

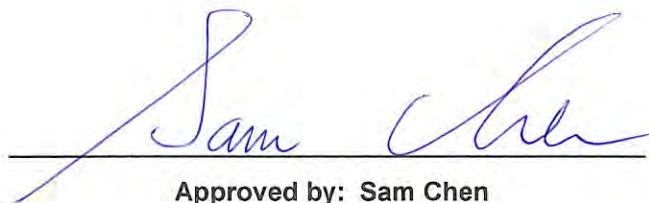


# RADIO TEST REPORT

**FCC ID** : Z8H89FT0073  
**Equipment** : XE3-4TN Outdoor Wi-Fi 6e 4x4 Access Point with SDR  
**Brand Name** : Cambium Networks  
**Model Name** : XE3-4T  
**Applicant** : Cambium Networks Inc.  
3800 Golf Road Suite 360 Rolling Meadows IL United States 60008  
**Manufacturer** : LITE-ON Technology Corp. Networking Plant  
5F, No. 101, Neihuan N. Rd., Nanzih Dist., Kaohsiung City 811, Taiwan, R.O.C.  
**Standard** : 47 CFR FCC Part 15.247

The product was received on Aug. 02, 2022, and testing was started from Aug. 02, 2022 and completed on Dec. 15, 2022. We, Sporton International Inc. Hsinchu 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. Hsinchu Laboratory, the test report shall not be reproduced except in full.



Approved by: Sam Chen

**Sporton International Inc. Hsinchu Laboratory**

No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.)



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TEL : 886-3-656-9065  
FAX : 886-3-656-9085  
Report Template No.: CB-A10\_5 Ver1.3



## 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 Band edge | 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:**

1. The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers. It's means measurement values may risk exceeding the limit of regulation standards, if measurement uncertainty is include in test results.
2. The measurement uncertainty please refer to report "Measurement Uncertainty".

**Comments and Explanations:**

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

**Reviewed by: Sam Chen**

**Report Producer: Viola Huang**



# 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]      |

#### For Radio 4

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

#### 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**

| Set | Port                  |                     |                     |              |               | Brand Name | Part Name              | Antenna Type | Connector | Gain (dBi) |
|-----|-----------------------|---------------------|---------------------|--------------|---------------|------------|------------------------|--------------|-----------|------------|
|     | WLAN 2.4GHz (Radio 1) | WLAN 5GHz (Radio 2) | WLAN 5GHz (Radio 3) | BT (Radio 4) | GPS (Radio 5) |            |                        |              |           |            |
| 1   | 1                     | 1                   | 2                   | -            | -             | LYNwave    | ALX22X-121050-00       | Dipole       | N-Type    | Note 1     |
|     | 2                     | 2                   | 4                   | -            | -             |            |                        |              |           |            |
|     | -                     | -                   | 1                   | -            | -             |            |                        |              |           |            |
|     | -                     | -                   | 3                   | -            | -             |            |                        |              |           |            |
| 2   | 1                     | 1                   | 2                   | -            | -             | SmartAnt   | SAA19-220130           | Dipole       | N-Type    |            |
|     | 2                     | 2                   | 4                   | -            | -             |            |                        |              |           |            |
|     | -                     | -                   | 1                   | -            | -             |            |                        |              |           |            |
|     | -                     | -                   | 3                   | -            | -             |            |                        |              |           |            |
| 3   | -                     | -                   | 2                   | -            | -             | LYNwave    | OLX22X-127130-A        | Patch        | N-Type    |            |
|     | -                     | -                   | 4                   | -            | -             |            |                        |              |           |            |
|     | -                     | -                   | 1                   | -            | -             |            |                        |              |           |            |
|     | -                     | -                   | 3                   | -            | -             |            |                        |              |           |            |
| 4   | 1                     | -                   | -                   | -            | -             | EAHiSON    | ANT-DIR15-2X2-2.4 G-01 | Panel        | N-Female  |            |
|     | 2                     | -                   | -                   | -            | -             |            |                        |              |           |            |
| 5   | -                     | 1                   | 2                   | -            | -             | KBT        | ANT-DIR15-2X2-5.0 G-01 | Panel        | N-Female  |            |
|     | -                     | 2                   | 4                   | -            | -             |            |                        |              |           |            |
|     | -                     | -                   | 1                   | -            | -             |            |                        |              |           |            |
|     | -                     | -                   | 3                   | -            | -             |            |                        |              |           |            |
| 6   | -                     | -                   | -                   | -            | 1             | Cirocomm   | 03V0134913Z010T        | Marine GPS   | SMA       |            |
| 7   | -                     | -                   | -                   | 1            | -             | INPAQ      | RFPCA403422IMAB 702    | PCB          | I-PEX     |            |



Note 1:

| Set | Antenna Gain (dBi)       |                 |                  |             | Cable loss (dB)          |                 |                  |             | Net Gain (dBi)           |                 |                  |             |
|-----|--------------------------|-----------------|------------------|-------------|--------------------------|-----------------|------------------|-------------|--------------------------|-----------------|------------------|-------------|
|     | WLAN 2.4GHz<br>(Radio 1) | BT<br>(Radio 4) | GPS<br>(Radio 5) |             | WLAN 2.4GHz<br>(Radio 1) | BT<br>(Radio 4) | GPS<br>(Radio 5) |             | WLAN 2.4GHz<br>(Radio 1) | BT<br>(Radio 4) | GPS<br>(Radio 5) |             |
|     |                          |                 | 1575.42<br>MHz   | 1602<br>MHz |                          |                 | 1575.42<br>MHz   | 1602<br>MHz |                          |                 | 1575.42<br>MHz   | 1602<br>MHz |
| 1   | 4.4                      | -               | -                | -           | -                        | -               | -                | -           | 4.4                      | -               | -                | -           |
| 2   | 3                        | -               | -                | -           | -                        | -               | -                | -           | 3                        | -               | -                | -           |
| 4   | 18                       | -               | -                | -           | 0.77                     | -               | -                | -           | 17.23                    | -               | -                | -           |
| 6   | -                        | -               | 3                | 4.5         | -                        | -               | -                | -           | -                        | -               | 3                | 4.5         |
| 7   | -                        | 3.73            | -                | -           | -                        | -               | -                | -           | -                        | 3.73            | -                | -           |

| Set | Antenna Gain (dBi)     |            |            |           |                        |            |            |           | Cable loss (dB)        |            |            |           |                        |            |            |           | Net Gain (dBi)         |            |            |           |                        |            |            |           |
|-----|------------------------|------------|------------|-----------|------------------------|------------|------------|-----------|------------------------|------------|------------|-----------|------------------------|------------|------------|-----------|------------------------|------------|------------|-----------|------------------------|------------|------------|-----------|
|     | WLAN 5GHz<br>(Radio 2) |            |            |           | WLAN 5GHz<br>(Radio 3) |            |            |           | WLAN 5GHz<br>(Radio 2) |            |            |           | WLAN 5GHz<br>(Radio 3) |            |            |           | WLAN 5GHz<br>(Radio 2) |            |            |           | WLAN 5GHz<br>(Radio 3) |            |            |           |
|     | UNII<br>1              | UNII<br>2A | UNII<br>2C | UNII<br>3 | UNII<br>1              | UNII<br>2A | UNII<br>2C | UNII<br>3 | UNII<br>1              | UNII<br>2A | UNII<br>2C | UNII<br>3 | UNII<br>1              | UNII<br>2A | UNII<br>2C | UNII<br>3 | UNII<br>1              | UNII<br>2A | UNII<br>2C | UNII<br>3 | UNII<br>1              | UNII<br>2A | UNII<br>2C | UNII<br>3 |
| 1   | 5.5                    | 5.5        | 5.5        | 5.5       | 5.5                    | 5.5        | 5.5        | 5.5       | -                      | -          | -          | -         | -                      | -          | -          | -         | 5.5                    | 5.5        | 5.5        | 5.5       | 5.5                    | 5.5        | 5.5        | 5.5       |
| 2   | 5                      | 5          | 6          | 6         | 5                      | 5          | 6          | 6         | -                      | -          | -          | -         | -                      | -          | -          | -         | 5                      | 5          | 6          | 6         | 5                      | 5          | 6          | 6         |
| 3   | -                      | -          | -          | -         | 11                     | 11         | 11         | 11        | -                      | -          | -          | -         | 1.45                   | 1.45       | 1.6        | 1.6       | -                      | -          | -          | -         | 9.55                   | 9.55       | 9.4        | 9.4       |
| 5   | 18                     | 18         | 18         | 18        | 18                     | 18         | 18         | 18        | 1.45                   | 1.45       | 1.6        | 1.6       | 1.45                   | 1.45       | 1.6        | 1.6       | 16.55                  | 16.55      | 16.4       | 16.4      | 16.55                  | 16.55      | 16.4       | 16.4      |

Note 2: The EUT has five sets of antenna for WLAN and one set of antenna for GPS and Bluetooth.

Note 3: The above information was declared by manufacturer.

Note 4: The antenna set 1 and set 2 are the same antenna type, only the highest gain antenna (antenna set 1 for 2.4GHz and 5GHz UNII 1, antenna set 2 for 5GHz UNII 3) were selected to test and record in this report.

Note 5: The EUT doesn't enable the DFS band.

Note 6: Polarization of antenna set 3: 2\*Horizontal, 2\*Vertical. so array gain only adds 10log (2).

Polarization of antenna set 4: 1\*Horizontal, 1\*Vertical. so the array gain is 0dBi.

Polarization of antenna set 5: Radio 2: 1\*Horizontal, 1\*Vertical. so the array gain is 0dBi.

Radio 3: 2\*Horizontal, 2\*Vertical. so array gain only adds 10log (2).

Note 7: Directional gain information.

| Type   | Maximum Output Power                                                                                                                                | Power Spectral Density                                                                                                              |
|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| Non-BF | Directional gain = Max.gain + array gain.<br>For power measurements on IEEE 802.11 devices<br>Array Gain = 0 dB (i.e., no array gain) for N ANT ≤ 4 | $DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{ANT}} \left[ \sum_{k=1}^{N_{sub}} g_{j,k} \right]^2}{N_{ANT}} \right]$ |
| BF     | $DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{ANT}} \left[ \sum_{k=1}^{N_{sub}} g_{j,k} \right]^2}{N_{ANT}} \right]$                 | $DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{ANT}} \left[ \sum_{k=1}^{N_{sub}} g_{j,k} \right]^2}{N_{ANT}} \right]$ |

Ex.

Directional Gain (NSS1) formula :

$$DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{ANT}} \left[ \sum_{k=1}^{N_{sub}} g_{j,k} \right]^2}{N_{ANT}} \right]$$

$$NSS1(g1,1) = 10^{G1/20} ; NSS1(g1,2) = 10^{G2/20} ; NSS1(g1,3) = 10^{G3/20} ; NSS1(g1,4) = 10^{G4/20}$$

$$g_{j,k} = (NSS1(g1,1) + NSS1(g1,2) + NSS1(g1,3) + NSS1(g1,4))^2$$

$$DG = 10 \log[(NSS1(g1,1) + NSS1(g1,2) + NSS1(g1,3) + NSS1(g1,4))^2 / N_{ANT}] \Rightarrow 10$$

$$\log[(10^{G1/20} + 10^{G2/20} + 10^{G3/20} + 10^{G4/20})^2 / N_{ANT}]$$

Where ;

Antenna set 1

2.4G G1 = 4.4 dBi; G2 = 4.4 dBi ; DG = 4.4 dBi

5G Band1 G1 = 5.5 dBi; G2 = 5.5 dBi; G3 = 5.5 dBi; G4 = 5.5 dBi; DG = 5.5 dBi

5G Band2 G1 = 5.5 dBi; G2 = 5.5 dBi; G3 = 5.5 dBi; G4 = 5.5 dBi; DG = 5.5 dBi

2.4G DG = 7.41 dBi

For 2TX

Radio 2 5G Band1 DG = 8.51 dBi

Radio 2 5G Band2 DG = 8.51 dBi

For 4TX

Radio 3 5G Band1 DG = 11.52 dBi

Radio 3 5G Band2 DG = 11.52 dBi

Antenna set 2

5G Band3 G1 = 6 dBi; G2 = 6 dBi; G3 = 6 dBi; G4 = 6 dBi; DG = 6 dBi

5G Band4 G1 = 6 dBi; G2 = 6 dBi; G3 = 6 dBi; G4 = 6 dBi; DG = 6 dBi

For 2TX

Radio 2 5G Band3 DG = 9.01 dBi

Radio 2 5G Band4 DG = 9.01 dBi

For 4TX

Radio 3 5G Band3 DG = 12.02 dBi

Radio 3 5G Band4 DG = 12.02 dBi

**Antenna set 3(Cross-Polarized Antenna)**

5G Band1 G1 = 9.55 dBi; G2 = 9.55 dBi; G3 = 9.55 dBi; G4 = 9.55 dBi; DG = 9.55 dBi

5G Band2 G1 = 9.55 dBi; G2 = 9.55 dBi; G3 = 9.55 dBi; G4 = 9.55 dBi; DG = 9.55 dBi

5G Band3 G1 = 9.4 dBi; G2 = 9.4 dBi; G3 = 9.4 dBi; G4 = 9.4 dBi; DG = 9.4 dBi

5G Band4 G1 = 9.4 dBi; G2 = 9.4 dBi; G3 = 9.4 dBi; G4 = 9.4 dBi; DG = 9.4 dBi

Radio 3 5G Band1 DG = 12.56 dBi

Radio 3 5G Band2 DG = 12.56 dBi

Radio 3 5G Band3 DG = 12.41 dBi

Radio 3 5G Band4 DG = 12.41 dBi

**Antenna set 4(Cross-Polarized Antenna)**

2.4G G1 = 17.23 dBi; G2 = 17.23 dBi

DG = 17.23 dBi

**Antenna set 5(Cross-Polarized Antenna)**

5G Band1 G1 = 16.55 dBi; G2 = 16.55 dBi; G3 = 16.55 dBi; G4 = 16.55 dBi; DG = 16.55 dBi

5G Band2 G1 = 16.55 dBi; G2 = 16.55 dBi; G3 = 16.55 dBi; G4 = 16.55 dBi; DG = 16.55 dBi

5G Band3 G1 = 16.4 dBi; G2 = 16.4 dBi; G3 = 16.4 dBi; G4 = 16.4 dBi; DG = 16.4 dBi

5G Band4 G1 = 16.4 dBi; G2 = 16.4 dBi; G3 = 16.4 dBi; G4 = 16.4 dBi; DG = 16.4 dBi

For 2TX

Radio 2 5G Band1 DG = 16.55 dBi

Radio 2 5G Band2 DG = 16.55 dBi

Radio 2 5G Band3 DG = 16.40 dBi

Radio 2 5G Band4 DG = 16.40 dBi

For 4TX

Radio 3 5G Band1 DG = 19.56 dBi

Radio 3 5G Band2 DG = 19.56 dBi

Radio 3 5G Band3 DG = 19.41 dBi

Radio 3 5G Band4 DG = 19.41 dBi

**For Radio 1****For 2.4GHz:****For IEEE 802.11b/g/n/VHT/ax mode (2TX/2RX):**

Port 1 and Port 2 can be used as transmitting/receiving antenna.

Port 1 and Port 2 could transmit/receive simultaneously.

**For Radio 2****For 5GHz UNII 1, 3:****For IEEE 802.11a/n/ac/ax mode (2TX/2RX):**

Port 1 and Port 2 can be used as transmitting/receiving antenna.

Port 1 and Port 2 could transmit/receive simultaneously.

**For Radio 3****For 5GHz UNII 1, 3:****For IEEE 802.11a/n/ac/ax mode (4TX/4RX):**

Port 1, Port 2, Port 3 and Port 4 can be used as transmitting/receiving antenna.

Port 1, Port 2, Port 3 and Port 4 could transmit/receive simultaneously.

**For Radio 4****Bluetooth (1TX/1RX):**

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

**For Radio 5****GPS (1RX):**

Only Port 1 can be used as receiving antenna.

**1.1.3 Mode Test Duty Cycle**

| Mode          | DC    | DCF(dB) | T(s)   | VBW(Hz) $\geq 1/T$ |
|---------------|-------|---------|--------|--------------------|
| BT-BR(1Mbps)  | 0.787 | 1.04    | 2.898m | 1k                 |
| BT-EDR(3Mbps) | 0.747 | 1.27    | 2.905m | 1k                 |

Note:

- ♦ DC is Duty Cycle.
- ♦ DCF is Duty Cycle Factor.

**1.1.4 EUT Operational Condition**

|                              |                          |
|------------------------------|--------------------------|
| <b>EUT Power Type</b>        | From PoE                 |
| <b>Test Software Version</b> | BlueTest3(version 10520) |

**1.1.5 Table for EUT support function**

| Function |
|----------|
| AP       |
| Mesh     |
| Bridge   |

Note1: For above table list, only AP mode was tested and recorded in this test.

Note2: The above information was declared by manufacturer.

**1.1.6 Table for Radio function**

| Radio (R) | WLAN 2.4GHz | 5GHz               | Bluetooth | GPS |
|-----------|-------------|--------------------|-----------|-----|
| R1        | V           | -                  | -         | -   |
| R2        | -           | V<br>(20/40/80MHz) | -         | -   |
| R3        | -           | V<br>(20/40/80MHz) | -         | -   |
| R4        | -           | -                  | V         | -   |
| R5        | -           | -                  | -         | V   |

Note: The above information was declared by manufacturer.

**1.1.7 Table for Multiple Listing**

| EUT | DDR    |                     | GPS     |             |
|-----|--------|---------------------|---------|-------------|
|     | Brand  | Model               | Brand   | Model       |
| 1   | MICRON | MT41K256M16TW-107   | ST      | TESEO-LIV3F |
| 2   | ISSI   | IS43TR16256B-107MBL | Quectel | LC76G       |

Note 1: From the above models, model: EUT 1 was selected as representative EUT for other test and its data was recorded in this report ; EUT 2 was selected as representative EUT for AC Power-line Conducted and Emissions in Restricted Frequency Bands below 1GHz and its data was recorded in this report.

Note 2: The above information was declared by manufacturer.



## 1.2 Applicable Standards

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

- ♦ 47 CFR FCC Part 15.247

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

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

## 1.3 Testing Location Information

| Testing Location Information                              |                                                                                                                                                                                                                                                 |
|-----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Test Lab. : Sporton International Inc. Hsinchu Laboratory |                                                                                                                                                                                                                                                 |
| Hsinchu<br>(TAF: 3787)                                    | ADD: No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.)<br>TEL: 886-3-656-9065 FAX: 886-3-656-9085<br>Test site Designation No. TW3787 with FCC.<br>Conformity Assessment Body Identifier (CABID) TW3787 with ISCED. |

| Test Condition      | Test Site No. | Test Engineer | Test Environment (°C / %) | Test Date                   |
|---------------------|---------------|---------------|---------------------------|-----------------------------|
| RF Conducted        | TH03-CB       | Owen Hsu      | 23.5~24.1 / 61~65         | Aug. 05, 2022~Oct. 14, 2022 |
| Radiated below 1GHz | 03CH05-CB     | Simmon Cheng  | 23.1~24.3 / 57~60         | Aug. 02, 2022~Dec. 15, 2022 |
| Radiated above 1GHz | 03CH06-CB     | Simmon Cheng  | 23.4~24.3 / 56~59         | Aug. 02, 2022~Nov. 07, 2022 |
| AC Conduction       | CO01-CB       | Tim Chen      | 23~24 / 58~59             | Nov. 08, 2022~Dec. 15, 2022 |

## 1.4 Measurement Uncertainty

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

| Test Items                           | Uncertainty | Remark                   |
|--------------------------------------|-------------|--------------------------|
| Conducted Emission (150kHz ~ 30MHz)  | 3.4 dB      | Confidence levels of 95% |
| Radiated Emission (9kHz ~ 30MHz)     | 3.4 dB      | Confidence levels of 95% |
| Radiated Emission (30MHz ~ 1,000MHz) | 5.6 dB      | Confidence levels of 95% |
| Radiated Emission (1GHz ~ 18GHz)     | 5.2 dB      | Confidence levels of 95% |
| Radiated Emission (18GHz ~ 40GHz)    | 4.7 dB      | Confidence levels of 95% |
| Conducted Emission                   | 3.2 dB      | Confidence levels of 95% |
| Output Power Measurement             | 0.8 dB      | Confidence levels of 95% |
| Power Density Measurement            | 3.2 dB      | Confidence levels of 95% |
| Bandwidth Measurement                | 2.0 %       | Confidence levels of 95% |

## 2 Test Configuration of EUT

### 2.1 Test Channel Mode

For Radio 4

| Mode          | Power Setting |
|---------------|---------------|
| BT-BR(1Mbps)  | -             |
| 2402MHz       | 63            |
| 2440MHz       | 63            |
| 2480MHz       | 63            |
| BT-EDR(2Mbps) | -             |
| 2402MHz       | 63            |
| 2440MHz       | 63            |
| 2480MHz       | 63            |
| BT-EDR(3Mbps) | -             |
| 2402MHz       | 63            |
| 2440MHz       | 63            |
| 2480MHz       | 63            |

### 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Operating Mode</b>                               | CTX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                                     | <p>A. The EUT performed testing in the following test mode.</p> <ol style="list-style-type: none"> <li>1.EUT 1_R1 + Antenna set 1</li> <li>2.EUT 1_R2 + Antenna set 2</li> <li>3.EUT 1_R3 + Antenna set 2</li> <li>4.EUT 1_R1 + Antenna set 4</li> <li>5.EUT 1_R2 + Antenna set 5</li> <li>6.EUT 1_R3 + Antenna set 5</li> <li>7.EUT 1_R3 + Antenna set 3</li> <li>8.EUT 1_R4 + Antenna set 7</li> </ol> <p>Mode 7 has been evaluated to be the worst case among Mode 1~8, thus measurement for Mode 9 will follow this same test mode.</p> <ol style="list-style-type: none"> <li>9.EUT 2_R3 + Antenna set 3</li> </ol> <p>B. "EUT 2_R3 + Antenna set 3" has been evaluated to be the worst case from above test mode. Thus, the measurement will follow this same test mode.</p> |
| 1                                                   | EUT 2_R3 + Antenna set 3 + PoE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

| 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                                                                                                                                                                               |
| 1                                                   | EUT 1_R4 + Antenna set 7                                                                                                                                                                                               |

| The Worst Case Mode for Following Conformance Tests |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Tests Item</b>                                   | Emissions in Restricted Frequency Bands                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Test Condition</b>                               | Radiated measurement<br>If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Operating Mode &lt; 1GHz</b>                     | CTX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|                                                     | <p>A. The EUT was performed at the X axis, Y axis, and Z axis position for Emissions in Restricted Frequency Bands above 1GHz, and the worst case axis was found and listed below. So the measurement will follow this same test configuration.</p> <p>B. The EUT performed testing in the following test mode.</p> <ol style="list-style-type: none"> <li>1.EUT 1 in Y axis_R1 + Antenna set 1</li> <li>2.EUT 1 in X axis_R2 + Antenna set 2</li> <li>3.EUT 1 in X axis_R3 + Antenna set 2</li> <li>4.EUT 1 in X axis_R1 + Antenna set 4</li> <li>5.EUT 1 in Y axis_R2 + Antenna set 5</li> <li>6.EUT 1 in Y axis_R3 + Antenna set 5</li> <li>7.EUT 1 in Y axis_R3 + Antenna set 3</li> <li>8.EUT 1 in X axis_R4 + Antenna set 7</li> </ol> <p>Mode 4 has been evaluated to be the worst case among Mode 1~8, thus measurement for Mode 9 will follow this same test mode.</p> <p>9.EUT 2 in X axis_R1 + Antenna set 4</p> <p>C. "EUT 1 in X axis_R1 + Antenna set 4 + PoE" has been evaluated to be the worst case from above test mode. Thus, the measurement will follow this same test mode.</p> |
| 1                                                   | EUT 1 in X axis_R1 + Antenna set 4 + PoE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Operating Mode &gt; 1GHz</b>                     | CTX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|                                                     | The EUT was performed at the X axis, Y axis, and Z axis position, and the worst case axis was found and listed below. So the measurement will follow this same test configuration.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 1                                                   | EUT 1 in X axis_R4 + Antenna set 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |



| The Worst Case Mode for Following Conformance Tests                                |                                                                                                                |
|------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|
| Tests Item                                                                         | Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation                                        |
| Operating Mode                                                                     |                                                                                                                |
| 1                                                                                  | R1 (2.4G + antenna set 1) + R2 (5G + antenna set 2) + R3 (5G + antenna set 2) + R4 (Bluetooth + antenna set 7) |
| 2                                                                                  | R1 (2.4G + antenna set 4) + R2 (5G + antenna set 5) + R3 (5G + antenna set 5) + R4 (Bluetooth + antenna set 7) |
| 3                                                                                  | R1 (2.4G + antenna set 4) + R2 (5G + antenna set 5) + R3 (5G + antenna set 3) + R4 (Bluetooth + antenna set 7) |
| Refer to Sporton Test Report No.: FA290202 for Co-location RF Exposure Evaluation. |                                                                                                                |

Note: The PoE are for measurement only, would not be marketed.

Their information as below:

| Power | Brand   | Model        |
|-------|---------|--------------|
| PoE   | Cambium | NET-P60-56IN |

## 2.3 EUT Operation during Test

For CTX Mode:

The EUT was programmed to be in continuously transmitting mode.

For Normal Link:

During the test, the EUT operation to normal function.

## 2.4 Accessories

| Accessories                                    |
|------------------------------------------------|
| Bracket 1*1 (Only for EUT 1~EUT 2 use)         |
| Bracket 2*1 (Only for Antenna Set 3 use)       |
| Bracket 3*1 (Only for Antenna Set 4 use)       |
| Bracket 4*1 (Only for Antenna Set 5 use)       |
| Antenna cable*6 (Only for Antenna Set 3~5 use) |
| Sealing collar*1                               |



## 2.5 Support Equipment

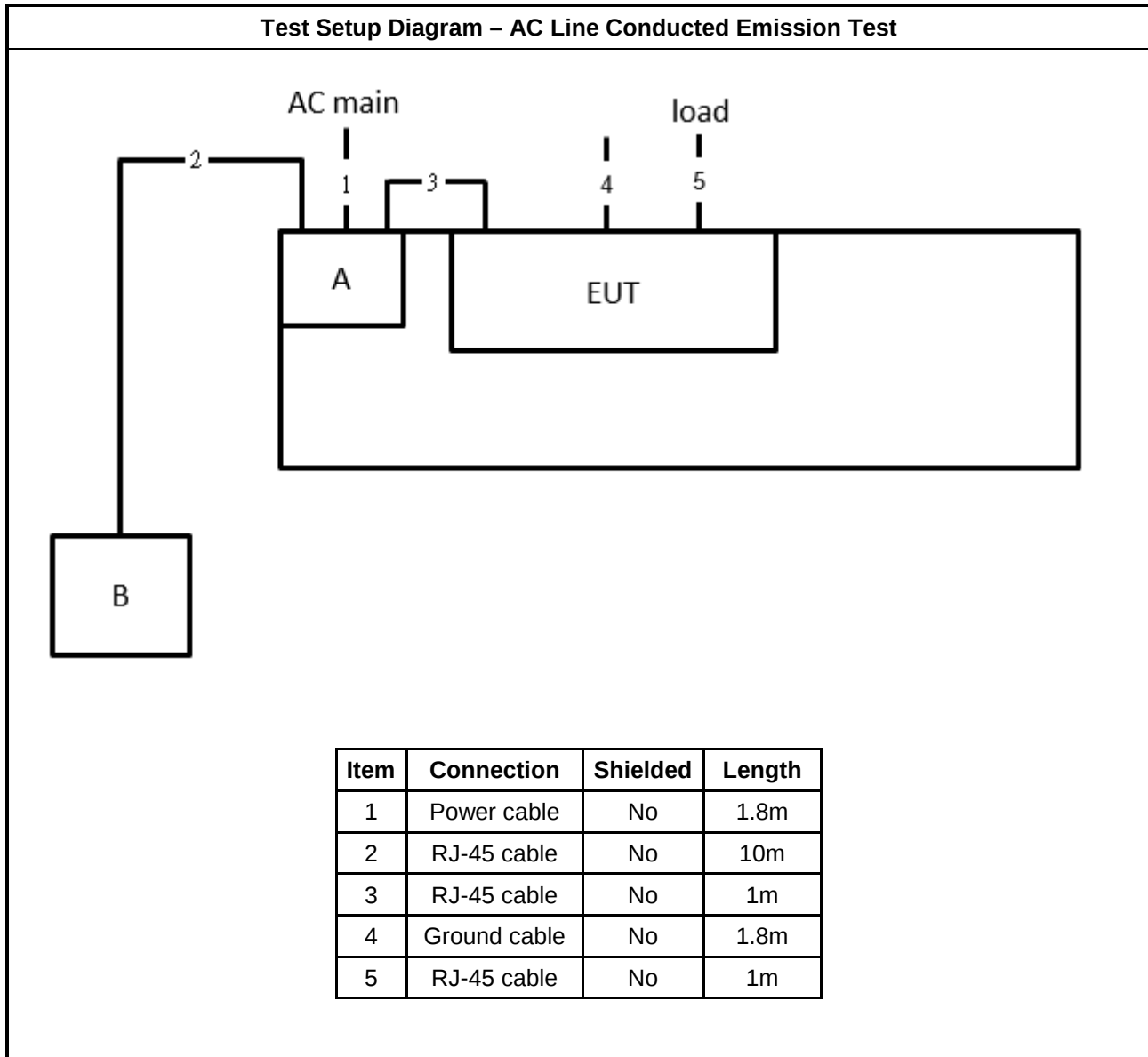
For AC Conduction:

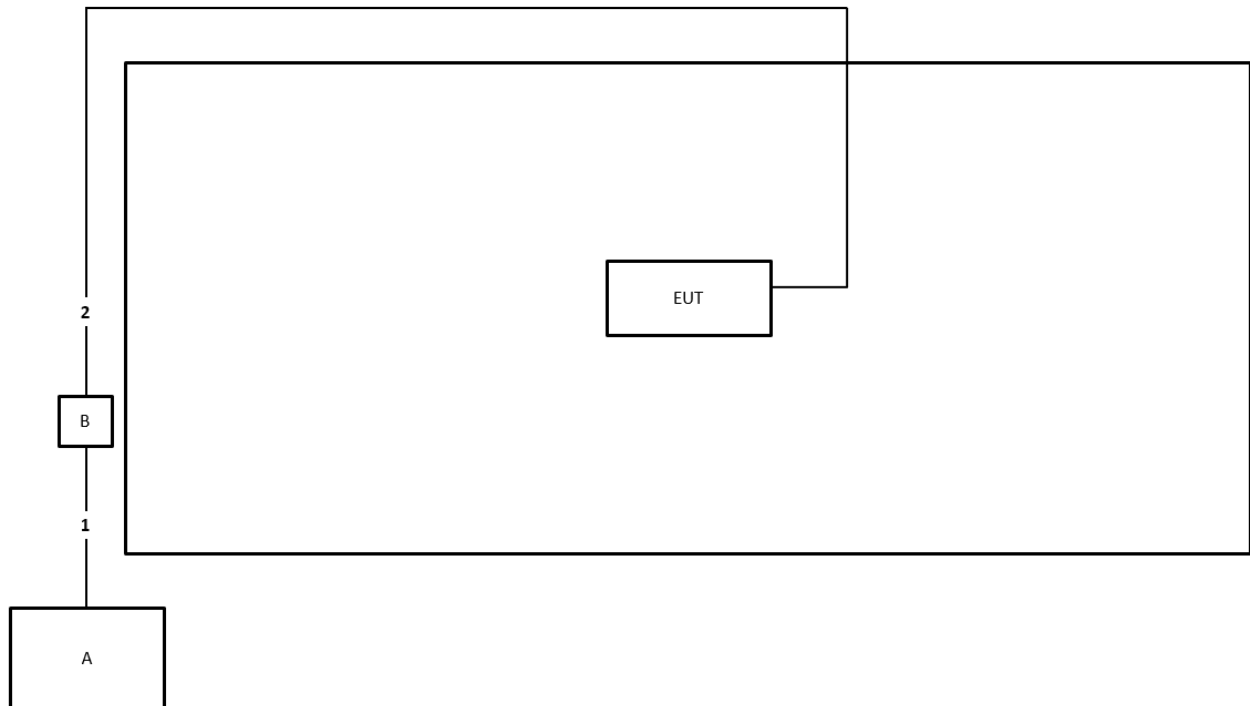
| Support Equipment |           |            |              |        |
|-------------------|-----------|------------|--------------|--------|
| No.               | Equipment | Brand Name | Model Name   | FCC ID |
| A                 | PoE 2     | Cambium    | NET-P60-56IN | N/A    |
| B                 | NB        | DELL       | E6430        | N/A    |

For Radiated and RF Conducted:

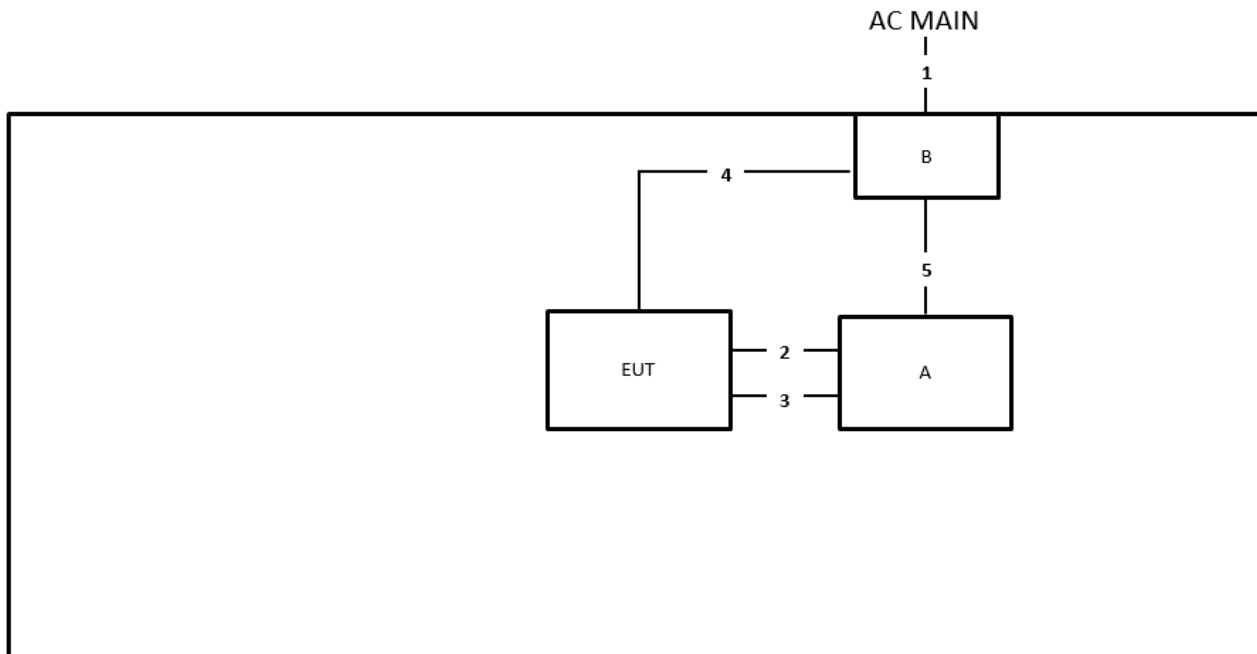
| Support Equipment |           |            |              |        |
|-------------------|-----------|------------|--------------|--------|
| No.               | Equipment | Brand Name | Model Name   | FCC ID |
| A                 | NB        | DELL       | E4300        | N/A    |
| B                 | PoE 2     | Cambium    | NET-P60-56IN | N/A    |

