |
| 2440MHz       | Pass   | AV   | 2.4984G   | 34.66          | 54.00          | -19.34      | 3        | Horizontal | 252         | 1.58       | -        |
| 2440MHz       | Pass   | PK   | 2.374G    | 57.31          | 74.00          | -16.69      | 3        | Horizontal | 252         | 1.58       | -        |
| 2440MHz       | Pass   | PK   | 2.44G     | 98.89          | Inf            | -Inf        | 3        | Horizontal | 252         | 1.58       | -        |
| 2440MHz       | Pass   | PK   | 2.4984G   | 57.16          | 74.00          | -16.84      | 3        | Horizontal | 252         | 1.58       | -        |
| 2440MHz       | Pass   | AV   | 4.88066G  | 22.32          | 54.00          | -31.68      | 3        | Vertical   | 170         | 1.46       | -        |
| 2440MHz       | Pass   | AV   | 7.31996G  | 29.09          | 54.00          | -24.91      | 3        | Vertical   | 30          | 2.06       | -        |
| 2440MHz       | Pass   | PK   | 4.88066G  | 44.82          | 74.00          | -29.18      | 3        | Vertical   | 170         | 1.46       | -        |
| 2440MHz       | Pass   | PK   | 7.31996G  | 51.59          | 74.00          | -22.41      | 3        | Vertical   | 30          | 2.06       | -        |
| 2440MHz       | Pass   | AV   | 4.88037G  | 23.46          | 54.00          | -30.54      | 3        | Horizontal | 37          | 1.00       | -        |
| 2440MHz       | Pass   | AV   | 7.32072G  | 31.18          | 54.00          | -22.82      | 3        | Horizontal | 120         | 1.00       | -        |
| 2440MHz       | Pass   | PK   | 4.88037G  | 45.96          | 74.00          | -28.04      | 3        | Horizontal | 37          | 1.00       | -        |
| 2440MHz       | Pass   | PK   | 7.32072G  | 53.68          | 74.00          | -20.32      | 3        | Horizontal | 120         | 1.00       | -        |
| 2480MHz       | Pass   | AV   | 2.4798G   | 74.07          | Inf            | -Inf        | 3        | Vertical   | 273         | 1.96       | -        |
| 2480MHz       | Pass   | AV   | 2.4878G   | 34.72          | 54.00          | -19.28      | 3        | Vertical   | 273         | 1.96       | -        |
| 2480MHz       | Pass   | PK   | 2.4798G   | 96.57          | Inf            | -Inf        | 3        | Vertical   | 273         | 1.96       | -        |
| 2480MHz       | Pass   | PK   | 2.4878G   | 57.22          | 74.00          | -16.78      | 3        | Vertical   | 273         | 1.96       | -        |
| 2480MHz       | Pass   | AV   | 2.4802G   | 76.59          | Inf            | -Inf        | 3        | Horizontal | 307         | 1.05       | -        |
| 2480MHz       | Pass   | AV   | 2.4872G   | 34.64          | 54.00          | -19.36      | 3        | Horizontal | 307         | 1.05       | -        |
| 2480MHz       | Pass   | PK   | 2.4802G   | 99.09          | Inf            | -Inf        | 3        | Horizontal | 307         | 1.05       | -        |
| 2480MHz       | Pass   | PK   | 2.4872G   | 57.14          | 74.00          | -16.86      | 3        | Horizontal | 307         | 1.05       | -        |
| 2480MHz       | Pass   | AV   | 4.9604G   | 24.67          | 54.00          | -29.33      | 3        | Vertical   | 293         | 1.00       | -        |
| 2480MHz       | Pass   | AV   | 7.43975G  | 30.06          | 54.00          | -23.94      | 3        | Vertical   | 93          | 2.59       | -        |
| 2480MHz       | Pass   | PK   | 4.9604G   | 47.17          | 74.00          | -26.83      | 3        | Vertical   | 293         | 1.00       | -        |
| 2480MHz       | Pass   | PK   | 7.43975G  | 52.56          | 74.00          | -21.44      | 3        | Vertical   | 93          | 2.59       | -        |
| 2480MHz       | Pass   | AV   | 4.96002G  | 25.85          | 54.00          | -28.15      | 3        | Horizontal | 38          | 1.01       | -        |
| 2480MHz       | Pass   | AV   | 7.44026G  | 29.56          | 54.00          | -24.44      | 3        | Horizontal | 120         | 1.00       | -        |
| 2480MHz       | Pass   | PK   | 4.96002G  | 48.35          | 74.00          | -25.65      | 3        | Horizontal | 38          | 1.01       | -        |
| 2480MHz       | Pass   | PK   | 7.44026G  | 52.06          | 74.00          | -21.94      | 3        | Horizontal | 120         | 1.00       | -        |
| BT-EDR(3Mbps) | -      | -    | -         | -              | -              | -           | -        | -          | -           | -          | -        |
| 2402MHz       | Pass   | AV   | 2.3824G   | 34.58          | 54.00          | -19.42      | 3        | Vertical   | 208         | 1.18       | -        |
| 2402MHz       | Pass   | AV   | 2.402G    | 76.91          | Inf            | -Inf        | 3        | Vertical   | 208         | 1.18       | -        |
| 2402MHz       | Pass   | PK   | 2.3824G   | 57.08          | 74.00          | -16.92      | 3        | Vertical   | 208         | 1.18       | -        |
| 2402MHz       | Pass   | PK   | 2.402G    | 99.41          | Inf            | -Inf        | 3        | Vertical   | 208         | 1.18       | -        |
| 2402MHz       | Pass   | AV   | 2.3728G   | 34.40          | 54.00          | -19.60      | 3        | Horizontal | 245         | 1.16       | -        |
| 2402MHz       | Pass   | AV   | 2.402G    | 77.23          | Inf            | -Inf        | 3        | Horizontal | 245         | 1.16       | -        |
| 2402MHz       | Pass   | PK   | 2.3728G   | 56.90          | 74.00          | -17.10      | 3        | Horizontal | 245         | 1.16       | -        |
| 2402MHz       | Pass   | PK   | 2.402G    | 99.73          | Inf            | -Inf        | 3        | Horizontal | 245         | 1.16       | -        |
| 2402MHz       | Pass   | AV   | 4.80429G  | 23.88          | 54.00          | -30.12      | 3        | Vertical   | 191         | 2.50       | -        |
| 2402MHz       | Pass   | PK   | 4.80429G  | 46.38          | 74.00          | -27.62      | 3        | Vertical   | 191         | 2.50       | -        |
| 2402MHz       | Pass   | AV   | 4.80401G  | 23.43          | 54.00          | -30.57      | 3        | Horizontal | 53          | 2.45       | -        |

| Mode    | Result | Type | Freq (Hz) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Dist (m) | Condition  | Azimuth (°) | Height (m) | Comments |
|---------|--------|------|-----------|----------------|----------------|-------------|----------|------------|-------------|------------|----------|
| 2402MHz | Pass   | PK   | 4.80401G  | 45.93          | 74.00          | -28.07      | 3        | Horizontal | 53          | 2.45       | -        |
| 2440MHz | Pass   | AV   | 2.3444G   | 35.02          | 54.00          | -18.98      | 3        | Vertical   | 220         | 2.29       | -        |
| 2440MHz | Pass   | AV   | 2.44G     | 78.27          | Inf            | -Inf        | 3        | Vertical   | 220         | 2.29       | -        |
| 2440MHz | Pass   | AV   | 2.4904G   | 34.76          | 54.00          | -19.24      | 3        | Vertical   | 220         | 2.29       | -        |
| 2440MHz | Pass   | PK   | 2.3444G   | 57.52          | 74.00          | -16.48      | 3        | Vertical   | 220         | 2.29       | -        |
| 2440MHz | Pass   | PK   | 2.44G     | 100.77         | Inf            | -Inf        | 3        | Vertical   | 220         | 2.29       | -        |
| 2440MHz | Pass   | PK   | 2.4904G   | 57.26          | 74.00          | -16.74      | 3        | Vertical   | 220         | 2.29       | -        |
| 2440MHz | Pass   | AV   | 2.3476G   | 35.28          | 54.00          | -18.72      | 3        | Horizontal | 252         | 1.57       | -        |
| 2440MHz | Pass   | AV   | 2.44G     | 77.95          | Inf            | -Inf        | 3        | Horizontal | 252         | 1.57       | -        |
| 2440MHz | Pass   | AV   | 2.4908G   | 34.36          | 54.00          | -19.64      | 3        | Horizontal | 252         | 1.57       | -        |
| 2440MHz | Pass   | PK   | 2.3476G   | 57.78          | 74.00          | -16.22      | 3        | Horizontal | 252         | 1.57       | -        |
| 2440MHz | Pass   | PK   | 2.44G     | 100.45         | Inf            | -Inf        | 3        | Horizontal | 252         | 1.57       | -        |
| 2440MHz | Pass   | PK   | 2.4908G   | 56.86          | 74.00          | -17.14      | 3        | Horizontal | 252         | 1.57       | -        |
| 2440MHz | Pass   | AV   | 4.88038G  | 22.59          | 54.00          | -31.41      | 3        | Vertical   | 311         | 1.20       | -        |
| 2440MHz | Pass   | AV   | 7.32124G  | 27.09          | 54.00          | -26.91      | 3        | Vertical   | 168         | 1.00       | -        |
| 2440MHz | Pass   | PK   | 4.88038G  | 45.09          | 74.00          | -28.91      | 3        | Vertical   | 311         | 1.20       | -        |
| 2440MHz | Pass   | PK   | 7.32124G  | 49.59          | 74.00          | -24.41      | 3        | Vertical   | 168         | 1.00       | -        |
| 2440MHz | Pass   | AV   | 4.87954G  | 22.78          | 54.00          | -31.22      | 3        | Horizontal | 50          | 1.00       | -        |
| 2440MHz | Pass   | AV   | 7.31976G  | 28.06          | 54.00          | -25.94      | 3        | Horizontal | 137         | 1.00       | -        |
| 2440MHz | Pass   | PK   | 4.87954G  | 45.28          | 74.00          | -28.72      | 3        | Horizontal | 50          | 1.00       | -        |
| 2440MHz | Pass   | PK   | 7.31976G  | 50.56          | 74.00          | -23.44      | 3        | Horizontal | 137         | 1.00       | -        |
| 2480MHz | Pass   | AV   | 2.48G     | 75.22          | Inf            | -Inf        | 3        | Vertical   | 263         | 1.09       | -        |
| 2480MHz | Pass   | AV   | 2.4956G   | 34.78          | 54.00          | -19.22      | 3        | Vertical   | 263         | 1.09       | -        |
| 2480MHz | Pass   | PK   | 2.48G     | 97.72          | Inf            | -Inf        | 3        | Vertical   | 263         | 1.09       | -        |
| 2480MHz | Pass   | PK   | 2.4956G   | 57.28          | 74.00          | -16.72      | 3        | Vertical   | 263         | 1.09       | -        |
| 2480MHz | Pass   | AV   | 2.48G     | 77.50          | Inf            | -Inf        | 3        | Horizontal | 306         | 1.05       | -        |
| 2480MHz | Pass   | AV   | 2.494G    | 36.29          | 54.00          | -17.71      | 3        | Horizontal | 306         | 1.05       | -        |
| 2480MHz | Pass   | PK   | 2.48G     | 100.00         | Inf            | -Inf        | 3        | Horizontal | 306         | 1.05       | -        |
| 2480MHz | Pass   | PK   | 2.494G    | 58.79          | 74.00          | -15.21      | 3        | Horizontal | 306         | 1.05       | -        |
| 2480MHz | Pass   | AV   | 4.96016G  | 24.20          | 54.00          | -29.80      | 3        | Vertical   | 295         | 1.02       | -        |
| 2480MHz | Pass   | AV   | 7.43885G  | 27.73          | 54.00          | -26.27      | 3        | Vertical   | 136         | 1.00       | -        |
| 2480MHz | Pass   | PK   | 4.96016G  | 46.70          | 74.00          | -27.30      | 3        | Vertical   | 295         | 1.02       | -        |
| 2480MHz | Pass   | PK   | 7.43885G  | 50.23          | 74.00          | -23.77      | 3        | Vertical   | 136         | 1.00       | -        |
| 2480MHz | Pass   | AV   | 4.96046G  | 25.56          | 54.00          | -28.44      | 3        | Horizontal | 38          | 1.02       | -        |
| 2480MHz | Pass   | AV   | 7.43937G  | 29.32          | 54.00          | -24.68      | 3        | Horizontal | 118         | 1.00       | -        |
| 2480MHz | Pass   | PK   | 4.96046G  | 48.06          | 74.00          | -25.94      | 3        | Horizontal | 38          | 1.02       | -        |
| 2480MHz | Pass   | PK   | 7.43937G  | 51.82          | 74.00          | -22.18      | 3        | Horizontal | 118         | 1.00       | -        |

