



# FCC RADIO TEST REPORT

**FCC ID** : UZ7KC50A22  
**Equipment** : KC50A22 Kiosk Computer  
**Brand Name** : Zebra  
**Model Name** : KC50A22  
**Applicant** : Zebra Technologies Corporation  
3 Overlook Point, Lincolnshire, IL 60069 USA  
**Manufacturer** : Zebra Technologies Corporation  
3 Overlook Point, Lincolnshire, IL 60069 USA  
**Standard** : FCC Part 15 Subpart C §15.247

The product was received on May 14, 2024 and testing was performed from May 14, 2024 to Jul. 10, 2024. We, Sporton International Inc. Wensan Laboratory, would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval from Sporton International Inc. Wensan Laboratory, the test report shall not be reproduced except in full.

*Louis Wu*

Approved by: Louis Wu

***Sporton International Inc. Wensan Laboratory***

*No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.)*



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## History of this test report

| Report No. | Version | Description             | Issue Date    |
|------------|---------|-------------------------|---------------|
| FR450112B  | 01      | Initial issue of report | Aug. 01, 2024 |
|            |         |                         |               |
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## Summary of Test Result

| Report Clause | Ref Std. Clause              | Test Items                                 | Result (PASS/FAIL) | Remark                                |
|---------------|------------------------------|--------------------------------------------|--------------------|---------------------------------------|
| 3.1           | 15.247(a)(2)                 | 6dB Bandwidth                              | Pass               | -                                     |
| 3.1           | 2.1049                       | 99% Occupied Bandwidth                     | Pass               | -                                     |
| 3.2           | 15.247(b)(3)<br>15.247(b)(4) | Output Power                               | Pass               | -                                     |
| 3.3           | 15.247(e)                    | Power Spectral Density                     | Pass               | -                                     |
| 3.4           | 15.247(d)                    | Conducted Band Edges and Spurious Emission | Pass               | -                                     |
| 3.5           | 15.247(d)                    | Radiated Band Edges and Spurious Emission  | Pass               | 3.65 dB under the limit at 449.80 MHz |
| 3.6           | 15.207                       | AC Conducted Emission                      | Pass               | 7.02 dB under the limit at 13.15 MHz  |
| 3.7           | 15.203                       | Antenna Requirement                        | Pass               | -                                     |

### Conformity Assessment Condition:

1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacture who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.
2. The measurement uncertainty please refer to each test result in the section "Measurement Uncertainty".

### Disclaimer:

The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.

**Reviewed by: Yun Huang**

**Report Producer: Wilda Wei**



# 1 General Description

## 1.1 Product Feature of Equipment Under Test

| Product Feature                 |                                                                                                                                |
|---------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| Equipment                       | KC50A22 Kiosk Computer                                                                                                         |
| Brand Name                      | Zebra                                                                                                                          |
| Model Name                      | KC50A22                                                                                                                        |
| FCC ID                          | UZ7KC50A22                                                                                                                     |
| EUT supports Radios application | NFC<br>WLAN 11a/b/g/n HT20/HT40<br>WLAN 11ac VHT20/VHT40/VHT80/VHT160<br>WLAN 11ax HE20/HE40/HE80/HE160<br>Bluetooth BR/EDR/LE |
| HW Version                      | REV:PT                                                                                                                         |
| SW Version                      | 13-30-02.00-TG-U00-STD-ATH-04                                                                                                  |
| OS Version                      | Android 13                                                                                                                     |
| MFD                             | 10MAY24                                                                                                                        |
| EUT Stage                       | Identical Prototype                                                                                                            |

Remark: The EUT's information above is declared by manufacturer.

| Specification of Accessories |            |       |             |                     |
|------------------------------|------------|-------|-------------|---------------------|
| AC Adapter                   | Brand Name | ZEBRA | Model Name  | PS000088A01         |
| USB C-C Cable                | Brand Name | ZEBRA | Part Number | CBL-EC5X-USBC3A-01  |
| Stand                        | Brand Name | ZEBRA | Part Number | 3PTY-SC-2000-CF2-01 |
| Printer                      | Brand Name | ZEBRA | Model Name  | ZD230t              |
| 2nd display                  | Brand Name | ZEBRA | Model Name  | TD50-15F00          |
| Edge scanner                 | Brand Name | ZEBRA | Part Number | ZFLX-SCNR-E00       |
| Edge LED Light Bar           | Brand Name | ZEBRA | Part Number | ZFLX-LTBAR-200      |
| USB Cable                    | Brand Name | ZEBRA | Part Number | 300283-002          |

## 1.2 Product Specification of Equipment Under Test

| Product Specification is subject to this standard |                                                                                                                                                                                                                                            |
|---------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Tx/Rx Frequency Range</b>                      | 2402 MHz ~ 2480 MHz                                                                                                                                                                                                                        |
| <b>Number of Channels</b>                         | 40                                                                                                                                                                                                                                         |
| <b>Carrier Frequency of Each Channel</b>          | 40 Channel (37 hopping + 3 advertising channel)                                                                                                                                                                                            |
| <b>Maximum Output Power to Antenna</b>            | <b>&lt;Ant. 1&gt;</b><br>Bluetooth – LE (1Mbps): 4.80 dBm / 0.0030 W<br>Bluetooth – LE (2Mbps): 5.00 dBm / 0.0032 W<br><b>&lt;Ant. 2&gt;</b><br>Bluetooth – LE (1Mbps): 4.30 dBm / 0.0027 W<br>Bluetooth – LE (2Mbps): 4.40 dBm / 0.0028 W |
| <b>99% Occupied Bandwidth</b>                     | <b>&lt;Ant. 1&gt;</b><br>1.019 MHz for 1Mbps<br>1.998 MHz for 2Mbps<br><b>&lt;Ant. 2&gt;</b><br>1.019 MHz for 1Mbps<br>1.998 MHz for 2Mbps                                                                                                 |
| <b>Antenna Type / Gain</b>                        | <b>&lt;Ant. 1&gt;</b> : PIFA with gain 2.81 dBi<br><b>&lt;Ant. 2&gt;</b> : Coupling with gain 2.80 dBi                                                                                                                                     |
| <b>Type of Modulation</b>                         | Bluetooth LE: GFSK                                                                                                                                                                                                                         |

**Remark:** The above EUT's information was declared by manufacturer. Please refer to Disclaimer in report summary.

## 1.3 Modification of EUT

No modifications made to the EUT during the testing.