## 2.6 Test Setup Diagram



**Test Setup Diagram - Radiated Test < 1GHz**


| Item | Connection  | Shielded | Length |
|------|-------------|----------|--------|
| 1    | RJ-45 cable | No       | 1.5m   |
| 2    | RJ-45 cable | No       | 10m    |

**Test Setup Diagram - Radiated Test > 1GHz**


| Item | Connection  | Shielded | Length |
|------|-------------|----------|--------|
| 1    | Power cable | No       | 1.5m   |
| 2    | Pin cable   | No       | 0.4m   |
| 3    | USB cable   | Yes      | 1m     |
| 4    | RJ-45 cable | No       | 1.5m   |
| 5    | RJ-45 cable | No       | 1.5m   |



### 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.

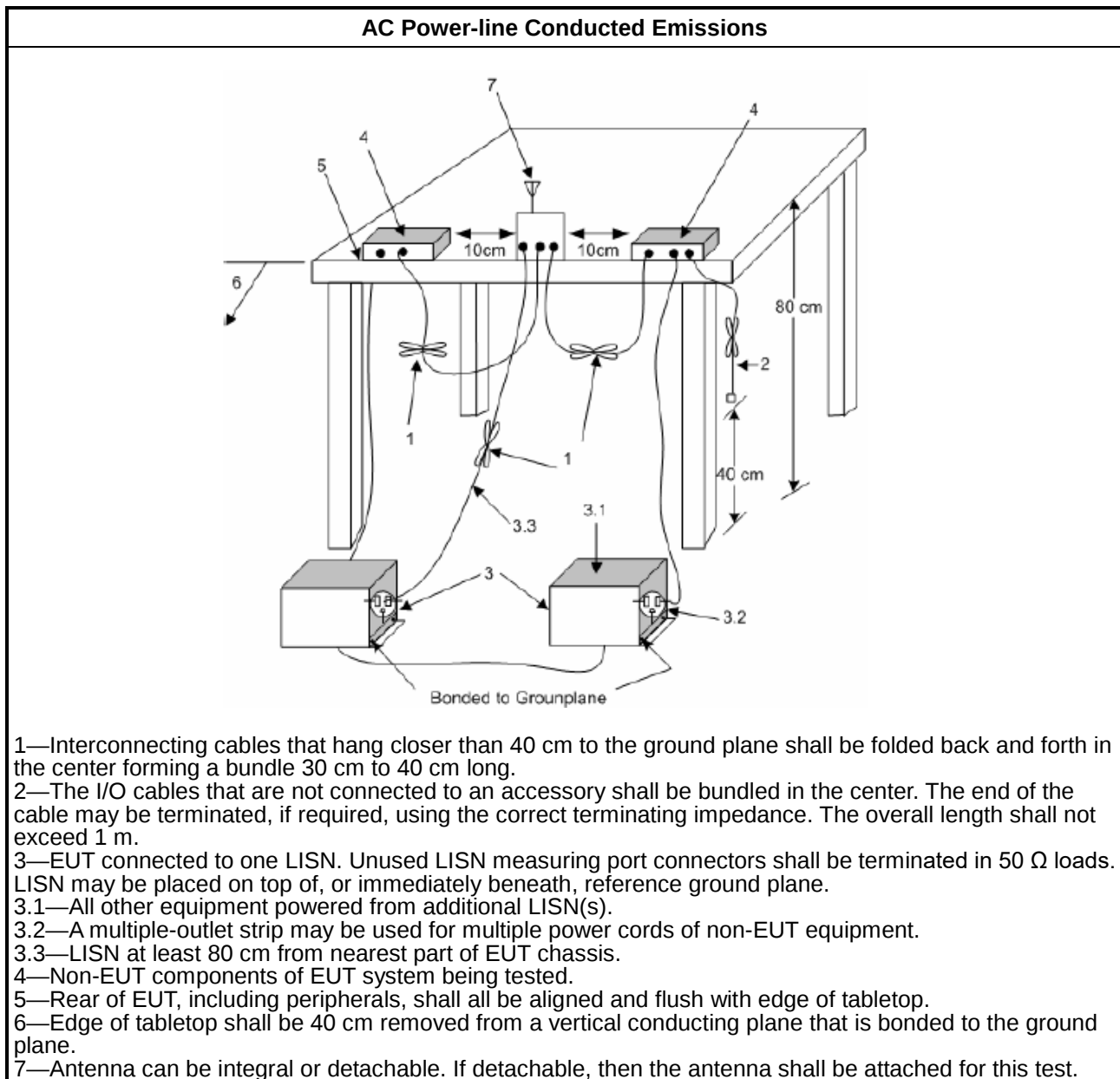
##### 3.1.2 Measuring Instruments

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 Test Setup



#### 1.1.1. Measurement Results Calculation

The measured Level is calculated using:

- Corrected Reading: LISN Factor (LISN) + Attenuator (AT/AUX) + Cable Loss (CL) + Read Level (Raw) = Level
- Margin = -Limit + Level

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

Refer as Appendix A

## 3.2 20dB Bandwidth and Carrier Frequency Separation

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

| 20dB Bandwidth and Carrier Frequency Separation Limit for Frequency Hopping Systems |                                                                                                      |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| ▪ 902-928 MHz Band:                                                                 |                                                                                                      |
|                                                                                     | ▪ $N \geq 50$ and $ChS \geq \text{MAX}$ (20 dB bandwidth, 25 kHz); 20 dB bandwidth $\leq$ 250 kHz.   |
|                                                                                     | ▪ $50 > N \geq 25$ and $ChS \geq \text{MAX}$ (20 dB bandwidth, 25 kHz); 20 dB bandwidth $>$ 250 kHz. |
| ▪ 2400-2483.5 MHz Band:                                                             |                                                                                                      |
|                                                                                     | ▪ $N \geq 75$ and $ChS \geq \text{MAX}$ (20 dB bandwidth, 25 kHz).                                   |
|                                                                                     | ▪ $75 > N \geq 15$ and $ChS \geq \text{MAX}$ (20 dB bandwidth 2/3, 25 kHz).                          |
| ▪ 5725-5850 MHz Band:                                                               |                                                                                                      |
|                                                                                     | ▪ $N \geq 75$ and $ChS \geq \text{MAX}$ (20 dB bandwidth, 25 kHz); 20 dB bandwidth $\leq$ 1 MHz.     |
| N: Number of Hopping Frequencies; ChS: Hopping Channel Separation                   |                                                                                                      |

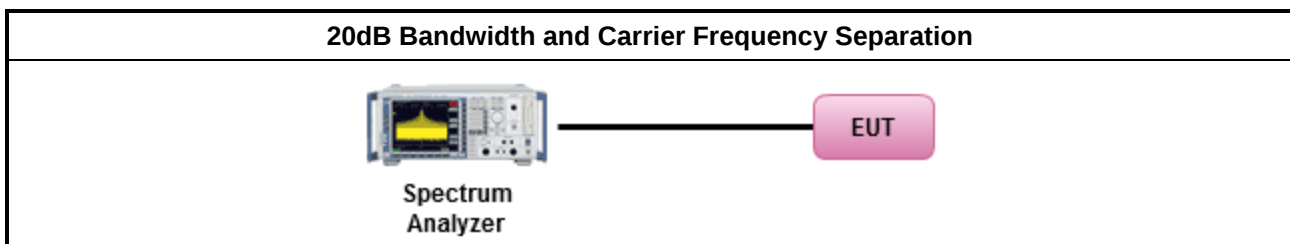
### 3.2.2 Measuring Instruments

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

### 3.2.3 Test Procedures

| Test Method                                                                             |
|-----------------------------------------------------------------------------------------|
| ▪ Refer as ANSI C63.10-2013, clause 6.9.1 for 20 dB bandwidth measurement.              |
| ▪ Refer as ANSI C63.10-2013, clause 7.8.2 for carrier frequency separation measurement. |

### 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         |  |
|----------------------------------------------|--|
| ▪ 902-928 MHz Band:                          |  |
| ▪ N ≥ 50; Power 30dBm; EIRP 36dBm            |  |
| ▪ 50 > N ≥ 25; Power 23.98dBm; EIRP 29.98dBm |  |
| ▪ 2400-2483.5 MHz Band:                      |  |
| ▪ N ≥ 75; Power 30dBm; EIRP 36dBm            |  |
| ▪ 75 > N ≥ 15; Power 21dBm; EIRP 27dBm       |  |
| ▪ 5725-5850 MHz Band:                        |  |
| ▪ N ≥ 75; Power 30dBm; EIRP 36dBm            |  |
| 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                                                             |
|-------------------------------------------------------------------------|
| ▪ Refer as ANSI C63.10-2013, clause 7.8.5 for output power measurement. |

#### 3.3.4 Test Setup

| Maximum Conducted Output Power (Peak Power Meter)                                                                                                                                                                                                                                                                                                                                                                                                                   |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p>The diagram illustrates the test setup for measuring Maximum Conducted Output Power. It shows a Power Meter (represented by a blue and white device with a probe) connected via a black cable to an EUT (Equipment Under Test, represented by a pink box). The Power Meter is also connected to a computer monitor and keyboard, indicating data recording or analysis.</p> |

#### 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                                |                                                                                                      |
|--------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| ▪ 902-928 MHz Band:                                                |                                                                                                      |
|                                                                    | ▪ $N \geq 50$ and $ChS \geq \text{MAX}$ (20 dB bandwidth, 25 kHz); 20 dB bandwidth $\leq$ 250 kHz.   |
|                                                                    | ▪ $50 > N \geq 25$ and $ChS \geq \text{MAX}$ (20 dB bandwidth, 25 kHz); 20 dB bandwidth $>$ 250 kHz. |
| ▪ 2400-2483.5 MHz Band:                                            |                                                                                                      |
|                                                                    | ▪ $N \geq 75$ and $ChS \geq \text{MAX}$ (20 dB bandwidth, 25 kHz).                                   |
|                                                                    | ▪ $75 > N \geq 15$ and $ChS \geq \text{MAX}$ (20 dB bandwidth 2/3, 25 kHz).                          |
| ▪ 5725-5850 MHz Band:                                              |                                                                                                      |
|                                                                    | ▪ $N \geq 75$ and $ChS \geq \text{MAX}$ (20 dB bandwidth, 25 kHz); 20 dB bandwidth $\leq$ 1 MHz.     |
| 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

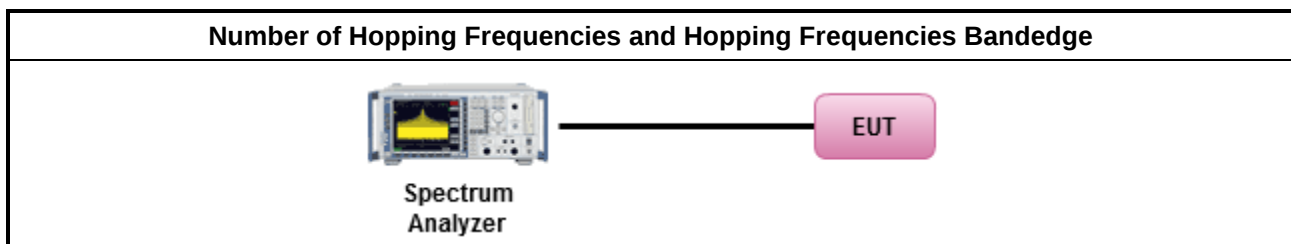
#### 3.4.3 Measuring Instruments

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

| 20dB Bandwidth and Carrier Frequency Separation Limit for Frequency Hopping Systems |                                                    |
|-------------------------------------------------------------------------------------|----------------------------------------------------|
| ▪ 902-928 MHz Band:                                                                 |                                                    |
|                                                                                     | ▪ $N \geq 50$ ; 0.4s in 20s period                 |
|                                                                                     | ▪ $50 > N \geq 25$ ; 0.4s in 10s period            |
| ▪ 2400-2483.5 MHz Band:                                                             |                                                    |
|                                                                                     | ▪ $N \geq 75$ ; 0.4s in $N \times 0.4$ period      |
|                                                                                     | ▪ $75 > N \geq 15$ ; 0.4s in $N \times 0.4$ period |
| ▪ 5725-5850 MHz Band:                                                               |                                                    |
|                                                                                     | ▪ $N \geq 75$ ; 0.4s in 30s period                 |
| N: Number of Hopping Frequencies                                                    |                                                    |

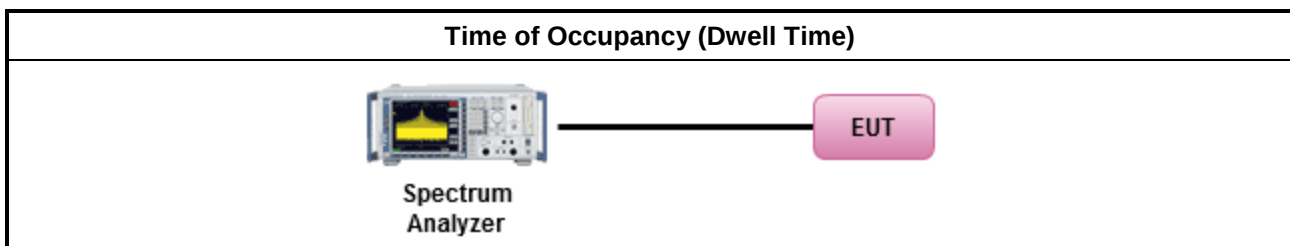
#### 3.5.2 Measuring Instruments

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

#### 3.5.3 Test Procedures

| Test Method                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                  |
|------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ▪ Refer as ANSI C63.10-2013, clause 7.8.4 for dwell time measurement.                                                                    |                                                                                                                                                                                                                                                                                                                                                  |
| ▪ 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. |                                                                                                                                                                                                                                                                                                                                                  |
|                                                                                                                                          | ▪ 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 $5/1600$ seconds, or 3.125ms. DH5 Packet permit maximum $1600 / 79 / 6 = 3.37$ hops per second in each channel. |

#### 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 (dBc) |
| 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. |             |

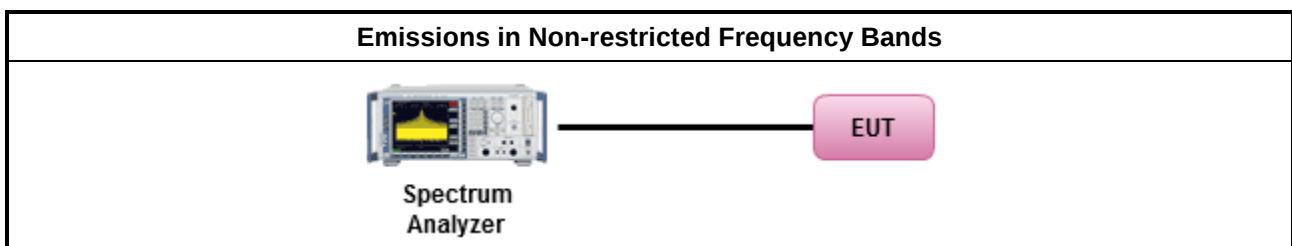
#### 3.6.2 Measuring Instruments

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.

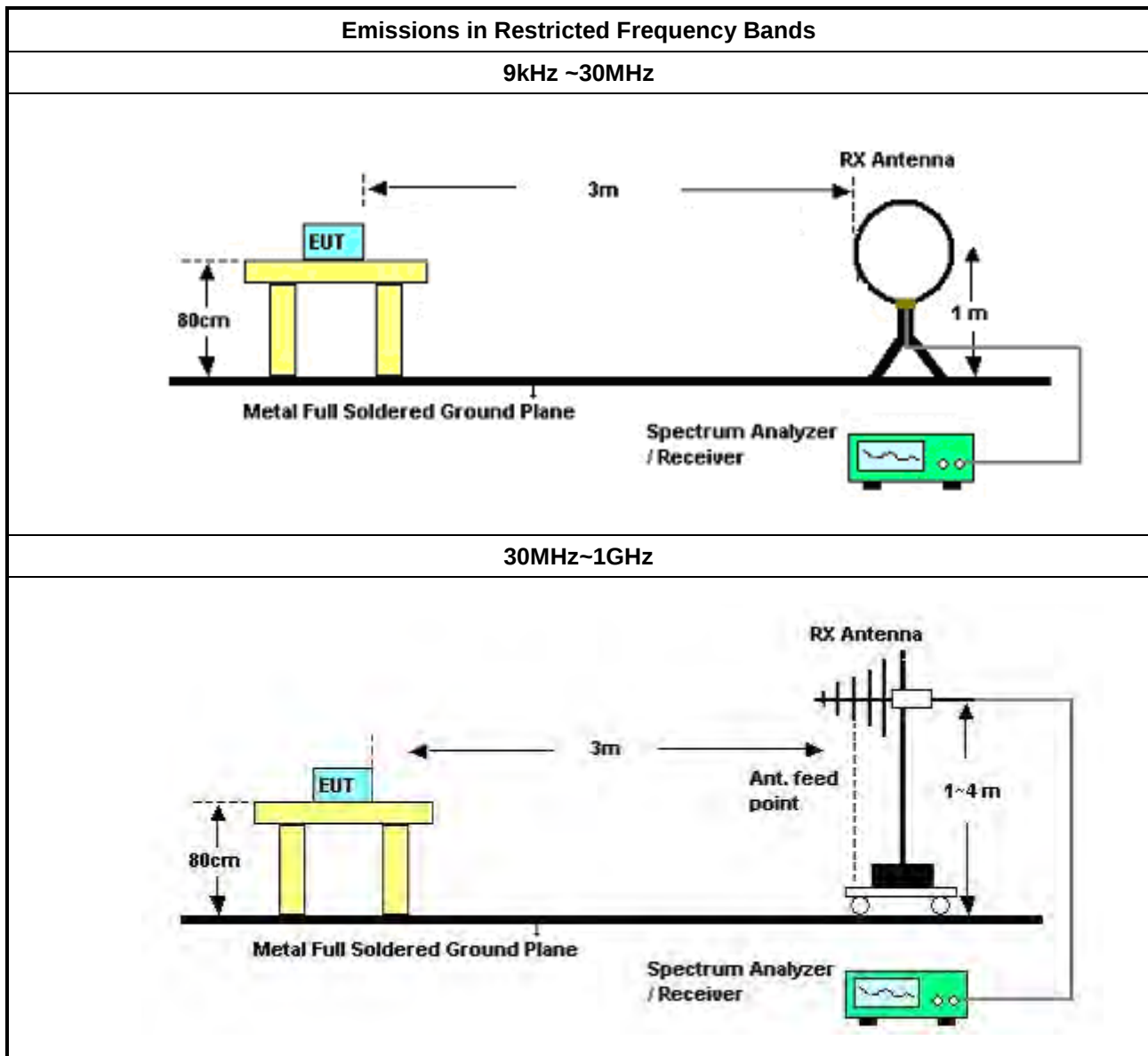
#### 3.7.2 Measuring Instruments

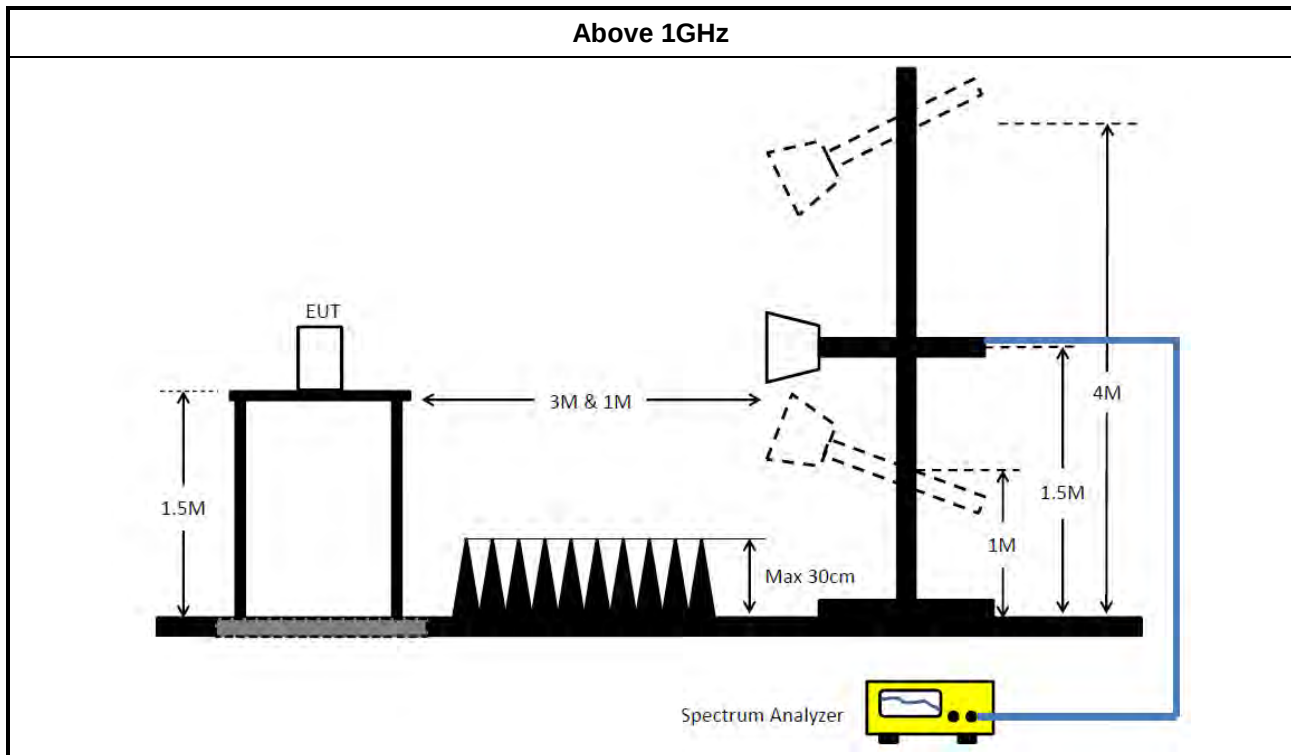
Refer a test equipment and calibration data table in this test report.

#### 3.7.3 Test Procedures

| Test Method                                                                                                                                                                 |                                                                                     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| ▪ The average emission levels shall be measured in [hopping duty factor].                                                                                                   |                                                                                     |
| ▪ 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. |                                                                                     |
| ▪ For the transmitter unwanted emissions shall be measured using following options below:                                                                                   |                                                                                     |
|                                                                                                                                                                             | ▪ Refer as ANSI C63.10, clause 4.1.4.2.1 QP value.                                  |
|                                                                                                                                                                             | ▪ Refer as ANSI C63.10, clause 4.1.4.2.2 measurement procedure peak.                |
|                                                                                                                                                                             | ▪ Refer as ANSI C63.10, clause 4.1.4.2.4 average value of hopping pulsed emissions. |

### 3.7.4 Test Setup





### 3.7.5 Measurement Results Calculation

The measured Level is calculated using:

Corrected Reading: Antenna factor (AF) + Cable loss (CL) + Read level (Raw) - Preamp factor (PA)(if applicable) = Level.

### 3.7.6 Emissions in Restricted Frequency Bands (Below 30MHz)

There is a comparison data of both open-field test site and alternative test site - semi-Anechoic chamber according to KDB414788 Radiated Test Site, and the result came out very similar.

All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.

The radiated emissions were investigated from 9 kHz or the lowest frequency generated within the device, up to the 10th harmonic or 40 GHz, whichever is appropriate.

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

Refer as Appendix G



## 4 Test Equipment and Calibration Data

| Instrument                        | Brand           | Model No.          | Serial No.       | Characteristics | Calibration Date | Calibration Due Date | Remark                |
|-----------------------------------|-----------------|--------------------|------------------|-----------------|------------------|----------------------|-----------------------|
| EMI Receiver                      | Agilent         | N9038A             | My52260123       | 9kHz ~ 8.4GHz   | Feb. 22, 2022    | Feb. 21, 2023        | Conduction (CO01-CB)  |
| LISN                              | F.C.C.          | FCC-LISN-50-16-2   | 04083            | 150kHz ~ 100MHz | Feb. 09, 2022    | Feb. 08, 2023        | Conduction (CO01-CB)  |
| LISN                              | Schwarzbeck     | NSLK 8127          | 8127647          | 9kHz ~ 30MHz    | Apr. 12, 2022    | Apr. 11, 2023        | Conduction (CO01-CB)  |
| Pulse Limiter                     | Rohde & Schwarz | ESH3-Z2            | 100430           | 9kHz ~ 30MHz    | Feb. 10, 2022    | Feb. 09, 2023        | Conduction (CO01-CB)  |
| COND Cable                        | Woken           | Cable              | Low cable-CO01   | 9kHz ~ 30MHz    | Oct. 18, 2022    | Oct. 17, 2023        | Conduction (CO01-CB)  |
| Software                          | SPORTON         | SENSE              | V5.10            | -               | N.C.R.           | N.C.R.               | Conduction (CO01-CB)  |
| Loop Antenna                      | Teseq           | HLA 6120           | 24155            | 9kHz - 30 MHz   | May 14, 2022     | May 13, 2023         | Radiation (03CH05-CB) |
| 3m Semi Anechoic Chamber NSA      | TDK             | SAC-3M             | 03CH05-CB        | 30 MHz ~ 1 GHz  | Aug. 09, 2021    | Aug. 08, 2022        | Radiation (03CH05-CB) |
| 3m Semi Anechoic Chamber NSA      | TDK             | SAC-3M             | 03CH05-CB        | 30 MHz ~ 1 GHz  | Aug. 03, 2022    | Aug. 02, 2023        | Radiation (03CH05-CB) |
| Bilog Antenna with 6dB Attenuator | TESEQ & EMCI    | CBL 6112D & N-6-06 | 35236 & AT-N0610 | 30MHz ~ 2GHz    | Mar. 25, 2022    | Mar. 24, 2023        | Radiation (03CH05-CB) |
| Pre-Amplifier                     | EMCI            | EMC330N            | 980331           | 20MHz ~ 3GHz    | Apr. 26, 2022    | Apr. 25, 2023        | Radiation (03CH05-CB) |
| Spectrum Analyzer                 | R&S             | FSP40              | 100304           | 9kHz ~ 40GHz    | Mar. 14, 2022    | Mar. 13, 2023        | Radiation (03CH05-CB) |
| EMI Test Receiver                 | R&S             | ESCS               | 826547/017       | 9kHz ~ 2.75GHz  | Jun. 17, 2022    | Jun. 16, 2023        | Radiation (03CH05-CB) |
| RF Cable-low                      | Woken           | RG402              | Low Cable-04+23  | 30MHz~1GHz      | Oct. 13, 2021    | Oct. 12, 2022        | Radiation (03CH05-CB) |
| RF Cable-low                      | Woken           | RG402              | Low Cable-04+23  | 30MHz~1GHz      | Oct. 03, 2022    | Oct. 02, 2023        | Radiation (03CH05-CB) |
| RF Cable-high                     | Woken           | RG402              | High Cable-28    | 1GHz~18GHz      | Oct. 13, 2021    | Oct. 12, 2022        | Radiation (03CH05-CB) |
| RF Cable-high                     | Woken           | RG402              | High Cable-28    | 1GHz~18GHz      | Oct. 03, 2022    | Oct. 02, 2023        | Radiation (03CH05-CB) |
| RF Cable-high                     | Woken           | RG402              | High Cable-04+28 | 1GHz~18GHz      | Oct. 13, 2021    | Oct. 12, 2022        | Radiation (03CH05-CB) |
| RF Cable-high                     | Woken           | RG402              | High Cable-04+28 | 1GHz~18GHz      | Oct. 03, 2022    | Oct. 02, 2023        | Radiation (03CH05-CB) |
| Test Software                     | SPORTON         | SENSE              | V5.10            | -               | N.C.R.           | N.C.R.               | Radiation (03CH05-CB) |
| 3m Semi Anechoic Chamber VSWR     | TDK             | SAC-3M             | 03CH06-CB        | 1GHz ~18GHz 3m  | Oct. 01, 2021    | Sep. 30, 2022        | Radiation (03CH06-CB) |



| Instrument                    | Brand       | Model No.      | Serial No.       | Characteristics  | Calibration Date | Calibration Due Date | Remark                |
|-------------------------------|-------------|----------------|------------------|------------------|------------------|----------------------|-----------------------|
| 3m Semi Anechoic Chamber VSWR | TDK         | SAC-3M         | 03CH06-CB        | 1GHz ~18GHz 3m   | Sep. 30, 2022    | Sep. 29, 2023        | Radiation (03CH06-CB) |
| Horn Antenna                  | SCHWARZBECK | BBHA 9120 D    | BBHA 9120 D 1370 | 1GHz~18GHz       | Jun. 23, 2022    | Jun. 22, 2023        | Radiation (03CH06-CB) |
| Horn Antenna                  | SCHWARZBECK | BBHA 9170      | BBHA9170507      | 15GHz ~ 40GHz    | Jul. 05, 2022    | Jul. 04, 2023        | Radiation (03CH06-CB) |
| Pre-Amplifier                 | Agilent     | 83017A         | MY53270064       | 0.5GHz ~ 26.5GHz | Aug. 02, 2022    | Aug. 01, 2023        | Radiation (03CH06-CB) |
| Pre-Amplifier                 | MITEQ       | TTA1840-35-H G | 1864479          | 18GHz ~ 40GHz    | Jul. 20, 2022    | Jul. 19, 2023        | Radiation (03CH06-CB) |
| Spectrum analyzer             | R&S         | FSP40          | 100080           | 9kHz~40GHz       | Dec. 24, 2021    | Dec. 23, 2022        | Radiation (03CH06-CB) |
| RF Cable-high                 | Woken       | RG402          | High Cable-67    | 1GHz~18GHz       | Feb. 24, 2022    | Feb. 23, 2023        | Radiation (03CH06-CB) |
| RF Cable-high                 | Woken       | RG402          | High Cable-05+67 | 1GHz~18GHz       | Feb. 24, 2022    | Feb. 23, 2023        | Radiation (03CH06-CB) |
| High Cable                    | Woken       | WCA0929M       | 40G#5+7          | 1GHz ~ 40 GHz    | Dec. 14, 2021    | Dec. 13, 2022        | Radiation (03CH06-CB) |
| High Cable                    | Woken       | WCA0929M       | 40G#5            | 1GHz ~ 40 GHz    | Dec. 08, 2021    | Dec. 07, 2022        | Radiation (03CH06-CB) |
| High Cable                    | Woken       | WCA0929M       | 40G#7            | 1GHz ~ 40 GHz    | Dec. 14, 2021    | Dec. 13, 2022        | Radiation (03CH06-CB) |
| Test Software                 | SPORTON     | SENSE          | V5.10            | -                | N.C.R.           | N.C.R.               | Radiation (03CH06-CB) |
| Spectrum analyzer             | R&S         | FSV40          | 101028           | 9kHz~40GHz       | Jan. 07, 2022    | Jan. 06, 2023        | Conducted (TH03-CB)   |
| Power Sensor                  | Anritsu     | MA2411B        | 1531344          | 300MHz~40GHz     | Jul. 31, 2022    | Jul. 30, 2023        | Conducted (TH03-CB)   |
| Power Meter                   | Anritsu     | ML2495A        | 1728002          | 300MHz~40GHz     | Jul. 31, 2022    | Jul. 30, 2023        | Conducted (TH03-CB)   |
| RF Cable-high                 | Woken       | RG402          | High Cable-11    | 1 GHz ~18 GHz    | Oct. 04, 2021    | Oct. 03, 2022        | Conducted (TH03-CB)   |
| RF Cable-high                 | Woken       | RG402          | High Cable-11    | 1 GHz ~18 GHz    | Oct. 03, 2022    | Oct. 02, 2023        | Conducted (TH03-CB)   |
| RF Cable-high                 | Woken       | RG402          | High Cable-12    | 1 GHz ~18 GHz    | Oct. 04, 2021    | Oct. 03, 2022        | Conducted (TH03-CB)   |
| RF Cable-high                 | Woken       | RG402          | High Cable-12    | 1 GHz ~18 GHz    | Oct. 03, 2022    | Oct. 02, 2023        | Conducted (TH03-CB)   |
| RF Cable-high                 | Woken       | RG402          | High Cable-13    | 1 GHz ~18 GHz    | Oct. 04, 2021    | Oct. 03, 2022        | Conducted (TH03-CB)   |
| RF Cable-high                 | Woken       | RG402          | High Cable-13    | 1 GHz ~18 GHz    | Oct. 03, 2022    | Oct. 02, 2023        | Conducted (TH03-CB)   |
| RF Cable-high                 | Woken       | RG402          | High Cable-14    | 1 GHz ~18 GHz    | Oct. 04, 2021    | Oct. 03, 2022        | Conducted (TH03-CB)   |
| RF Cable-high                 | Woken       | RG402          | High Cable-14    | 1 GHz ~18 GHz    | Oct. 03, 2022    | Oct. 02, 2023        | Conducted (TH03-CB)   |
| RF Cable-high                 | Woken       | RG402          | High Cable-15    | 1 GHz ~18 GHz    | Oct. 04, 2021    | Oct. 03, 2022        | Conducted (TH03-CB)   |



| Instrument    | Brand   | Model No. | Serial No.    | Characteristics | Calibration Date | Calibration Due Date | Remark              |
|---------------|---------|-----------|---------------|-----------------|------------------|----------------------|---------------------|
| RF Cable-high | Woken   | RG402     | High Cable-15 | 1 GHz –18 GHz   | Oct. 03, 2022    | Oct. 02, 2023        | Conducted (TH03-CB) |
| Switch        | SPTCB   | SP-SWI    | SWI-03        | 1 GHz –26.5 GHz | Dec. 13, 2021    | Dec. 12, 2022        | Conducted (TH03-CB) |
| RF Cable-high | Woken   | RG402     | SWI-03-P1     | 1 GHz –26.5 GHz | Dec. 13, 2021    | Dec. 12, 2022        | Conducted (TH03-CB) |
| RF Cable-high | Woken   | RG402     | SWI-03-P2     | 1 GHz –26.5 GHz | Dec. 13, 2021    | Dec. 12, 2022        | Conducted (TH03-CB) |
| RF Cable-high | Woken   | RG402     | SWI-03-P3     | 1 GHz –26.5 GHz | Dec. 13, 2021    | Dec. 12, 2022        | Conducted (TH03-CB) |
| RF Cable-high | Woken   | RG402     | SWI-03-P4     | 1 GHz –26.5 GHz | Dec. 13, 2021    | Dec. 12, 2022        | Conducted (TH03-CB) |
| RF Cable-high | Woken   | RG402     | SWI-03-P5     | 1 GHz –26.5 GHz | Dec. 13, 2021    | Dec. 12, 2022        | Conducted (TH03-CB) |
| Test Software | SPORTON | SENSE     | V5.10         | -               | N.C.R.           | N.C.R.               | Conducted (TH03-CB) |

Note: Calibration Interval of instruments listed above is one year.

N.C.R. means Non-Calibration required.