## BT-BR(1Mbps)

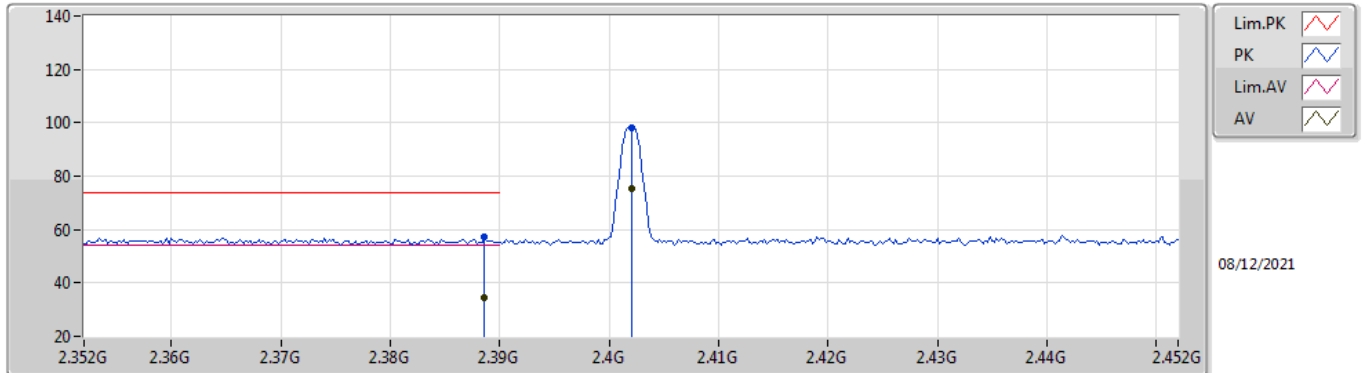
### 2402MHz\_TX



| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comment | Raw<br>(dBuV) | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|---------|---------------|------------|------------|------------|
| AV   | 2.3684G      | 34.92             | 54.00             | -19.08         | 32.28          | 3           | Vertical  | 215            | 1.73          | -       | 2.64          | 27.73      | 4.55       | -          |
| AV   | 2.4018G      | 74.70             | Inf               | -Inf           | 32.18          | 3           | Vertical  | 215            | 1.73          | -       | 42.52         | 27.60      | 4.58       | -          |
| PK   | 2.3684G      | 57.42             | 74.00             | -16.58         | 32.28          | 3           | Vertical  | 215            | 1.73          | -       | 25.14         | 27.73      | 4.55       | -          |
| PK   | 2.4018G      | 97.20             | Inf               | -Inf           | 32.18          | 3           | Vertical  | 215            | 1.73          | -       | 65.02         | 27.60      | 4.58       | -          |

## BT-BR(1Mbps)

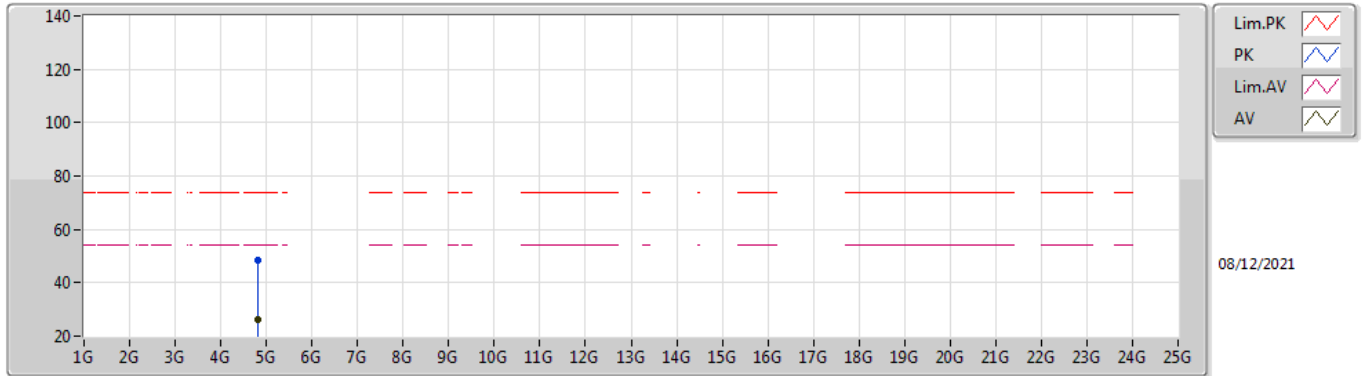
### 2402MHz\_TX



| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comment | Raw<br>(dBuV) | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|---------|---------------|------------|------------|------------|
| AV   | 2.3886G      | 34.62             | 54.00             | -19.38         | 32.22          | 3           | Horizontal | 244            | 1.19          | -       | 2.40          | 27.65      | 4.57       | -          |
| AV   | 2.402G       | 75.42             | Inf               | -Inf           | 32.18          | 3           | Horizontal | 244            | 1.19          | -       | 43.24         | 27.60      | 4.58       | -          |
| PK   | 2.3886G      | 57.12             | 74.00             | -16.88         | 32.22          | 3           | Horizontal | 244            | 1.19          | -       | 24.90         | 27.65      | 4.57       | -          |
| PK   | 2.402G       | 97.92             | Inf               | -Inf           | 32.18          | 3           | Horizontal | 244            | 1.19          | -       | 65.74         | 27.60      | 4.58       | -          |

## BT-BR(1Mbps)

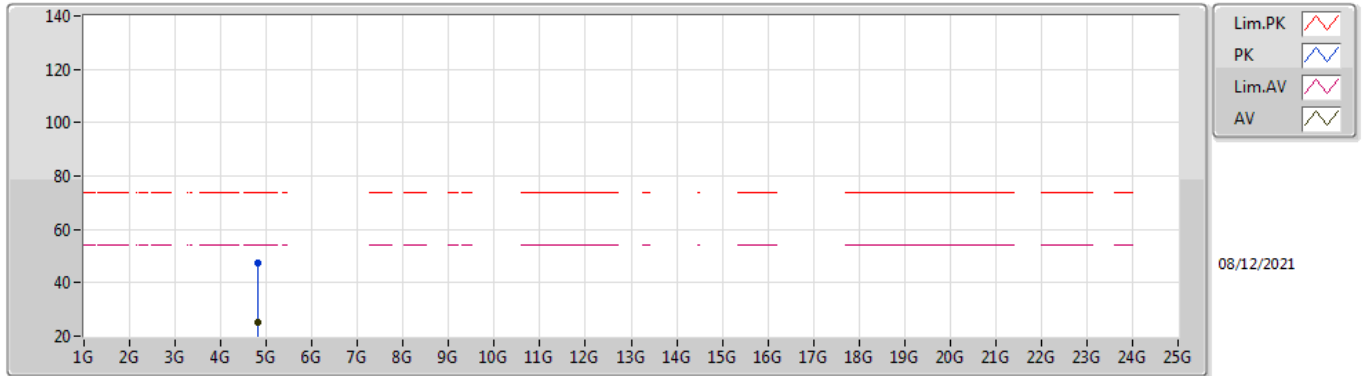
### 2402MHz\_TX



| Type | Freq     | Level    | Limit    | Margin | Factor | Dist | Condition | Azimuth | Height | Comment | Raw    | AF    | CL   | PA    |
|------|----------|----------|----------|--------|--------|------|-----------|---------|--------|---------|--------|-------|------|-------|
|      | (Hz)     | (dBuV/m) | (dBuV/m) | (dB)   | (dB)   | (m)  |           | (°)     | (m)    |         | (dBuV) | (dB)  | (dB) | (dB)  |
| AV   | 4.80419G | 25.97    | 54.00    | -28.03 | 2.95   | 3    | Vertical  | 18      | 1.00   | -       | 23.02  | 31.10 | 6.66 | 34.81 |
| PK   | 4.80419G | 48.47    | 74.00    | -25.53 | 2.95   | 3    | Vertical  | 18      | 1.00   | -       | 45.52  | 31.10 | 6.66 | 34.81 |