## 1.4 Testing Location

|                           |                                                                                                                                                  |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Test Site</b>          | Sporton International Inc. Wensan Laboratory                                                                                                     |
| <b>Test Site Location</b> | No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist.,<br>Taoyuan City 333010, Taiwan (R.O.C.)<br>TEL: +886-3-327-0868<br>FAX: +886-3-327-0855 |
| <b>Test Site No.</b>      | <b>Sporton Site No.</b>                                                                                                                          |
|                           | TH05-HY, CO07-HY, 03CH22-HY                                                                                                                      |

**Note:** The test site complies with ANSI C63.4 2014 requirement.

FCC designation No.: TW3786

## 1.5 Applicable Standards

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

- ♦ FCC Part 15 Subpart C §15.247
- ♦ FCC KDB Publication No. 558074 D01 15.247 Meas Guidance v05r02
- ♦ FCC KDB 414788 D01 Radiated Test Site v01r01
- ♦ ANSI C63.10-2013

**Remark:**

1. All the test items were validated and recorded in accordance with the standards without any modification during the testing.
2. The TAF code is not including all the FCC KDB listed without accreditation.
3. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.



## 2 Test Configuration of Equipment Under Test

### 2.1 Carrier Frequency Channel

| Frequency Band  | Channel | Freq.<br>(MHz) | Channel | Freq.<br>(MHz) |
|-----------------|---------|----------------|---------|----------------|
| 2400-2483.5 MHz | 0       | 2402           | 21      | 2444           |
|                 | 1       | 2404           | 22      | 2446           |
|                 | 2       | 2406           | 23      | 2448           |
|                 | 3       | 2408           | 24      | 2450           |
|                 | 4       | 2410           | 25      | 2452           |
|                 | 5       | 2412           | 26      | 2454           |
|                 | 6       | 2414           | 27      | 2456           |
|                 | 7       | 2416           | 28      | 2458           |
|                 | 8       | 2418           | 29      | 2460           |
|                 | 9       | 2420           | 30      | 2462           |
|                 | 10      | 2422           | 31      | 2464           |
|                 | 11      | 2424           | 32      | 2466           |
|                 | 12      | 2426           | 33      | 2468           |
|                 | 13      | 2428           | 34      | 2470           |
|                 | 14      | 2430           | 35      | 2472           |
|                 | 15      | 2432           | 36      | 2474           |
|                 | 16      | 2434           | 37      | 2476           |
|                 | 17      | 2436           | 38      | 2478           |
|                 | 18      | 2438           | 39      | 2480           |
|                 | 19      | 2440           | -       | -              |
|                 | 20      | 2442           | -       | -              |



## 2.2 Test Mode

a. The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: conduction emission (150 kHz to 30 MHz), radiation emission (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower). For radiated measurement, the measured emission level of the EUT was maximized by rotating the EUT on a turntable, adjusting the orientation of the EUT and EUT antenna in three orthogonal axis (X: flat, Y: portrait, Z: landscape), and adjusting the measurement antenna orientation, following C63.10 exploratory test procedures and only the worst case emissions were reported in this report.

b. AC power line Conducted Emission was tested under maximum output power.

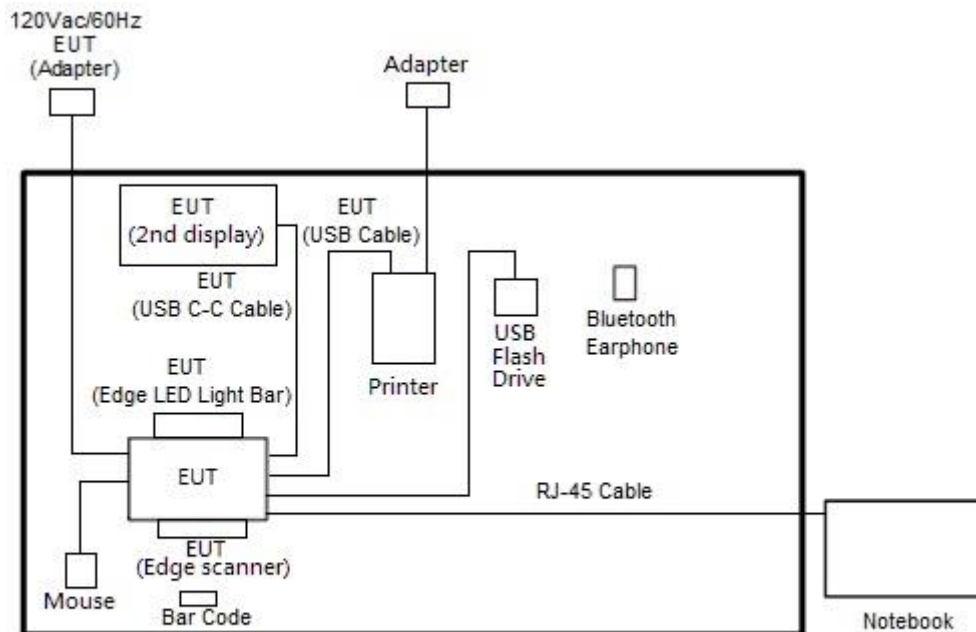
The following summary table is showing all test modes to demonstrate in compliance with the standard.

| Summary table of Test Cases |                                          |
|-----------------------------|------------------------------------------|
| Test Item                   | Data Rate / Modulation                   |
| <b>Conducted Test Cases</b> | <b>Bluetooth – LE / GFSK</b>             |
|                             | <b>&lt;Ant. 1&gt;</b>                    |
|                             | Mode 1: Bluetooth Tx CH00_2402 MHz_1Mbps |
|                             | Mode 2: Bluetooth Tx CH19_2440 MHz_1Mbps |
|                             | Mode 3: Bluetooth Tx CH39_2480 MHz_1Mbps |
|                             | Mode 4: Bluetooth Tx CH00_2402 MHz_2Mbps |
|                             | Mode 5: Bluetooth Tx CH19_2440 MHz_2Mbps |
|                             | Mode 6: Bluetooth Tx CH39_2480 MHz_2Mbps |
|                             | <b>&lt;Ant. 2&gt;</b>                    |
|                             | Mode 1: Bluetooth Tx CH00_2402 MHz_1Mbps |
|                             | Mode 2: Bluetooth Tx CH19_2440 MHz_1Mbps |
|                             | Mode 3: Bluetooth Tx CH39_2480 MHz_1Mbps |
|                             | Mode 4: Bluetooth Tx CH00_2402 MHz_2Mbps |
|                             | Mode 5: Bluetooth Tx CH19_2440 MHz_2Mbps |
|                             | Mode 6: Bluetooth Tx CH39_2480 MHz_2Mbps |