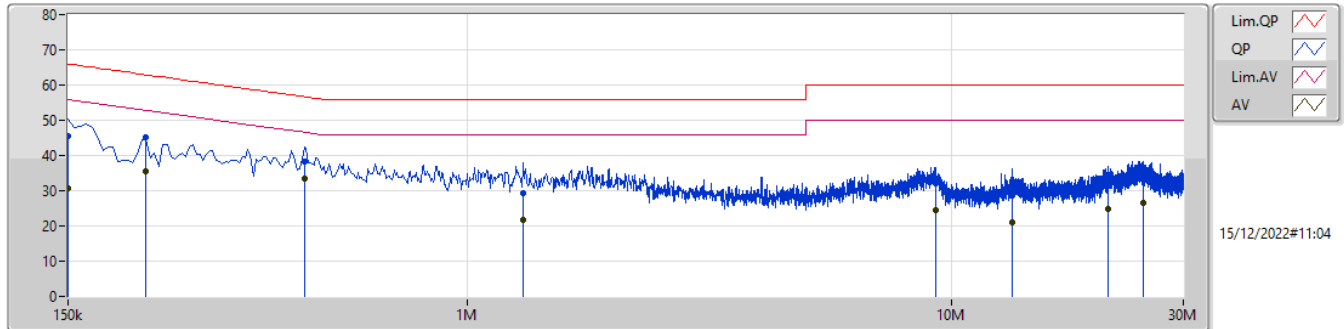
## Conducted Emissions at Powerline

## Appendix A

### Summary

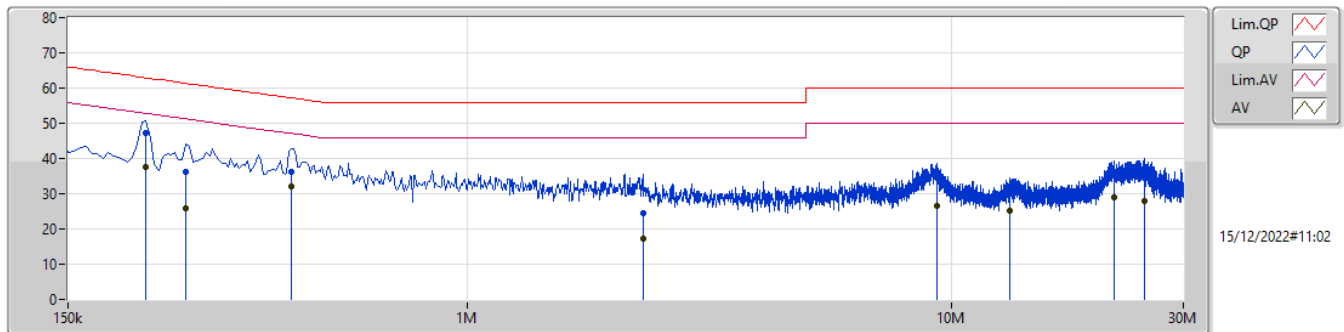
| Mode   | Result | Type | Freq<br>(Hz) | Level<br>(dBuV) | Limit<br>(dBuV) | Margin<br>(dB) | Condition |
|--------|--------|------|--------------|-----------------|-----------------|----------------|-----------|
| Mode 1 | Pass   | AV   | 460.5k       | 33.54           | 46.69           | -13.15         | Line      |

### Test 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   | 150k         | 45.61           | 66.00           | -20.39         | 9.99           | Line      | -       | 35.62         | 0.06         | 0.04       | 9.89       |  |  |  |  |  |  |
| AV   | 150k         | 30.71           | 56.00           | -25.29         | 9.99           | Line      | -       | 20.72         | 0.06         | 0.04       | 9.89       |  |  |  |  |  |  |
| QP   | 217.5k       | 45.34           | 62.92           | -17.58         | 9.99           | Line      | -       | 35.35         | 0.06         | 0.04       | 9.89       |  |  |  |  |  |  |
| AV   | 217.5k       | 35.64           | 52.92           | -17.28         | 9.99           | Line      | -       | 25.65         | 0.06         | 0.04       | 9.89       |  |  |  |  |  |  |
| QP   | 460.5k       | 38.34           | 56.69           | -18.35         | 10.01          | Line      | -       | 28.33         | 0.06         | 0.06       | 9.89       |  |  |  |  |  |  |
| AV   | 460.5k       | 33.54           | 46.69           | -13.15         | 10.01          | Line      | "Worst" | 23.53         | 0.06         | 0.06       | 9.89       |  |  |  |  |  |  |
| QP   | 1.307M       | 29.15           | 56.00           | -26.85         | 10.03          | Line      | -       | 19.12         | 0.08         | 0.06       | 9.89       |  |  |  |  |  |  |
| AV   | 1.307M       | 21.89           | 46.00           | -24.11         | 10.03          | Line      | -       | 11.86         | 0.08         | 0.06       | 9.89       |  |  |  |  |  |  |
| QP   | 9.258M       | 32.22           | 60.00           | -27.78         | 10.28          | Line      | -       | 21.94         | 0.21         | 0.16       | 9.91       |  |  |  |  |  |  |
| AV   | 9.258M       | 24.45           | 50.00           | -25.55         | 10.28          | Line      | -       | 14.17         | 0.21         | 0.16       | 9.91       |  |  |  |  |  |  |
| QP   | 13.308M      | 28.59           | 60.00           | -31.41         | 10.35          | Line      | -       | 18.24         | 0.25         | 0.17       | 9.93       |  |  |  |  |  |  |
| AV   | 13.308M      | 21.06           | 50.00           | -28.94         | 10.35          | Line      | -       | 10.71         | 0.25         | 0.17       | 9.93       |  |  |  |  |  |  |
| QP   | 20.976M      | 31.35           | 60.00           | -28.65         | 10.50          | Line      | -       | 20.85         | 0.31         | 0.23       | 9.96       |  |  |  |  |  |  |
| AV   | 20.976M      | 24.79           | 50.00           | -25.21         | 10.50          | Line      | -       | 14.29         | 0.31         | 0.23       | 9.96       |  |  |  |  |  |  |
| QP   | 24.833M      | 33.27           | 60.00           | -26.73         | 10.60          | Line      | -       | 22.67         | 0.35         | 0.28       | 9.97       |  |  |  |  |  |  |
| AV   | 24.833M      | 26.42           | 50.00           | -23.58         | 10.60          | Line      | -       | 15.82         | 0.35         | 0.28       | 9.97       |  |  |  |  |  |  |

### Test 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   | 217.5k       | 47.41           | 62.92           | -15.51         | 10.00          | Neutral   | -       | 37.41         | 0.07         | 0.04       | 9.89       |  |  |  |  |  |  |
| AV   | 217.5k       | 37.73           | 52.92           | -15.19         | 10.00          | Neutral   | "Worst" | 27.73         | 0.07         | 0.04       | 9.89       |  |  |  |  |  |  |
| QP   | 262.5k       | 36.24           | 61.35           | -25.11         | 10.01          | Neutral   | -       | 26.23         | 0.07         | 0.05       | 9.89       |  |  |  |  |  |  |
| AV   | 262.5k       | 26.03           | 51.35           | -25.32         | 10.01          | Neutral   | -       | 16.02         | 0.07         | 0.05       | 9.89       |  |  |  |  |  |  |
| QP   | 433.5k       | 36.12           | 57.19           | -21.07         | 10.02          | Neutral   | -       | 26.10         | 0.07         | 0.06       | 9.89       |  |  |  |  |  |  |
| AV   | 433.5k       | 31.95           | 47.19           | -15.24         | 10.02          | Neutral   | -       | 21.93         | 0.07         | 0.06       | 9.89       |  |  |  |  |  |  |
| QP   | 2.301M       | 24.37           | 56.00           | -31.63         | 10.09          | Neutral   | -       | 14.28         | 0.11         | 0.09       | 9.89       |  |  |  |  |  |  |
| AV   | 2.301M       | 17.13           | 46.00           | -28.87         | 10.09          | Neutral   | -       | 7.04          | 0.11         | 0.09       | 9.89       |  |  |  |  |  |  |
| QP   | 9.303M       | 34.64           | 60.00           | -25.36         | 10.30          | Neutral   | -       | 24.34         | 0.23         | 0.16       | 9.91       |  |  |  |  |  |  |
| AV   | 9.303M       | 26.69           | 50.00           | -23.31         | 10.30          | Neutral   | -       | 16.39         | 0.23         | 0.16       | 9.91       |  |  |  |  |  |  |
| QP   | 13.164M      | 31.91           | 60.00           | -28.09         | 10.36          | Neutral   | -       | 21.55         | 0.26         | 0.17       | 9.93       |  |  |  |  |  |  |
| AV   | 13.164M      | 25.15           | 50.00           | -24.85         | 10.36          | Neutral   | -       | 14.79         | 0.26         | 0.17       | 9.93       |  |  |  |  |  |  |
| QP   | 21.62M       | 35.24           | 60.00           | -24.76         | 10.50          | Neutral   | -       | 24.74         | 0.30         | 0.24       | 9.96       |  |  |  |  |  |  |
| AV   | 21.62M       | 28.94           | 50.00           | -21.06         | 10.50          | Neutral   | -       | 18.44         | 0.30         | 0.24       | 9.96       |  |  |  |  |  |  |
| QP   | 24.887M      | 34.58           | 60.00           | -25.42         | 10.56          | Neutral   | -       | 24.02         | 0.31         | 0.28       | 9.97       |  |  |  |  |  |  |
| AV   | 24.887M      | 28.04           | 50.00           | -21.96         | 10.56          | Neutral   | -       | 17.48         | 0.31         | 0.28       | 9.97       |  |  |  |  |  |  |

**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)  | 936.25k          | 884.558k        | 885KF1D  | 933.75k          | 868.316k        |
| BT-EDR(2Mbps) | 1.334M           | 1.229M          | 1M23G1D  | 1.315M           | 1.206M          |
| BT-EDR(3Mbps) | 1.299M           | 1.227M          | 1M23G1D  | 1.276M           | 1.211M          |

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

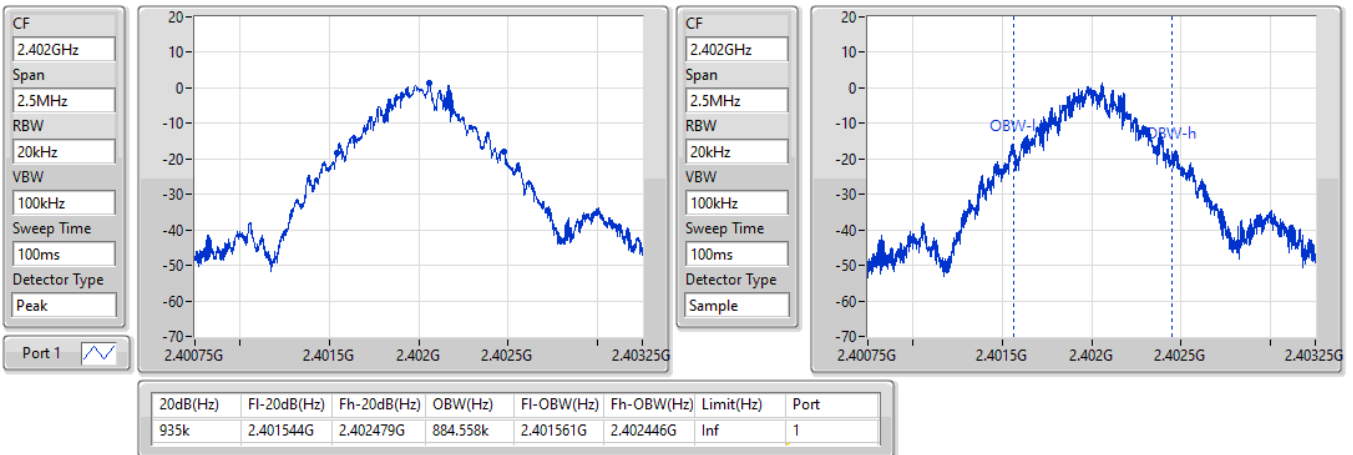
**Result**

| Mode          | Result | Limit<br>(Hz) | Port 1-N dB<br>(Hz) | Port 1-OBW<br>(Hz) |
|---------------|--------|---------------|---------------------|--------------------|
| BT-BR(1Mbps)  | -      | -             | -                   | -                  |
| 2402MHz       | Pass   | Inf           | 935k                | 884.558k           |
| 2440MHz       | Pass   | Inf           | 936.25k             | 868.316k           |
| 2480MHz       | Pass   | Inf           | 933.75k             | 874.563k           |
| BT-EDR(2Mbps) | -      | -             | -                   | -                  |
| 2402MHz       | Pass   | Inf           | 1.315M              | 1.206M             |
| 2440MHz       | Pass   | Inf           | 1.319M              | 1.218M             |
| 2480MHz       | Pass   | Inf           | 1.334M              | 1.229M             |
| BT-EDR(3Mbps) | -      | -             | -                   | -                  |
| 2402MHz       | Pass   | Inf           | 1.276M              | 1.211M             |
| 2440MHz       | Pass   | Inf           | 1.299M              | 1.213M             |
| 2480MHz       | Pass   | Inf           | 1.298M              | 1.227M             |

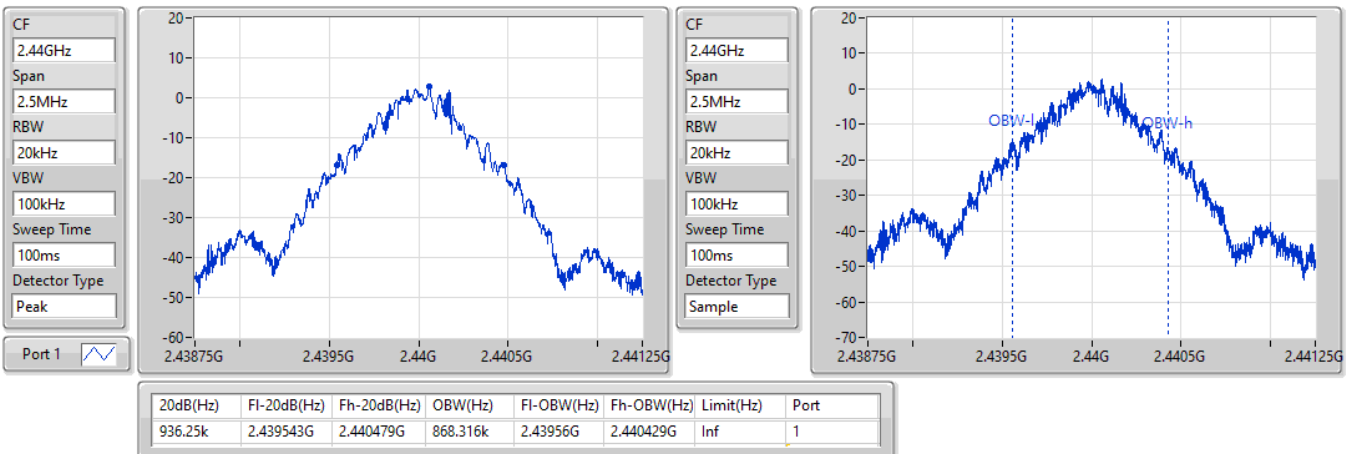
Port X-N dB = Port X 20dB down bandwidth;  
Port X-OBW = Port X 99% occupied bandwidth

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

01/09/2022

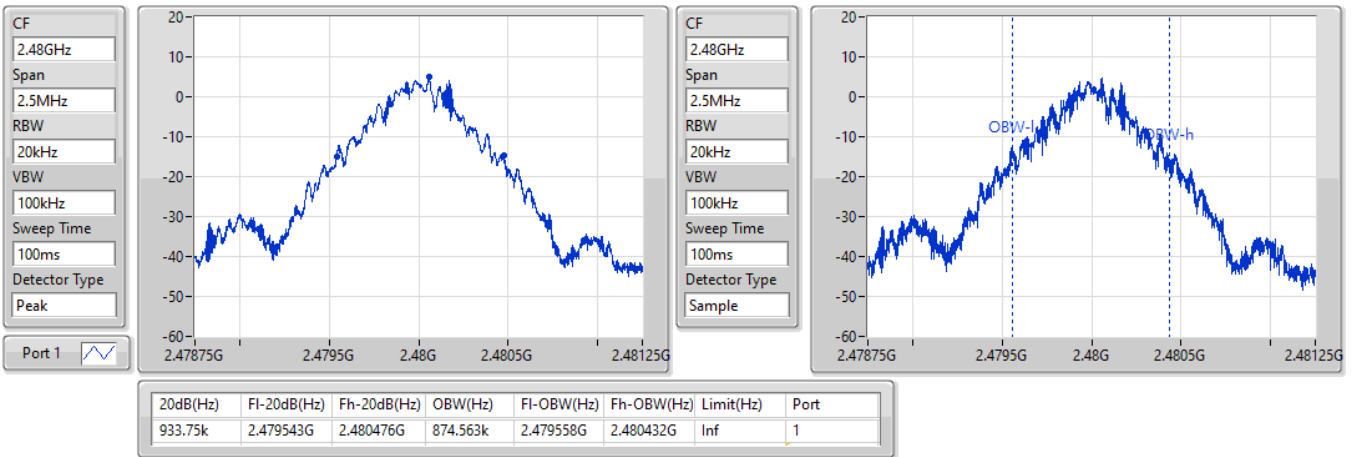

**BT-BR(1Mbps)**
**2440MHz**
**EBW-FS**

01/09/2022

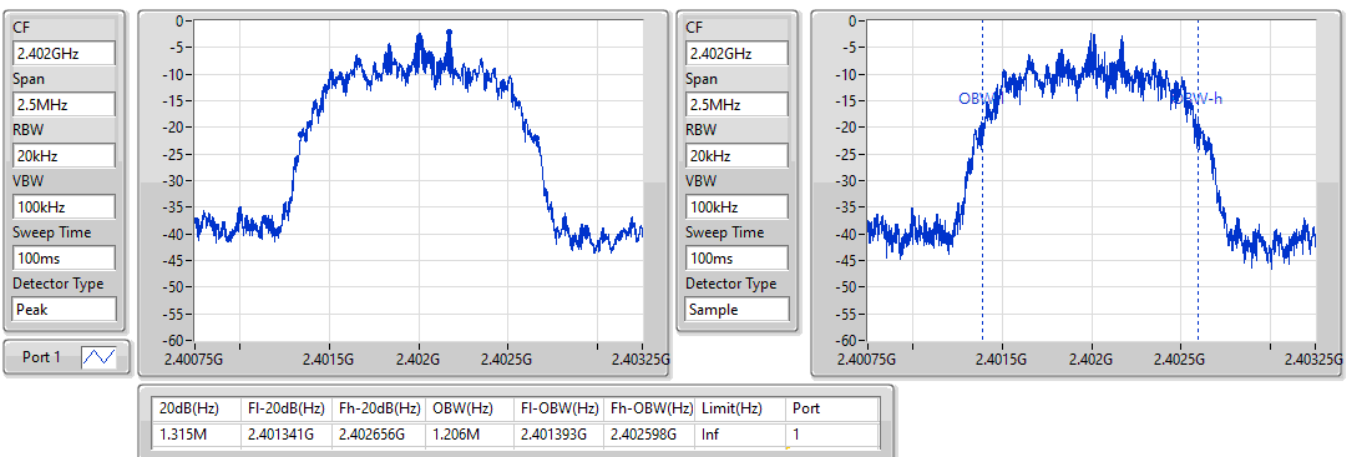


**BT-BR(1Mbps)**
**EBW-FS**
**2480MHz**

01/09/2022

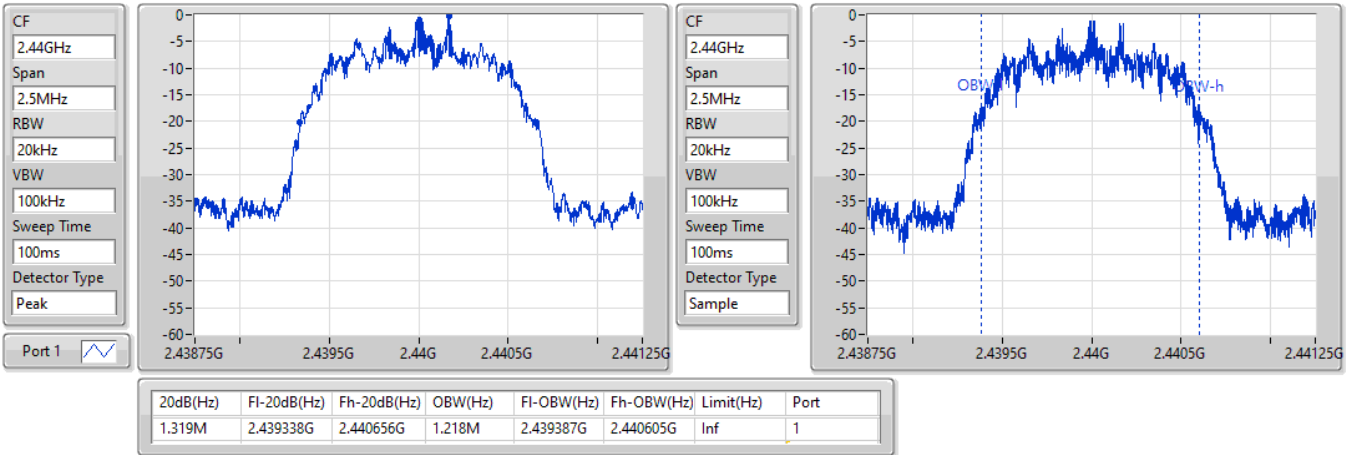

**BT-EDR(2Mbps)**
**EBW-FS**
**2402MHz**

01/09/2022

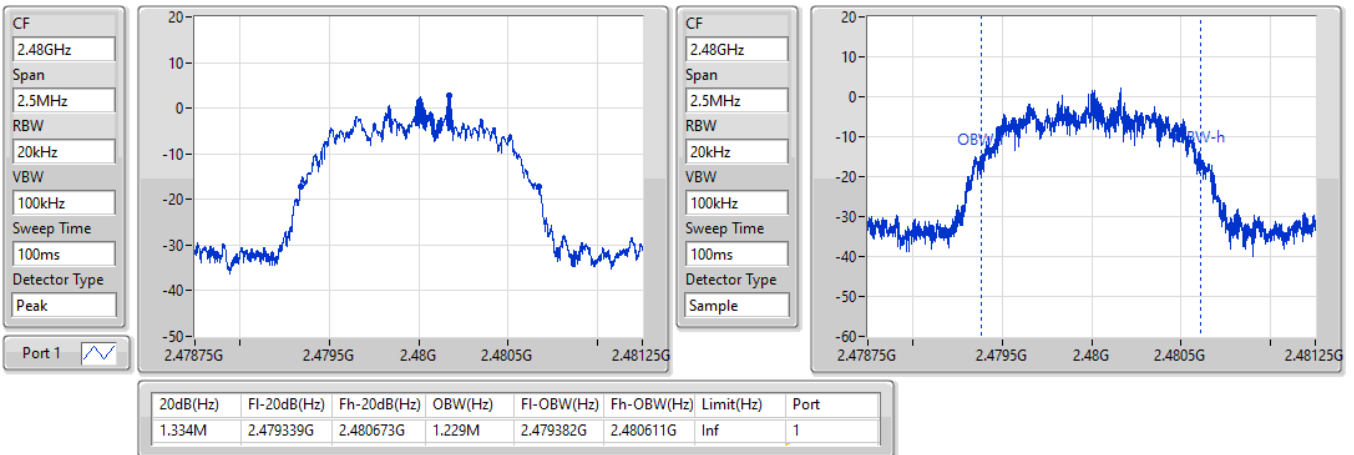


**BT-EDR(2Mbps)**
**EBW-FS**
**2440MHz**

01/09/2022

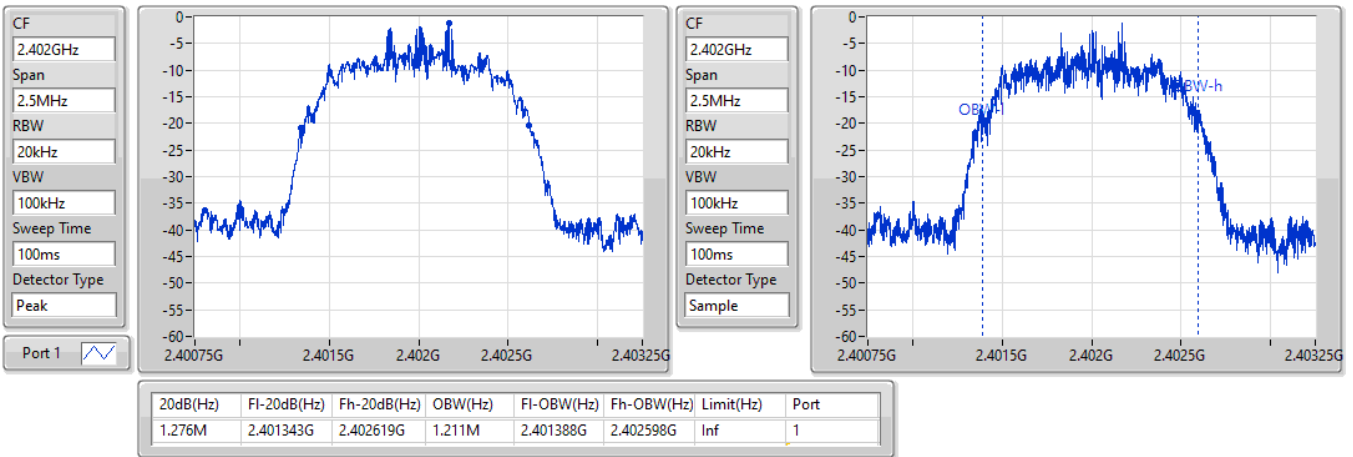

**BT-EDR(2Mbps)**
**EBW-FS**
**2480MHz**

01/09/2022

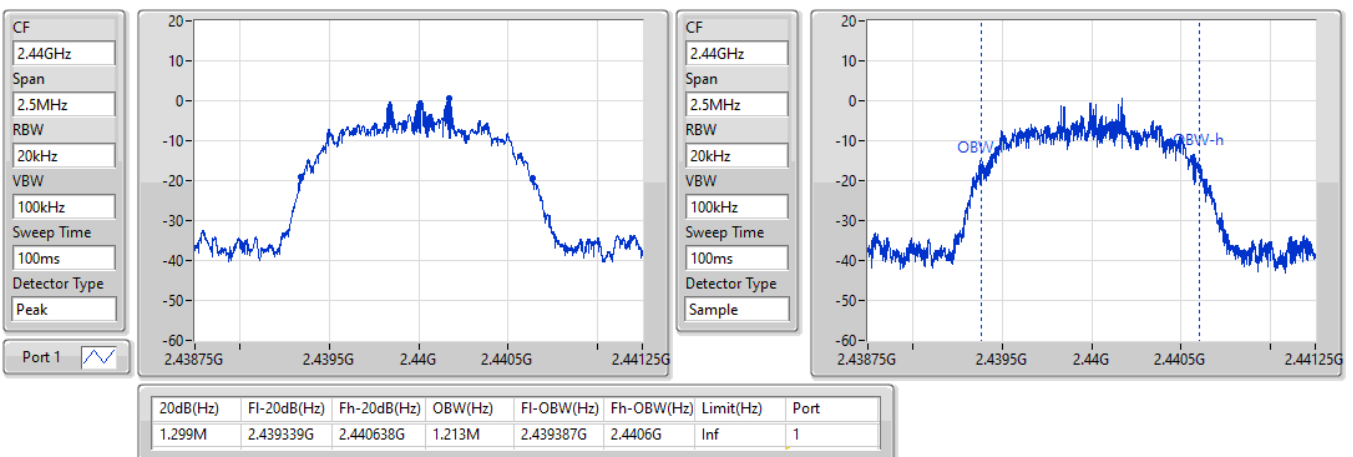


**BT-EDR(3Mbps)**
**EBW-FS**
**2402MHz**

01/09/2022

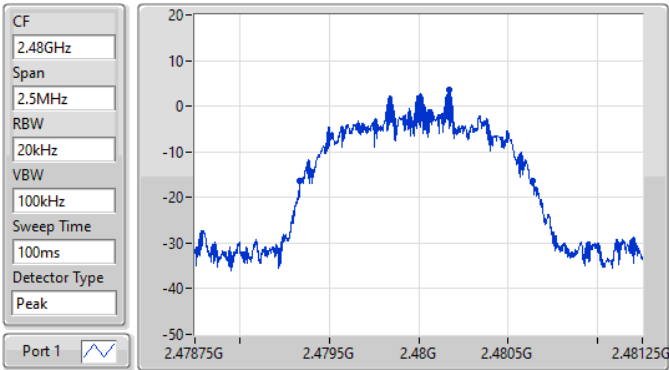

**BT-EDR(3Mbps)**
**EBW-FS**
**2440MHz**

01/09/2022



## BT-EDR(3Mbps)

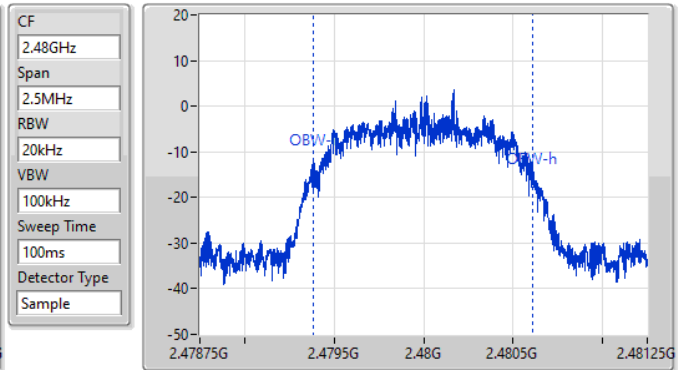
2480MHz



| 20dB(Hz) | Fl-20dB(Hz) | Fh-20dB(Hz) | OBW(Hz) | Fl-OBW(Hz) | Fh-OBW(Hz) | Limit(Hz) | Port |
|----------|-------------|-------------|---------|------------|------------|-----------|------|
| 1.298M   | 2.479336G   | 2.480634G   | 1.227M  | 2.47938G   | 2.480607G  | Inf       | 1    |

## EBW-FS

01/09/2022



**Summary**

| Mode          | Max-Space<br>(Hz) | Min-Space<br>(Hz) |
|---------------|-------------------|-------------------|
| 2.4-2.4835GHz | -                 | -                 |
| BT-BR(1Mbps)  | 1.0005M           | 840k              |
| BT-EDR(2Mbps) | 1.0005M           | 999k              |
| BT-EDR(3Mbps) | 1.002M            | 999k              |

## Result

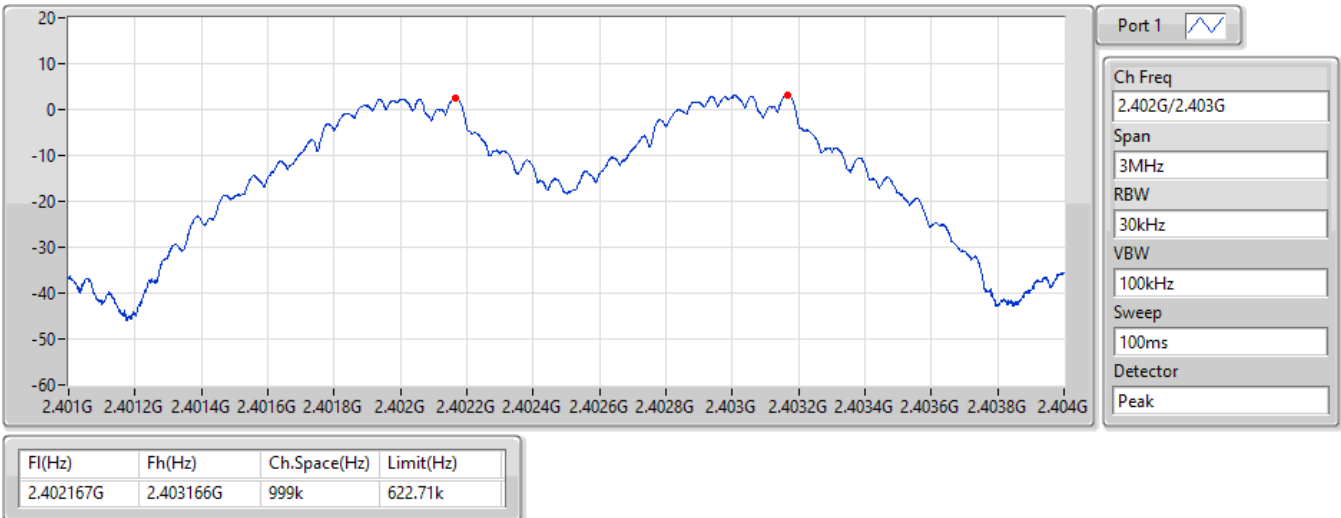
| Mode          | Result | Fl<br>(Hz) | Fh<br>(Hz) | Ch.Space<br>(Hz) | Limit<br>(Hz) |
|---------------|--------|------------|------------|------------------|---------------|
| BT-BR(1Mbps)  | -      | -          | -          | -                | -             |
| 2402MHz       | Pass   | 2.402167G  | 2.403166G  | 999k             | 622.71k       |
| 2440MHz       | Pass   | 2.440166G  | 2.441166G  | 1.0005M          | 623.5425k     |
| 2480MHz       | Pass   | 2.479166G  | 2.480006G  | 840k             | 621.8775k     |
| BT-EDR(2Mbps) | -      | -          | -          | -                | -             |
| 2402MHz       | Pass   | 2.402005G  | 2.403006G  | 1.0005M          | 875.79k       |
| 2440MHz       | Pass   | 2.440005G  | 2.441006G  | 1.0005M          | 878.454k      |
| 2480MHz       | Pass   | 2.479008G  | 2.480007G  | 999k             | 888.444k      |
| BT-EDR(3Mbps) | -      | -          | -          | -                | -             |
| 2402MHz       | Pass   | 2.402167G  | 2.403169G  | 1.002M           | 849.816k      |
| 2440MHz       | Pass   | 2.440167G  | 2.441169G  | 1.002M           | 865.134k      |
| 2480MHz       | Pass   | 2.479169G  | 2.480168G  | 999k             | 864.468k      |