## BT-BR(1Mbps)

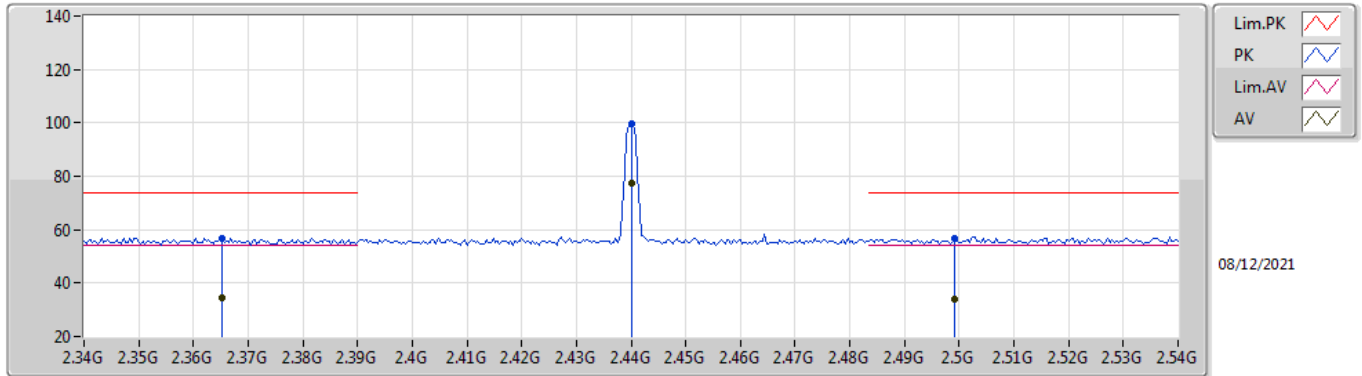
### 2402MHz\_TX



| Type | Freq     | Level    | Limit    | Margin | Factor | Dist | Condition  | Azimuth | Height | Comment | Raw    | AF    | CL   | PA    |
|------|----------|----------|----------|--------|--------|------|------------|---------|--------|---------|--------|-------|------|-------|
|      | (Hz)     | (dBuV/m) | (dBuV/m) | (dB)   | (dB)   | (m)  |            | (°)     | (m)    |         | (dBuV) | (dB)  | (dB) | (dB)  |
| AV   | 4.80418G | 24.93    | 54.00    | -29.07 | 2.95   | 3    | Horizontal | 36      | 2.37   | -       | 21.98  | 31.10 | 6.66 | 34.81 |
| PK   | 4.80418G | 47.43    | 74.00    | -26.57 | 2.95   | 3    | Horizontal | 36      | 2.37   | -       | 44.48  | 31.10 | 6.66 | 34.81 |

## BT-BR(1Mbps)

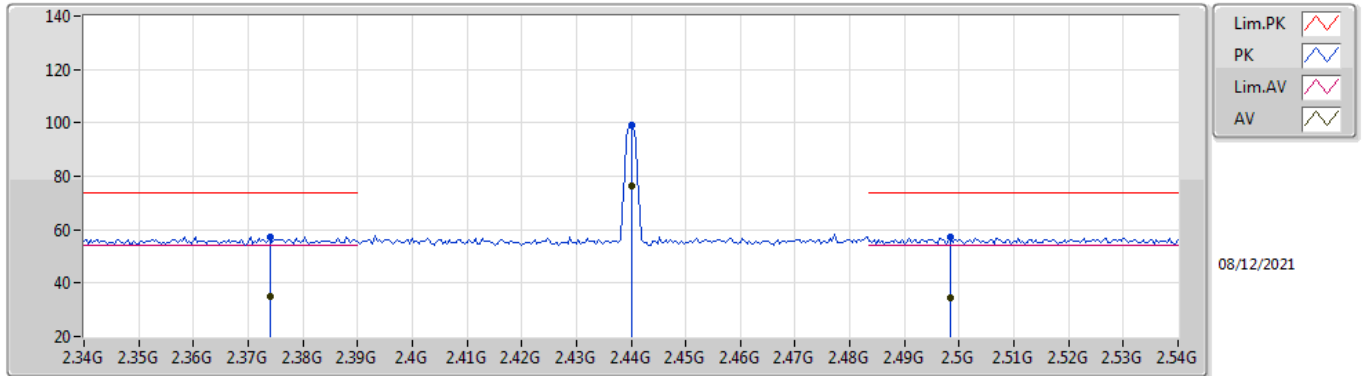
### 2440MHz\_TX



| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comment | Raw<br>(dBuV) | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|---------|---------------|------------|------------|------------|
| AV   | 2.3652G      | 34.42             | 54.00             | -19.58         | 32.29          | 3           | Vertical  | 220            | 2.29          | -       | 2.13          | 27.74      | 4.55       | -          |
| AV   | 2.44G        | 77.16             | Inf               | -Inf           | 32.12          | 3           | Vertical  | 220            | 2.29          | -       | 45.04         | 27.52      | 4.60       | -          |
| AV   | 2.4992G      | 34.04             | 54.00             | -19.96         | 32.12          | 3           | Vertical  | 220            | 2.29          | -       | 1.92          | 27.50      | 4.62       | -          |
| PK   | 2.3652G      | 56.92             | 74.00             | -17.08         | 32.29          | 3           | Vertical  | 220            | 2.29          | -       | 24.63         | 27.74      | 4.55       | -          |
| PK   | 2.44G        | 99.66             | Inf               | -Inf           | 32.12          | 3           | Vertical  | 220            | 2.29          | -       | 67.54         | 27.52      | 4.60       | -          |
| PK   | 2.4992G      | 56.54             | 74.00             | -17.46         | 32.12          | 3           | Vertical  | 220            | 2.29          | -       | 24.42         | 27.50      | 4.62       | -          |

## BT-BR(1Mbps)

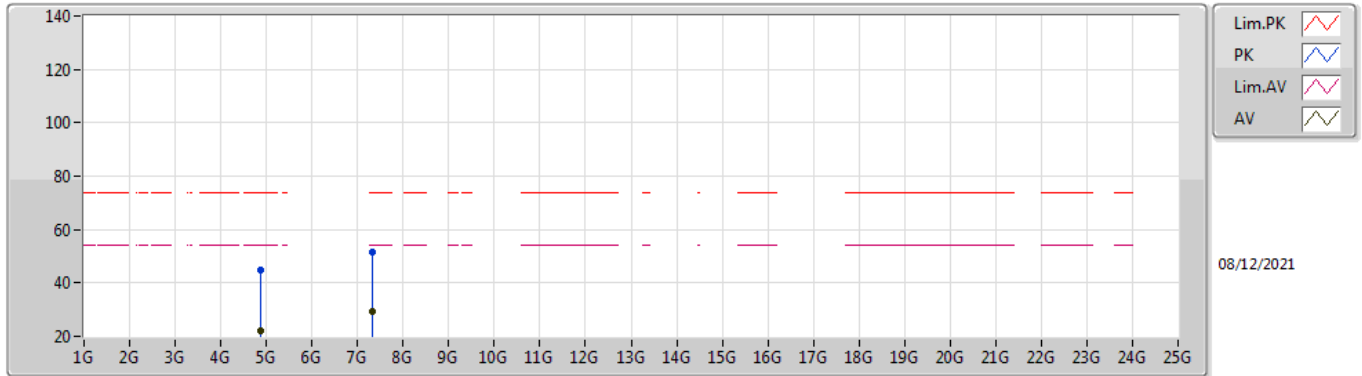
### 2440MHz\_TX



| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comment | Raw<br>(dBuV) | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|---------|---------------|------------|------------|------------|
| AV   | 2.374G       | 34.81             | 54.00             | -19.19         | 32.26          | 3           | Horizontal | 252            | 1.58          | -       | 2.55          | 27.70      | 4.56       | -          |
| AV   | 2.44G        | 76.39             | Inf               | -Inf           | 32.12          | 3           | Horizontal | 252            | 1.58          | -       | 44.27         | 27.52      | 4.60       | -          |
| AV   | 2.4984G      | 34.66             | 54.00             | -19.34         | 32.12          | 3           | Horizontal | 252            | 1.58          | -       | 2.54          | 27.50      | 4.62       | -          |
| PK   | 2.374G       | 57.31             | 74.00             | -16.69         | 32.26          | 3           | Horizontal | 252            | 1.58          | -       | 25.05         | 27.70      | 4.56       | -          |
| PK   | 2.44G        | 98.89             | Inf               | -Inf           | 32.12          | 3           | Horizontal | 252            | 1.58          | -       | 66.77         | 27.52      | 4.60       | -          |
| PK   | 2.4984G      | 57.16             | 74.00             | -16.84         | 32.12          | 3           | Horizontal | 252            | 1.58          | -       | 25.04         | 27.50      | 4.62       | -          |