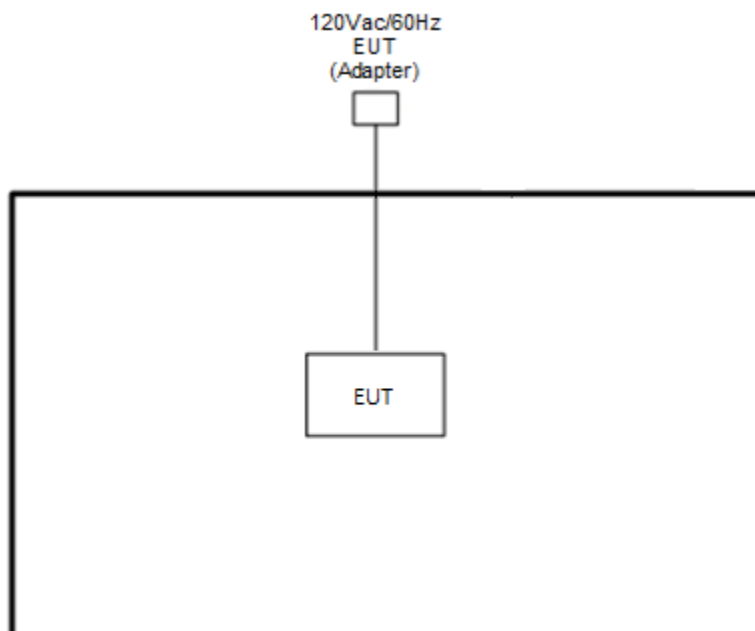
| Summary table of Test Cases                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Test Item                                                                                                                                                                                                                                                                                                             | Data Rate / Modulation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Radiated Test Cases</b>                                                                                                                                                                                                                                                                                            | <p><b>&lt;Ant. 1&gt;</b></p> <p>Mode 1: Bluetooth Tx CH00_2402 MHz_1Mbps</p> <p>Mode 2: Bluetooth Tx CH19_2440 MHz_1Mbps</p> <p>Mode 3: Bluetooth Tx CH39_2480 MHz_1Mbps</p> <p>Mode 4: Bluetooth Tx CH00_2402 MHz_2Mbps</p> <p>Mode 5: Bluetooth Tx CH19_2440 MHz_2Mbps</p> <p>Mode 6: Bluetooth Tx CH39_2480 MHz_2Mbps</p> <p><b>&lt;Ant. 2&gt;</b></p> <p>Mode 1: Bluetooth Tx CH00_2402 MHz_1Mbps</p> <p>Mode 2: Bluetooth Tx CH19_2440 MHz_1Mbps</p> <p>Mode 3: Bluetooth Tx CH39_2480 MHz_1Mbps</p> <p>Mode 4: Bluetooth Tx CH00_2402 MHz_2Mbps</p> <p>Mode 5: Bluetooth Tx CH19_2440 MHz_2Mbps</p> <p>Mode 6: Bluetooth Tx CH39_2480 MHz_2Mbps</p> |
| <b>AC Conducted Emission</b>                                                                                                                                                                                                                                                                                          | <p>Mode 1: WLAN (2.4GHz) Link + Bluetooth Link + Scan Bar Code + USB C-C</p> <p>Cable Display with 2nd display + USB Cable with Printer + AC Adapter + LAN Link with Notebook + Edge USB-C with (Edge scanner + (Data Link with USB Flash Drive (USB to SD Card) + Edge LED Light Bar + Mouse) + Stand</p>                                                                                                                                                                                                                                                                                                                                                |
| <b>Remark:</b> <ol style="list-style-type: none"> <li>For radiation spurious emission, the modulation and the data rate picked for testing are determined by the Max. RF conducted power.</li> <li>Data Link with USB Flash Drive means data application transferred mode between EUT and USB Flash Drive.</li> </ol> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

## 2.3 Connection Diagram of Test System

### <AC Conducted Emission Mode>



### <Bluetooth -LE Tx Mode>



## 2.4 Support Unit used in test configuration and system

| Item | Equipment          | Brand Name    | Model Name    | FCC ID       | Data Cable      | Power Cord                                                 |
|------|--------------------|---------------|---------------|--------------|-----------------|------------------------------------------------------------|
| 1.   | Bluetooth Earphone | Sony Ericsson | MW600         | PY7DDA-2029  | N/A             | N/A                                                        |
| 2.   | Barcode            | N/A           | N/A           | N/A          | N/A             | N/A                                                        |
| 3.   | WLAN AP            | ASUS          | RT-AC52       | MSQ-RTAC4A00 | N/A             | Unshielded, 1.8 m                                          |
| 4.   | Notebook           | DELL          | Latitude 3400 | FCC DoC      | N/A             | AC I/P:<br>Unshielded, 1.2 m<br>DC O/P:<br>Shielded, 1.8 m |
| 5.   | Mouse              | ACER          | MOANUOA       | FCC DoC      | Shielded, 1.7 m | N/A                                                        |
| 6.   | USB dongle         | SanDisk       | E4BDC         | FCC DoC      | N/A             | N/A                                                        |
| 7.   | SD Card            | SanDisk       | MicroSD HC    | FCC DoC      | N/A             | N/A                                                        |

## 2.5 EUT Operation Test Setup

The RF test items, utility "QRCT4.0.211.0" was installed in Notebook which was programmed in order to make the EUT get into the engineering modes to provide channel selection, power level, data rate and the application type and for continuous transmitting signals.

## 2.6 Measurement Results Explanation Example

**For all conducted test items:**

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuator factor between EUT conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly the EUT RF output level.

Example :

The spectrum analyzer offset is derived from RF cable loss and attenuator factor.

*Offset = RF cable loss + attenuator factor.*

Following shows an offset computation example with cable loss 4.2 dB and 10 dB attenuator.

$$\begin{aligned}
 \text{Offset(dB)} &= \text{RF cable loss(dB)} + \text{attenuator factor(dB)}. \\
 &= 4.2 + 10 = 14.2 \text{ (dB)}
 \end{aligned}$$

### 3 Test Result

#### 3.1 6dB and 99% Bandwidth Measurement

##### 3.1.1 Limit of 6dB and 99% Bandwidth

The minimum 6 dB bandwidth shall be at least 500 kHz.

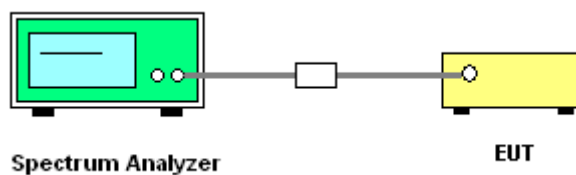
##### 3.1.2 Measuring Instruments

Please refer to the measuring equipment list in this test report.