## BT-BR(1Mbps)

2.402G/2.403GHz

## Channel Separation-FS

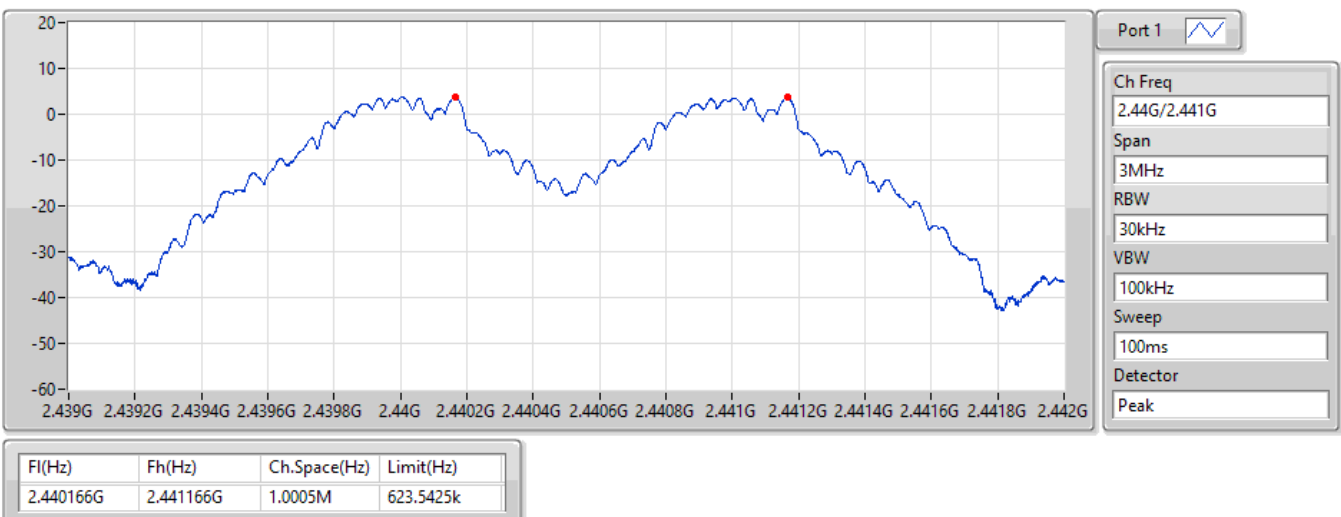
01/09/2022



## BT-BR(1Mbps)

2.44G/2.441GHz

## Channel Separation-FS

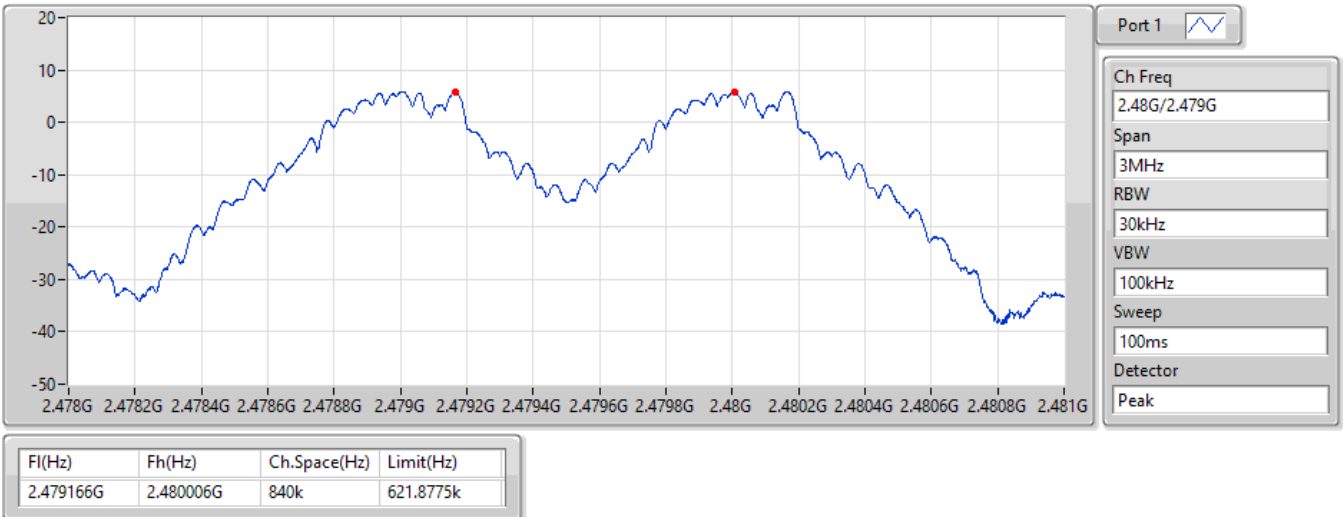


## BT-BR(1Mbps)

2.48G/2.479GHz

## Channel Separation-FS

01/09/2022

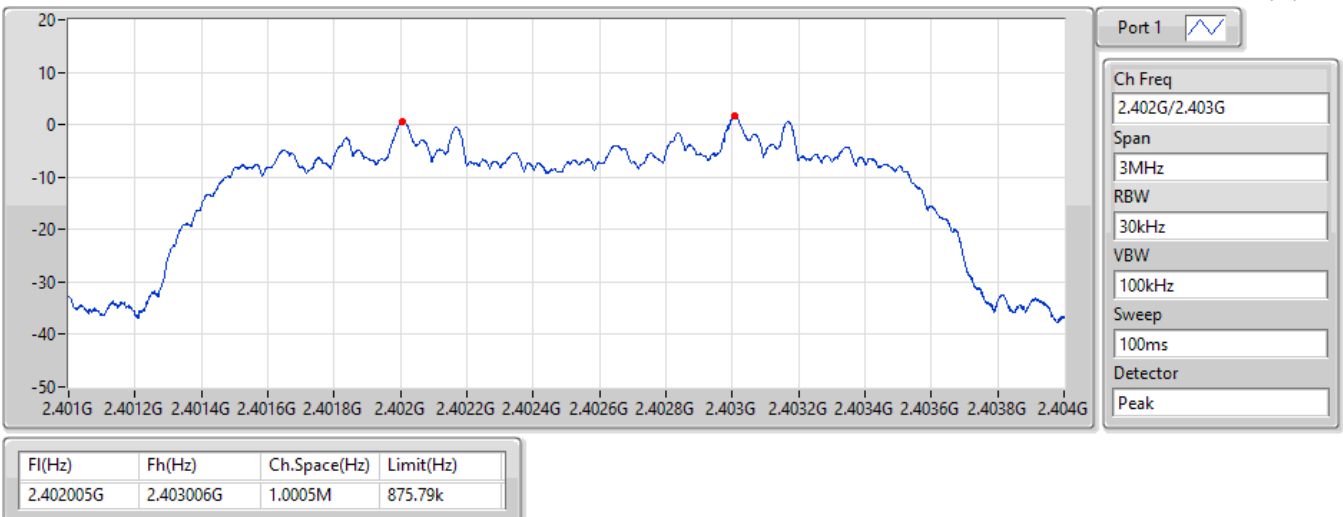


## BT-EDR(2Mbps)

2.402G/2.403GHz

## Channel Separation-FS

01/09/2022

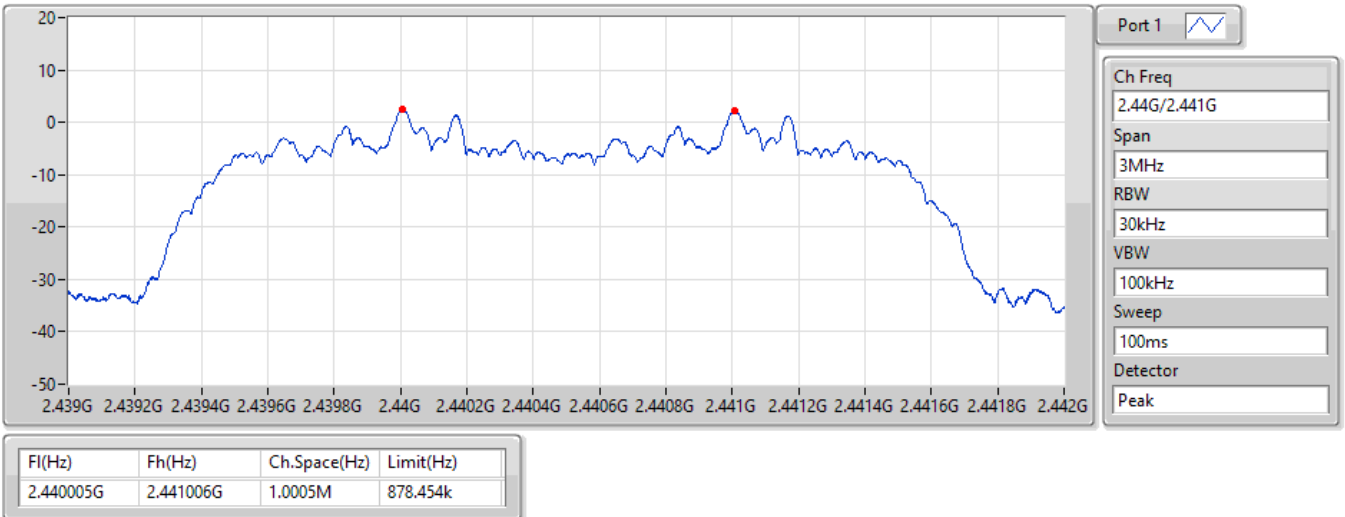


## BT-EDR(2Mbps)

2.44G/2.441GHz

## Channel Separation-FS

01/09/2022

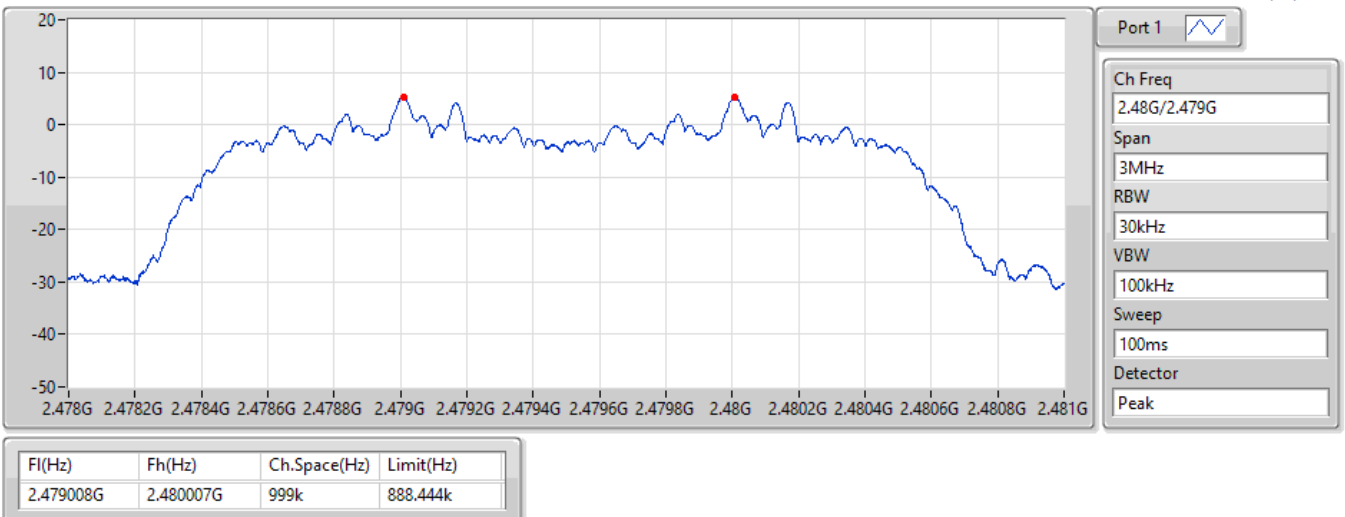


## BT-EDR(2Mbps)

2.48G/2.479GHz

## Channel Separation-FS

01/09/2022

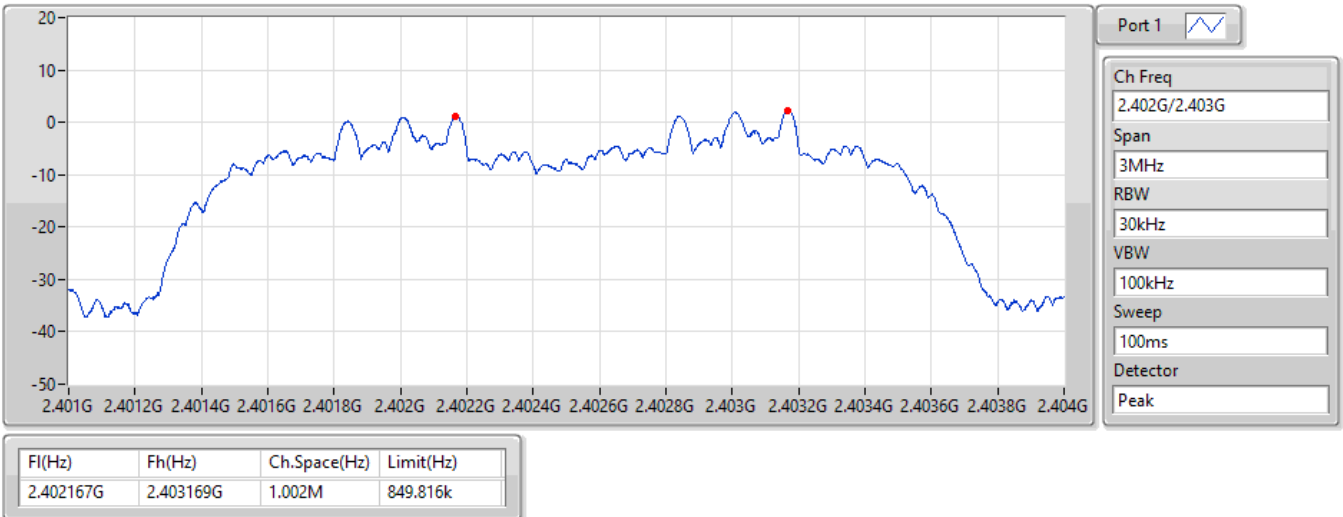


## BT-EDR(3Mbps)

2.402G/2.403GHz

## Channel Separation-FS

01/09/2022

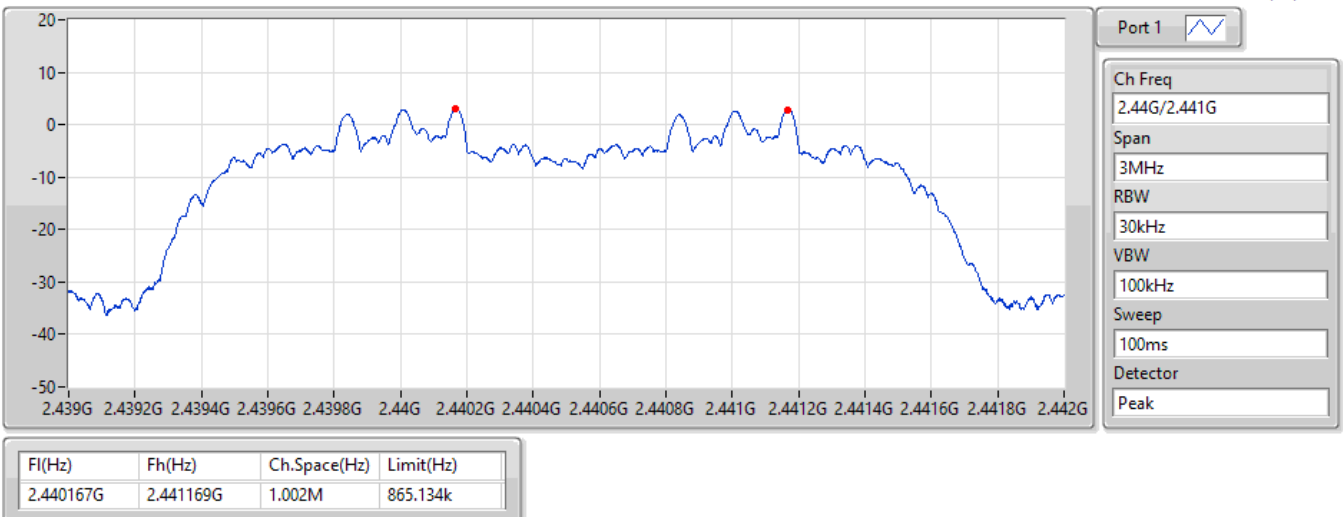


## BT-EDR(3Mbps)

2.44G/2.441GHz

## Channel Separation-FS

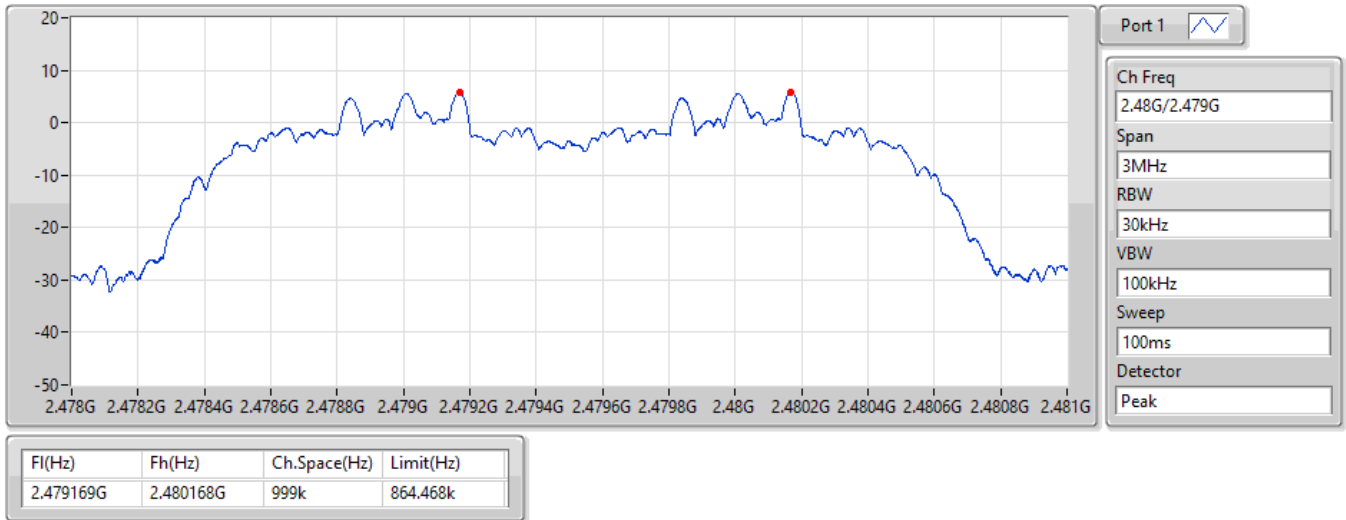
01/09/2022



**BT-EDR(3Mbps)**  
**2.48G/2.479GHz**

**Channel Separation-FS**

01/09/2022





## Average Power-FHSS

## Appendix C.1

### Summary

| Mode          | Power<br>(dBm) | Power<br>(W) |
|---------------|----------------|--------------|
| 2.4-2.4835GHz | -              | -            |
| BT-BR(1Mbps)  | 9.09           | 0.00811      |
| BT-EDR(2Mbps) | 6.91           | 0.00491      |
| BT-EDR(3Mbps) | 6.97           | 0.00498      |



**Result**

| Mode          | Result | Gain<br>(dBi) | Power<br>(dBm) | Power Limit<br>(dBm) |
|---------------|--------|---------------|----------------|----------------------|
| BT-BR(1Mbps)  | -      | -             | -              | -                    |
| 2402MHz       | Pass   | 3.73          | 5.79           | 21.00                |
| 2440MHz       | Pass   | 3.73          | 7.01           | 21.00                |
| 2480MHz       | Pass   | 3.73          | 9.09           | 21.00                |
| BT-EDR(2Mbps) | -      | -             | -              | -                    |
| 2402MHz       | Pass   | 3.73          | 2.45           | 21.00                |
| 2440MHz       | Pass   | 3.73          | 4.12           | 21.00                |
| 2480MHz       | Pass   | 3.73          | 6.91           | 21.00                |
| BT-EDR(3Mbps) | -      | -             | -              | -                    |
| 2402MHz       | Pass   | 3.73          | 2.48           | 21.00                |
| 2440MHz       | Pass   | 3.73          | 4.23           | 21.00                |
| 2480MHz       | Pass   | 3.73          | 6.97           | 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)  | 9.50           | 0.00891      |
| BT-EDR(2Mbps) | 8.18           | 0.00658      |
| BT-EDR(3Mbps) | 8.62           | 0.00728      |

**Result**

| Mode          | Result | Gain<br>(dBi) | Power<br>(dBm) | Power Limit<br>(dBm) |
|---------------|--------|---------------|----------------|----------------------|
| BT-BR(1Mbps)  | -      | -             | -              | -                    |
| 2402MHz       | Pass   | 3.73          | 6.31           | 21.00                |
| 2440MHz       | Pass   | 3.73          | 7.61           | 21.00                |
| 2480MHz       | Pass   | 3.73          | 9.50           | 21.00                |
| BT-EDR(2Mbps) | -      | -             | -              | -                    |
| 2402MHz       | Pass   | 3.73          | 4.01           | 21.00                |
| 2440MHz       | Pass   | 3.73          | 5.61           | 21.00                |
| 2480MHz       | Pass   | 3.73          | 8.18           | 21.00                |
| BT-EDR(3Mbps) | -      | -             | -              | -                    |
| 2402MHz       | Pass   | 3.73          | 4.76           | 21.00                |
| 2440MHz       | Pass   | 3.73          | 6.28           | 21.00                |
| 2480MHz       | Pass   | 3.73          | 8.62           | 21.00                |

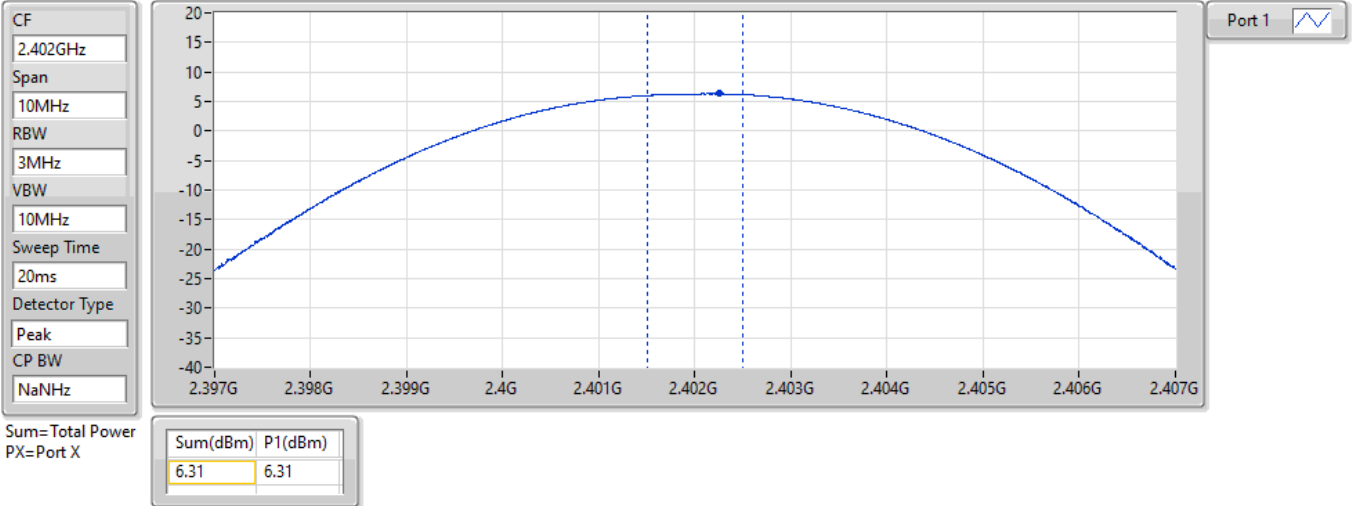
DG = Directional Gain; Port X = Port X output power