# BT-BR(1Mbps)

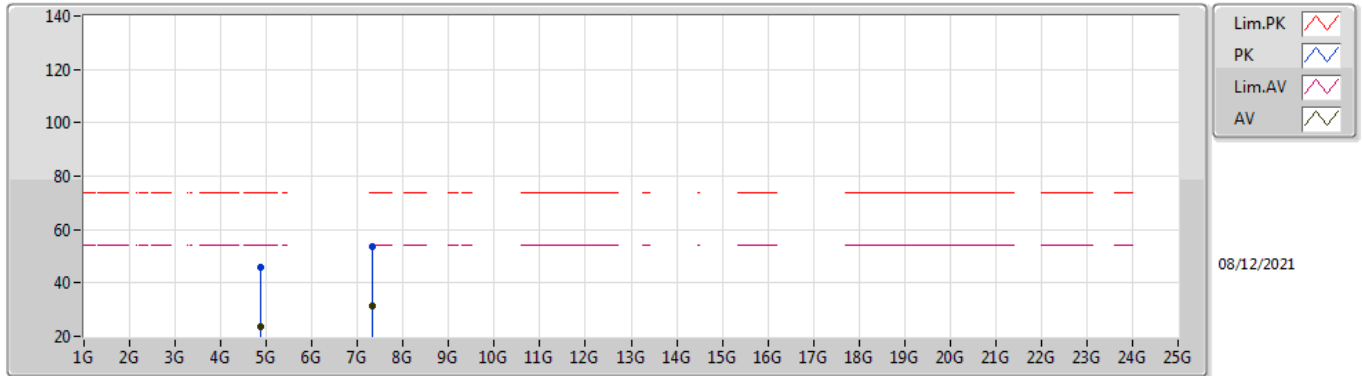
## 2440MHz\_TX



| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comment | Raw<br>(dBuV) | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|---------|---------------|------------|------------|------------|
| AV   | 4.88066G     | 22.32             | 54.00             | -31.68         | 3.03           | 3           | Vertical  | 170            | 1.46          | -       | 19.29         | 31.10      | 6.72       | 34.79      |
| AV   | 7.31996G     | 29.09             | 54.00             | -24.91         | 9.41           | 3           | Vertical  | 30             | 2.06          | -       | 19.68         | 36.36      | 7.87       | 34.82      |
| PK   | 4.88066G     | 44.82             | 74.00             | -29.18         | 3.03           | 3           | Vertical  | 170            | 1.46          | -       | 41.79         | 31.10      | 6.72       | 34.79      |
| PK   | 7.31996G     | 51.59             | 74.00             | -22.41         | 9.41           | 3           | Vertical  | 30             | 2.06          | -       | 42.18         | 36.36      | 7.87       | 34.82      |

## BT-BR(1Mbps)

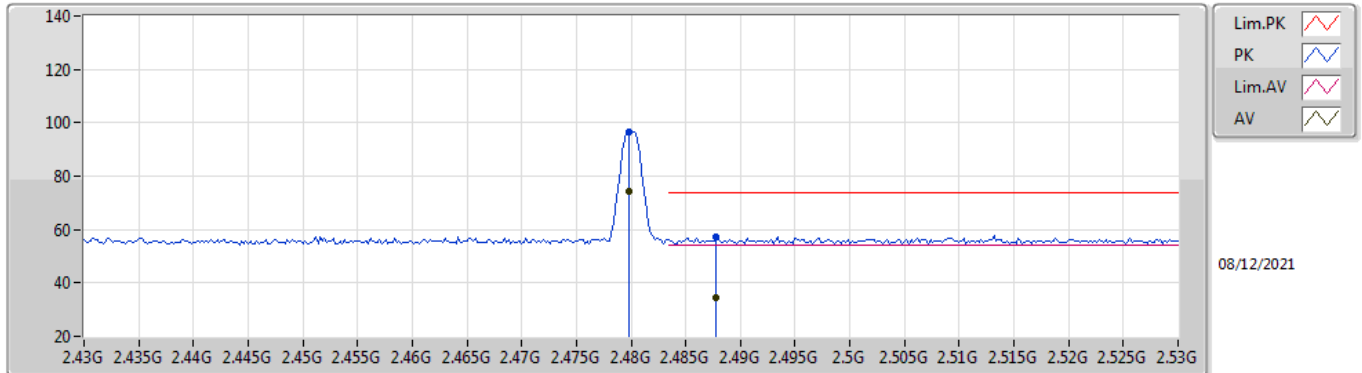
### 2440MHz\_TX



| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comment | Raw<br>(dBuV) | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|---------|---------------|------------|------------|------------|
| AV   | 4.88037G     | 23.46             | 54.00             | -30.54         | 3.03           | 3           | Horizontal | 37             | 1.00          | -       | 20.43         | 31.10      | 6.72       | 34.79      |
| AV   | 7.32072G     | 31.18             | 54.00             | -22.82         | 9.41           | 3           | Horizontal | 120            | 1.00          | -       | 21.77         | 36.36      | 7.87       | 34.82      |
| PK   | 4.88037G     | 45.96             | 74.00             | -28.04         | 3.03           | 3           | Horizontal | 37             | 1.00          | -       | 42.93         | 31.10      | 6.72       | 34.79      |
| PK   | 7.32072G     | 53.68             | 74.00             | -20.32         | 9.41           | 3           | Horizontal | 120            | 1.00          | -       | 44.27         | 36.36      | 7.87       | 34.82      |

## BT-BR(1Mbps)

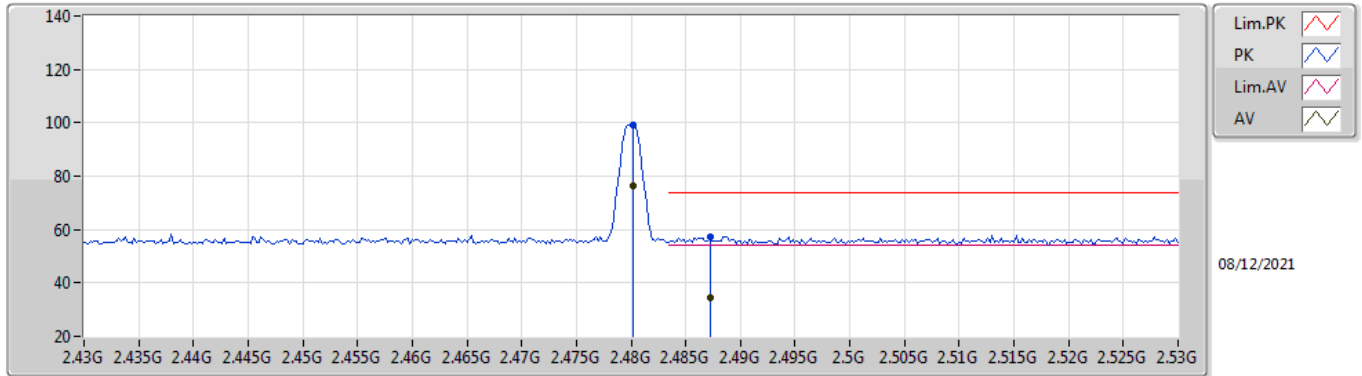
### 2480MHz\_TX



| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comment | Raw<br>(dBuV) | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|---------|---------------|------------|------------|------------|
| AV   | 2.4798G      | 74.07             | Inf               | -Inf           | 32.11          | 3           | Vertical  | 273            | 1.96          | -       | 41.96         | 27.50      | 4.61       | -          |
| AV   | 2.4878G      | 34.72             | 54.00             | -19.28         | 32.12          | 3           | Vertical  | 273            | 1.96          | -       | 2.60          | 27.50      | 4.62       | -          |
| PK   | 2.4798G      | 96.57             | Inf               | -Inf           | 32.11          | 3           | Vertical  | 273            | 1.96          | -       | 64.46         | 27.50      | 4.61       | -          |
| PK   | 2.4878G      | 57.22             | 74.00             | -16.78         | 32.12          | 3           | Vertical  | 273            | 1.96          | -       | 25.10         | 27.50      | 4.62       | -          |

## BT-BR(1Mbps)

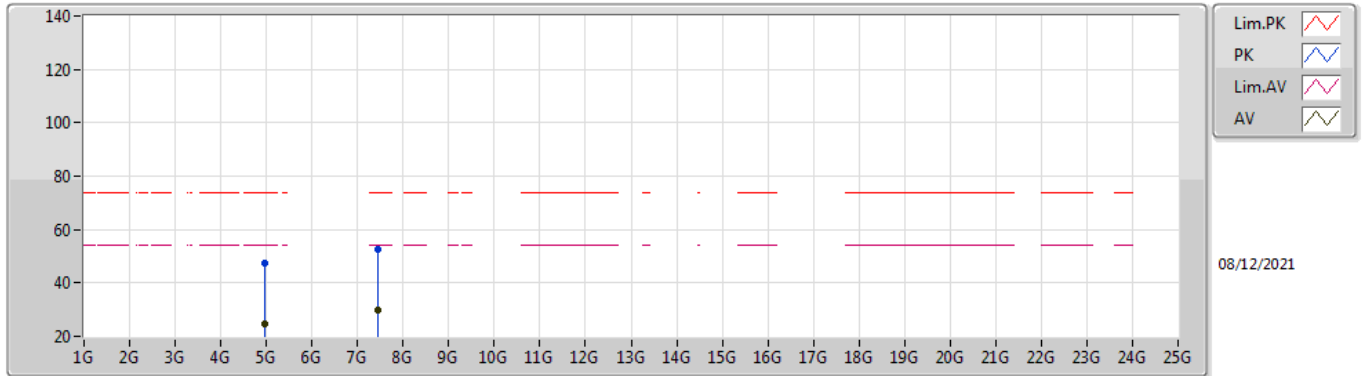
### 2480MHz\_TX



| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comment | Raw<br>(dBuV) | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|---------|---------------|------------|------------|------------|
| AV   | 2.4802G      | 76.59             | Inf               | -Inf           | 32.11          | 3           | Horizontal | 307            | 1.05          | -       | 44.48         | 27.50      | 4.61       | -          |
| AV   | 2.4872G      | 34.64             | 54.00             | -19.36         | 32.11          | 3           | Horizontal | 307            | 1.05          | -       | 2.53          | 27.50      | 4.61       | -          |
| PK   | 2.4802G      | 99.09             | Inf               | -Inf           | 32.11          | 3           | Horizontal | 307            | 1.05          | -       | 66.98         | 27.50      | 4.61       | -          |
| PK   | 2.4872G      | 57.14             | 74.00             | -16.86         | 32.11          | 3           | Horizontal | 307            | 1.05          | -       | 25.03         | 27.50      | 4.61       | -          |