##### 3.1.3 Test Procedures

1. The testing follows the ANSI C63.10 Section 6.9.3 (OBW) and 11.8.1 (6dB BW).
2. The RF output of EUT is connected to the spectrum analyzer by RF cable and attenuator. The path loss is compensated to the results for each measurement.
3. Set the maximum power setting and enable the EUT to transmit continuously.
4. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 100 kHz. Set the Video bandwidth (VBW) = 300 kHz. In order to make an accurate measurement. The 6dB bandwidth must be greater than 500 kHz.
5. For 99% Bandwidth Measurement, the spectrum analyzer's resolution bandwidth (RBW) is set 1-5% of the emission bandwidth and set the Video bandwidth (VBW)  $\geq 3 * RBW$ .
6. Measure and record the results in the test report.

##### 3.1.4 Test Setup



##### 3.1.5 Test Result of 6dB Bandwidth

Please refer to Appendix A.

##### 3.1.6 Test Result of 99% Occupied Bandwidth

Please refer to Appendix A.

## 3.2 Output Power Measurement

### 3.2.1 Limit of Output Power

For systems using digital modulation in the 2400-2483.5 MHz, the limit for output power is 30 dBm. If transmitting antenna of directional gain greater than 6 dBi is used, the peak output power from the intentional radiator shall be reduced below the above stated value by the amount in dB that the directional gain of the antenna exceeds 6 dBi. In case of point-to-point operation, the limit has to be reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6 dBi.

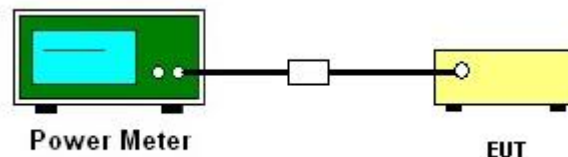
### 3.2.2 Measuring Instruments

Please refer to the measuring equipment list in this test report.

### 3.2.3 Test Procedures

1. For Average Power, the testing follows ANSI C63.10 Section 11.9.2.3.2 Method AVGPM-G
2. The RF output of EUT is connected to the power meter by RF cable and attenuator.
3. The path loss is compensated to the results for each measurement.
4. Set the maximum power setting and enable the EUT to transmit continuously.
5. Measure the conducted output power and record the results in the test report.

### 3.2.4 Test Setup



### 3.2.5 Test Result of Average Output Power

Please refer to Appendix A.

### 3.3 Power Spectral Density Measurement

#### 3.3.1 Limit of Power Spectral Density

The peak power spectral density shall not be greater than 8 dBm in any 3 kHz band at any time interval of continuous transmission.

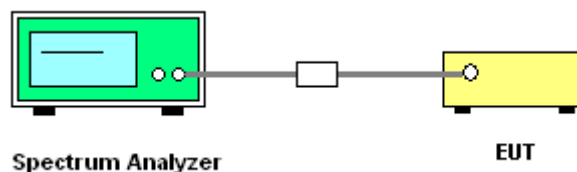
#### 3.3.2 Measuring Instruments

Please refer to the measuring equipment list in this test report.

#### 3.3.3 Test Procedures

1. The testing follows the ANSI C63.10 Section 11.10.2 Method PKPSD.
2. The RF output of EUT is connected to the spectrum analyzer by RF cable and attenuator. The path loss is compensated to the results for each measurement.
3. Set the maximum power setting and enable the EUT to transmit continuously.
4. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 3 kHz. Video bandwidth (VBW) = 10 kHz. In order to make an accurate measurement, set the span to 1.5 times DTS Channel Bandwidth. (6 dB BW)
5. Detector = peak, Sweep time = auto couple, Trace mode = max hold, Allow trace to fully stabilize. Use the peak marker function to determine the maximum power level.
6. Measure and record the results in the test report.
7. The Measured power density (dBm)/ 100 kHz is a reference level and is used as 20 dBc down limit line for Conducted Band Edges and Conducted Spurious Emission.

#### 3.3.4 Test Setup



#### 3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A.

### 3.4 Conducted Band Edges and Spurious Emission Measurement

#### 3.4.1 Limit of Conducted Band Edges and Spurious Emission

All harmonics/spurious must be at least 30 dB down from the highest emission level within the authorized band.

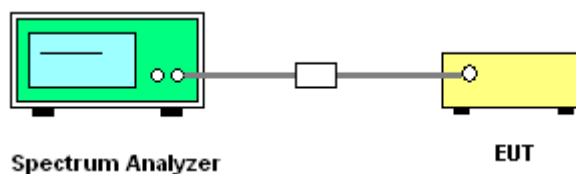
#### 3.4.2 Measuring Instruments

Please refer to the measuring equipment list in this test report.

#### 3.4.3 Test Procedure

1. The testing follows the ANSI C63.10 Section 11.11.3 Emission level measurement.
2. The RF output of EUT is connected to the spectrum analyzer by RF cable and attenuator. The path loss is compensated to the results for each measurement.
3. Set the maximum power setting and enable the EUT to transmit continuously.
4. Set RBW = 100 kHz, VBW = 300 kHz, Peak Detector. Unwanted Emissions measured in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum in-band peak PSD level in 100 kHz when maximum peak conducted output power procedure is used. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, the attenuation required under this paragraph shall be 30 dB instead of 20 dB.
5. Measure and record the results in the test report.
6. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

#### 3.4.4 Test Setup



#### 3.4.5 Test Result of Conducted Band Edges Plots

Please refer to Appendix A.

#### 3.4.6 Test Result of Conducted Spurious Emission Plots

Please refer to Appendix A.





### **3.5 Radiated Band Edges and Spurious Emission Measurement**

#### **3.5.1 Limit of Radiated Band Edges and Spurious Emission**

In any 100 kHz bandwidth outside the intentional radiator frequency band, all harmonics/spurious must be at least 20 dB below the highest emission level within the authorized band. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, the attenuation required shall be 30 dB instead of 20 dB. In addition, radiated emissions which fall in the restricted bands must also comply with the limits as below.

| <b>Frequency<br/>(MHz)</b> | <b>Field Strength<br/>(microvolts/meter)</b> | <b>Measurement Distance<br/>(meters)</b> |
|----------------------------|----------------------------------------------|------------------------------------------|
| 0.009 – 0.490              | 2400/F(kHz)                                  | 300                                      |
| 0.490 – 1.705              | 24000/F(kHz)                                 | 30                                       |
| 1.705 – 30.0               | 30                                           | 30                                       |
| 30 – 88                    | 100                                          | 3                                        |
| 88 – 216                   | 150                                          | 3                                        |
| 216 - 960                  | 200                                          | 3                                        |
| Above 960                  | 500                                          | 3                                        |

#### **3.5.2 Measuring Instruments**

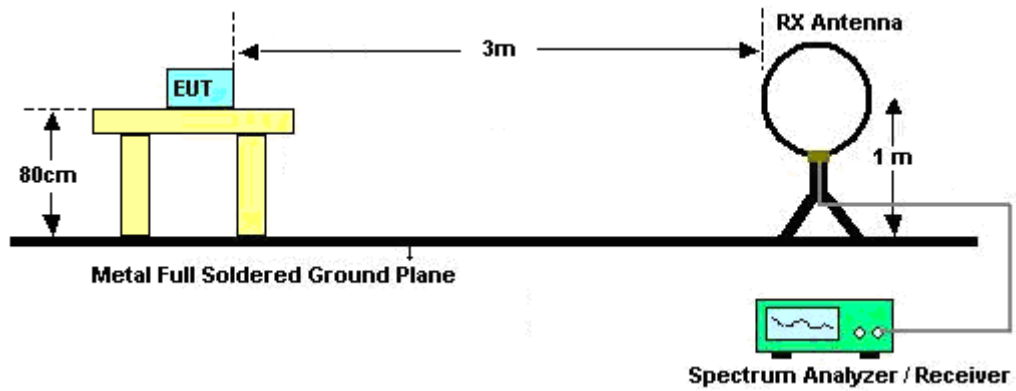
Please refer to the measuring equipment list in this test report.