## BT-BR(1Mbps)

## PK Power-FS

2402MHz

01/09/2022

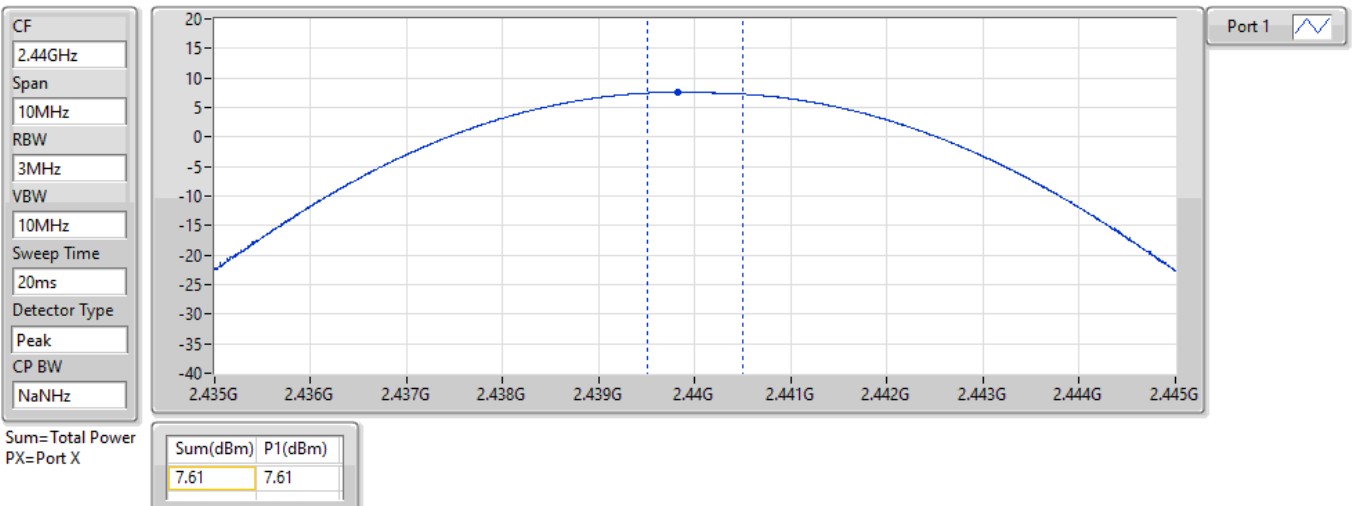


## BT-BR(1Mbps)

## PK Power-FS

2440MHz

01/09/2022

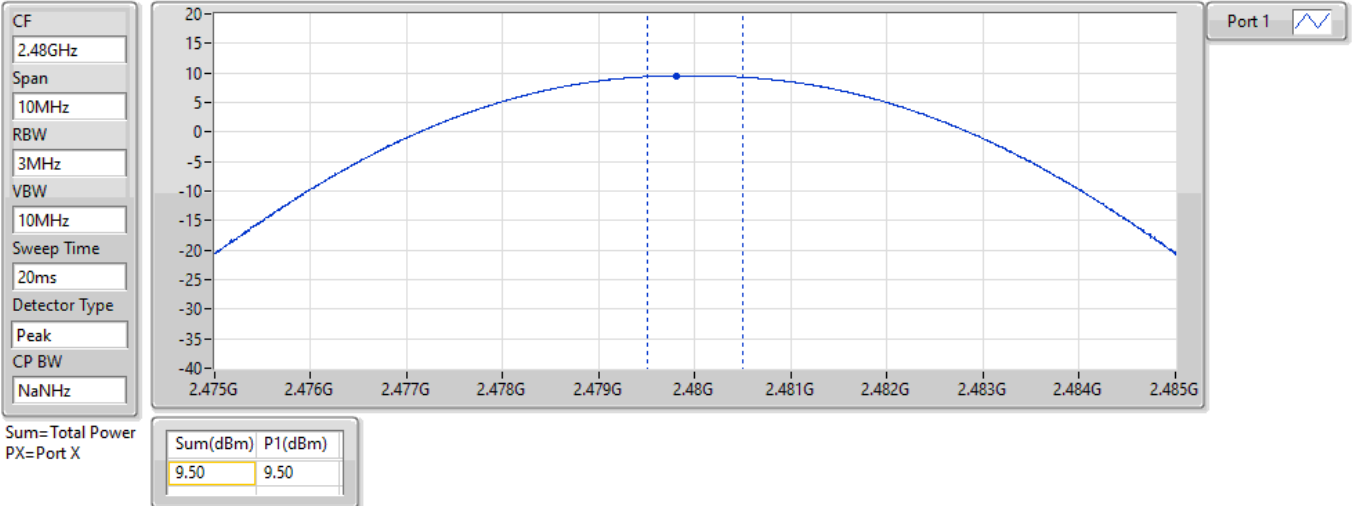


## BT-BR(1Mbps)

## PK Power-FS

2480MHz

01/09/2022

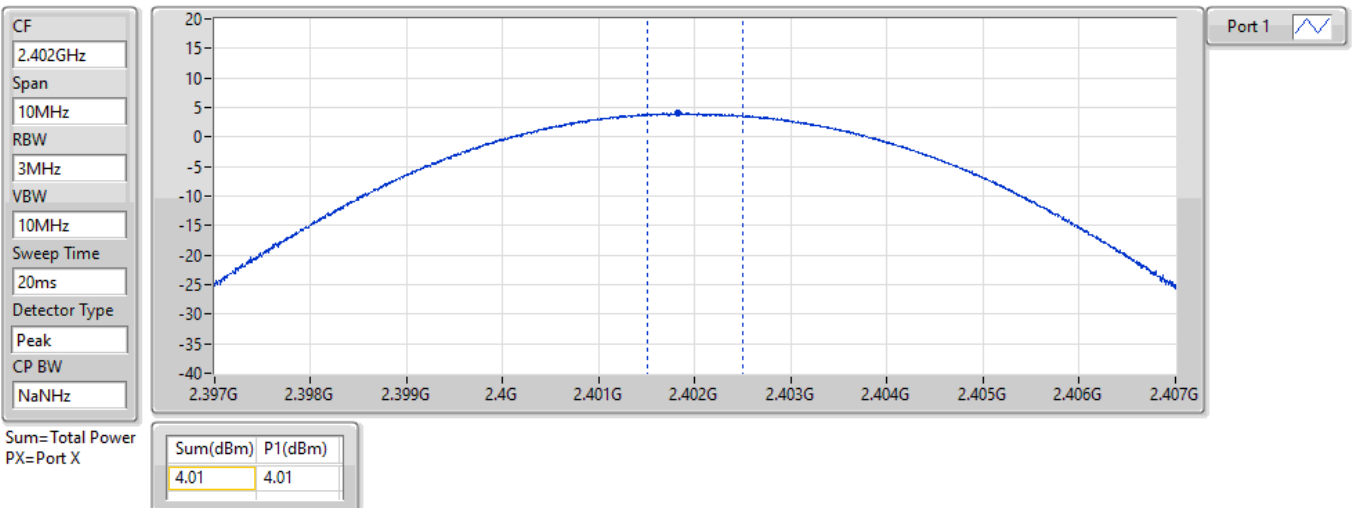


## BT-EDR(2Mbps)

## PK Power-FS

2402MHz

01/09/2022

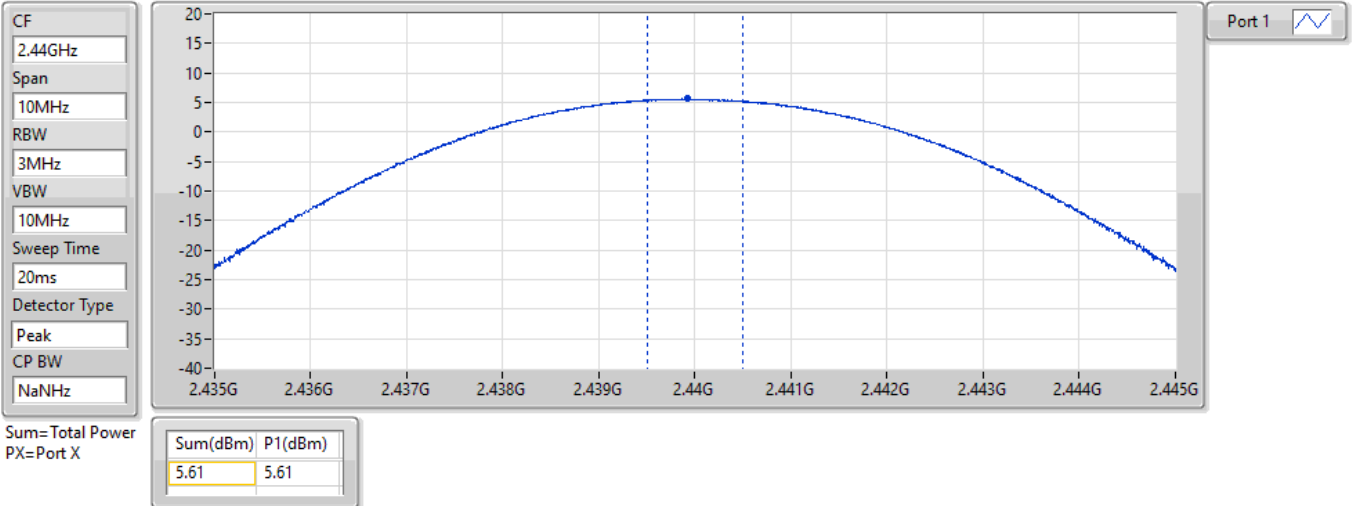


## BT-EDR(2Mbps)

## PK Power-FS

2440MHz

01/09/2022

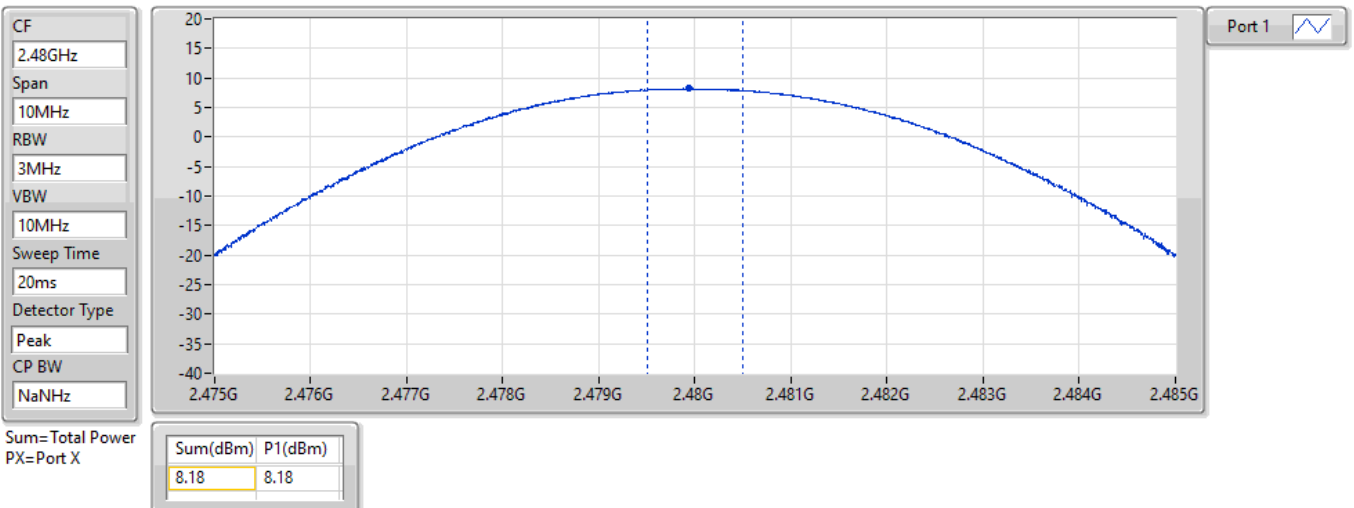


## BT-EDR(2Mbps)

## PK Power-FS

2480MHz

01/09/2022

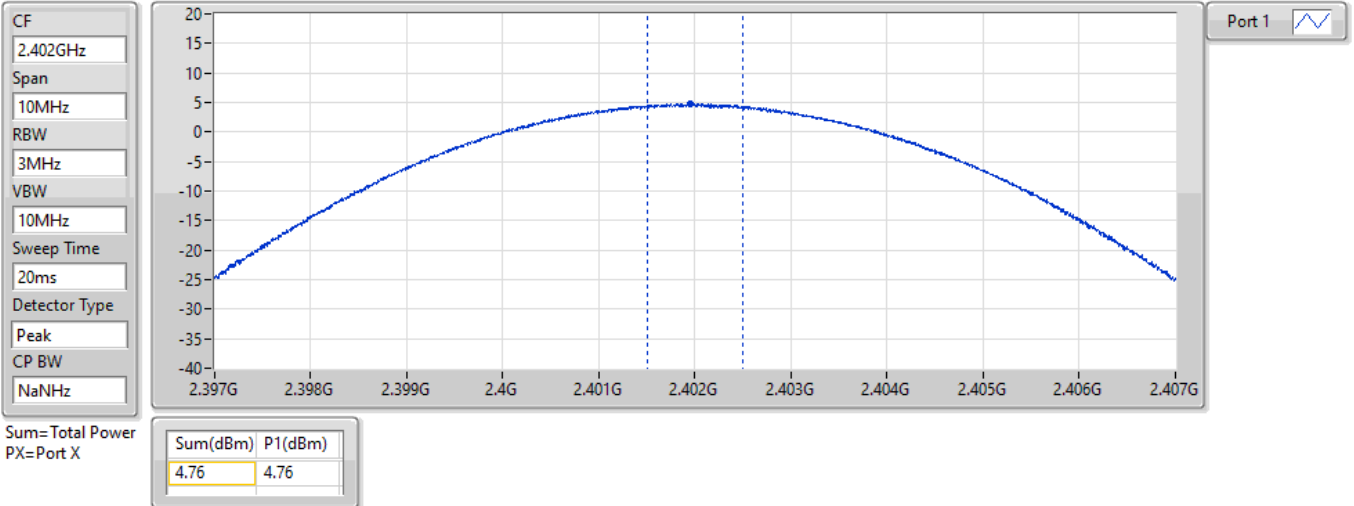


## BT-EDR(3Mbps)

## PK Power-FS

2402MHz

01/09/2022

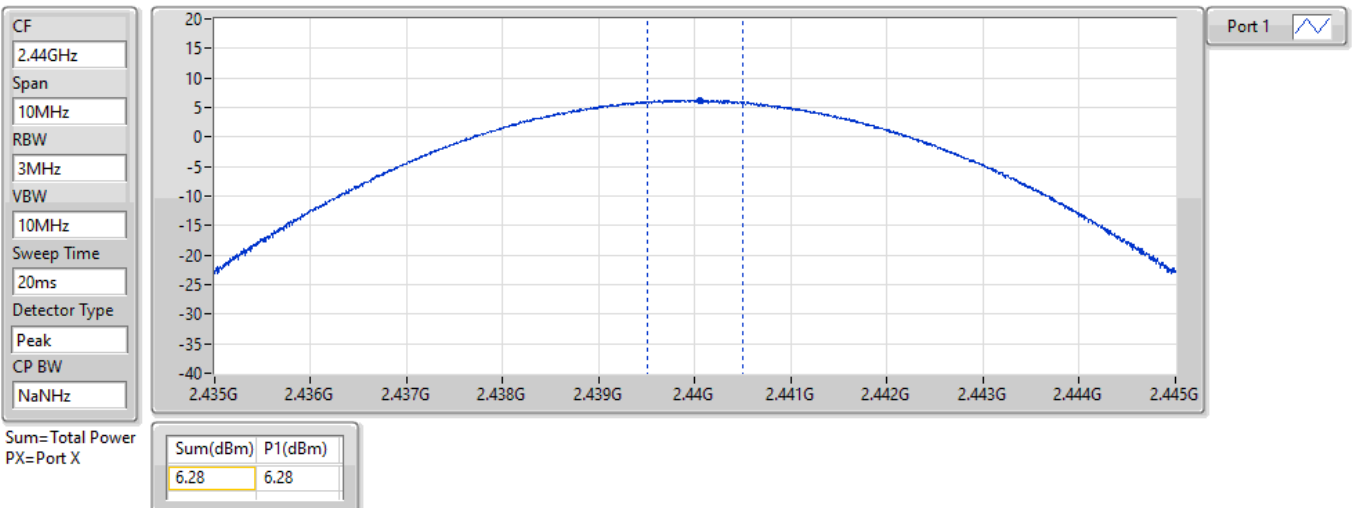


## BT-EDR(3Mbps)

## PK Power-FS

2440MHz

01/09/2022

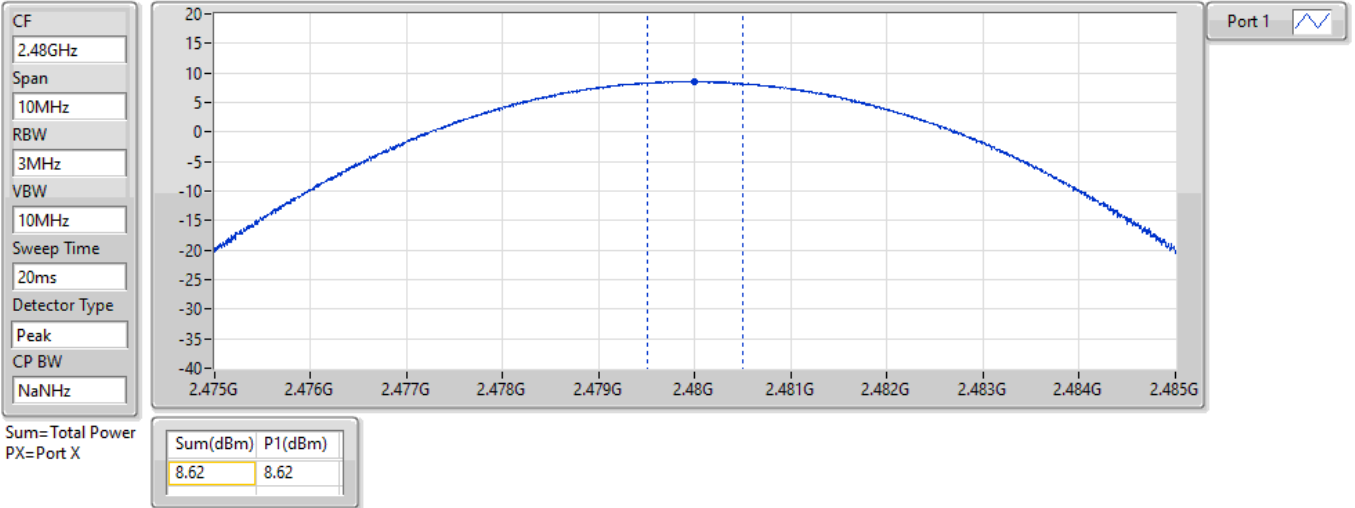


## BT-EDR(3Mbps)

## PK Power-FS

2480MHz

01/09/2022





**Summary**

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

**Result**

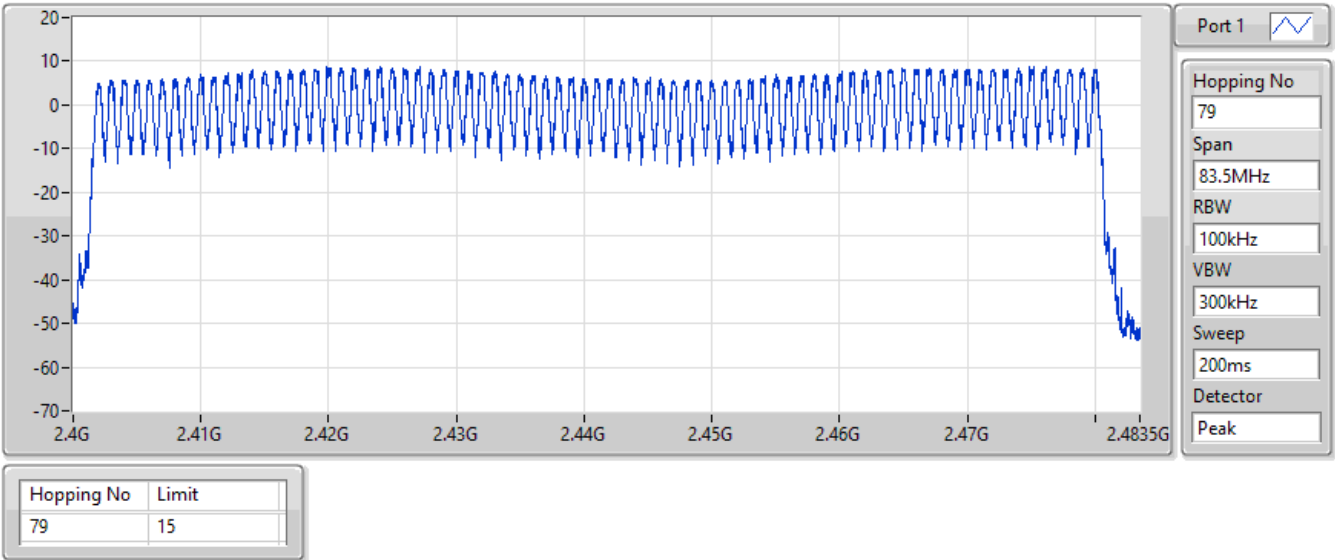
| Mode          | Result | Hopping No | Limit |
|---------------|--------|------------|-------|
| BT-BR(1Mbps)  | -      | -          | -     |
| 2440MHz       | Pass   | 79         | 15    |
| BT-EDR(2Mbps) | -      | -          | -     |
| 2440MHz       | Pass   | 79         | 15    |
| BT-EDR(3Mbps)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

## BT-BR(1Mbps)

2440MHz

## Hopping-FS

01/09/2022

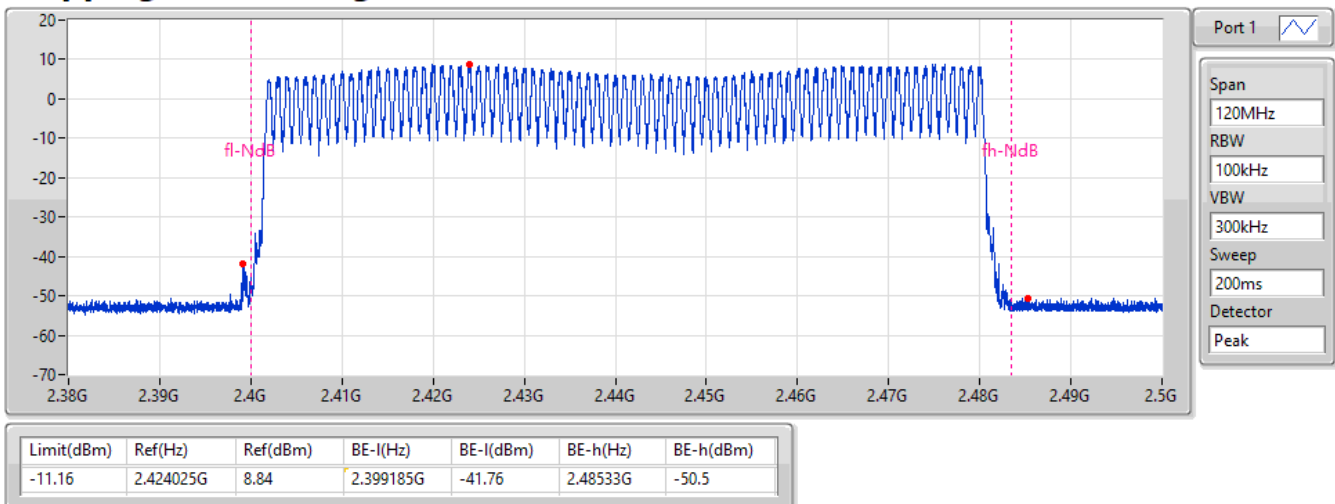


## BT-BR(1Mbps)

2440MHz

## Hopping Ch Bandedge (Non-restricted Band)

01/09/2022

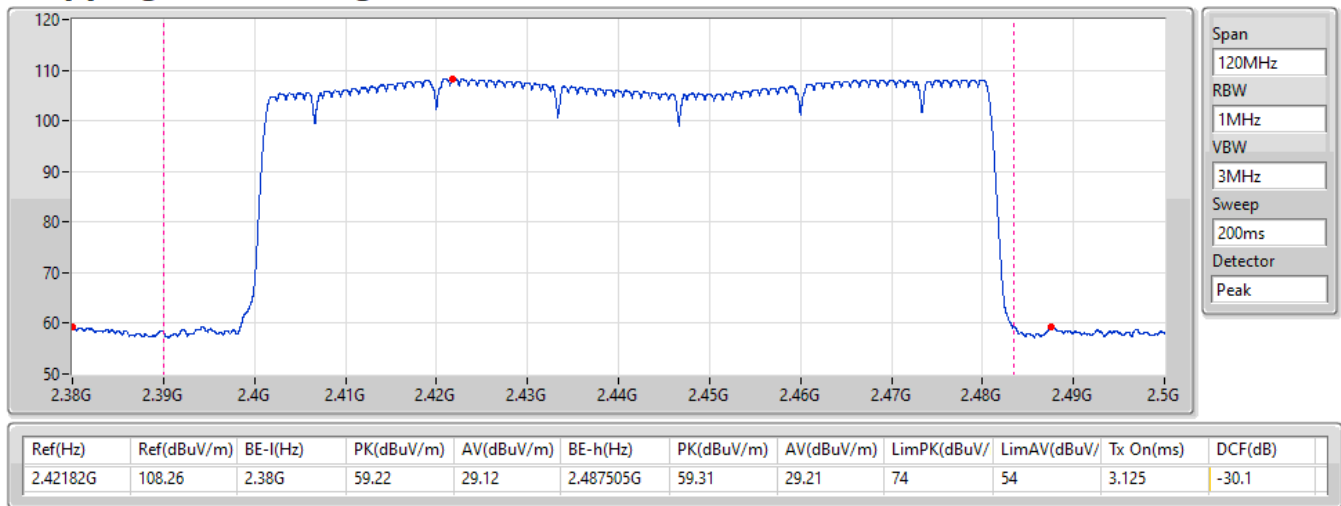


## BT-BR(1Mbps)

2440MHz

## Hopping Ch Bandedge (Restricted Band)

01/09/2022

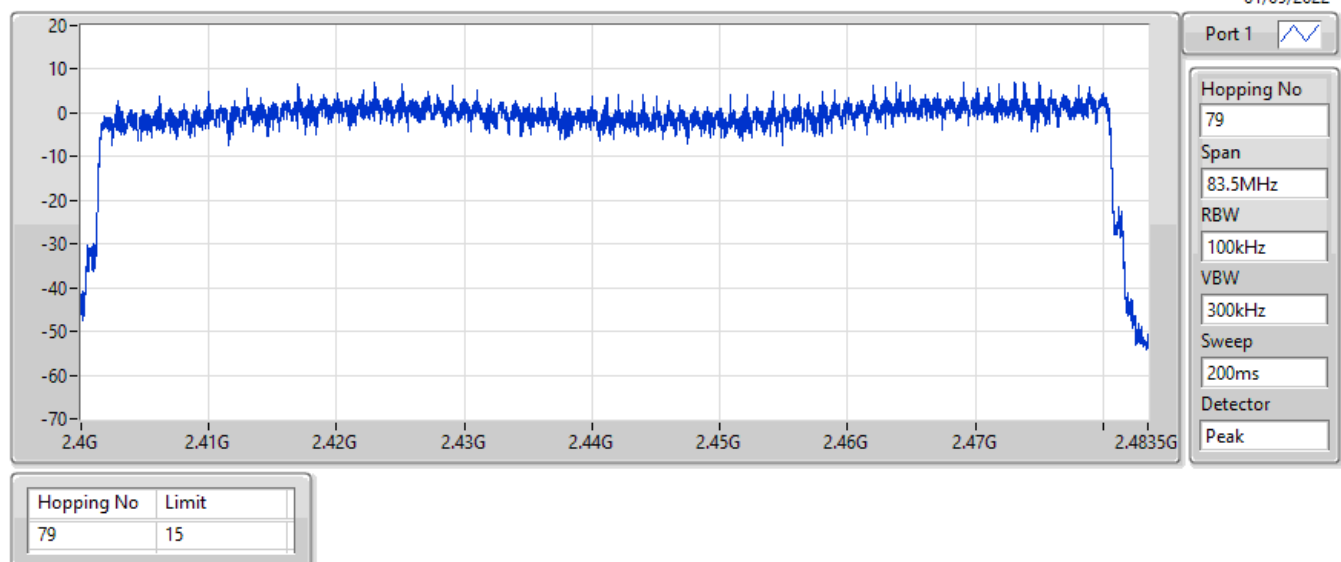


## BT-EDR(2Mbps)

2440MHz

## Hopping-FS

01/09/2022

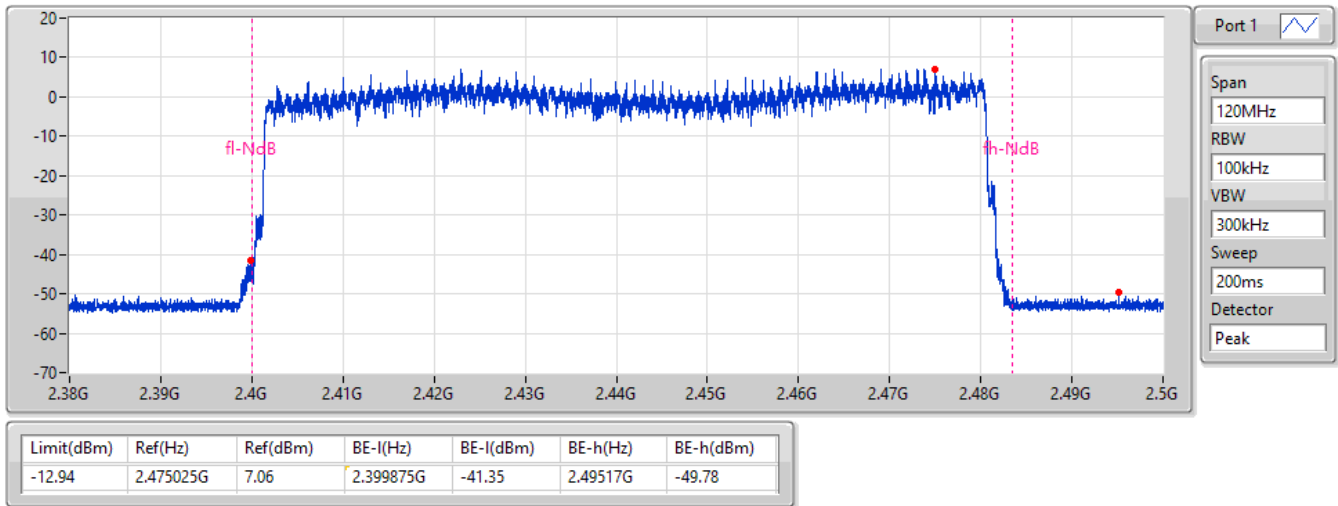


## BT-EDR(2Mbps)

2440MHz

## Hopping Ch Bandedge (Non-restricted Band)

01/09/2022

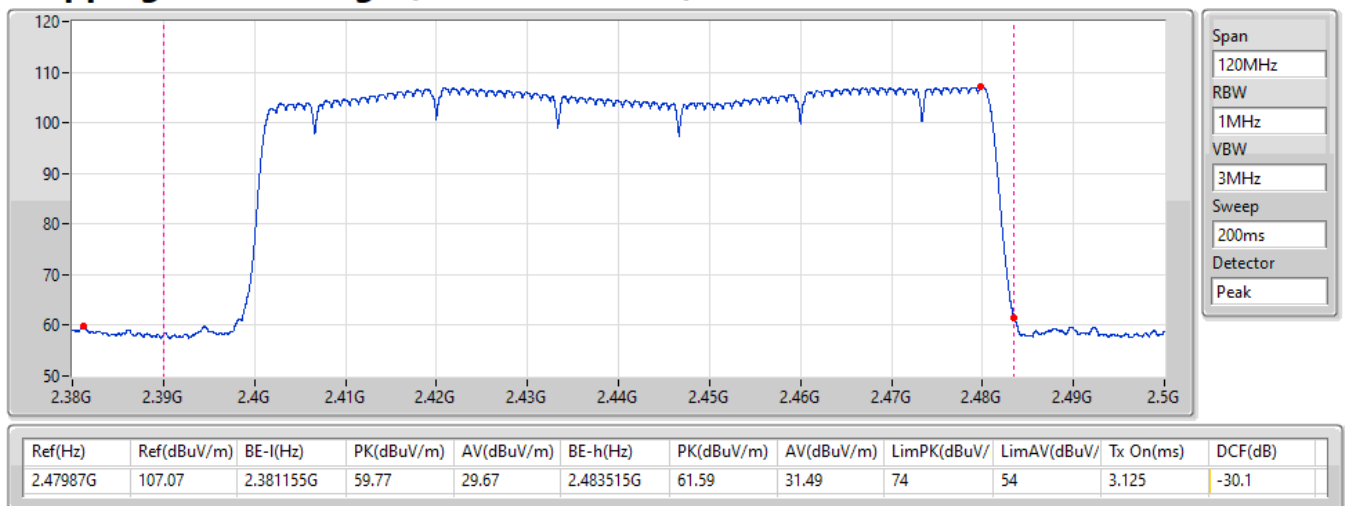


## BT-EDR(2Mbps)

2440MHz

## Hopping Ch Bandedge (Restricted Band)

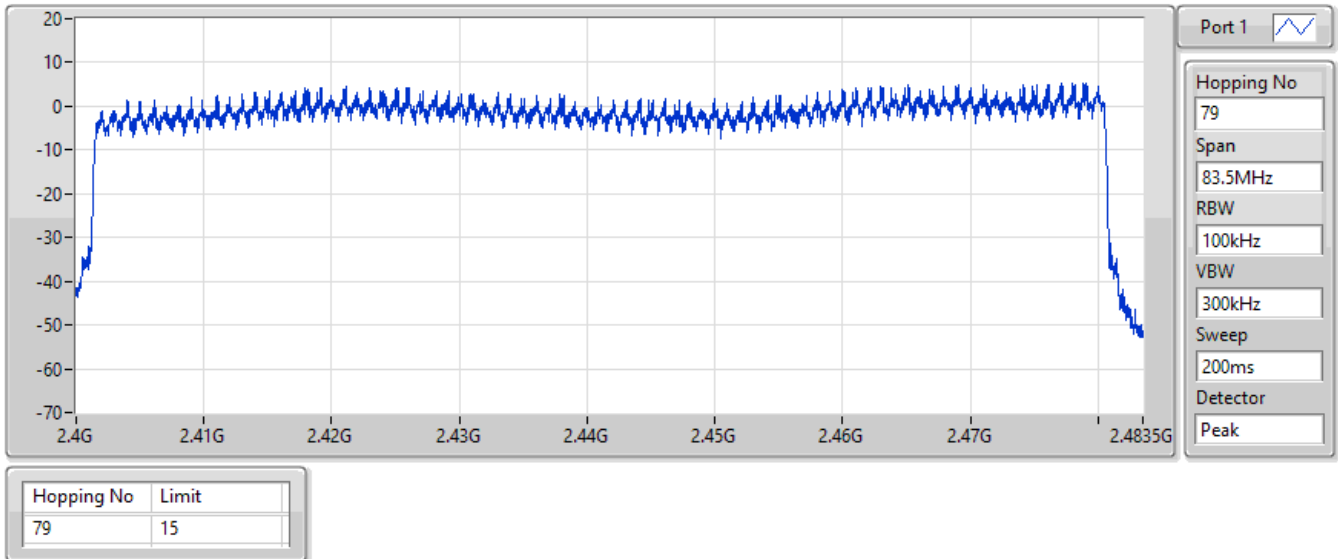
01/09/2022



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

### Hopping-FS

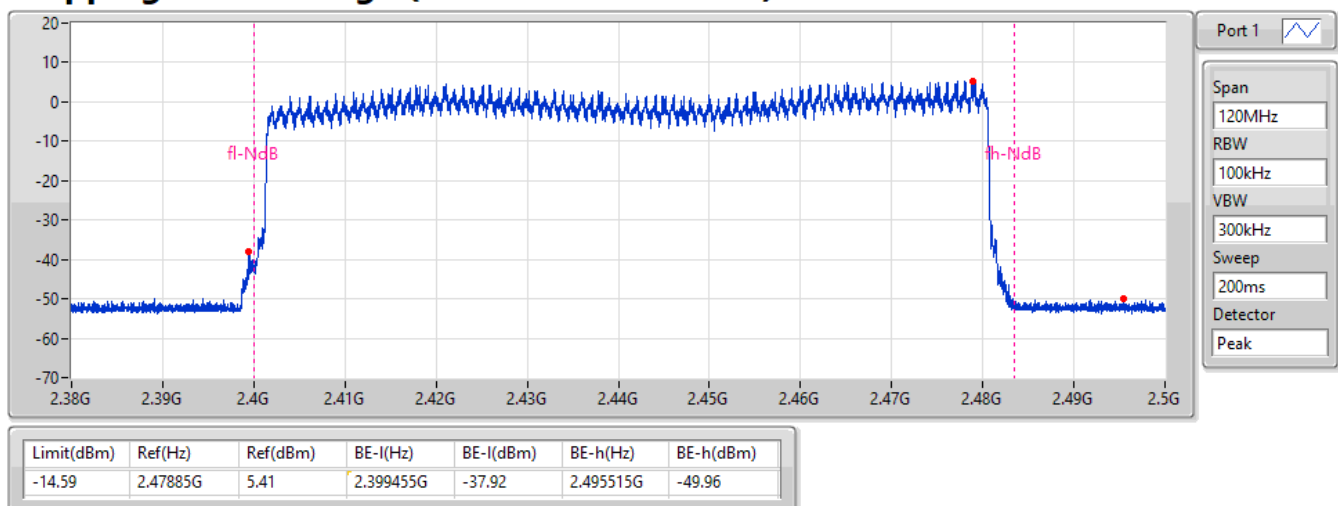
01/09/2022



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

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

01/09/2022

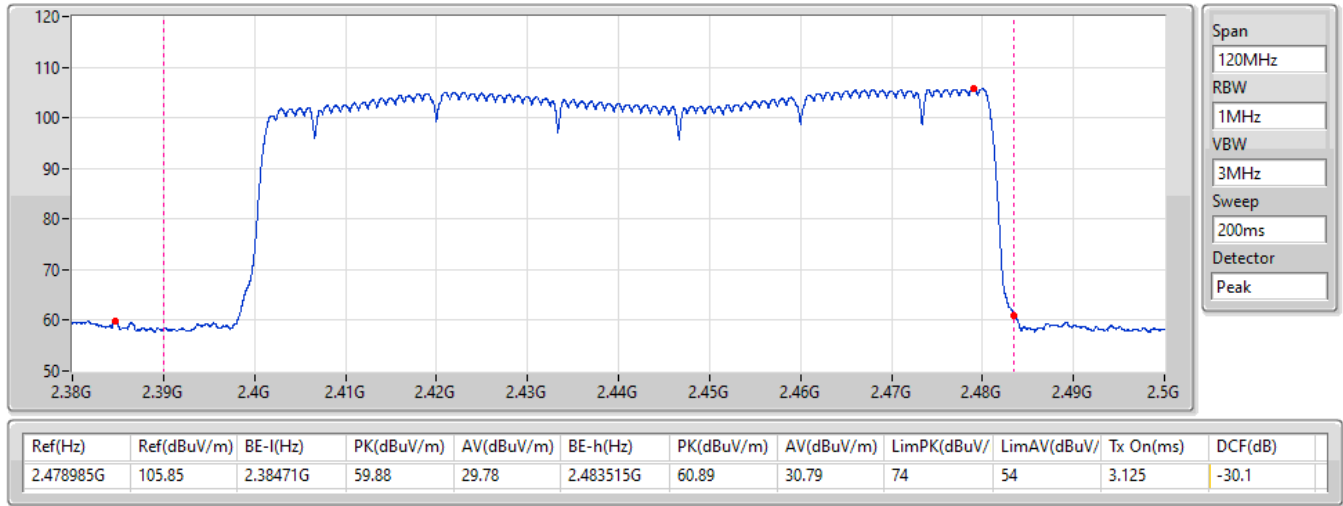


**BT-EDR(3Mbps)**

**2440MHz**

**Hopping Ch Bandedge (Restricted Band)**

01/09/2022





**Summary**

| Mode          | Max-Dwell<br>(s) |
|---------------|------------------|
| 2.4-2.4835GHz | -                |
| BT-BR(1Mbps)  | 309.4065m_DH5    |
| BT-EDR(2Mbps) | 310.4192m_DH5    |
| BT-EDR(3Mbps) | 310.71235m_DH5   |

**Result**

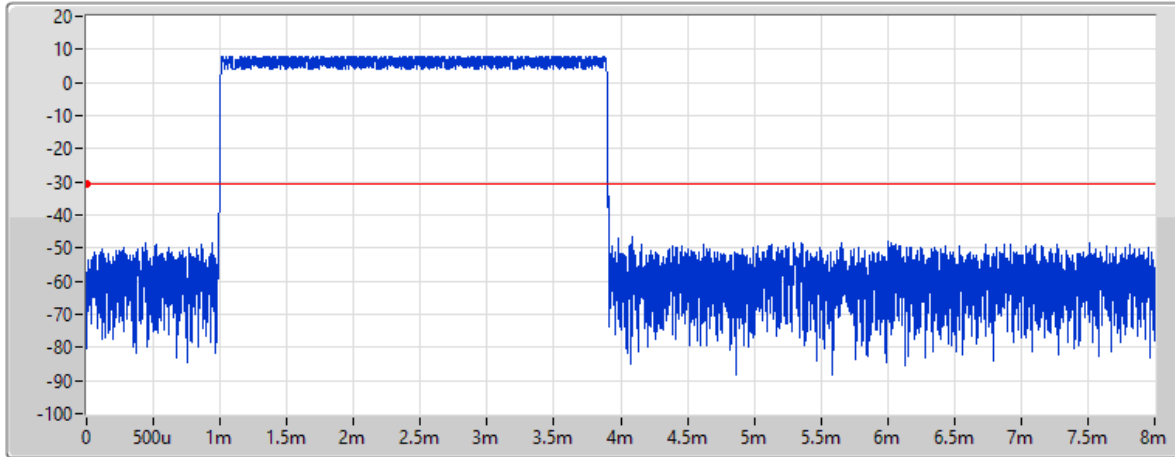
| Mode          | Result | Period<br>(s) | Dwell<br>(s)        | Limit<br>(s) | Tx On<br>(s) |
|---------------|--------|---------------|---------------------|--------------|--------------|
| BT-BR(1Mbps)  | -      | -             | -                   | -            | -            |
| 2440MHz       | Pass   | 31.6          | 309.4065m_DH5       | 400m         | 2.9025m      |
| 2440MHz       | Pass   | 8             | 154.689925m_DH5-AFH | 400m         | 2.90225m     |
| BT-EDR(2Mbps) | -      | -             | -                   | -            | -            |
| 2440MHz       | Pass   | 31.6          | 310.4192m_DH5       | 400m         | 2.912m       |
| 2440MHz       | Pass   | 8             | 155.249575m_DH5-AFH | 400m         | 2.91275m     |
| BT-EDR(3Mbps) | -      | -             | -                   | -            | -            |
| 2440MHz       | Pass   | 31.6          | 310.71235m_DH5      | 400m         | 2.91475m     |
| 2440MHz       | Pass   | 8             | 155.34285m_DH5-AFH  | 400m         | 2.9145m      |

BT-BR(1Mbps)

Dwell-FS

2440MHz

01/09/2022



Port 1 

Ch Freq  
2.44GHz

RBW  
300kHz

VBW  
1MHz

Sweep Time  
8ms

TX Time  
2.9025ms

| Period(s) | Dwell(s)      | Limit(s) | Tx On(s) |
|-----------|---------------|----------|----------|
| 31.6      | 309.4065m_DH5 | 400m     | 2.9025m  |

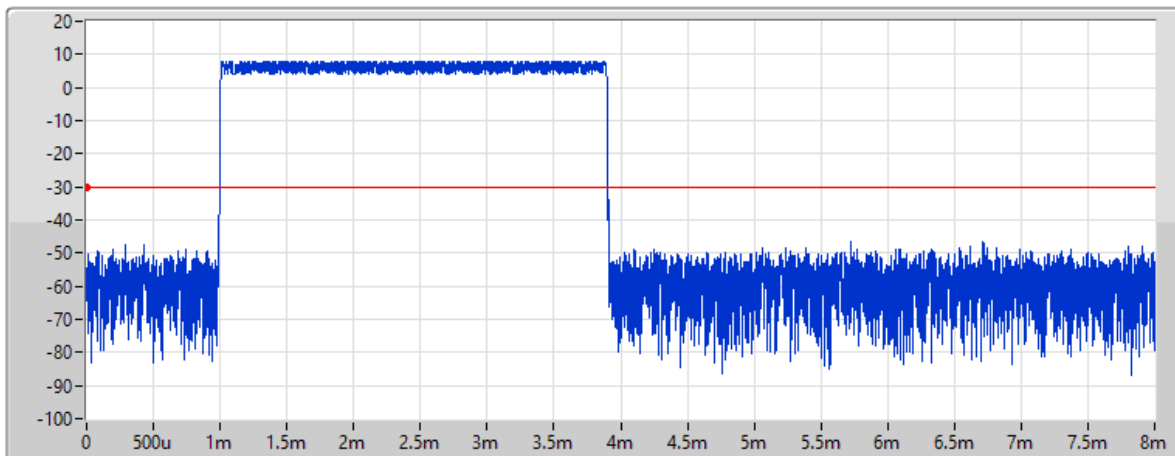
DH5

BT-BR(1Mbps)

Dwell-FS

2440MHz

01/09/2022



Port 1 

Ch Freq  
2.44GHz

RBW  
300kHz

VBW  
1MHz

Sweep Time  
8ms

TX Time  
2.90225ms

| Period(s) | Dwell(s)            | Limit(s) | Tx On(s) |
|-----------|---------------------|----------|----------|
| 8         | 154.689925m_DH5-AFI | 400m     | 2.90225m |

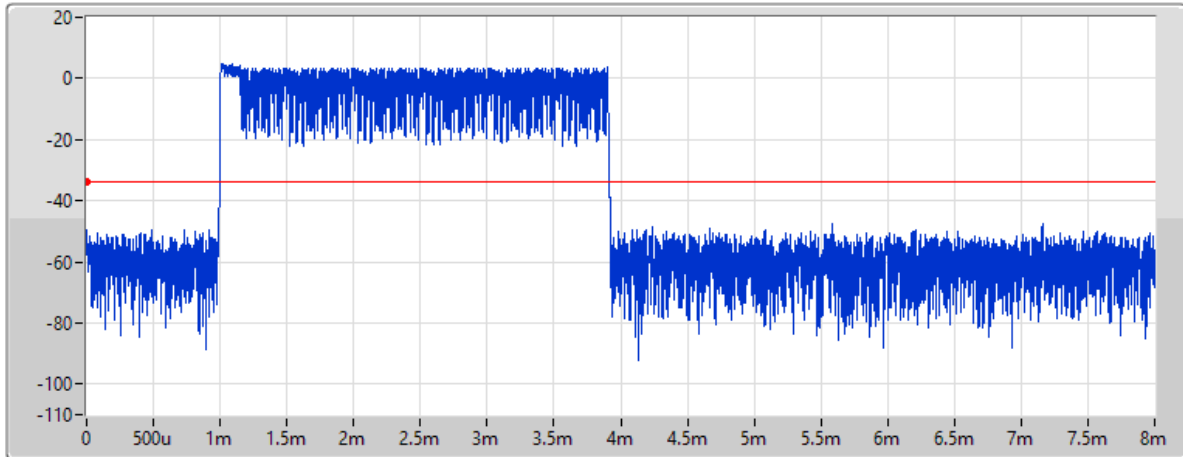
DH5-AFH

## BT-EDR(2Mbps)

2440MHz

## Dwell-FS

01/09/2022



Port 1 

Ch Freq  
2.44GHz

RBW  
300kHz

VBW  
1MHz

Sweep Time  
8ms

TX Time  
2.912ms

| Period(s) | Dwell(s)      | Limit(s) | Tx On(s) |
|-----------|---------------|----------|----------|
| 31.6      | 310.4192m_DH5 | 400m     | 2.912m   |