## BT-BR(1Mbps)

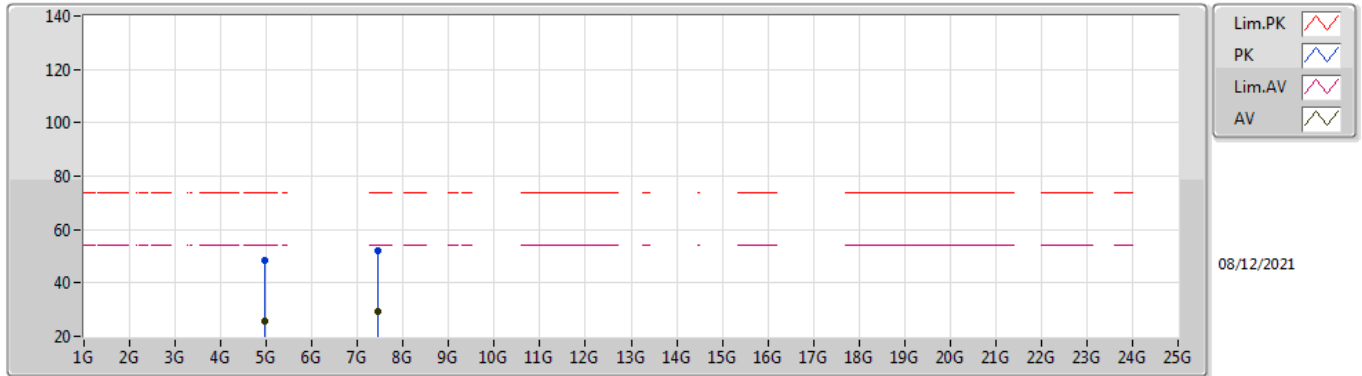
### 2480MHz\_TX



| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comment | Raw<br>(dBuV) | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|---------|---------------|------------|------------|------------|
| AV   | 4.9604G      | 24.67             | 54.00             | -29.33         | 3.35           | 3           | Vertical  | 293            | 1.00          | -       | 21.32         | 31.34      | 6.78       | 34.77      |
| AV   | 7.43975G     | 30.06             | 54.00             | -23.94         | 9.50           | 3           | Vertical  | 93             | 2.59          | -       | 20.56         | 36.28      | 8.06       | 34.84      |
| PK   | 4.9604G      | 47.17             | 74.00             | -26.83         | 3.35           | 3           | Vertical  | 293            | 1.00          | -       | 43.82         | 31.34      | 6.78       | 34.77      |
| PK   | 7.43975G     | 52.56             | 74.00             | -21.44         | 9.50           | 3           | Vertical  | 93             | 2.59          | -       | 43.06         | 36.28      | 8.06       | 34.84      |

## BT-BR(1Mbps)

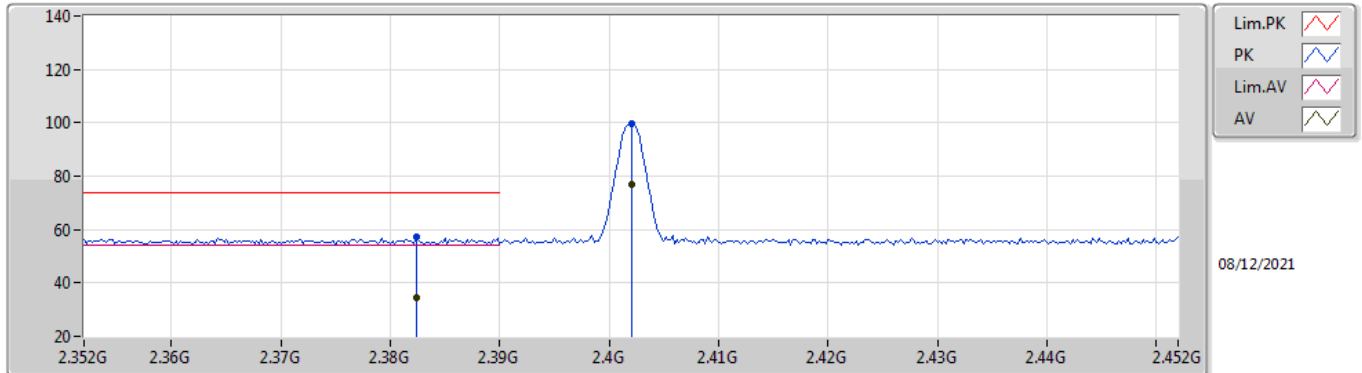
### 2480MHz\_TX



| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comment | Raw<br>(dBuV) | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|------------|----------------|---------------|---------|---------------|------------|------------|------------|
| AV   | 4.96002G     | 25.85             | 54.00             | -28.15         | 3.35           | 3           | Horizontal | 38             | 1.01          | -       | 22.50         | 31.34      | 6.78       | 34.77      |
| AV   | 7.44026G     | 29.56             | 54.00             | -24.44         | 9.50           | 3           | Horizontal | 120            | 1.00          | -       | 20.06         | 36.28      | 8.06       | 34.84      |
| PK   | 4.96002G     | 48.35             | 74.00             | -25.65         | 3.35           | 3           | Horizontal | 38             | 1.01          | -       | 45.00         | 31.34      | 6.78       | 34.77      |
| PK   | 7.44026G     | 52.06             | 74.00             | -21.94         | 9.50           | 3           | Horizontal | 120            | 1.00          | -       | 42.56         | 36.28      | 8.06       | 34.84      |

## BT-EDR(3Mbps)

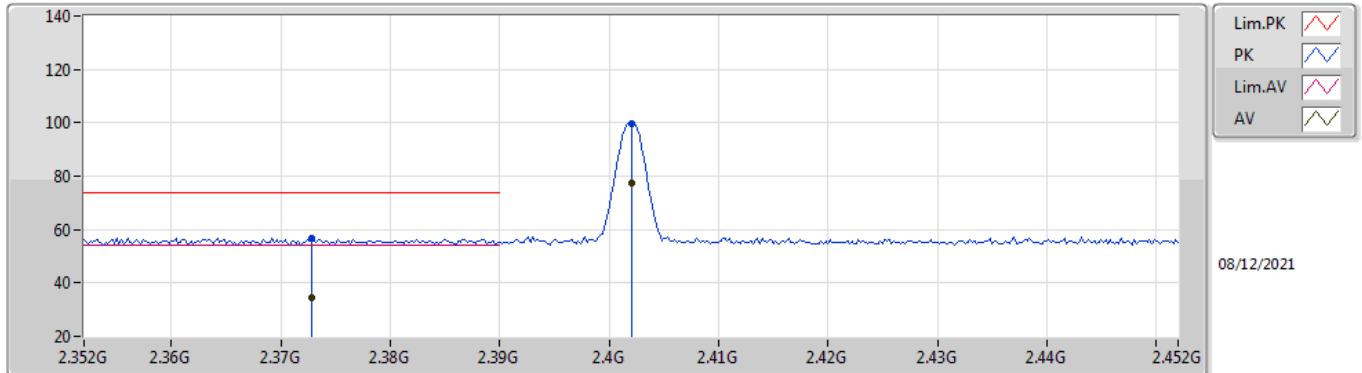
### 2402MHz\_TX



| Type | Freq    | Level    | Limit    | Margin | Factor | Dist | Condition | Azimuth | Height | Comment | Raw    | AF    | CL   | PA   |
|------|---------|----------|----------|--------|--------|------|-----------|---------|--------|---------|--------|-------|------|------|
|      | (Hz)    | (dBuV/m) | (dBuV/m) | (dB)   | (dB)   | (m)  |           | (°)     | (m)    |         | (dBuV) | (dB)  | (dB) | (dB) |
| AV   | 2.3824G | 34.58    | 54.00    | -19.42 | 32.23  | 3    | Vertical  | 208     | 1.18   | -       | 2.35   | 27.67 | 4.56 | -    |
| AV   | 2.402G  | 76.91    | Inf      | -Inf   | 32.18  | 3    | Vertical  | 208     | 1.18   | -       | 44.73  | 27.60 | 4.58 | -    |
| PK   | 2.3824G | 57.08    | 74.00    | -16.92 | 32.23  | 3    | Vertical  | 208     | 1.18   | -       | 24.85  | 27.67 | 4.56 | -    |
| PK   | 2.402G  | 99.41    | Inf      | -Inf   | 32.18  | 3    | Vertical  | 208     | 1.18   | -       | 67.23  | 27.60 | 4.58 | -    |