### 3.5.3 Test Procedures

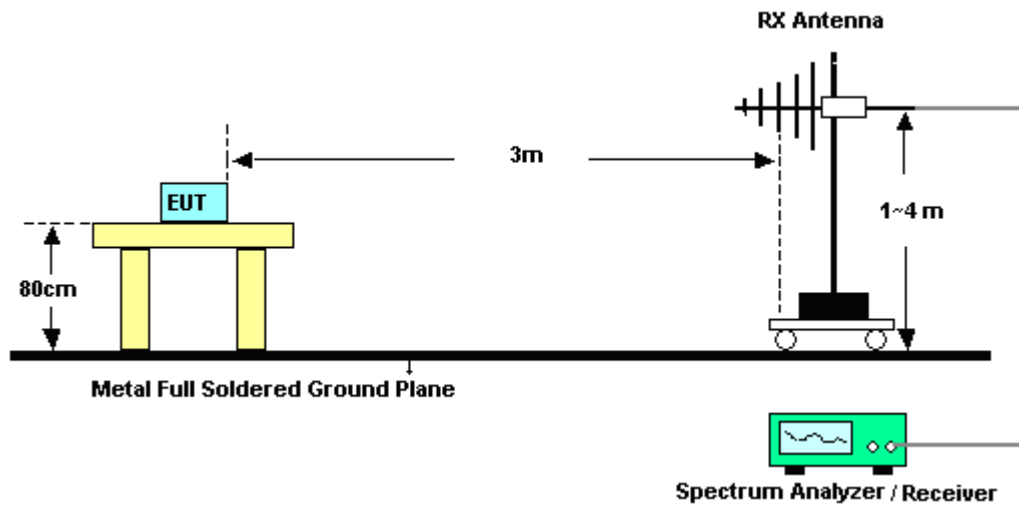
1. The testing follows the ANSI C63.10 Section 11.12.1 Radiated emission measurements.
2. The EUT is arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level.
3. The EUT is placed on a turntable with 0.8 meter for frequency below 1 GHz and 1.5 meter for frequency above 1 GHz respectively above ground.
4. The EUT is set 3 meters away from the receiving antenna, which is mounted on the top of a variable height antenna tower.
5. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level
6. Radiated testing below 1 GHz is performed by adjusting the antenna tower from 1 m to 4 m and by rotating the turn table from 0 degree to 360 degrees to find the peak maximum hold reading. When there is no suspected emission found and the emission level is with at least 6 dB margin against QP limit line, the position is marked as “-”.
7. Radiated testing above 1 GHz is performed by adjusting the antenna tower from 1 m to 4 m and by rotating the turn table from 0 degree to 360 degrees to find the peak maximum hold reading for scanning all frequencies. When there is no suspected emission found and the harmonic emission level is with at least 6 dB margin against average limit line, the position is marked as “-”.
8. Use the following spectrum analyzer settings:
  - (1) Span shall wide enough to fully capture the emission being measured;
  - (2) Set RBW = 100 kHz for  $f < 1$  GHz; VBW  $\geq$  RBW; Sweep = auto; Detector function = peak; Trace = max hold;
  - (3) Set RBW = 1 MHz, VBW = 3 MHz for  $f \geq 1$  GHz for peak measurement.For average measurement:
  - VBW = 10 Hz, when duty cycle is no less than 98 percent.
  - VBW  $\geq 1/T$ , when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