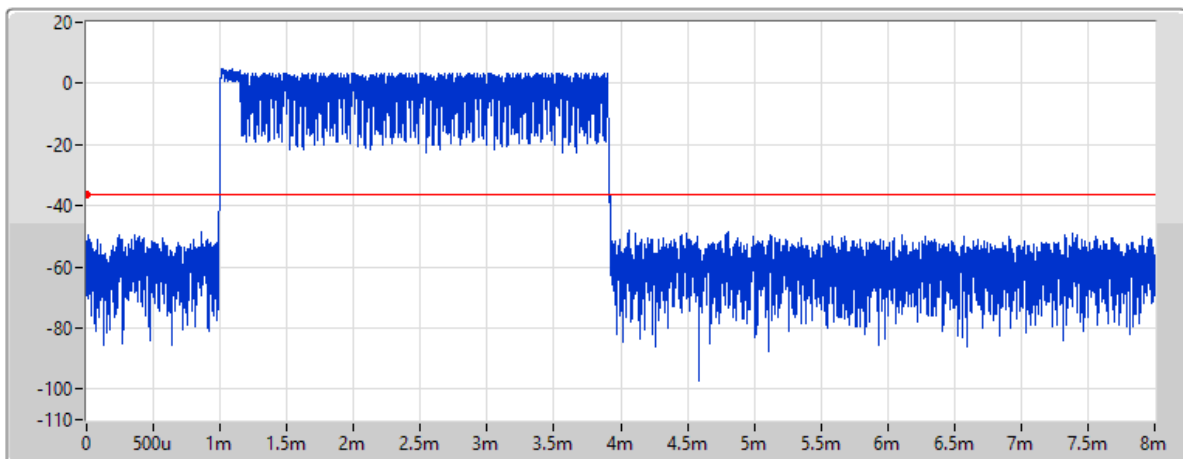
DH5

## BT-EDR(2Mbps)

2440MHz

## Dwell-FS

01/09/2022



Port 1 

Ch Freq  
2.44GHz

RBW  
300kHz

VBW  
1MHz

Sweep Time  
8ms

TX Time  
2.91275ms

| Period(s) | Dwell(s)            | Limit(s) | Tx On(s) |
|-----------|---------------------|----------|----------|
| 8         | 155.249575m_DH5-AFI | 400m     | 2.91275m |

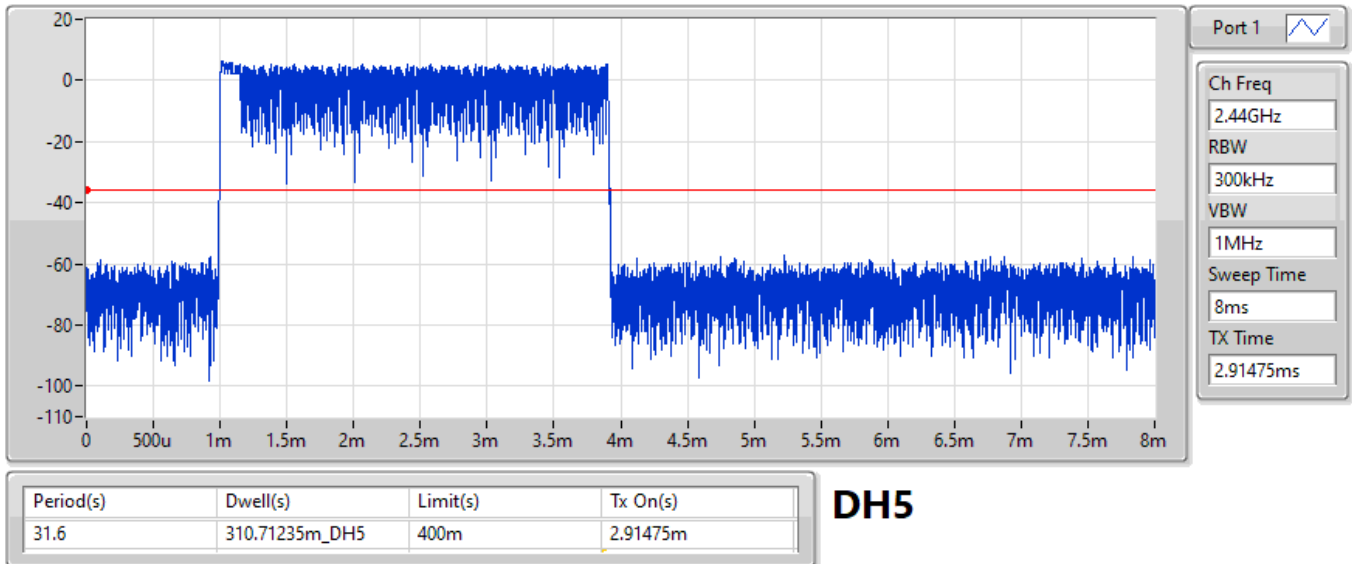
DH5-AFH

## BT-EDR(3Mbps)

2440MHz

## Dwell-FS

01/09/2022

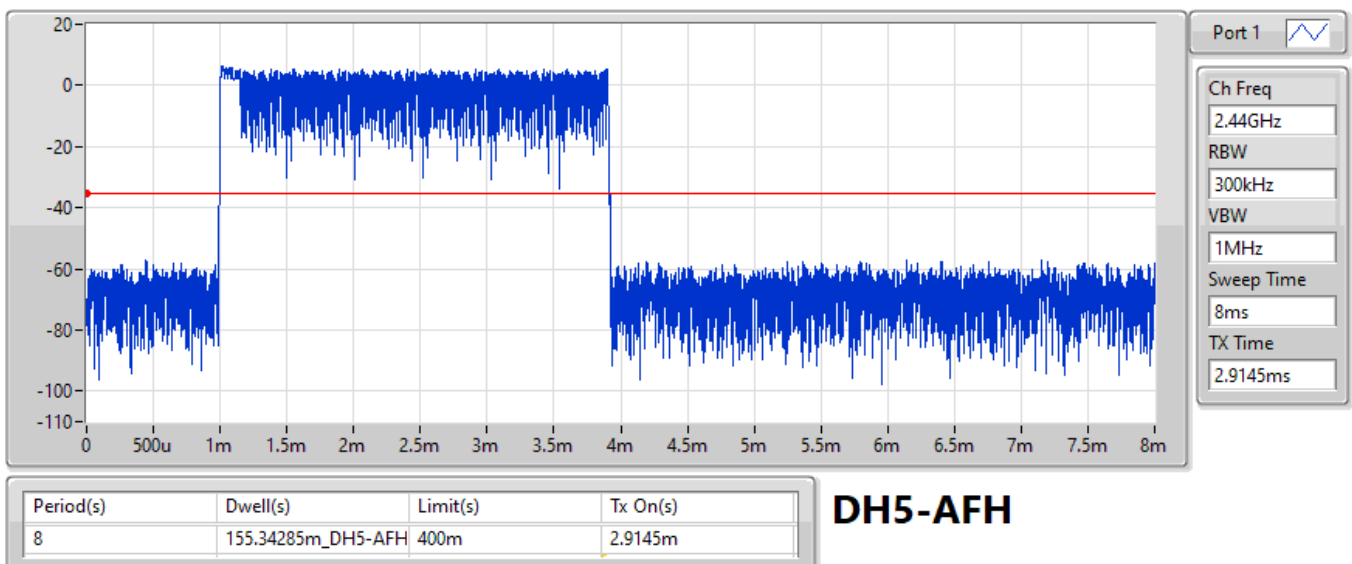


## BT-EDR(3Mbps)

2440MHz

## Dwell-FS

01/09/2022



## 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   | 2.40196G    | 4.45         | -15.55         | 1.90266G     | -51.77         | 2.39999G     | -40.72         | 2.4G         | -46.53         | 2.48933G     | -51.77         | 6.91844G     | -47.13         | 1    |
| BT-EDR(2Mbps) | Pass   | 2.402G      | 2.76         | -17.24         | 2.30274G     | -52.21         | 2.39949G     | -38.93         | 2.4G         | -42.77         | 2.48577G     | -51.17         | 5.82455G     | -47.42         | 1    |
| BT-EDR(3Mbps) | Pass   | 2.402G      | 2.83         | -17.17         | 953.84M      | -52.18         | 2.39954G     | -37.04         | 2.4G         | -41.82         | 2.49347G     | -51.12         | 6.70753G     | -46.57         | 1    |

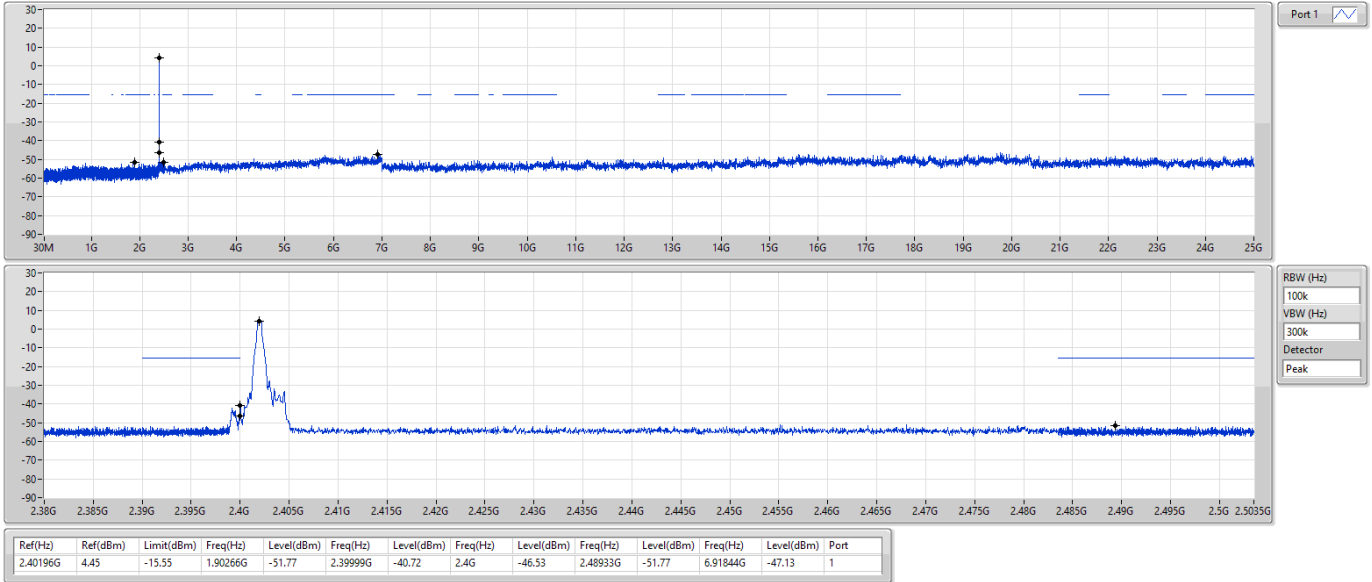
## Result

| 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   | 2.40196G    | 4.45         | -15.55         | 1.90266G     | -51.77         | 2.39999G     | -40.72         | 2.4G         | -46.53         | 2.48933G     | -51.77         | 6.91844G     | -47.13         | 1    |
| 2440MHz       | Pass   | 2.44004G    | 6.13         | -13.87         | 2.06686G     | -52.44         | 2.39134G     | -50.60         | 2.4G         | -53.89         | 2.49482G     | -51.17         | 5.99046G     | -46.89         | 1    |
| 2480MHz       | Pass   | 2.47987G    | 8.20         | -11.80         | 947.97M      | -52.43         | 2.39262G     | -52.25         | 2.4835G      | -51.55         | 2.48548G     | -49.56         | 5.82173G     | -46.85         | 1    |
| BT-EDR(2Mbps) | -      | -           | -            | -              | -            | -              | -            | -              | -            | -              | -            | -              | -            | -              | -    |
| 2402MHz       | Pass   | 2.402G      | 2.76         | -17.24         | 2.30274G     | -52.21         | 2.39949G     | -38.93         | 2.4G         | -42.77         | 2.48577G     | -51.17         | 5.82455G     | -47.42         | 1    |
| 2440MHz       | Pass   | 2.44G       | 4.64         | -15.36         | 1.80396G     | -52.69         | 2.39713G     | -52.23         | 2.4G         | -52.82         | 2.49674G     | -51.31         | 17.67177G    | -47.05         | 1    |
| 2480MHz       | Pass   | 2.47983G    | 6.44         | -13.56         | 1.93761G     | -52.39         | 2.39469G     | -51.27         | 2.4835G      | -50.41         | 2.48352G     | -49.80         | 5.94828G     | -47.35         | 1    |
| BT-EDR(3Mbps) | -      | -           | -            | -              | -            | -              | -            | -              | -            | -              | -            | -              | -            | -              | -    |
| 2402MHz       | Pass   | 2.402G      | 2.83         | -17.17         | 953.84M      | -52.18         | 2.39954G     | -37.04         | 2.4G         | -41.82         | 2.49347G     | -51.12         | 6.70753G     | -46.57         | 1    |
| 2440MHz       | Pass   | 2.44G       | 4.34         | -15.66         | 1.82041G     | -52.12         | 2.3987G      | -51.83         | 2.4835G      | -53.19         | 2.48553G     | -50.86         | 5.89766G     | -47.23         | 1    |
| 2480MHz       | Pass   | 2.48016G    | 7.10         | -12.90         | 903.61M      | -51.75         | 2.39782G     | -51.90         | 2.4835G      | -50.24         | 2.48353G     | -49.25         | 17.61834G    | -47.21         | 1    |

BT-BR(1Mbps)

CSENdB-FS

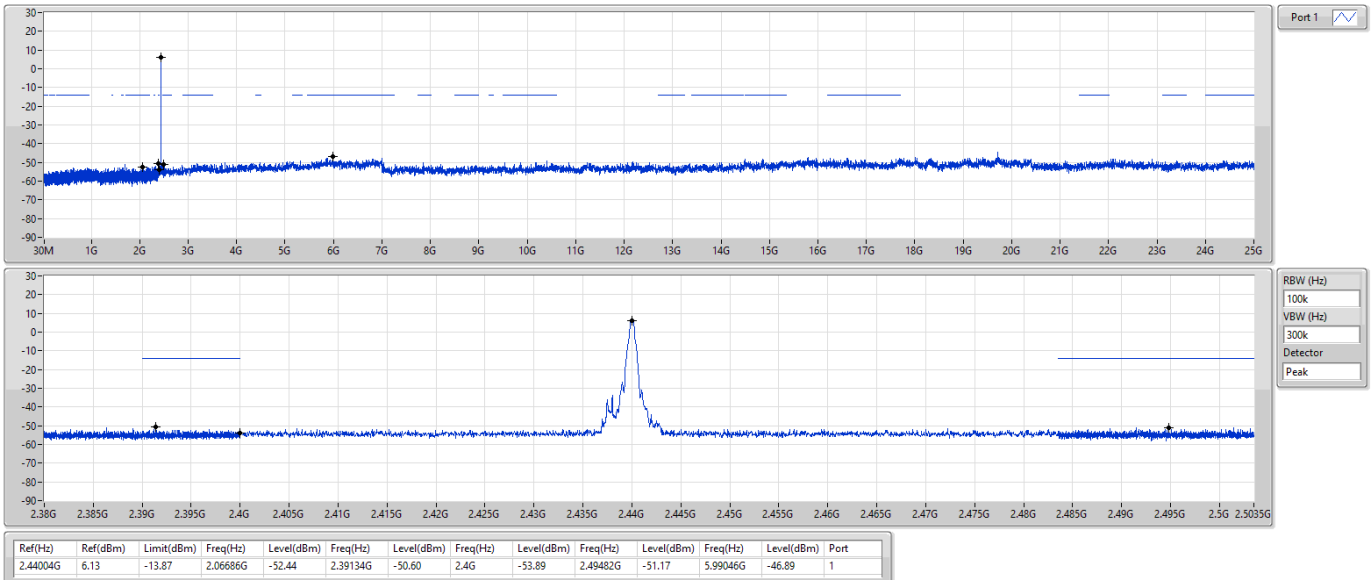
2402MHz



BT-BR(1Mbps)

CSENdB-FS

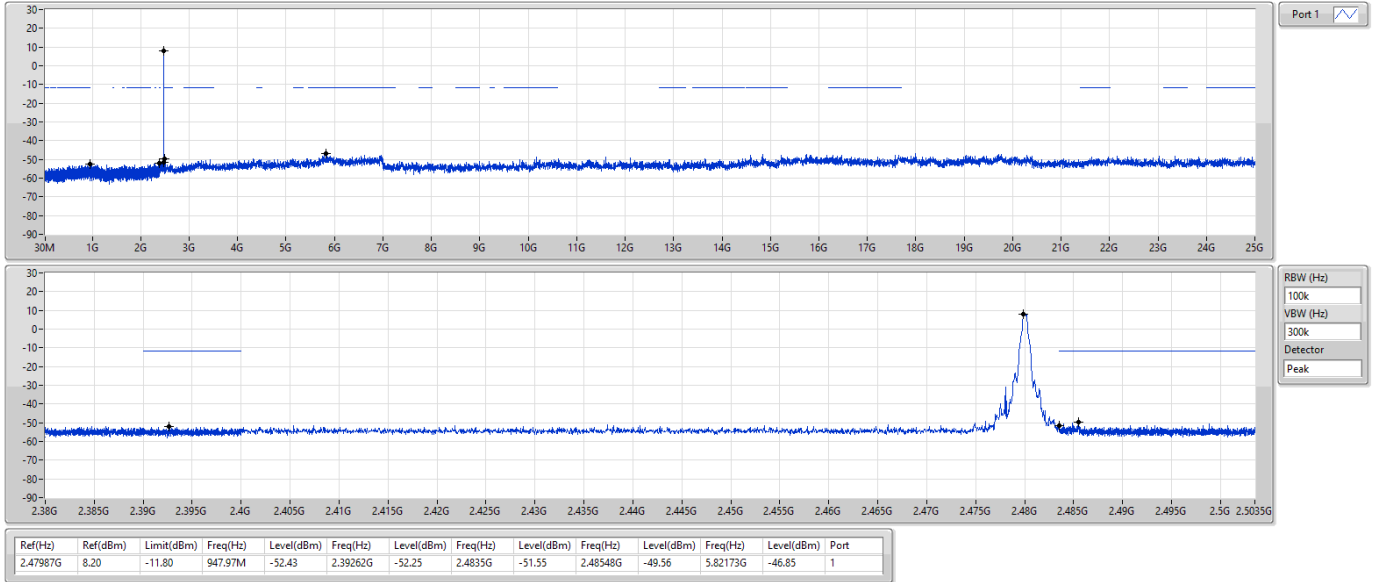
2440MHz



## BT-BR(1Mbps)

CSEndB-FS

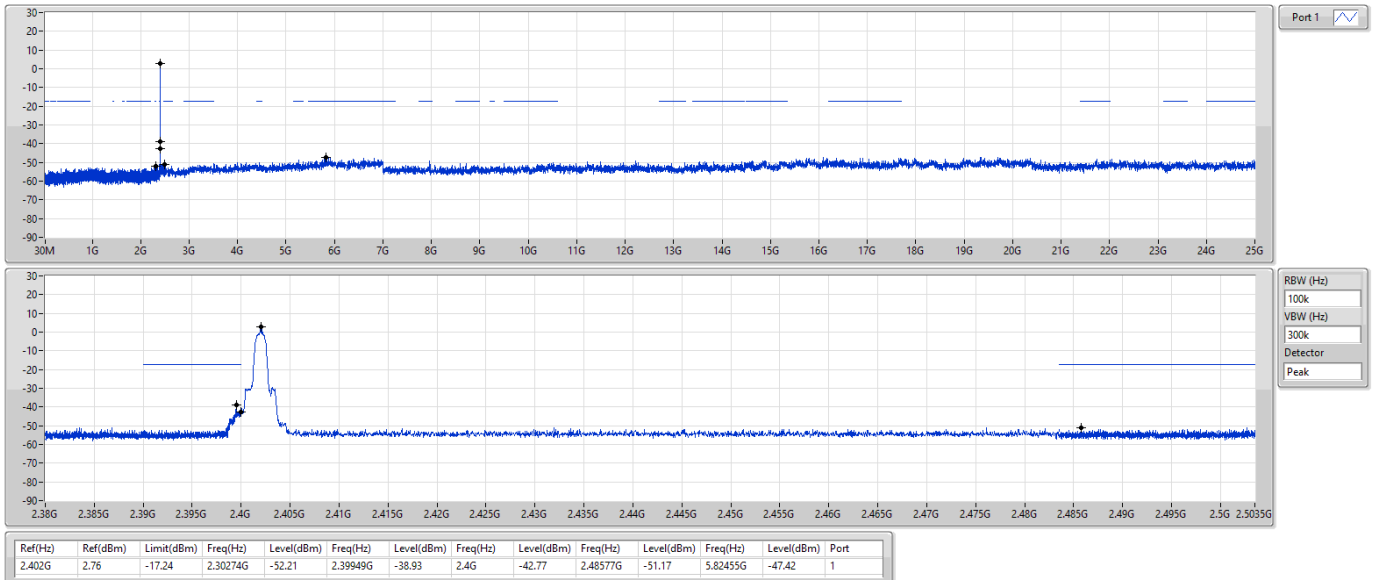
2480MHz



## BT-EDR(2Mbps)

CSEndB-FS

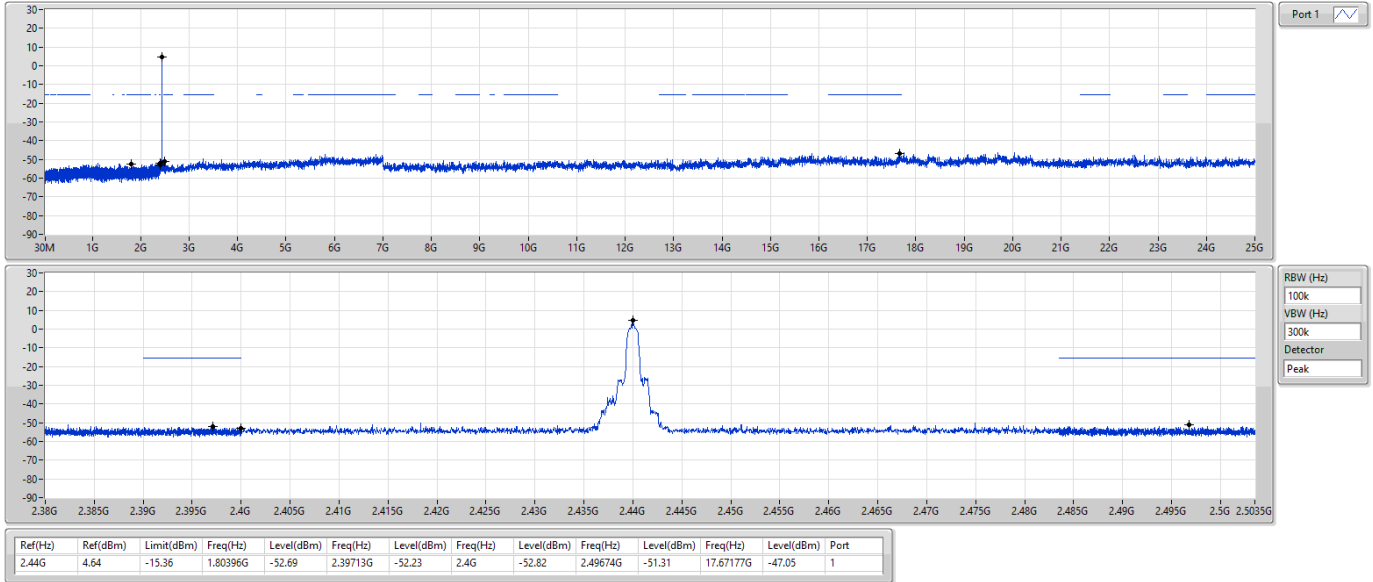
2402MHz



BT-EDR(2Mbps)

CSEndB-FS

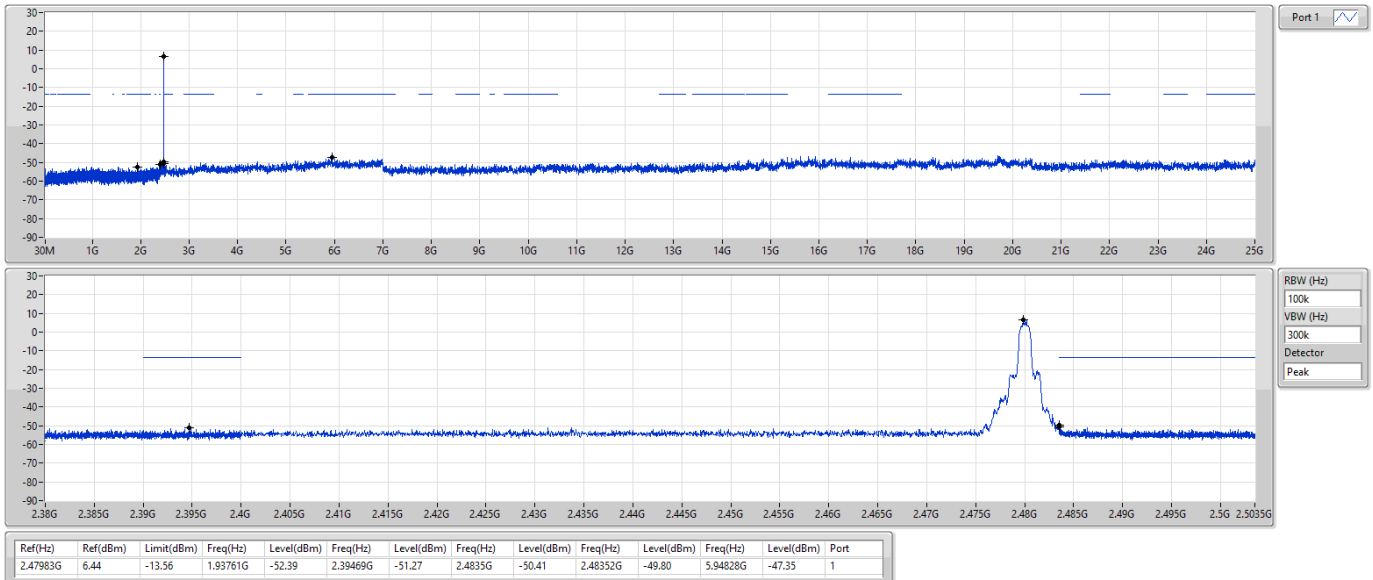
2440MHz



BT-EDR(2Mbps)

CSEndB-FS

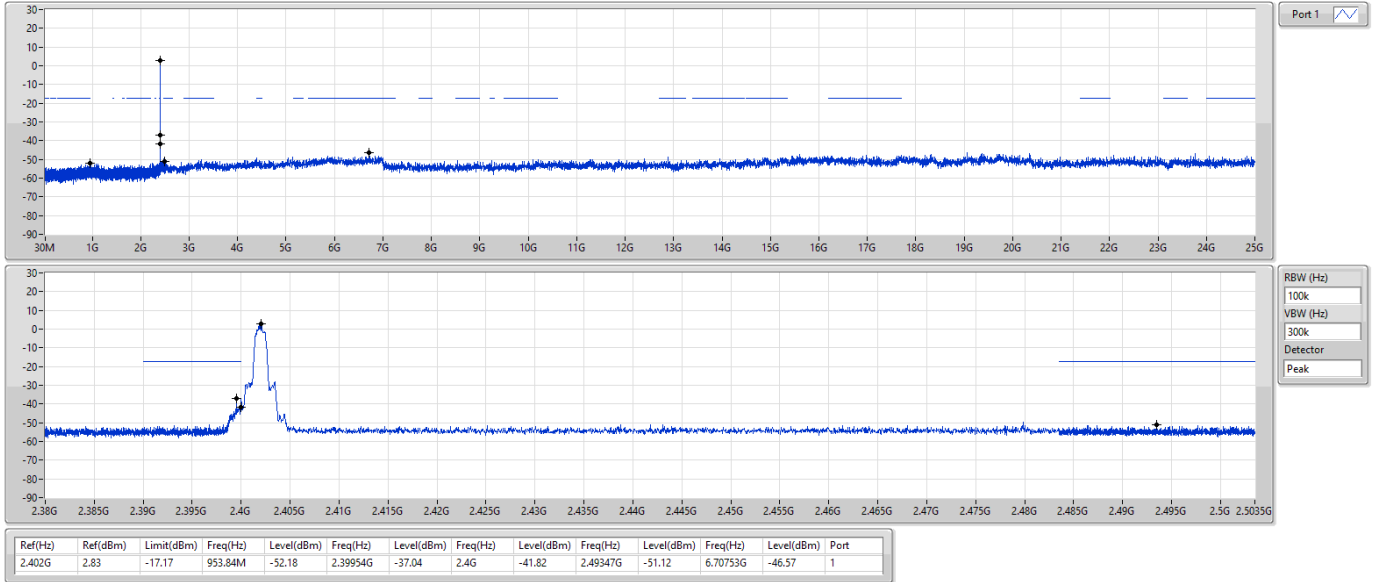
2480MHz



BT-EDR(3Mbps)

CSEndB-FS

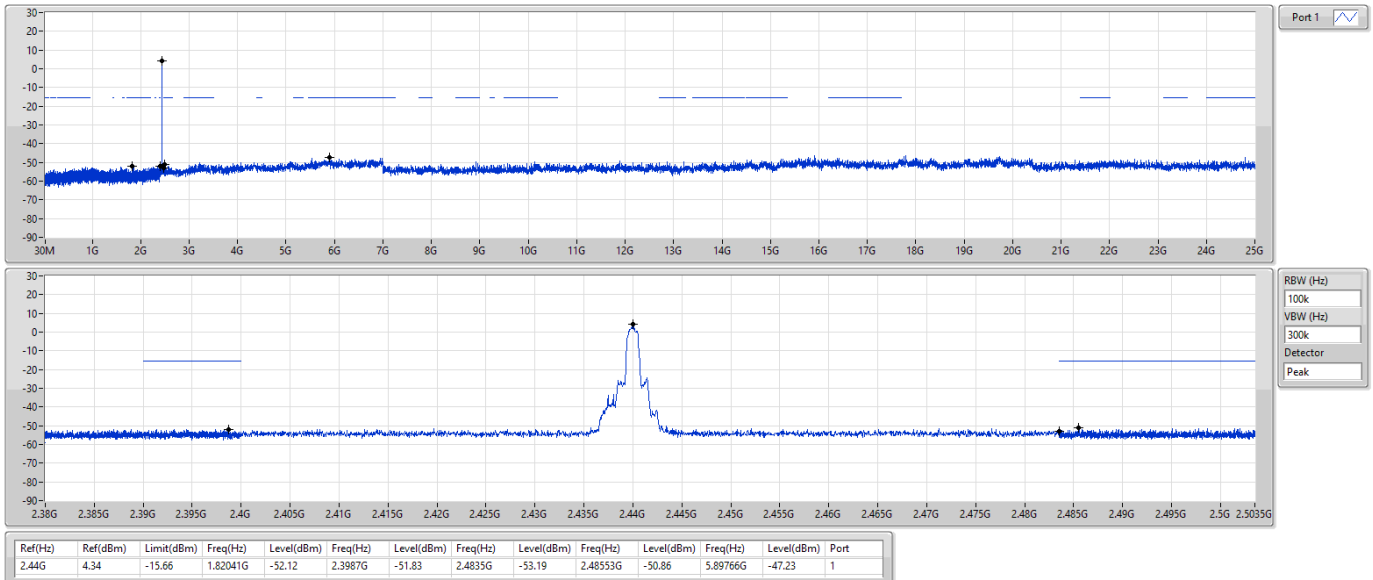
2402MHz



BT-EDR(3Mbps)

CSEndB-FS

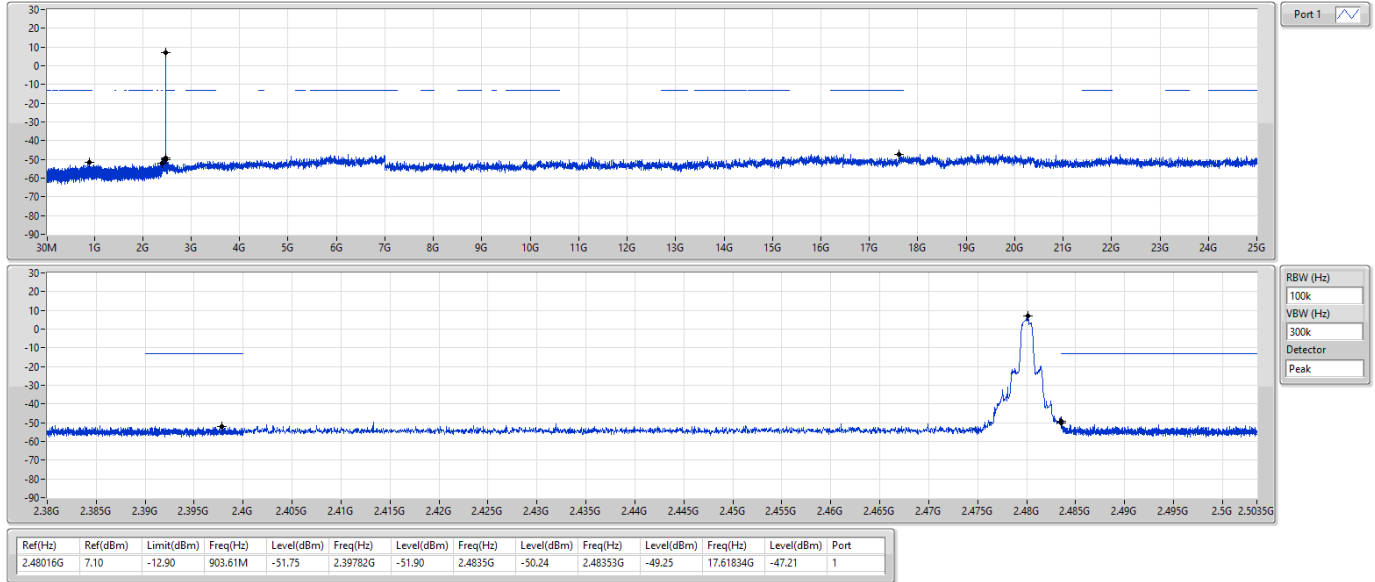
2440MHz



BT-EDR(3Mbps)