## BT-EDR(3Mbps)

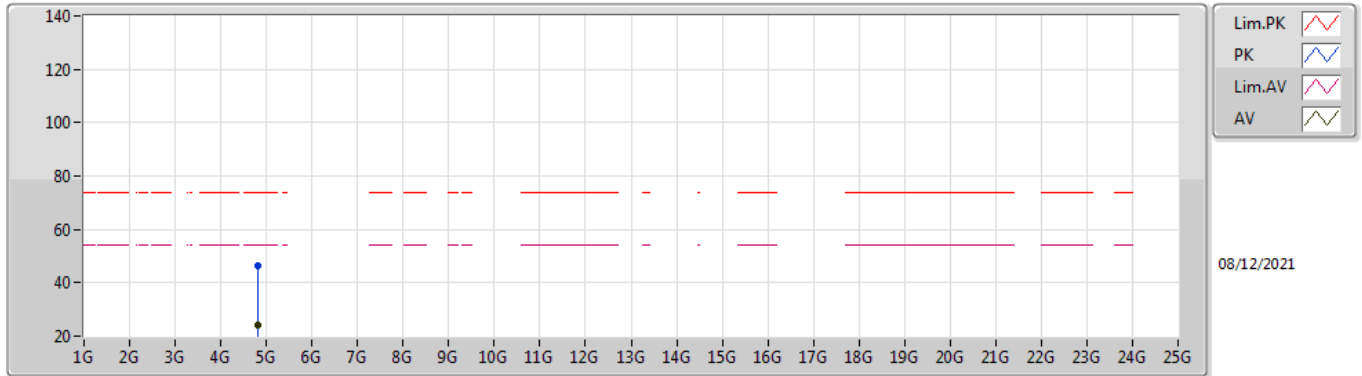
### 2402MHz\_TX



| Type | Freq    | Level    | Limit    | Margin | Factor | Dist | Condition  | Azimuth | Height | Comment | Raw    | AF    | CL   | PA   |
|------|---------|----------|----------|--------|--------|------|------------|---------|--------|---------|--------|-------|------|------|
|      | (Hz)    | (dBuV/m) | (dBuV/m) | (dB)   | (dB)   | (m)  |            | (°)     | (m)    |         | (dBuV) | (dB)  | (dB) | (dB) |
| AV   | 2.3728G | 34.40    | 54.00    | -19.60 | 32.26  | 3    | Horizontal | 245     | 1.16   | -       | 2.14   | 27.71 | 4.55 | -    |
| AV   | 2.402G  | 77.23    | Inf      | -Inf   | 32.18  | 3    | Horizontal | 245     | 1.16   | -       | 45.05  | 27.60 | 4.58 | -    |
| PK   | 2.3728G | 56.90    | 74.00    | -17.10 | 32.26  | 3    | Horizontal | 245     | 1.16   | -       | 24.64  | 27.71 | 4.55 | -    |
| PK   | 2.402G  | 99.73    | Inf      | -Inf   | 32.18  | 3    | Horizontal | 245     | 1.16   | -       | 67.55  | 27.60 | 4.58 | -    |

## BT-EDR(3Mbps)

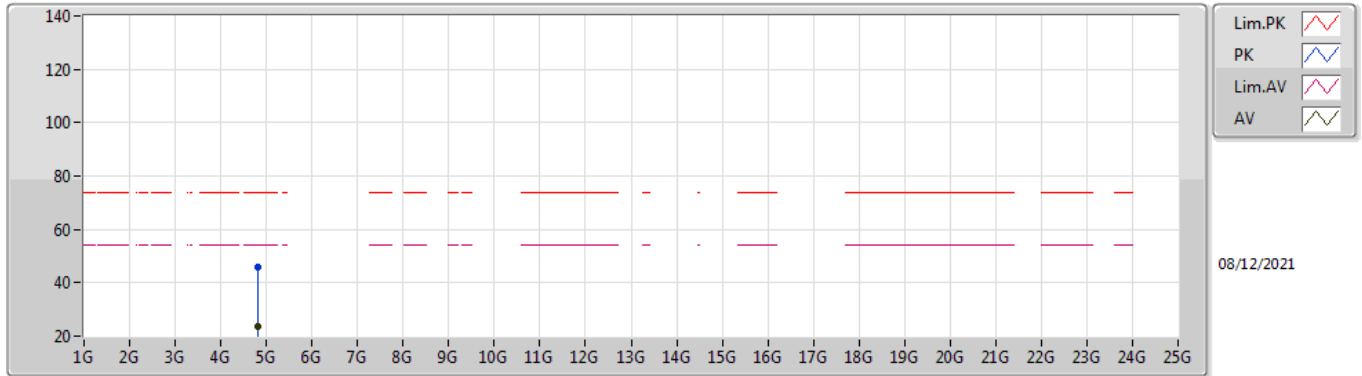
### 2402MHz\_TX



| Type | Freq     | Level    | Limit    | Margin | Factor | Dist | Condition | Azimuth | Height | Comment | Raw    | AF    | CL   | PA    |
|------|----------|----------|----------|--------|--------|------|-----------|---------|--------|---------|--------|-------|------|-------|
|      | (Hz)     | (dBuV/m) | (dBuV/m) | (dB)   | (dB)   | (m)  |           | (°)     | (m)    |         | (dBuV) | (dB)  | (dB) | (dB)  |
| AV   | 4.80429G | 23.88    | 54.00    | -30.12 | 2.95   | 3    | Vertical  | 191     | 2.50   | -       | 20.93  | 31.10 | 6.66 | 34.81 |
| PK   | 4.80429G | 46.38    | 74.00    | -27.62 | 2.95   | 3    | Vertical  | 191     | 2.50   | -       | 43.43  | 31.10 | 6.66 | 34.81 |

## BT-EDR(3Mbps)

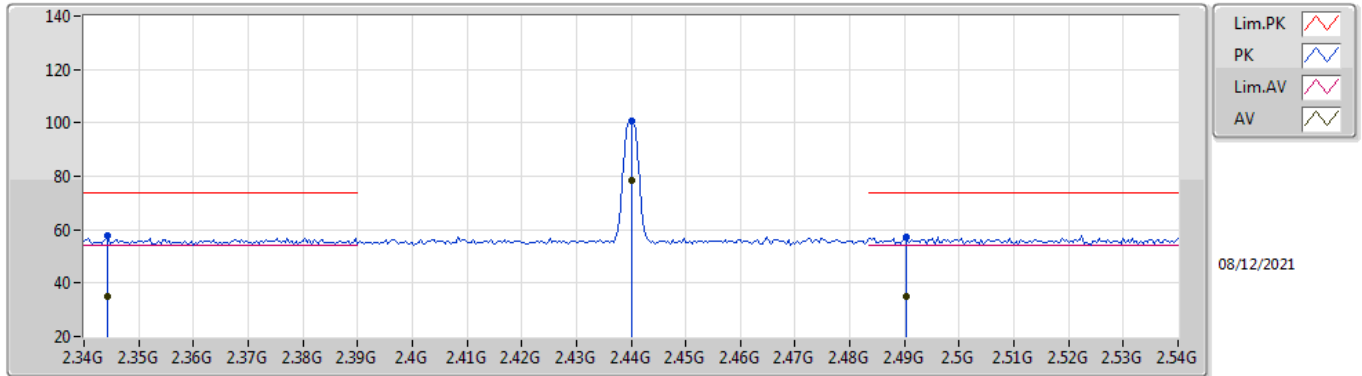
### 2402MHz\_TX



| Type | Freq     | Level    | Limit    | Margin | Factor | Dist | Condition  | Azimuth | Height | Comment | Raw    | AF    | CL   | PA    |
|------|----------|----------|----------|--------|--------|------|------------|---------|--------|---------|--------|-------|------|-------|
|      | (Hz)     | (dBuV/m) | (dBuV/m) | (dB)   | (dB)   | (m)  |            | (°)     | (m)    |         | (dBuV) | (dB)  | (dB) | (dB)  |
| AV   | 4.80401G | 23.43    | 54.00    | -30.57 | 2.95   | 3    | Horizontal | 53      | 2.45   | -       | 20.48  | 31.10 | 6.66 | 34.81 |
| PK   | 4.80401G | 45.93    | 74.00    | -28.07 | 2.95   | 3    | Horizontal | 53      | 2.45   | -       | 42.98  | 31.10 | 6.66 | 34.81 |

## BT-EDR(3Mbps)

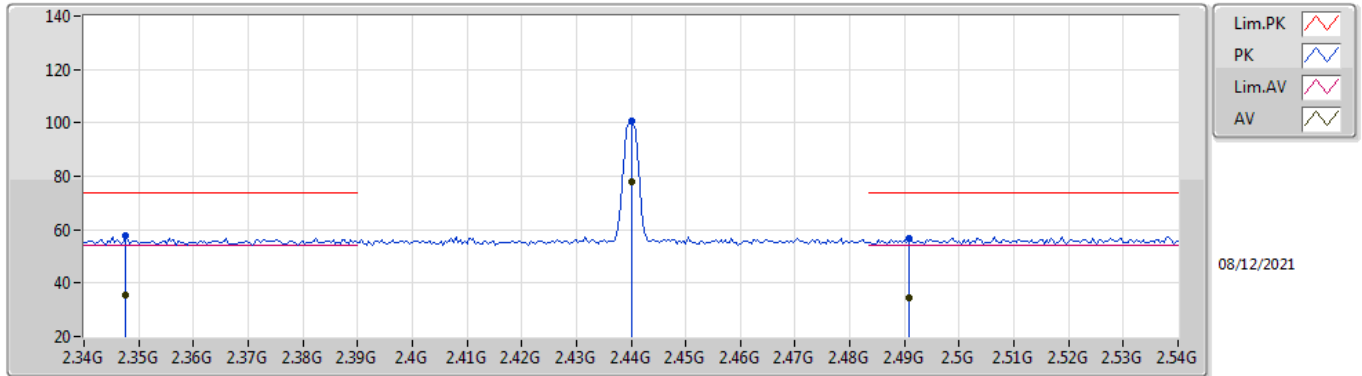
### 2440MHz\_TX



| Type | Freq    | Level    | Limit    | Margin | Factor | Dist | Condition | Azimuth | Height | Comment | Raw    | AF    | CL   | PA   |
|------|---------|----------|----------|--------|--------|------|-----------|---------|--------|---------|--------|-------|------|------|
|      | (Hz)    | (dBuV/m) | (dBuV/m) | (dB)   | (dB)   | (m)  |           | (°)     | (m)    |         | (dBuV) | (dB)  | (dB) | (dB) |
| AV   | 2.3444G | 35.02    | 54.00    | -18.98 | 32.33  | 3    | Vertical  | 220     | 2.29   | -       | 2.69   | 27.80 | 4.53 | -    |
| AV   | 2.44G   | 78.27    | Inf      | -Inf   | 32.12  | 3    | Vertical  | 220     | 2.29   | -       | 46.15  | 27.52 | 4.60 | -    |
| AV   | 2.4904G | 34.76    | 54.00    | -19.24 | 32.12  | 3    | Vertical  | 220     | 2.29   | -       | 2.64   | 27.50 | 4.62 | -    |
| PK   | 2.3444G | 57.52    | 74.00    | -16.48 | 32.33  | 3    | Vertical  | 220     | 2.29   | -       | 25.19  | 27.80 | 4.53 | -    |
| PK   | 2.44G   | 100.77   | Inf      | -Inf   | 32.12  | 3    | Vertical  | 220     | 2.29   | -       | 68.65  | 27.52 | 4.60 | -    |
| PK   | 2.4904G | 57.26    | 74.00    | -16.74 | 32.12  | 3    | Vertical  | 220     | 2.29   | -       | 25.14  | 27.50 | 4.62 | -    |