### 3.5.4 Test Setup

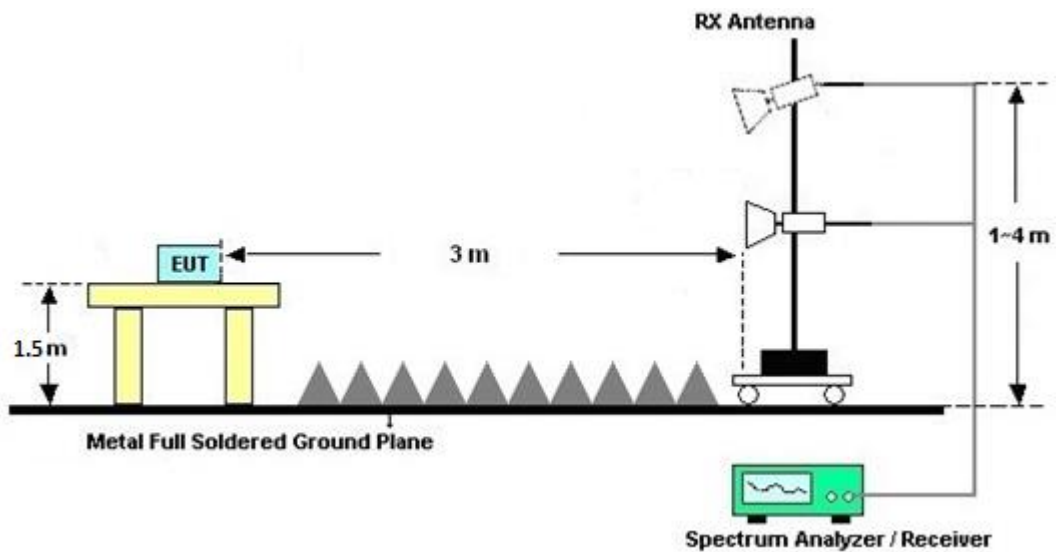
For radiated test below 30MHz



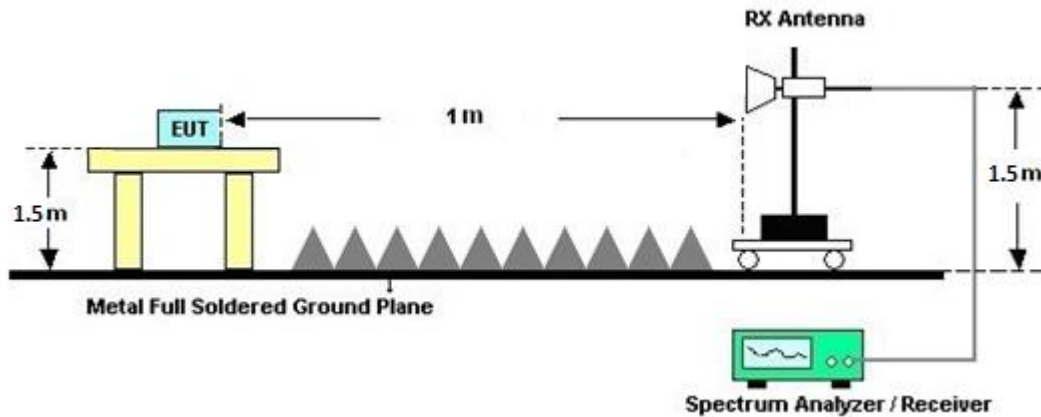
For radiated test from 30MHz to 1GHz



For radiated test from 1GHz to 18GHz



For radiated test above 18GHz



### 3.5.5 Test Results of Radiated Spurious Emissions (9 kHz ~ 30 MHz)

The low frequency, which starts from 9 kHz to 30 MHz, is pre-scanned and the result which is 20 dB lower than the limit line is not reported.

There is adequate comparison measurement of both open-field test site and alternative test site - semi-Anechoic chamber according to 414788 D01 Radiated Test Site v01r01, and the result comes out very similar.

### 3.5.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix C and D.

### 3.5.7 Duty Cycle

Please refer to Appendix E.

### 3.5.8 Test Result of Radiated Spurious Emission (30 MHz ~ 10th Harmonic)

Please refer to Appendix C and D.

### 3.6 AC Conducted Emission Measurement

#### 3.6.1 Limit of AC Conducted Emission

For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table.

| Frequency of emission (MHz) | Conducted limit (dB $\mu$ V) |           |
|-----------------------------|------------------------------|-----------|
|                             | Quasi-peak                   | Average   |
| 0.15-0.5                    | 66 to 56*                    | 56 to 46* |
| 0.5-5                       | 56                           | 46        |
| 5-30                        | 60                           | 50        |

\*Decreases with the logarithm of the frequency.

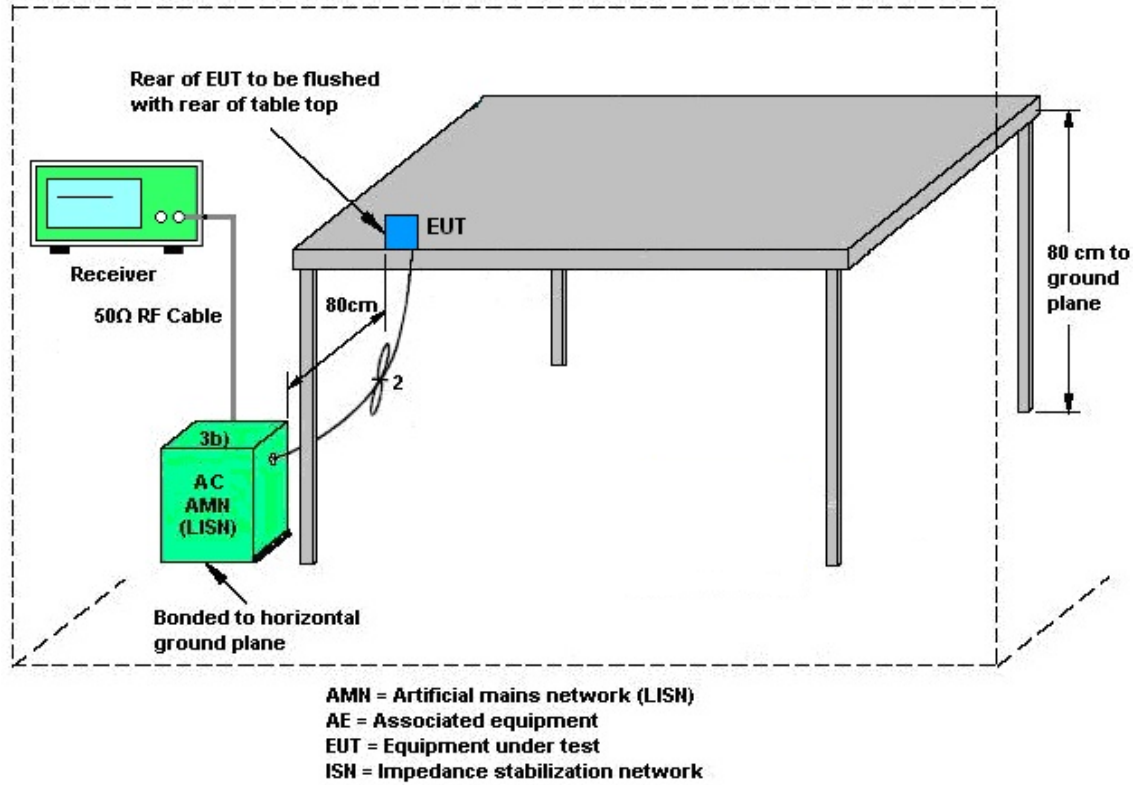
#### 3.6.2 Measuring Instruments

Please refer to the measuring equipment list in this test report.

#### 3.6.3 Test Procedures

1. The EUT is placed 0.4 meter away from the conducting wall of the shielding room, and is kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
5. The FCC states that a 50 ohm, 50 microhenry LISN shall be used.
6. Both Line and Neutral shall be tested in order to find out the maximum conducted emission.
7. The frequency range from 150 kHz to 30 MHz is scanned.
8. Set the test-receiver system to Peak Detect Function and specified bandwidth (IF Bandwidth = 9 kHz) with Maximum Hold Mode. Then measurement is also conducted by Average Detector and Quasi-Peak Detector Function respectively.

### 3.6.4 Test Setup



### 3.6.5 Test Result of AC Conducted Emission

Please refer to Appendix B.



## **3.7 Antenna Requirements**

### **3.7.1 Standard Applicable**

The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the rule.

### **3.7.2 Antenna Anti-Replacement Construction**

An embedded-in antenna design is used.