CSEndB-FS

2480MHz





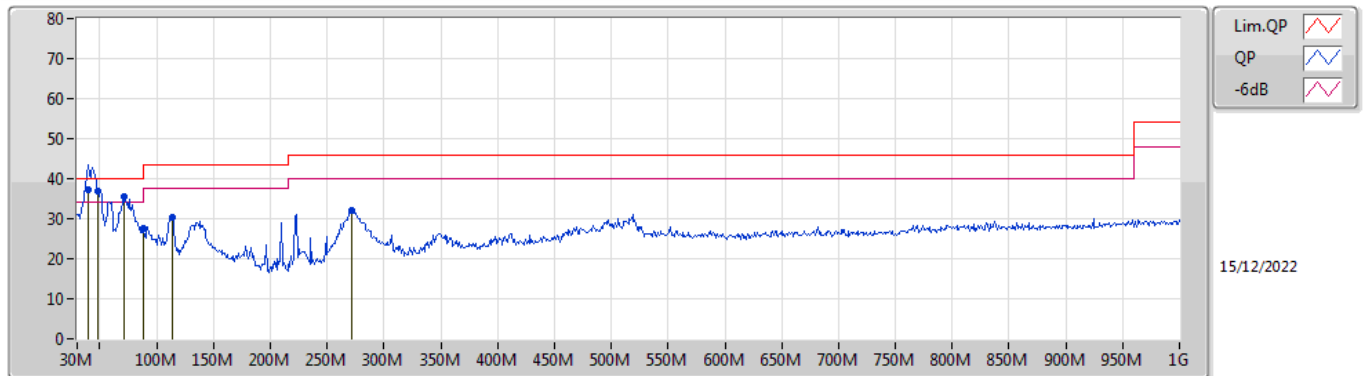
## ***Radiated Emissions below 1GHz***

## ***Appendix G.1***

### **Summary**

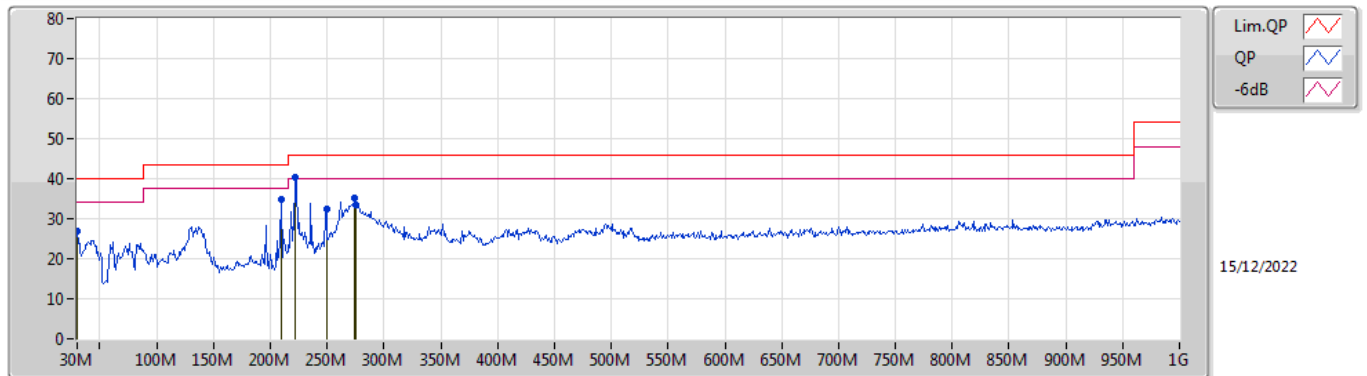
| Mode   | Result | Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Condition |
|--------|--------|------|--------------|-------------------|-------------------|----------------|-----------|
| Mode 1 | Pass   | QP   | 39.7M        | 37.38             | 40.00             | -2.62          | Vertical  |

### Test Mode 1



| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB/m) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comment | Raw<br>(dBuV/m) | AF<br>(dB/m) | CL<br>(dB) | PA<br>(dB) |
|------|--------------|-------------------|-------------------|----------------|------------------|-------------|-----------|----------------|---------------|---------|-----------------|--------------|------------|------------|
| QP   | 39.7M        | 37.38             | 40.00             | -2.62          | -12.42           | 3           | Vertical  | 126            | 1.00          | "Worst" | 49.80           | 18.78        | 0.55       | 31.75      |
| PK   | 48.43M       | 36.86             | 40.00             | -3.14          | -16.61           | 3           | Vertical  | 294            | 1.00          | -       | 53.47           | 14.59        | 0.65       | 31.85      |
| PK   | 70.74M       | 35.66             | 40.00             | -4.34          | -18.95           | 3           | Vertical  | 283            | 2.00          | -       | 54.61           | 12.16        | 0.86       | 31.97      |
| PK   | 88M          | 27.51             | 43.50             | -15.99         | -16.80           | 3           | Vertical  | 0              | 1.25          | -       | 44.31           | 14.15        | 1.00       | 31.95      |
| PK   | 113.42M      | 30.22             | 43.50             | -13.28         | -12.98           | 3           | Vertical  | 192            | 1.00          | -       | 43.20           | 17.79        | 1.20       | 31.97      |
| PK   | 271.53M      | 32.13             | 46.00             | -13.87         | -11.38           | 3           | Vertical  | 360            | 1.25          | -       | 43.51           | 18.57        | 2.10       | 32.05      |

### Test Mode 1



| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB/m) | 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          | 26.78             | 40.00             | -13.22         | -7.12            | 3           | Horizontal | 226            | 3.00          | -       | 33.90           | 23.99        | 0.44       | 31.55      |
| PK   | 209.45M      | 34.85             | 43.50             | -8.65          | -15.31           | 3           | Horizontal | 172            | 1.25          | -       | 50.16           | 14.93        | 1.78       | 32.02      |
| PK   | 222.06M      | 40.22             | 46.00             | -5.78          | -15.03           | 3           | Horizontal | 172            | 1.25          | "Worst" | 55.25           | 15.13        | 1.85       | 32.01      |
| PK   | 249.22M      | 32.26             | 46.00             | -13.74         | -11.89           | 3           | Horizontal | 180            | 1.00          | -       | 44.15           | 18.11        | 2.00       | 32.00      |
| PK   | 274.44M      | 35.06             | 46.00             | -10.94         | -11.37           | 3           | Horizontal | 172            | 1.00          | -       | 46.43           | 18.56        | 2.12       | 32.05      |
| PK   | 275.41M      | 33.53             | 46.00             | -12.47         | -11.37           | 3           | Horizontal | 180            | 1.00          | -       | 44.90           | 18.57        | 2.12       | 32.06      |

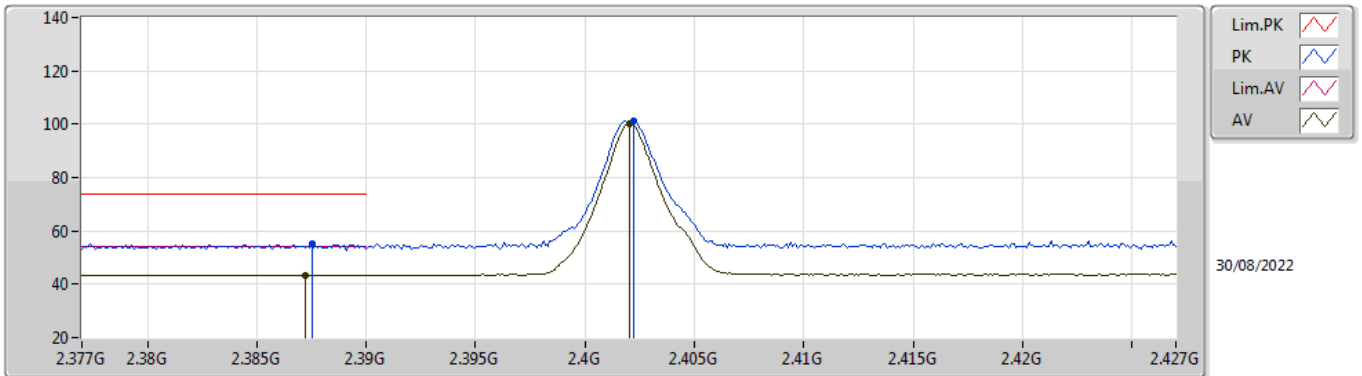


**Summary**

| 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   | AV   | 2.4835G      | 48.98             | 54.00             | -5.02          | 3           | Horizontal | 16             | 2.68          | -        |

## BT-BR(1Mbps)

### 2402MHz\_TX

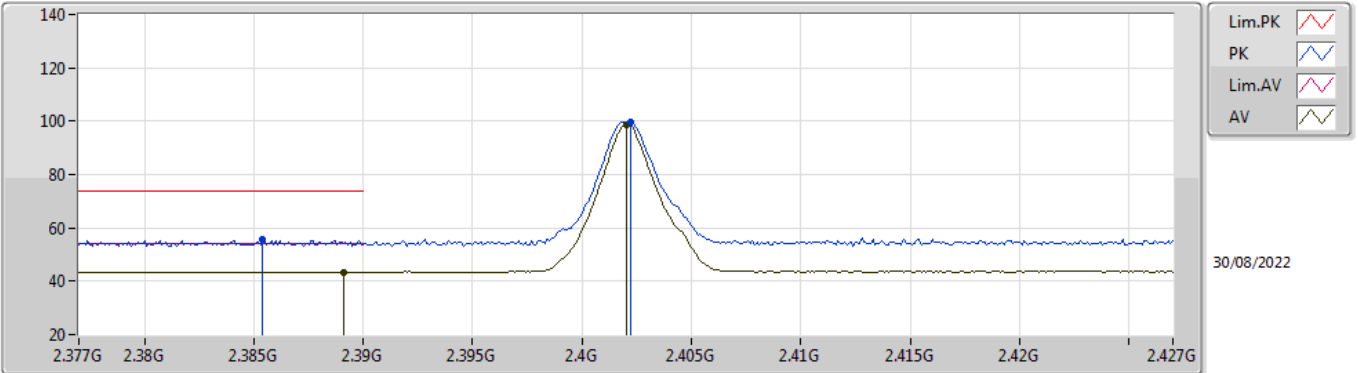


EUT X\_1TX  
Setting 63  
06-E-S-5

| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Raw<br>(dBuV) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comment | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |  |
|------|--------------|-------------------|-------------------|----------------|---------------|-------------|-----------|----------------|---------------|---------|------------|------------|------------|--|
| PK   | 2.3875G      | 55.33             | 74.00             | -18.67         | 23.79         | 3           | Vertical  | 131            | 3.00          | -       | 27.65      | 3.89       | -          |  |
| AV   | 2.3872G      | 43.44             | 54.00             | -10.56         | 11.90         | 3           | Vertical  | 131            | 3.00          | -       | 27.65      | 3.89       | -          |  |
| PK   | 2.4022G      | 101.14            | Inf               | -Inf           | 69.64         | 3           | Vertical  | 131            | 3.00          | -       | 27.60      | 3.90       | -          |  |
| AV   | 2.402G       | 100.15            | Inf               | -Inf           | 68.65         | 3           | Vertical  | 131            | 3.00          | -       | 27.60      | 3.90       | -          |  |

# BT-BR(1Mbps)

## 2402MHz\_TX

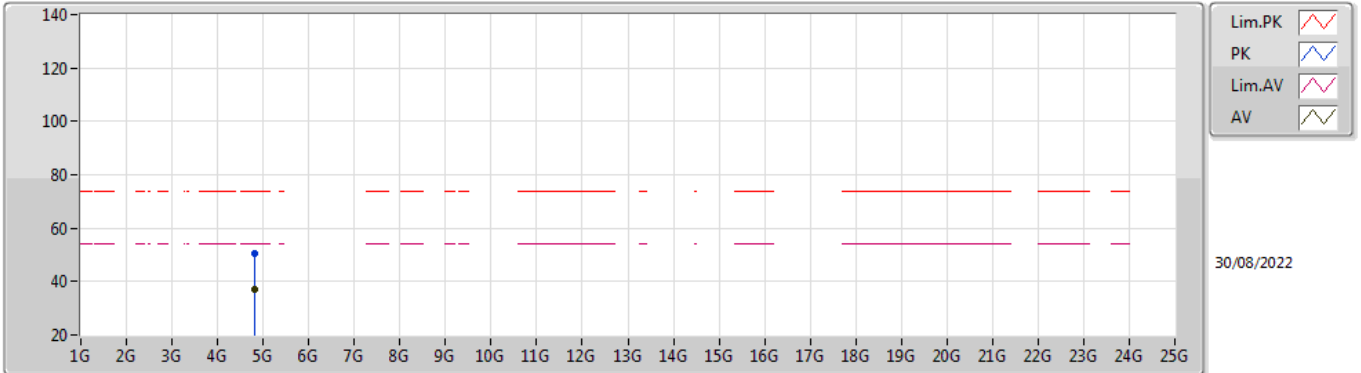


EUT\_X\_1TX  
Setting 63  
06-E-S-5

| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Raw<br>(dBuV) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comment | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |  |
|------|--------------|-------------------|-------------------|----------------|---------------|-------------|------------|----------------|---------------|---------|------------|------------|------------|--|
| PK   | 2.3854G      | 55.56             | 74.00             | -18.44         | 24.01         | 3           | Horizontal | 229            | 1.44          | -       | 27.66      | 3.89       | -          |  |
| AV   | 2.3891G      | 43.49             | 54.00             | -10.51         | 11.96         | 3           | Horizontal | 229            | 1.44          | -       | 27.64      | 3.89       | -          |  |
| PK   | 2.4022G      | 99.76             | Inf               | -Inf           | 68.26         | 3           | Horizontal | 229            | 1.44          | -       | 27.60      | 3.90       | -          |  |
| AV   | 2.402G       | 98.82             | Inf               | -Inf           | 67.32         | 3           | Horizontal | 229            | 1.44          | -       | 27.60      | 3.90       | -          |  |

# BT-BR(1Mbps)

## 2402MHz\_TX

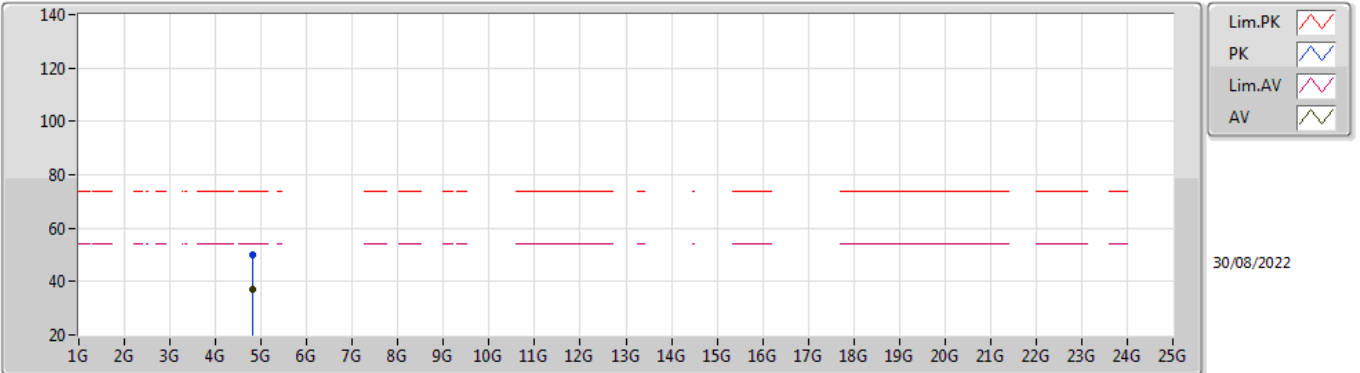


EUT X\_1TX  
Setting 63  
06-E-S-5

| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Raw<br>(dBuV) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comment | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |  |
|------|--------------|-------------------|-------------------|----------------|---------------|-------------|-----------|----------------|---------------|---------|------------|------------|------------|--|
| PK   | 4.80458G     | 50.42             | 74.00             | -23.58         | 46.24         | 3           | Vertical  | 314            | 1.83          | -       | 31.31      | 5.40       | 32.53      |  |
| AV   | 4.7993G      | 36.88             | 54.00             | -17.12         | 32.71         | 3           | Vertical  | 314            | 1.83          | -       | 31.30      | 5.40       | 32.53      |  |

# BT-BR(1Mbps)

## 2402MHz\_TX

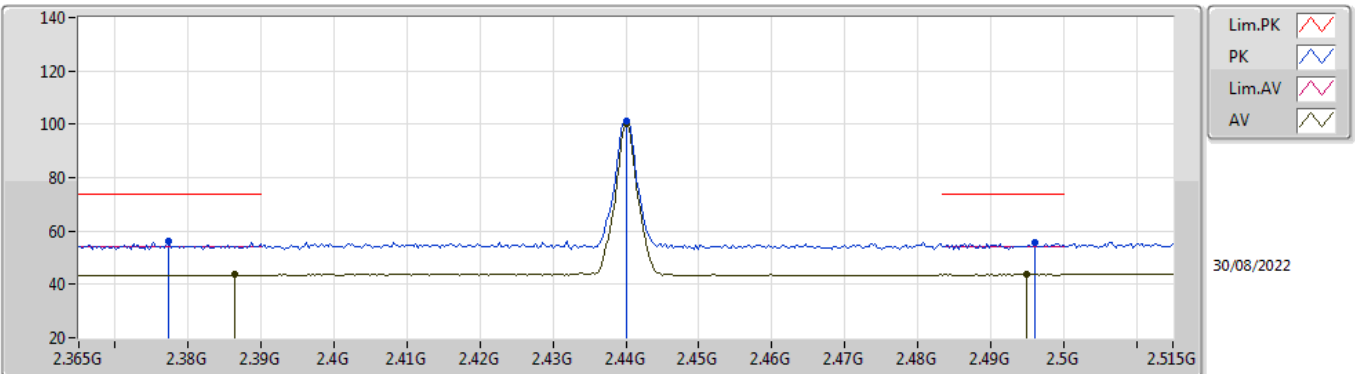


EUT X\_1TX  
Setting 63  
06-E-S-5

| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Raw<br>(dBuV) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comment | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |  |
|------|--------------|-------------------|-------------------|----------------|---------------|-------------|------------|----------------|---------------|---------|------------|------------|------------|--|
| PK   | 4.80424G     | 50.25             | 74.00             | -23.75         | 46.07         | 3           | Horizontal | 153            | 2.19          | -       | 31.31      | 5.40       | 32.53      |  |
| AV   | 4.80002G     | 37.01             | 54.00             | -16.99         | 32.84         | 3           | Horizontal | 153            | 2.19          | -       | 31.30      | 5.40       | 32.53      |  |

# BT-BR(1Mbps)

## 2440MHz\_TX

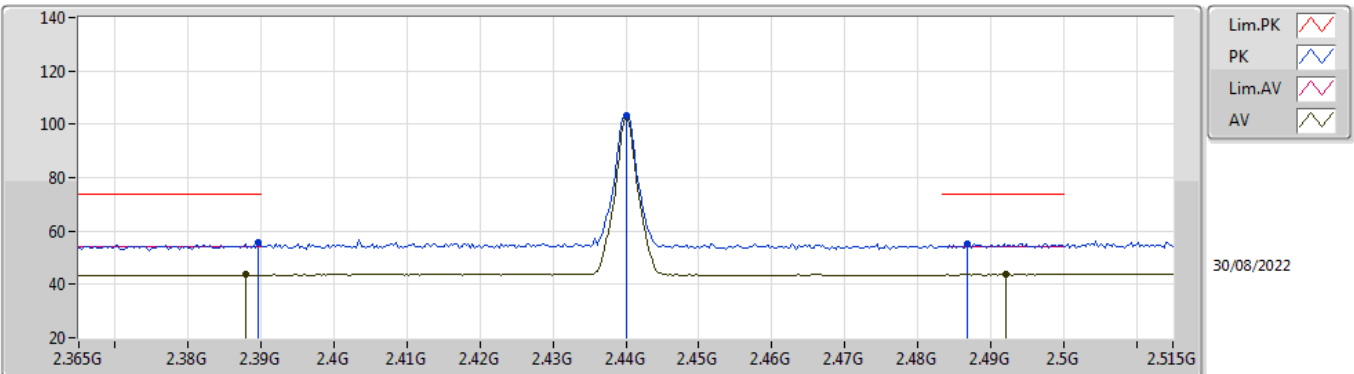


EUT\_X\_1TX  
Setting 63  
06-E-S-5

| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Raw<br>(dBuV) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comment | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |
|------|--------------|-------------------|-------------------|----------------|---------------|-------------|-----------|----------------|---------------|---------|------------|------------|------------|
| PK   | 2.3773G      | 56.22             | 74.00             | -17.78         | 24.65         | 3           | Vertical  | 128            | 2.94          | -       | 27.69      | 3.88       | -          |
| AV   | 2.3863G      | 43.62             | 54.00             | -10.38         | 12.08         | 3           | Vertical  | 128            | 2.94          | -       | 27.65      | 3.89       | -          |
| PK   | 2.44G        | 101.25            | Inf               | -Inf           | 69.75         | 3           | Vertical  | 128            | 2.94          | -       | 27.60      | 3.90       | -          |
| AV   | 2.44G        | 100.21            | Inf               | -Inf           | 68.71         | 3           | Vertical  | 128            | 2.94          | -       | 27.60      | 3.90       | -          |
| PK   | 2.4961G      | 55.84             | 74.00             | -18.16         | 24.34         | 3           | Vertical  | 128            | 2.94          | -       | 27.60      | 3.90       | -          |
| AV   | 2.4949G      | 43.75             | 54.00             | -10.25         | 12.25         | 3           | Vertical  | 128            | 2.94          | -       | 27.60      | 3.90       | -          |

## BT-BR(1Mbps)

### 2440MHz\_TX

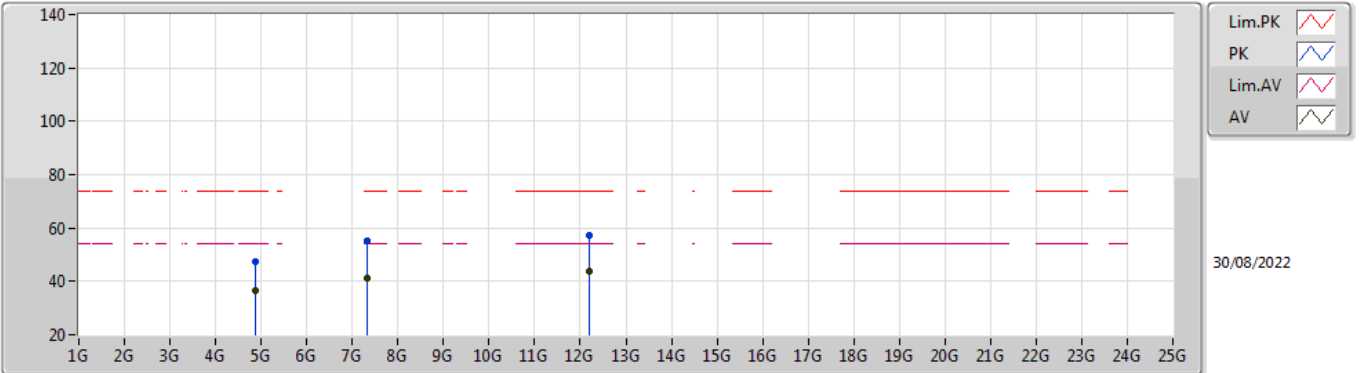


EUT\_X1TX  
Setting 63  
06-E-S-5

| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Raw<br>(dBuV) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comment | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |
|------|--------------|-------------------|-------------------|----------------|---------------|-------------|------------|----------------|---------------|---------|------------|------------|------------|
| PK   | 2.3896G      | 55.82             | 74.00             | -18.18         | 24.29         | 3           | Horizontal | 68             | 2.57          | -       | 27.64      | 3.89       | -          |
| AV   | 2.3878G      | 43.64             | 54.00             | -10.36         | 12.10         | 3           | Horizontal | 68             | 2.57          | -       | 27.65      | 3.89       | -          |
| PK   | 2.44G        | 103.53            | Inf               | -Inf           | 72.03         | 3           | Horizontal | 68             | 2.57          | -       | 27.60      | 3.90       | -          |
| AV   | 2.44G        | 102.56            | Inf               | -Inf           | 71.06         | 3           | Horizontal | 68             | 2.57          | -       | 27.60      | 3.90       | -          |
| PK   | 2.4868G      | 55.25             | 74.00             | -18.75         | 23.75         | 3           | Horizontal | 68             | 2.57          | -       | 27.60      | 3.90       | -          |
| AV   | 2.4922G      | 43.86             | 54.00             | -10.14         | 12.36         | 3           | Horizontal | 68             | 2.57          | -       | 27.60      | 3.90       | -          |

# BT-BR(1Mbps)

## 2440MHz\_TX

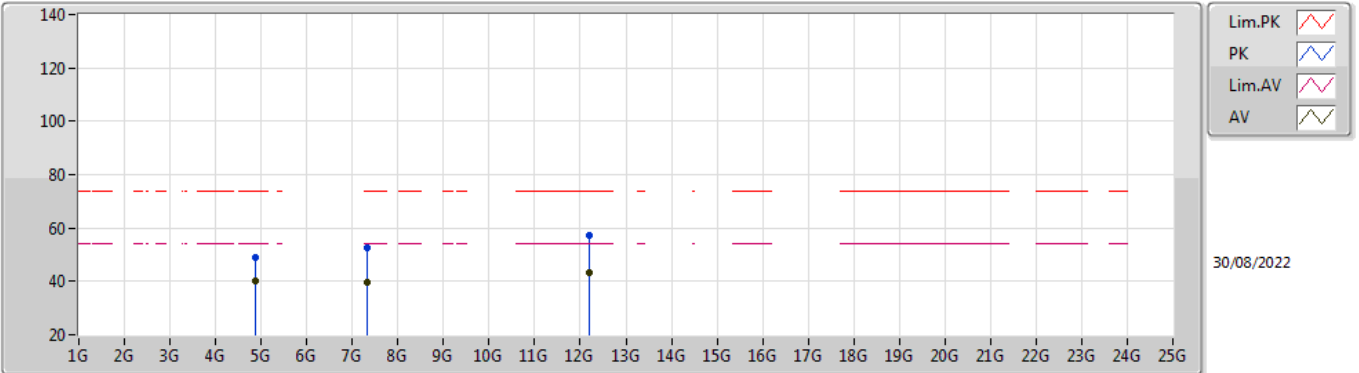


EUT X\_1TX  
Setting 63  
06-E-S-5

| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Raw<br>(dBuV) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comment | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |  |
|------|--------------|-------------------|-------------------|----------------|---------------|-------------|-----------|----------------|---------------|---------|------------|------------|------------|--|
| PK   | 4.87978G     | 47.65             | 74.00             | -26.35         | 43.35         | 3           | Vertical  | 240            | 1.80          | -       | 31.40      | 5.40       | 32.50      |  |
| AV   | 4.88004G     | 36.79             | 54.00             | -17.21         | 32.49         | 3           | Vertical  | 240            | 1.80          | -       | 31.40      | 5.40       | 32.50      |  |
| PK   | 7.31968G     | 55.08             | 74.00             | -18.92         | 45.11         | 3           | Vertical  | 322            | 1.80          | -       | 36.70      | 6.72       | 33.45      |  |
| AV   | 7.31988G     | 41.07             | 54.00             | -12.93         | 31.10         | 3           | Vertical  | 322            | 1.80          | -       | 36.70      | 6.72       | 33.45      |  |
| PK   | 12.20478G    | 57.32             | 74.00             | -16.68         | 43.37         | 3           | Vertical  | 240            | 2.37          | -       | 39.09      | 9.55       | 34.69      |  |
| AV   | 12.20358G    | 43.70             | 54.00             | -10.30         | 29.75         | 3           | Vertical  | 240            | 2.37          | -       | 39.09      | 9.55       | 34.69      |  |

# BT-BR(1Mbps)

## 2440MHz\_TX

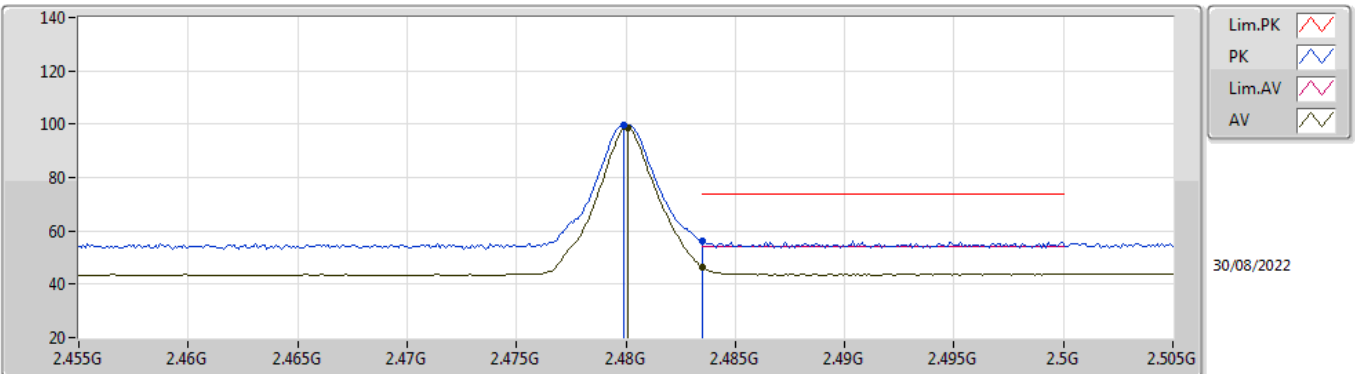


EUT X\_1TX  
Setting 63  
06-E-S-5

| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Raw<br>(dBuV) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comment | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |
|------|--------------|-------------------|-------------------|----------------|---------------|-------------|------------|----------------|---------------|---------|------------|------------|------------|
| PK   | 4.87988G     | 49.05             | 74.00             | -24.95         | 44.75         | 3           | Horizontal | 330            | 1.99          | -       | 31.40      | 5.40       | 32.50      |
| AV   | 4.88G        | 40.04             | 54.00             | -13.96         | 35.74         | 3           | Horizontal | 330            | 1.99          | -       | 31.40      | 5.40       | 32.50      |
| PK   | 7.31844G     | 52.59             | 74.00             | -21.41         | 42.62         | 3           | Horizontal | 271            | 2.91          | -       | 36.70      | 6.72       | 33.45      |
| AV   | 7.32022G     | 39.73             | 54.00             | -14.27         | 29.76         | 3           | Horizontal | 271            | 2.91          | -       | 36.70      | 6.72       | 33.45      |
| PK   | 12.19854G    | 57.02             | 74.00             | -16.98         | 43.06         | 3           | Horizontal | 5              | 1.57          | -       | 39.10      | 9.55       | 34.69      |
| AV   | 12.1959G     | 43.49             | 54.00             | -10.51         | 29.53         | 3           | Horizontal | 5              | 1.57          | -       | 39.10      | 9.55       | 34.69      |

## BT-BR(1Mbps)

### 2480MHz\_TX

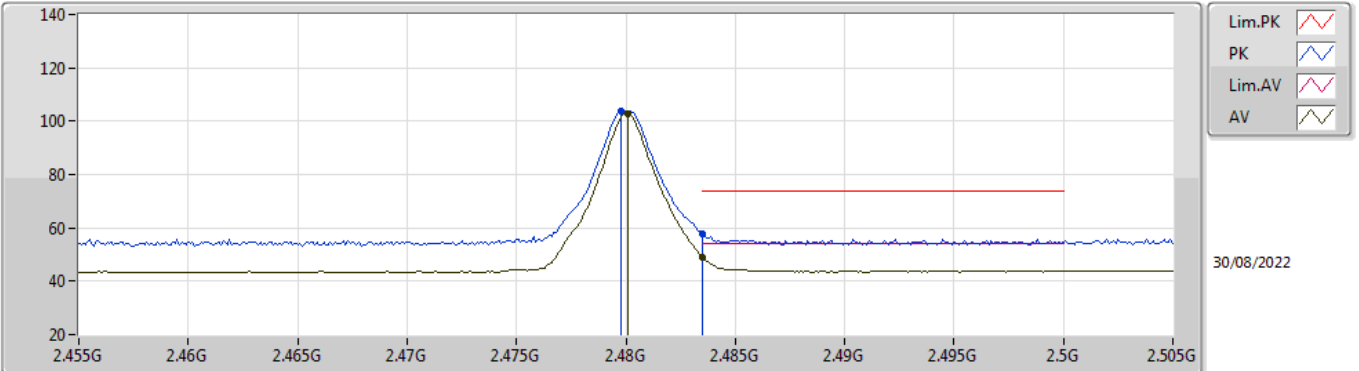


EUT X\_1TX  
Setting 63  
06-E-S-5

| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Raw<br>(dBuV) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comment | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |  |
|------|--------------|-------------------|-------------------|----------------|---------------|-------------|-----------|----------------|---------------|---------|------------|------------|------------|--|
| PK   | 2.4799G      | 99.51             | Inf               | -Inf           | 68.01         | 3           | Vertical  | 131            | 2.90          | -       | 27.60      | 3.90       | -          |  |
| AV   | 2.4801G      | 98.59             | Inf               | -Inf           | 67.09         | 3           | Vertical  | 131            | 2.90          | -       | 27.60      | 3.90       | -          |  |
| PK   | 2.4835G      | 56.27             | 74.00             | -17.73         | 24.77         | 3           | Vertical  | 131            | 2.90          | -       | 27.60      | 3.90       | -          |  |
| AV   | 2.4835G      | 46.39             | 54.00             | -7.61          | 14.89         | 3           | Vertical  | 131            | 2.90          | -       | 27.60      | 3.90       | -          |  |

## BT-BR(1Mbps)

### 2480MHz\_TX

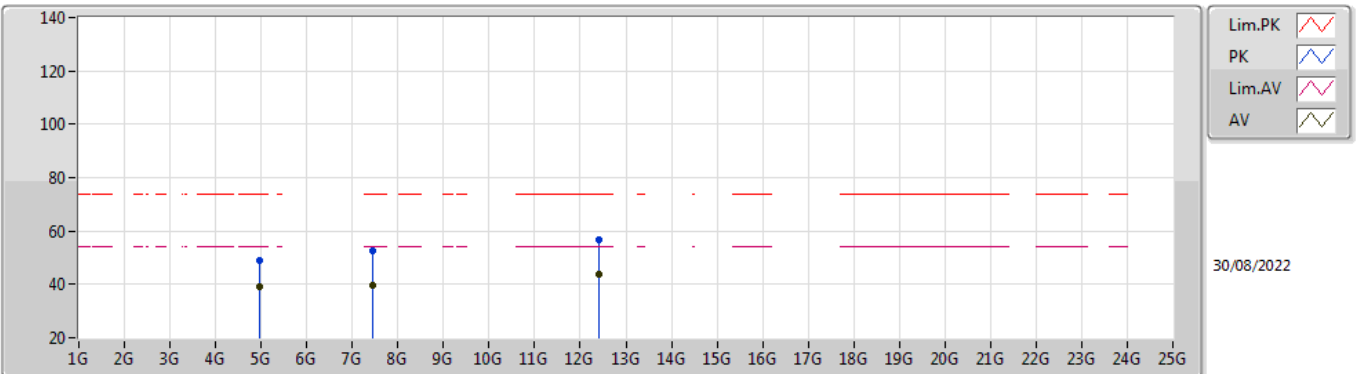


EUT X\_1TX  
Setting 63  
06-E-S-5

| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Raw<br>(dBuV) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comment | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |  |
|------|--------------|-------------------|-------------------|----------------|---------------|-------------|------------|----------------|---------------|---------|------------|------------|------------|--|
| PK   | 2.4798G      | 103.68            | Inf               | -Inf           | 72.18         | 3           | Horizontal | 16             | 2.68          | -       | 27.60      | 3.90       | -          |  |
| AV   | 2.4801G      | 102.81            | Inf               | -Inf           | 71.31         | 3           | Horizontal | 16             | 2.68          | -       | 27.60      | 3.90       | -          |  |
| PK   | 2.4835G      | 57.74             | 74.00             | -16.26         | 26.24         | 3           | Horizontal | 16             | 2.68          | -       | 27.60      | 3.90       | -          |  |
| AV   | 2.4835G      | 48.98             | 54.00             | -5.02          | 17.48         | 3           | Horizontal | 16             | 2.68          | -       | 27.60      | 3.90       | -          |  |