## BT-EDR(3Mbps)

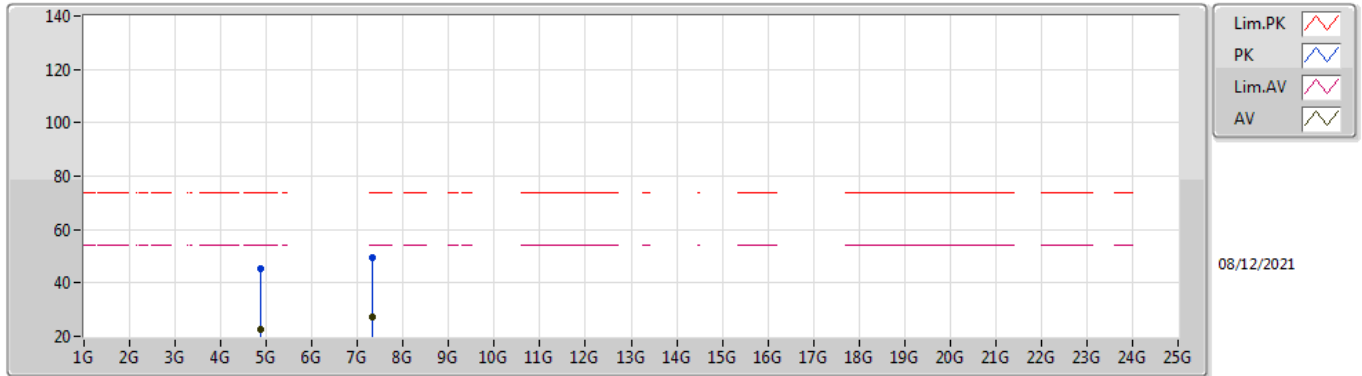
### 2440MHz\_TX



| Type | Freq    | Level    | Limit    | Margin | Factor | Dist | Condition  | Azimuth | Height | Comment | Raw    | AF    | CL   | PA   |
|------|---------|----------|----------|--------|--------|------|------------|---------|--------|---------|--------|-------|------|------|
|      | (Hz)    | (dBuV/m) | (dBuV/m) | (dB)   | (dB)   | (m)  |            | (°)     | (m)    |         | (dBuV) | (dB)  | (dB) | (dB) |
| AV   | 2.3476G | 35.28    | 54.00    | -18.72 | 32.33  | 3    | Horizontal | 252     | 1.57   | -       | 2.95   | 27.80 | 4.53 | -    |
| AV   | 2.44G   | 77.95    | Inf      | -Inf   | 32.12  | 3    | Horizontal | 252     | 1.57   | -       | 45.83  | 27.52 | 4.60 | -    |
| AV   | 2.4908G | 34.36    | 54.00    | -19.64 | 32.12  | 3    | Horizontal | 252     | 1.57   | -       | 2.24   | 27.50 | 4.62 | -    |
| PK   | 2.3476G | 57.78    | 74.00    | -16.22 | 32.33  | 3    | Horizontal | 252     | 1.57   | -       | 25.45  | 27.80 | 4.53 | -    |
| PK   | 2.44G   | 100.45   | Inf      | -Inf   | 32.12  | 3    | Horizontal | 252     | 1.57   | -       | 68.33  | 27.52 | 4.60 | -    |
| PK   | 2.4908G | 56.86    | 74.00    | -17.14 | 32.12  | 3    | Horizontal | 252     | 1.57   | -       | 24.74  | 27.50 | 4.62 | -    |

## BT-EDR(3Mbps)

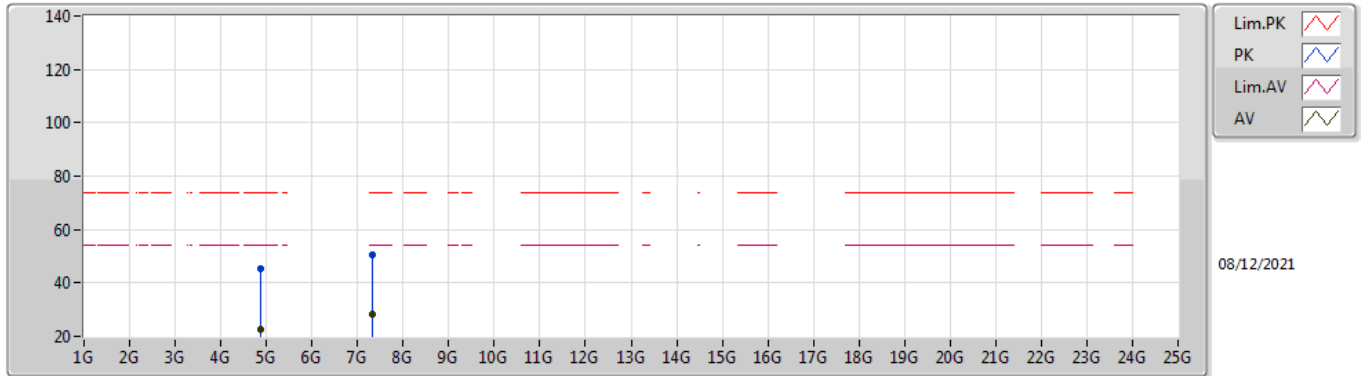
### 2440MHz\_TX



| Type | Freq     | Level    | Limit    | Margin | Factor | Dist | Condition | Azimuth | Height | Comment | Raw    | AF    | CL   | PA    |
|------|----------|----------|----------|--------|--------|------|-----------|---------|--------|---------|--------|-------|------|-------|
|      | (Hz)     | (dBuV/m) | (dBuV/m) | (dB)   | (dB)   | (m)  |           | (°)     | (m)    |         | (dBuV) | (dB)  | (dB) | (dB)  |
| AV   | 4.88038G | 22.59    | 54.00    | -31.41 | 3.03   | 3    | Vertical  | 311     | 1.20   | -       | 19.56  | 31.10 | 6.72 | 34.79 |
| AV   | 7.32124G | 27.09    | 54.00    | -26.91 | 9.42   | 3    | Vertical  | 168     | 1.00   | -       | 17.67  | 36.36 | 7.88 | 34.82 |
| PK   | 4.88038G | 45.09    | 74.00    | -28.91 | 3.03   | 3    | Vertical  | 311     | 1.20   | -       | 42.06  | 31.10 | 6.72 | 34.79 |
| PK   | 7.32124G | 49.59    | 74.00    | -24.41 | 9.42   | 3    | Vertical  | 168     | 1.00   | -       | 40.17  | 36.36 | 7.88 | 34.82 |

## BT-EDR(3Mbps)

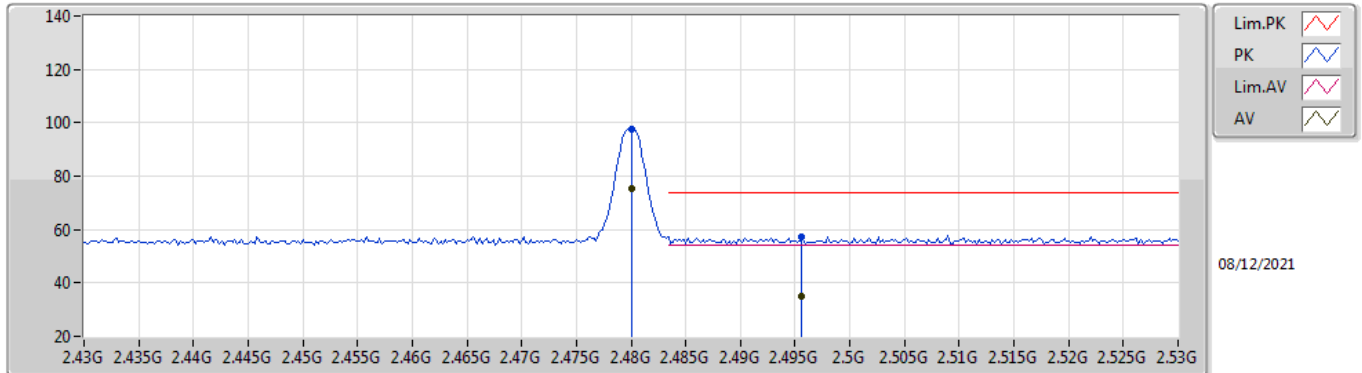
### 2440MHz\_TX



| Type | Freq     | Level    | Limit    | Margin | Factor | Dist | Condition  | Azimuth | Height | Comment | Raw    | AF    | CL   | PA    |
|------|----------|----------|----------|--------|--------|------|------------|---------|--------|---------|--------|-------|------|-------|
|      | (Hz)     | (dBuV/m) | (dBuV/m) | (dB)   | (dB)   | (m)  |            | (°)     | (m)    |         | (dBuV) | (dB)  | (dB) | (dB)  |
| AV   | 4.87954G | 22.78    | 54.00    | -31.22 | 3.03   | 3    | Horizontal | 50      | 1.00   | -       | 19.75  | 31.10 | 6.72 | 34.79 |
| AV   | 7.31976G | 28.06    | 54.00    | -25.94 | 9.41   | 3    | Horizontal | 137     | 1.00   | -       | 18.65  | 36.36 | 7.87 | 34.82 |
| PK   | 4.87954G | 45.28    | 74.00    | -28.72 | 3.03   | 3    | Horizontal | 50      | 1.00   | -       | 42.25  | 31.10 | 6.72 | 34.79 |
| PK   | 7.31976G | 50.56    | 74.00    | -23.44 | 9.41   | 3    | Horizontal | 137     | 1.00   | -       | 41.15  | 36.36 | 7.87 | 34.82 |