## 4 List of Measuring Equipment

| Instrument                             | Brand Name        | Model No.                  | Serial No.                     | Characteristics                  | Calibration Date | Test Date                       | Due Date      | Remark                   |
|----------------------------------------|-------------------|----------------------------|--------------------------------|----------------------------------|------------------|---------------------------------|---------------|--------------------------|
| Loop Antenna                           | Rohde & Schwarz   | HFH2-Z2                    | 100488                         | 9kHz~30MHz                       | Sep. 12, 2023    | May 14, 2024~<br>Jul. 10, 2024  | Sep. 11, 2024 | Radiation<br>(03CH22-HY) |
| Bilog Antenna<br>with 6dB              | TESEQ &<br>WOKEN  | CBL 6111D &<br>00802N1D-06 | 63304 & 002                    | 30MHz~1GHz                       | Oct. 15, 2023    | May 14, 2024~<br>Jul. 10, 2024  | Oct. 14, 2024 | Radiation<br>(03CH22-HY) |
| Amplifier                              | SONOMA            | 310N                       | 421581                         | N/A                              | Jul. 15, 2023    | May 14, 2024~<br>Jul. 10, 2024  | Jul. 14, 2024 | Radiation<br>(03CH22-HY) |
| Double Ridged<br>Guide Horn<br>Antenna | RFSPIN            | DRH18-E                    | LE2C04A18EN                    | 1GHz~18GHz                       | Jul. 12, 2023    | May 14, 2024~<br>Jul. 10, 2024  | Jul. 11, 2024 | Radiation<br>(03CH22-HY) |
| SHF-EHF Horn<br>Antenna                | SCHWARZBE<br>CK   | BBHA 9170                  | 1224                           | 18GHz~40GHz                      | Jul. 10, 2023    | May 14, 2024~<br>Jun. 17, 2024  | Jul. 09, 2024 | Radiation<br>(03CH22-HY) |
| SHF-EHF Horn<br>Antenna                | SCHWARZBE<br>CK   | BBHA 9170                  | 1224                           | 18GHz~40GHz                      | Jun. 24, 2024    | Jun. 25, 2024~<br>Jul. 10, 2024 | Jun. 23, 2025 | Radiation<br>(03CH22-HY) |
| SHF-EHF Horn<br>Antenna                | SCHWARZBE<br>CK   | BBHA 9170                  | BBHA9170576                    | 18GHz~40GHz                      | May 18, 2024     | Jun. 17, 2024~<br>Jun. 25, 2024 | May 17, 2025  | Radiation<br>(03CH22-HY) |
| Amplifier                              | EMEC              | EM01G18GA                  | 060877                         | N/A                              | Sep. 28, 2023    | May 14, 2024~<br>Jul. 10, 2024  | Sep. 27, 2024 | Radiation<br>(03CH22-HY) |
| Preamplifier                           | EMEC              | EM18G40G                   | 060872                         | 18-40GHz                         | Sep. 06, 2023    | May 14, 2024~<br>Jul. 10, 2024  | Sep. 05, 2024 | Radiation<br>(03CH22-HY) |
| Signal<br>Analyzer                     | Keysight          | N9010B                     | MY62170278                     | 10Hz~44GHz                       | Aug. 31, 2023    | May 14, 2024~<br>Jul. 10, 2024  | Aug. 30, 2024 | Radiation<br>(03CH22-HY) |
| EMI Test<br>Receiver                   | Keysight          | N9038B                     | MY62210111                     | 20Hz~8.4GHz                      | Aug. 23, 2023    | May 14, 2024~<br>Jul. 10, 2024  | Aug. 22, 2024 | Radiation<br>(03CH22-HY) |
| Hygrometer                             | TECPEL            | DTM-303A                   | TP211469                       | N/A                              | Jan. 03, 2024    | May 14, 2024~<br>Jul. 10, 2024  | Jan. 02, 2025 | Radiation<br>(03CH22-HY) |
| Controller                             | EMEC              | EM1000                     | N/A                            | Control Turn<br>table & Ant Mast | N/A              | May 14, 2024~<br>Jul. 10, 2024  | N/A           | Radiation<br>(03CH22-HY) |
| Antenna Mast                           | ChainTek          | MBS-520-1                  | N/A                            | 1m~4m                            | N/A              | May 14, 2024~<br>Jul. 10, 2024  | N/A           | Radiation<br>(03CH22-HY) |
| Turn Table                             | ChainTek          | T-200-S-1                  | N/A                            | 0~360 Degree                     | N/A              | May 14, 2024~<br>Jul. 10, 2024  | N/A           | Radiation<br>(03CH22-HY) |
| Software                               | Audix             | E3<br>6.09824_2019<br>122  | RK-002347                      | N/A                              | N/A              | May 14, 2024~<br>Jul. 10, 2024  | N/A           | Radiation<br>(03CH22-HY) |
| RF Cable                               | HUBER +<br>SUHNER | SUCOFLEX<br>102            | 803951/2                       | 9kHz~30MHz                       | Mar. 06, 2024    | May 14, 2024~<br>Jul. 10, 2024  | Mar. 05, 2025 | Radiation<br>(03CH22-HY) |
| RF Cable                               | HUBER +<br>SUHNER | SUCOFLEX<br>102            | 804390/2,8046<br>11/2,804615/2 | N/A                              | Oct. 24, 2023    | May 14, 2024~<br>Jul. 10, 2024  | Oct. 23, 2024 | Radiation<br>(03CH22-HY) |





| Instrument          | Brand Name      | Model No.     | Serial No.                 | Characteristics | Calibration Date | Test Date                     | Due Date      | Remark               |
|---------------------|-----------------|---------------|----------------------------|-----------------|------------------|-------------------------------|---------------|----------------------|
| AC Power Source     | ACPOWER         | AFC-11003G    | F317040033                 | N/A             | N/A              | Jun. 26, 2024                 | N/A           | Conduction (CO07-HY) |
| Software            | Rohde & Schwarz | EMC32 V10.30  | N/A                        | N/A             | N/A              | Jun. 26, 2024                 | N/A           | Conduction (CO07-HY) |
| Pulse Limiter       | SCHWARZBECK     | VTSD 9561-F N | 9561-F N00373              | 9kHz~200MHz     | Oct. 20, 2023    | Jun. 26, 2024                 | Oct. 19, 2024 | Conduction (CO07-HY) |
| RF Cable            | HUBER + SUHNER  | RG 214/U      | 1358175                    | 9kHz~30MHz      | Mar. 14, 2024    | Jun. 26, 2024                 | Mar. 13, 2025 | Conduction (CO07-HY) |
| Two-Line V-Network  | TESEQ           | NNB 51        | 45051                      | N/A             | Mar. 10, 2024    | Jun. 26, 2024                 | Mar. 09, 2025 | Conduction (CO07-HY) |
| Four-Line V-Network | TESEQ           | NNB 52        | 36122                      | N/A             | Mar. 07, 2024    | Jun. 26, 2024                 | Mar. 06, 2025 | Conduction (CO07-HY) |
| EMI Test Receiver   | Rohde & Schwarz | ESR3          | 102317                     | 9kHz~3.6GHz     | Sep. 20, 2023    | Jun. 26, 2024                 | Sep. 19, 2024 | Conduction (CO07-HY) |
| Hygrometer          | TECPEL          | DTM-303A      | TP201996                   | N/A             | Nov. 07, 2023    | May 14, 2024~<br>May 20, 2024 | Nov. 06, 2024 | Conducted (TH05-HY)  |
| Power Sensor        | DARE            | RPR3006W      | 17I00015SNO<br>35 (NO:109) | 10MHz~6GHz      | Jan. 15, 2024    | May 14, 2024~<br>May 20, 2024 | Jan. 14, 2025 | Conducted (TH05-HY)  |
| Signal Analyzer     | Rohde & Schwarz | FSV40         | 101566                     | 10Hz~40GHz      | Aug. 23, 2023    | May 14, 2024~<br>May 20, 2024 | Aug. 22, 2024 | Conducted (TH05-HY)  |