# BT-BR(1Mbps)

## 2480MHz\_TX

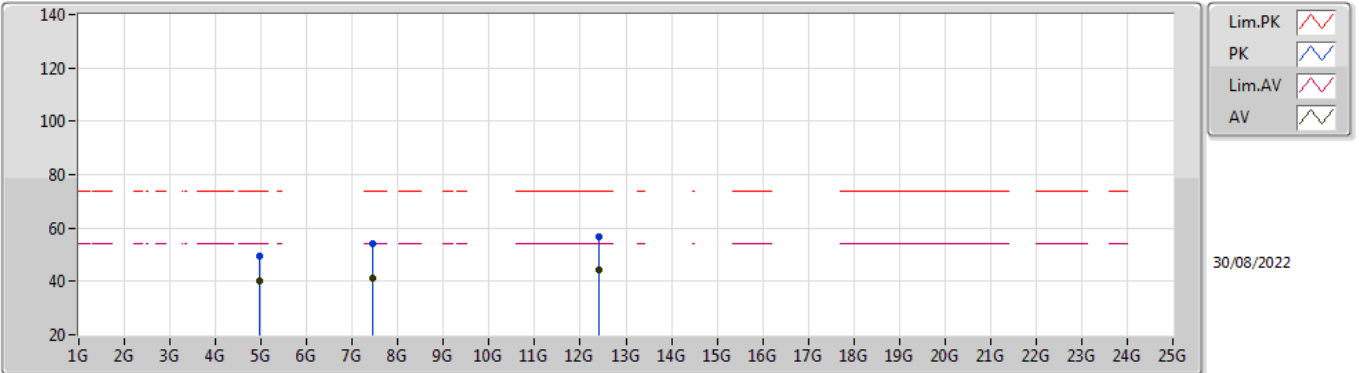


EUT X\_1TX  
Setting 63  
06-E-S-5

| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Raw<br>(dBuV) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comment | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |
|------|--------------|-------------------|-------------------|----------------|---------------|-------------|-----------|----------------|---------------|---------|------------|------------|------------|
| PK   | 4.95966G     | 48.87             | 74.00             | -25.13         | 44.37         | 3           | Vertical  | 177            | 2.03          | -       | 31.56      | 5.40       | 32.46      |
| AV   | 4.96002G     | 39.29             | 54.00             | -14.71         | 34.79         | 3           | Vertical  | 177            | 2.03          | -       | 31.56      | 5.40       | 32.46      |
| PK   | 7.43634G     | 52.62             | 74.00             | -21.38         | 42.70         | 3           | Vertical  | 7              | 2.64          | -       | 36.70      | 6.82       | 33.60      |
| AV   | 7.4407G      | 39.59             | 54.00             | -14.41         | 29.67         | 3           | Vertical  | 7              | 2.64          | -       | 36.70      | 6.82       | 33.60      |
| PK   | 12.40076G    | 56.96             | 74.00             | -17.04         | 43.36         | 3           | Vertical  | 213            | 2.66          | -       | 38.70      | 9.60       | 34.70      |
| AV   | 12.4005G     | 43.94             | 54.00             | -10.06         | 30.34         | 3           | Vertical  | 213            | 2.66          | -       | 38.70      | 9.60       | 34.70      |

# BT-BR(1Mbps)

## 2480MHz\_TX

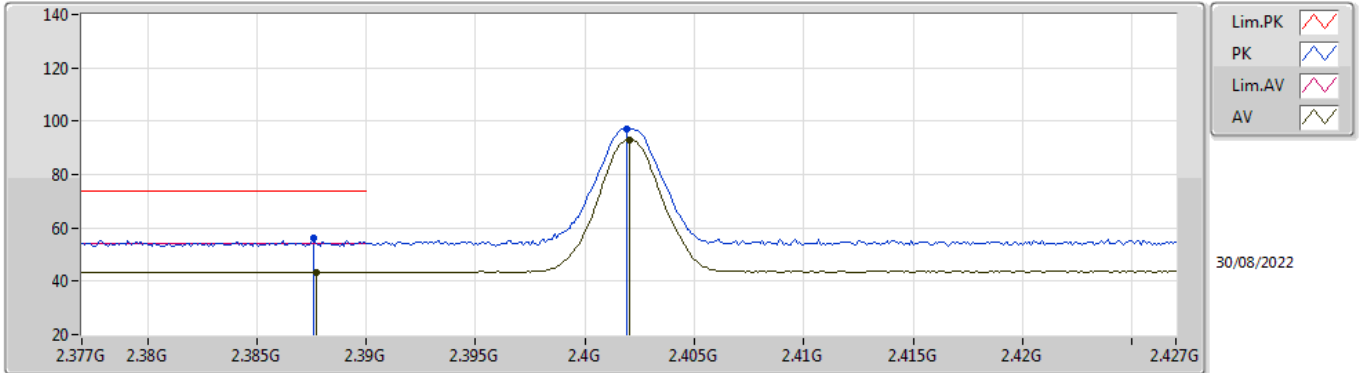


EUT X\_1TX  
Setting 63  
06-E-S-5

| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Raw<br>(dBuV) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comment | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |
|------|--------------|-------------------|-------------------|----------------|---------------|-------------|------------|----------------|---------------|---------|------------|------------|------------|
| PK   | 4.96G        | 49.55             | 74.00             | -24.45         | 45.05         | 3           | Horizontal | 349            | 2.41          | -       | 31.56      | 5.40       | 32.46      |
| AV   | 4.96002G     | 40.32             | 54.00             | -13.68         | 35.82         | 3           | Horizontal | 349            | 2.41          | -       | 31.56      | 5.40       | 32.46      |
| PK   | 7.44044G     | 54.05             | 74.00             | -19.95         | 44.13         | 3           | Horizontal | 329            | 1.90          | -       | 36.70      | 6.82       | 33.60      |
| AV   | 7.4401G      | 41.14             | 54.00             | -12.86         | 31.22         | 3           | Horizontal | 329            | 1.90          | -       | 36.70      | 6.82       | 33.60      |
| PK   | 12.39762G    | 56.97             | 74.00             | -17.03         | 43.37         | 3           | Horizontal | 129            | 1.76          | -       | 38.70      | 9.60       | 34.70      |
| AV   | 12.40068G    | 44.18             | 54.00             | -9.82          | 30.58         | 3           | Horizontal | 129            | 1.76          | -       | 38.70      | 9.60       | 34.70      |

# BT-EDR(3Mbps)

## 2402MHz\_TX

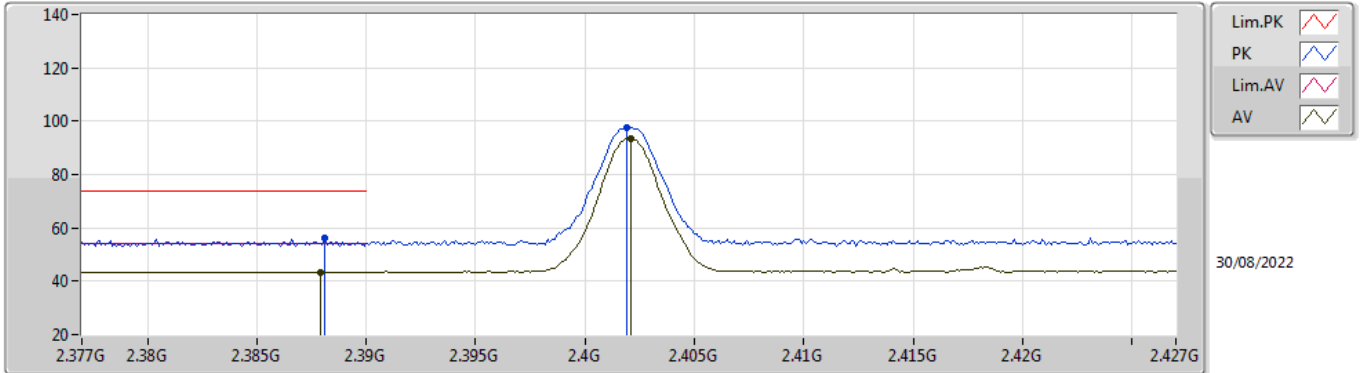


EUT X\_1TX  
Setting 63  
06-E-S-5

| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Raw<br>(dBuV) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comment | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |  |
|------|--------------|-------------------|-------------------|----------------|---------------|-------------|-----------|----------------|---------------|---------|------------|------------|------------|--|
| PK   | 2.3876G      | 56.02             | 74.00             | -17.98         | 24.48         | 3           | Vertical  | 133            | 2.74          | -       | 27.65      | 3.89       | -          |  |
| AV   | 2.3877G      | 43.46             | 54.00             | -10.54         | 11.92         | 3           | Vertical  | 133            | 2.74          | -       | 27.65      | 3.89       | -          |  |
| PK   | 2.4019G      | 97.10             | Inf               | -Inf           | 65.60         | 3           | Vertical  | 133            | 2.74          | -       | 27.60      | 3.90       | -          |  |
| AV   | 2.402G       | 93.07             | Inf               | -Inf           | 61.57         | 3           | Vertical  | 133            | 2.74          | -       | 27.60      | 3.90       | -          |  |

## BT-EDR(3Mbps)

### 2402MHz\_TX

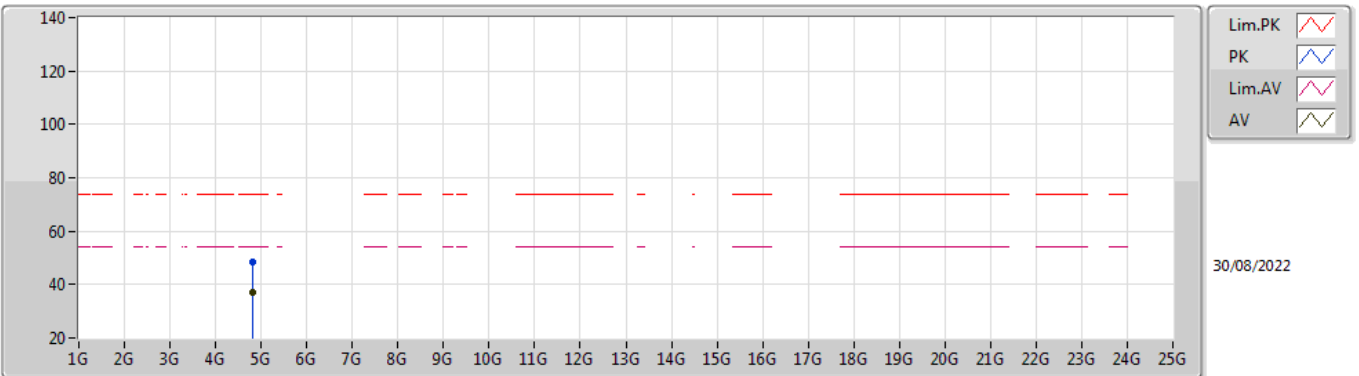


EUT X\_1TX  
Setting 63  
06-E-S-5

| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Raw<br>(dBuV) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comment | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |  |
|------|--------------|-------------------|-------------------|----------------|---------------|-------------|------------|----------------|---------------|---------|------------|------------|------------|--|
| PK   | 2.3881G      | 56.39             | 74.00             | -17.61         | 24.85         | 3           | Horizontal | 229            | 1.42          | -       | 27.65      | 3.89       | -          |  |
| AV   | 2.3879G      | 43.53             | 54.00             | -10.47         | 11.99         | 3           | Horizontal | 229            | 1.42          | -       | 27.65      | 3.89       | -          |  |
| PK   | 2.4019G      | 97.50             | Inf               | -Inf           | 66.00         | 3           | Horizontal | 229            | 1.42          | -       | 27.60      | 3.90       | -          |  |
| AV   | 2.4021G      | 93.43             | Inf               | -Inf           | 61.93         | 3           | Horizontal | 229            | 1.42          | -       | 27.60      | 3.90       | -          |  |

## BT-EDR(3Mbps)

### 2402MHz\_TX

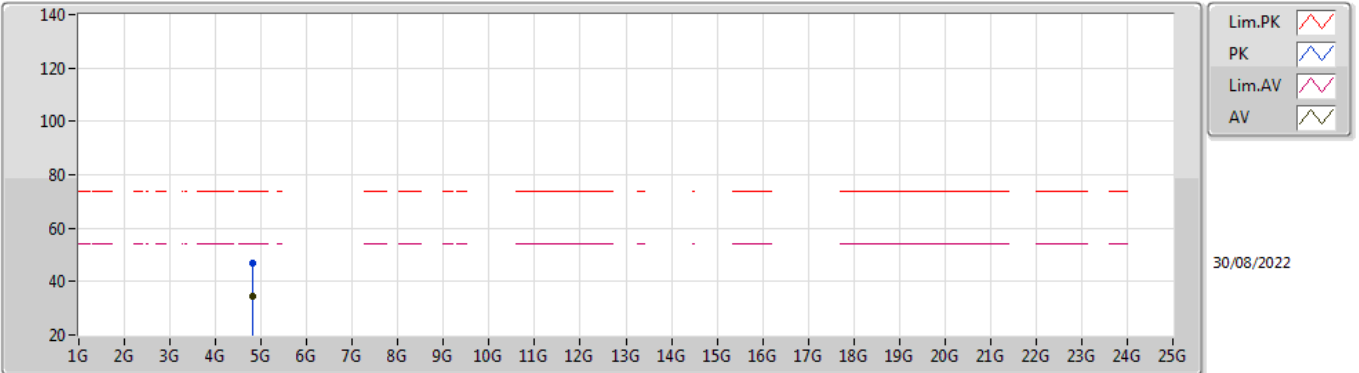


EUT X\_1TX  
Setting 63  
06-E-S-5

| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Raw<br>(dBuV) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comment | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |  |
|------|--------------|-------------------|-------------------|----------------|---------------|-------------|-----------|----------------|---------------|---------|------------|------------|------------|--|
| PK   | 4.80402G     | 48.47             | 74.00             | -25.53         | 44.29         | 3           | Vertical  | 187            | 2.16          | -       | 31.31      | 5.40       | 32.53      |  |
| AV   | 4.80402G     | 36.93             | 54.00             | -17.07         | 32.75         | 3           | Vertical  | 187            | 2.16          | -       | 31.31      | 5.40       | 32.53      |  |

# BT-EDR(3Mbps)

## 2402MHz\_TX

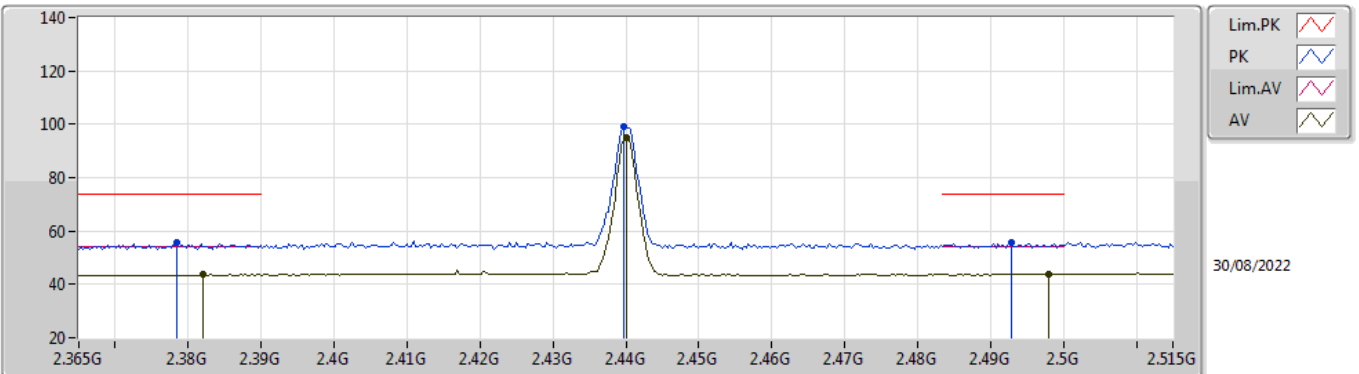


EUT X\_1TX  
Setting 63  
06-E-S-5

| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Raw<br>(dBuV) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comment | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |  |
|------|--------------|-------------------|-------------------|----------------|---------------|-------------|------------|----------------|---------------|---------|------------|------------|------------|--|
| PK   | 4.8039G      | 46.68             | 74.00             | -27.32         | 42.50         | 3           | Horizontal | 137            | 2.68          | -       | 31.31      | 5.40       | 32.53      |  |
| AV   | 4.8037G      | 34.43             | 54.00             | -19.57         | 30.25         | 3           | Horizontal | 137            | 2.68          | -       | 31.31      | 5.40       | 32.53      |  |

## BT-EDR(3Mbps)

### 2440MHz\_TX

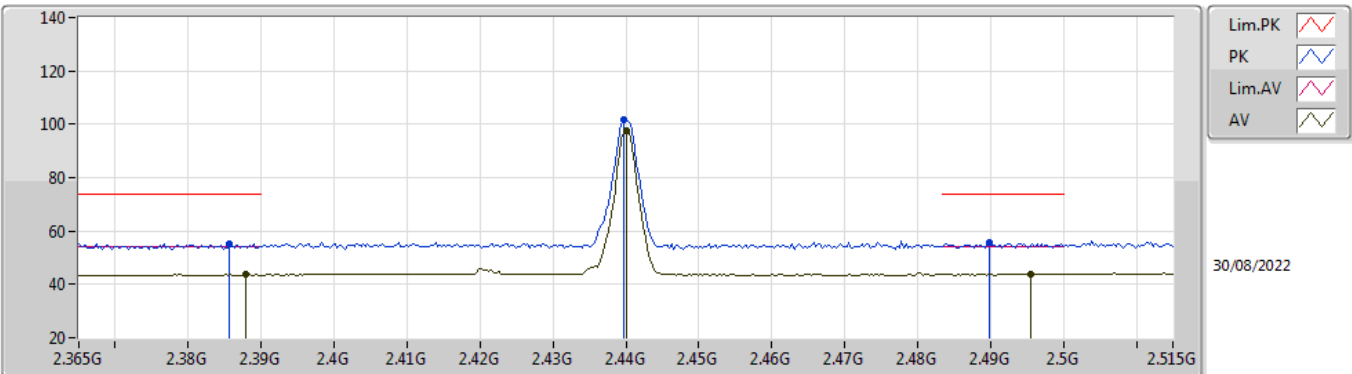


EUT X\_1TX  
Setting 63  
06-E-S-5

| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Raw<br>(dBuV) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comment | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |
|------|--------------|-------------------|-------------------|----------------|---------------|-------------|-----------|----------------|---------------|---------|------------|------------|------------|
| PK   | 2.3785G      | 55.73             | 74.00             | -18.27         | 24.16         | 3           | Vertical  | 130            | 2.93          | -       | 27.69      | 3.88       | -          |
| AV   | 2.3821G      | 43.62             | 54.00             | -10.38         | 12.07         | 3           | Vertical  | 130            | 2.93          | -       | 27.67      | 3.88       | -          |
| PK   | 2.4397G      | 99.15             | Inf               | -Inf           | 67.65         | 3           | Vertical  | 130            | 2.93          | -       | 27.60      | 3.90       | -          |
| AV   | 2.44G        | 95.07             | Inf               | -Inf           | 63.57         | 3           | Vertical  | 130            | 2.93          | -       | 27.60      | 3.90       | -          |
| PK   | 2.4928G      | 55.52             | 74.00             | -18.48         | 24.02         | 3           | Vertical  | 130            | 2.93          | -       | 27.60      | 3.90       | -          |
| AV   | 2.4979G      | 43.86             | 54.00             | -10.14         | 12.36         | 3           | Vertical  | 130            | 2.93          | -       | 27.60      | 3.90       | -          |

## BT-EDR(3Mbps)

### 2440MHz\_TX

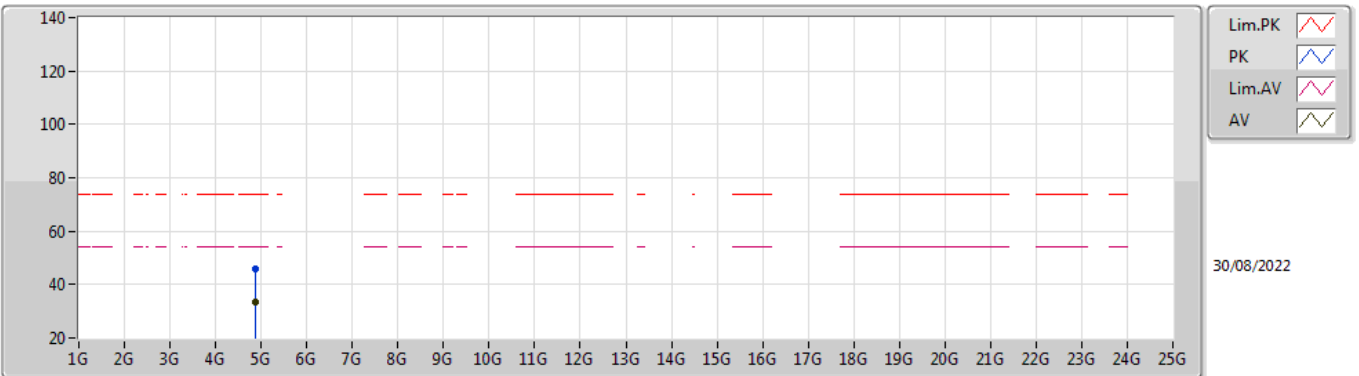


EUT\_X1TX  
Setting 63  
06-E-S-5

| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Raw<br>(dBuV) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comment | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |
|------|--------------|-------------------|-------------------|----------------|---------------|-------------|------------|----------------|---------------|---------|------------|------------|------------|
| PK   | 2.3857G      | 55.26             | 74.00             | -18.74         | 23.71         | 3           | Horizontal | 65             | 2.57          | -       | 27.66      | 3.89       | -          |
| AV   | 2.3878G      | 43.60             | 54.00             | -10.40         | 12.06         | 3           | Horizontal | 65             | 2.57          | -       | 27.65      | 3.89       | -          |
| PK   | 2.4397G      | 101.55            | Inf               | -Inf           | 70.05         | 3           | Horizontal | 65             | 2.57          | -       | 27.60      | 3.90       | -          |
| AV   | 2.44G        | 97.61             | Inf               | -Inf           | 66.11         | 3           | Horizontal | 65             | 2.57          | -       | 27.60      | 3.90       | -          |
| PK   | 2.4898G      | 55.47             | 74.00             | -18.53         | 23.97         | 3           | Horizontal | 65             | 2.57          | -       | 27.60      | 3.90       | -          |
| AV   | 2.4955G      | 43.84             | 54.00             | -10.16         | 12.34         | 3           | Horizontal | 65             | 2.57          | -       | 27.60      | 3.90       | -          |

## BT-EDR(3Mbps)

### 2440MHz\_TX

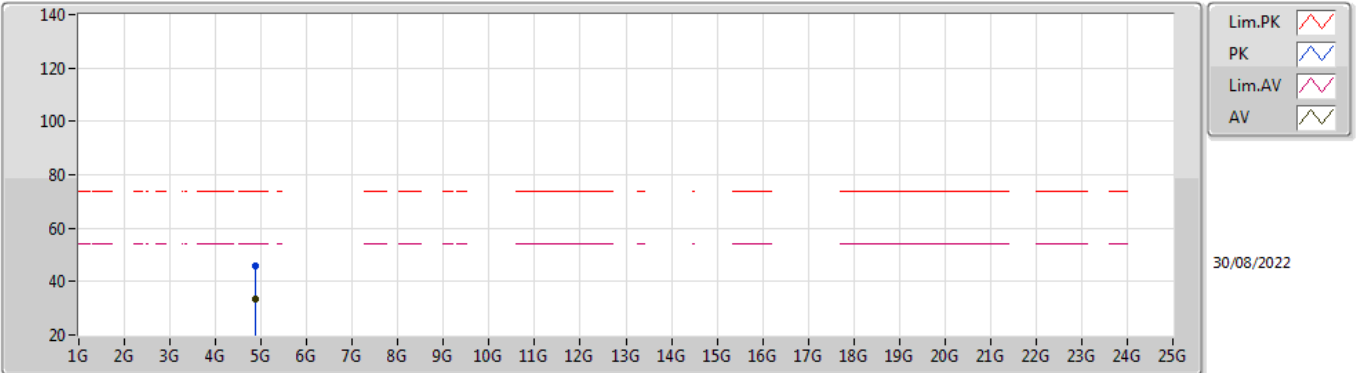


EUT X\_1TX  
Setting 63  
06-E-S-5

| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Raw<br>(dBuV) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comment | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |  |
|------|--------------|-------------------|-------------------|----------------|---------------|-------------|-----------|----------------|---------------|---------|------------|------------|------------|--|
| PK   | 4.8853G      | 45.75             | 74.00             | -28.25         | 41.44         | 3           | Vertical  | 191            | 2.24          | -       | 31.40      | 5.40       | 32.49      |  |
| AV   | 4.8728G      | 33.53             | 54.00             | -20.47         | 29.23         | 3           | Vertical  | 191            | 2.24          | -       | 31.40      | 5.40       | 32.50      |  |

# BT-EDR(3Mbps)

## 2440MHz\_TX

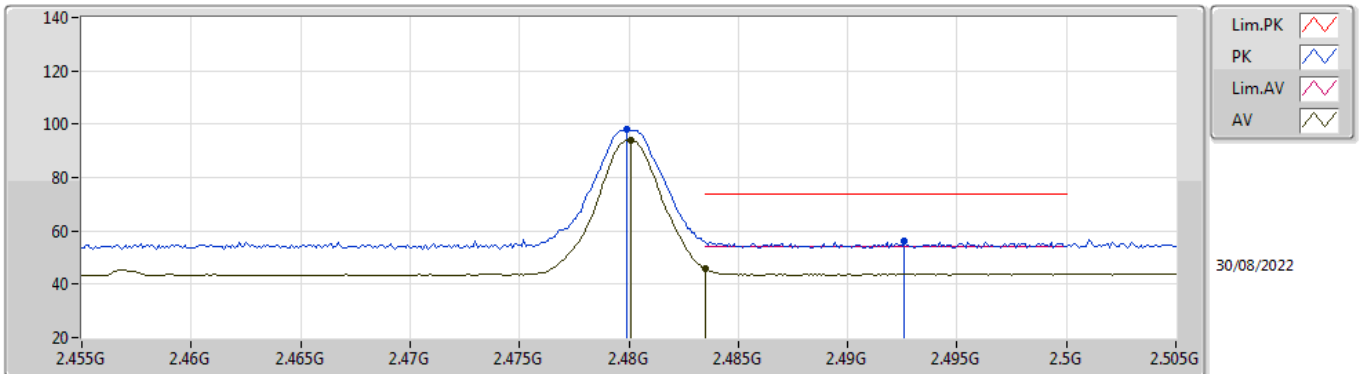


EUT X\_1TX  
Setting 63  
06-E-S-5

| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Raw<br>(dBuV) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comment | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |  |
|------|--------------|-------------------|-------------------|----------------|---------------|-------------|------------|----------------|---------------|---------|------------|------------|------------|--|
| PK   | 4.8798G      | 45.93             | 74.00             | -28.07         | 41.63         | 3           | Horizontal | 228            | 1.88          | -       | 31.40      | 5.40       | 32.50      |  |
| AV   | 4.8854G      | 33.44             | 54.00             | -20.56         | 29.13         | 3           | Horizontal | 228            | 1.88          | -       | 31.40      | 5.40       | 32.49      |  |

## BT-EDR(3Mbps)

### 2480MHz\_TX

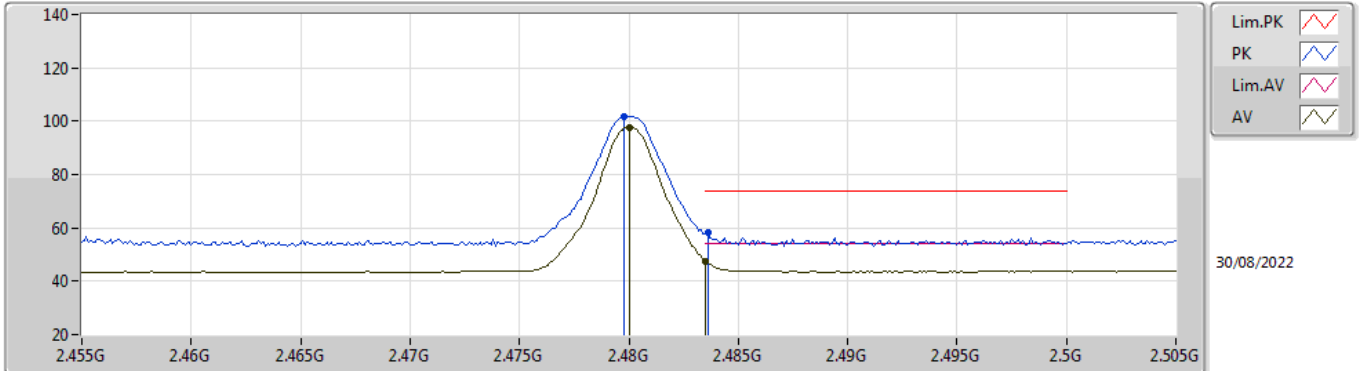


EUT\_X\_1TX  
Setting 63  
06-E-S-5

| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Raw<br>(dBuV) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comment | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |  |
|------|--------------|-------------------|-------------------|----------------|---------------|-------------|-----------|----------------|---------------|---------|------------|------------|------------|--|
| PK   | 2.4799G      | 98.00             | Inf               | -Inf           | 66.50         | 3           | Vertical  | 131            | 2.89          | -       | 27.60      | 3.90       | -          |  |
| AV   | 2.4801G      | 93.99             | Inf               | -Inf           | 62.49         | 3           | Vertical  | 131            | 2.89          | -       | 27.60      | 3.90       | -          |  |
| PK   | 2.4926G      | 56.34             | 74.00             | -17.66         | 24.84         | 3           | Vertical  | 131            | 2.89          | -       | 27.60      | 3.90       | -          |  |
| AV   | 2.4835G      | 45.64             | 54.00             | -8.36          | 14.14         | 3           | Vertical  | 131            | 2.89          | -       | 27.60      | 3.90       | -          |  |

# BT-EDR(3Mbps)

## 2480MHz\_TX

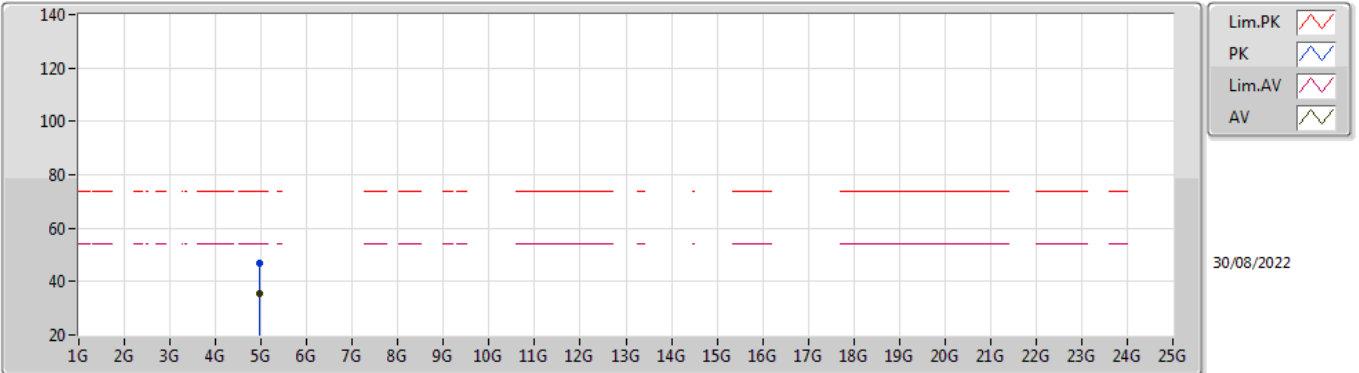


EUT\_X\_1TX  
Setting 63  
06-E-S-5

| Type | Freq    | Level    | Limit    | Margin | Raw    | Dist | Condition  | Azimuth | Height | Comment | AF    | CL   | PA   |  |
|------|---------|----------|----------|--------|--------|------|------------|---------|--------|---------|-------|------|------|--|
|      | (Hz)    | (dBuV/m) | (dBuV/m) | (dB)   | (dBuV) | (m)  |            | (°)     | (m)    |         | (dB)  | (dB) | (dB) |  |
| PK   | 2.4798G | 101.76   | Inf      | -Inf   | 70.26  | 3    | Horizontal | 17      | 2.67   | -       | 27.60 | 3.90 | -    |  |
| AV   | 2.48G   | 97.76    | Inf      | -Inf   | 66.26  | 3    | Horizontal | 17      | 2.67   | -       | 27.60 | 3.90 | -    |  |
| PK   | 2.4836G | 58.20    | 74.00    | -15.80 | 26.70  | 3    | Horizontal | 17      | 2.67   | -       | 27.60 | 3.90 | -    |  |
| AV   | 2.4835G | 47.54    | 54.00    | -6.46  | 16.04  | 3    | Horizontal | 17      | 2.67   | -       | 27.60 | 3.90 | -    |  |

## BT-EDR(3Mbps)

### 2480MHz\_TX

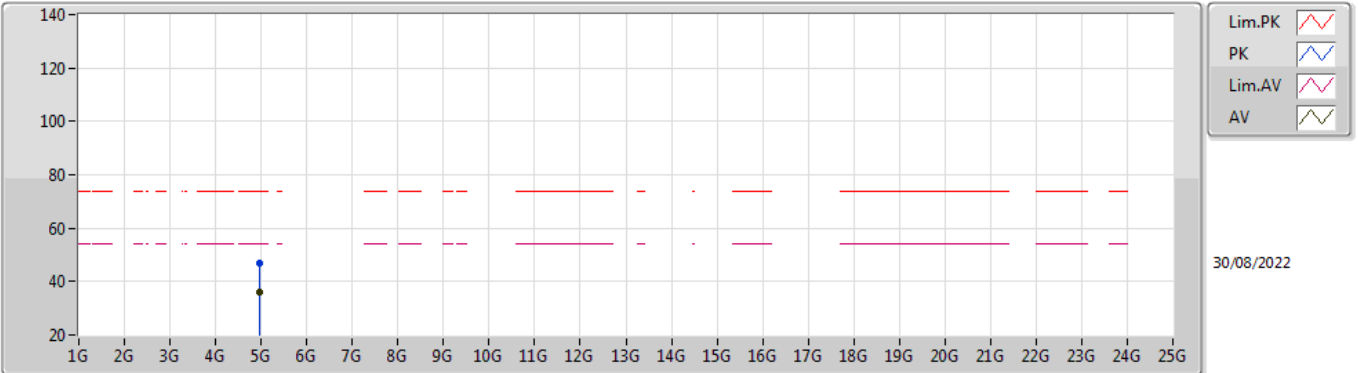


EUT X\_1TX  
Setting 63  
06-E-S-5

| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Raw<br>(dBuV) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comment | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |
|------|--------------|-------------------|-------------------|----------------|---------------|-------------|-----------|----------------|---------------|---------|------------|------------|------------|
| PK   | 4.9594G      | 47.09             | 74.00             | -26.91         | 42.59         | 3           | Vertical  | 181            | 2.54          | -       | 31.56      | 5.40       | 32.46      |
| AV   | 4.9601G      | 35.43             | 54.00             | -18.57         | 30.93         | 3           | Vertical  | 181            | 2.54          | -       | 31.56      | 5.40       | 32.46      |

## BT-EDR(3Mbps)

### 2480MHz\_TX



EUT\_X\_1TX  
Setting 63  
06-E-S-5

| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Raw<br>(dBuV) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comment | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |
|------|--------------|-------------------|-------------------|----------------|---------------|-------------|------------|----------------|---------------|---------|------------|------------|------------|
| PK   | 4.95916G     | 47.10             | 74.00             | -26.90         | 42.61         | 3           | Horizontal | 279            | 1.38          | -       | 31.55      | 5.40       | 32.46      |
| AV   | 4.96004G     | 35.79             | 54.00             | -18.21         | 31.29         | 3           | Horizontal | 279            | 1.38          | -       | 31.56      | 5.40       | 32.46      |