## BT-EDR(3Mbps)

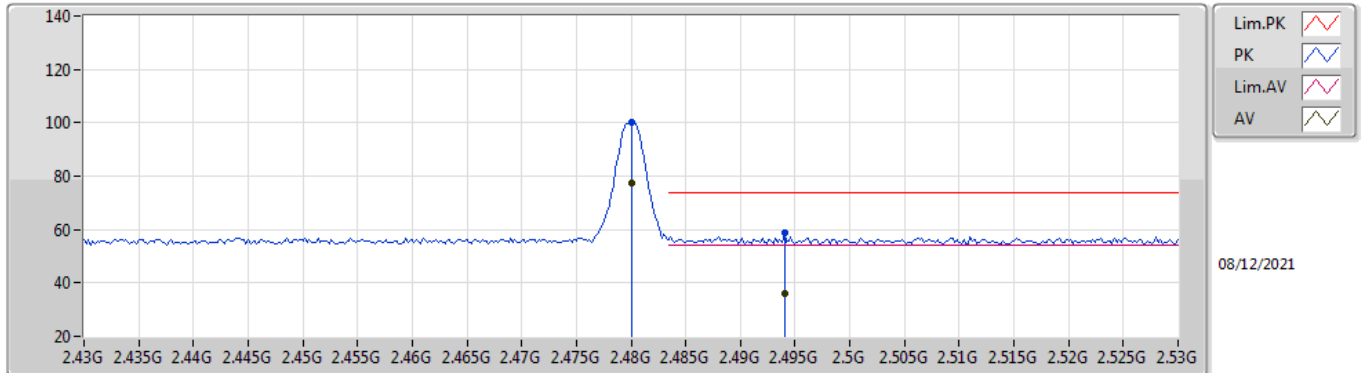
### 2480MHz\_TX



| Type | Freq    | Level    | Limit    | Margin | Factor | Dist | Condition | Azimuth | Height | Comment | Raw    | AF    | CL   | PA   |
|------|---------|----------|----------|--------|--------|------|-----------|---------|--------|---------|--------|-------|------|------|
|      | (Hz)    | (dBuV/m) | (dBuV/m) | (dB)   | (dB)   | (m)  |           | (°)     | (m)    |         | (dBuV) | (dB)  | (dB) | (dB) |
| AV   | 2.48G   | 75.22    | Inf      | -Inf   | 32.11  | 3    | Vertical  | 263     | 1.09   | -       | 43.11  | 27.50 | 4.61 | -    |
| AV   | 2.4956G | 34.78    | 54.00    | -19.22 | 32.12  | 3    | Vertical  | 263     | 1.09   | -       | 2.66   | 27.50 | 4.62 | -    |
| PK   | 2.48G   | 97.72    | Inf      | -Inf   | 32.11  | 3    | Vertical  | 263     | 1.09   | -       | 65.61  | 27.50 | 4.61 | -    |
| PK   | 2.4956G | 57.28    | 74.00    | -16.72 | 32.12  | 3    | Vertical  | 263     | 1.09   | -       | 25.16  | 27.50 | 4.62 | -    |

## BT-EDR(3Mbps)

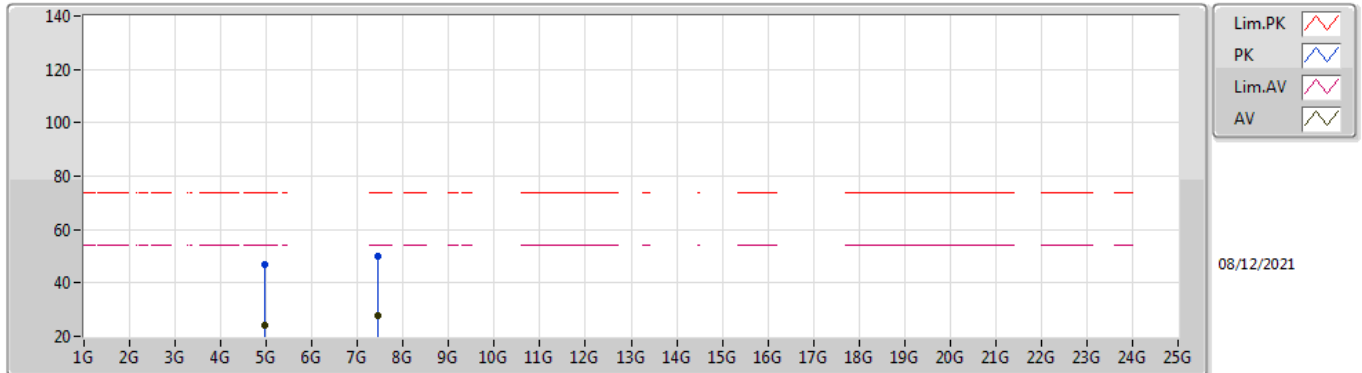
### 2480MHz\_TX



| Type | Freq   | Level    | Limit    | Margin | Factor | Dist | Condition  | Azimuth | Height | Comment | Raw    | AF    | CL   | PA   |
|------|--------|----------|----------|--------|--------|------|------------|---------|--------|---------|--------|-------|------|------|
|      | (Hz)   | (dBuV/m) | (dBuV/m) | (dB)   | (dB)   | (m)  |            | (°)     | (m)    |         | (dBuV) | (dB)  | (dB) | (dB) |
| AV   | 2.48G  | 77.50    | Inf      | -Inf   | 32.11  | 3    | Horizontal | 306     | 1.05   | -       | 45.39  | 27.50 | 4.61 | -    |
| AV   | 2.494G | 36.29    | 54.00    | -17.71 | 32.12  | 3    | Horizontal | 306     | 1.05   | -       | 4.17   | 27.50 | 4.62 | -    |
| PK   | 2.48G  | 100.00   | Inf      | -Inf   | 32.11  | 3    | Horizontal | 306     | 1.05   | -       | 67.89  | 27.50 | 4.61 | -    |
| PK   | 2.494G | 58.79    | 74.00    | -15.21 | 32.12  | 3    | Horizontal | 306     | 1.05   | -       | 26.67  | 27.50 | 4.62 | -    |

## BT-EDR(3Mbps)

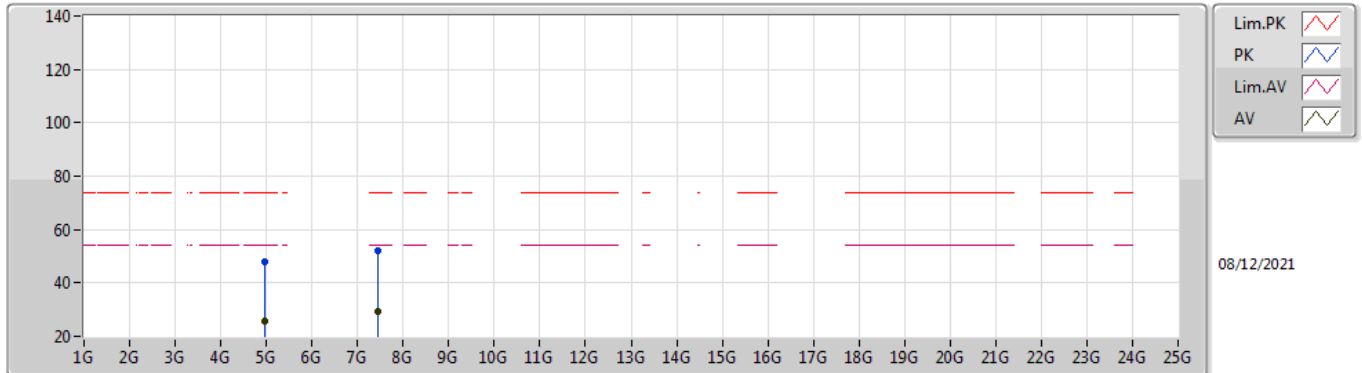
### 2480MHz\_TX



| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comment | Raw<br>(dBuV) | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |
|------|--------------|-------------------|-------------------|----------------|----------------|-------------|-----------|----------------|---------------|---------|---------------|------------|------------|------------|
| AV   | 4.96016G     | 24.20             | 54.00             | -29.80         | 3.35           | 3           | Vertical  | 295            | 1.02          | -       | 20.85         | 31.34      | 6.78       | 34.77      |
| AV   | 7.43885G     | 27.73             | 54.00             | -26.27         | 9.49           | 3           | Vertical  | 136            | 1.00          | -       | 18.24         | 36.28      | 8.05       | 34.84      |
| PK   | 4.96016G     | 46.70             | 74.00             | -27.30         | 3.35           | 3           | Vertical  | 295            | 1.02          | -       | 43.35         | 31.34      | 6.78       | 34.77      |
| PK   | 7.43885G     | 50.23             | 74.00             | -23.77         | 9.49           | 3           | Vertical  | 136            | 1.00          | -       | 40.74         | 36.28      | 8.05       | 34.84      |

## BT-EDR(3Mbps)

### 2480MHz\_TX



| Type | Freq     | Level    | Limit    | Margin | Factor | Dist | Condition  | Azimuth | Height | Comment | Raw    | AF    | CL   | PA    |
|------|----------|----------|----------|--------|--------|------|------------|---------|--------|---------|--------|-------|------|-------|
|      | (Hz)     | (dBuV/m) | (dBuV/m) | (dB)   | (dB)   | (m)  |            | (°)     | (m)    |         | (dBuV) | (dB)  | (dB) | (dB)  |
| AV   | 4.96046G | 25.56    | 54.00    | -28.44 | 3.35   | 3    | Horizontal | 38      | 1.02   | -       | 22.21  | 31.34 | 6.78 | 34.77 |
| AV   | 7.43937G | 29.32    | 54.00    | -24.68 | 9.49   | 3    | Horizontal | 118     | 1.00   | -       | 19.83  | 36.28 | 8.05 | 34.84 |
| PK   | 4.96046G | 48.06    | 74.00    | -25.94 | 3.35   | 3    | Horizontal | 38      | 1.02   | -       | 44.71  | 31.34 | 6.78 | 34.77 |
| PK   | 7.43937G | 51.82    | 74.00    | -22.18 | 9.49   | 3    | Horizontal | 118     | 1.00   | -       | 42.33  | 36.28 | 8.05 | 34.84 |