## 5 Measurement Uncertainty

### Uncertainty of Conducted Emission Measurement (150 kHz ~ 30 MHz)

|                                                                            |         |
|----------------------------------------------------------------------------|---------|
| Measuring Uncertainty for a Level of Confidence<br>of 95% ( $U = 2Uc(y)$ ) | 3.44 dB |
|----------------------------------------------------------------------------|---------|

### Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

|                                                                            |         |
|----------------------------------------------------------------------------|---------|
| Measuring Uncertainty for a Level of Confidence<br>of 95% ( $U = 2Uc(y)$ ) | 6.50 dB |
|----------------------------------------------------------------------------|---------|

### Uncertainty of Radiated Emission Measurement (1000 MHz ~ 6000 MHz)

|                                                                            |         |
|----------------------------------------------------------------------------|---------|
| Measuring Uncertainty for a Level of Confidence<br>of 95% ( $U = 2Uc(y)$ ) | 4.50 dB |
|----------------------------------------------------------------------------|---------|

### Uncertainty of Radiated Emission Measurement (6000 MHz ~ 18000 MHz)

|                                                                            |         |
|----------------------------------------------------------------------------|---------|
| Measuring Uncertainty for a Level of Confidence<br>of 95% ( $U = 2Uc(y)$ ) | 4.50 dB |
|----------------------------------------------------------------------------|---------|

### Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)

|                                                                            |         |
|----------------------------------------------------------------------------|---------|
| Measuring Uncertainty for a Level of Confidence<br>of 95% ( $U = 2Uc(y)$ ) | 5.40 dB |
|----------------------------------------------------------------------------|---------|

**Appendix A. Test Result of Conducted Test Items**

|                |                       |                    |       |    |
|----------------|-----------------------|--------------------|-------|----|
| Test Engineer: | Sylvia Li             | Temperature:       | 21~25 | °C |
| Test Date:     | 2024/05/14~2024/05/20 | Relative Humidity: | 51~54 | %  |

&lt;Ant. 1&gt;

**TEST RESULTS DATA**  
**6dB and 99% Occupied Bandwidth**

| Mod. | Data Rate | NTX | CH. | Freq. (MHz) | 99% Occupied BW (MHz) | 6dB BW (MHz) | 6dB BW Limit (MHz) | Pass/Fail |
|------|-----------|-----|-----|-------------|-----------------------|--------------|--------------------|-----------|
| BLE  | 1Mbps     | 1   | 0   | 2402        | 1.017                 | 0.677        | 0.50               | Pass      |
| BLE  | 1Mbps     | 1   | 19  | 2440        | 1.019                 | 0.674        | 0.50               | Pass      |
| BLE  | 1Mbps     | 1   | 39  | 2480        | 1.019                 | 0.675        | 0.50               | Pass      |

**TEST RESULTS DATA**  
**Average Power Table**

| Mod. | Data Rate | NTX | CH. | Freq. (MHz) | Average Conducted Power (dBm) | Conducted Power Limit (dBm) | DG (dBi) | EIRP Power (dBm) | EIRP Power Limit (dBm) | Pass /Fail |
|------|-----------|-----|-----|-------------|-------------------------------|-----------------------------|----------|------------------|------------------------|------------|
| BLE  | 1Mbps     | 1   | 0   | 2402        | 4.80                          | 30.00                       | 2.81     | 7.61             | 36.00                  | Pass       |
| BLE  | 1Mbps     | 1   | 19  | 2440        | 4.50                          | 30.00                       | 2.81     | 7.31             | 36.00                  | Pass       |
| BLE  | 1Mbps     | 1   | 39  | 2480        | 4.60                          | 30.00                       | 2.81     | 7.41             | 36.00                  | Pass       |

**TEST RESULTS DATA**  
**Peak Power Density**

| Mod. | Data Rate | NTX | CH. | Freq. (MHz) | Peak PSD (dBm /100kHz) | Peak PSD (dBm /3kHz) | DG (dBi) | Peak PSD Limit (dBm /3kHz) | Pass/Fail |
|------|-----------|-----|-----|-------------|------------------------|----------------------|----------|----------------------------|-----------|
| BLE  | 1Mbps     | 1   | 0   | 2402        | 4.72                   | -9.55                | 2.81     | 8.00                       | Pass      |
| BLE  | 1Mbps     | 1   | 19  | 2440        | 4.16                   | -10.12               | 2.81     | 8.00                       | Pass      |
| BLE  | 1Mbps     | 1   | 39  | 2480        | 4.47                   | -9.81                | 2.81     | 8.00                       | Pass      |

Note: PSD (dBm/ 100kHz) is a reference level used for Conducted Band Edges and Conducted Spurious Emission 30dBc limit.

**TEST RESULTS DATA**  
**6dB and 99% Occupied Bandwidth**

| Mod. | Data Rate | NTX | CH. | Freq. (MHz) | 99% Occupied BW (MHz) | 6dB BW (MHz) | 6dB BW Limit (MHz) | Pass/Fail |
|------|-----------|-----|-----|-------------|-----------------------|--------------|--------------------|-----------|
| BLE  | 2Mbps     | 1   | 0   | 2402        | 1.998                 | 1.151        | 0.50               | Pass      |
| BLE  | 2Mbps     | 1   | 19  | 2440        | 1.998                 | 1.149        | 0.50               | Pass      |
| BLE  | 2Mbps     | 1   | 39  | 2480        | 1.998                 | 1.148        | 0.50               | Pass      |

**TEST RESULTS DATA**  
**Average Power Table**

| Mod. | Data Rate | NTX | CH. | Freq. (MHz) | Average Conducted Power (dBm) | Conducted Power Limit (dBm) | DG (dBi) | EIRP Power (dBm) | EIRP Power Limit (dBm) | Pass /Fail |
|------|-----------|-----|-----|-------------|-------------------------------|-----------------------------|----------|------------------|------------------------|------------|
| BLE  | 2Mbps     | 1   | 0   | 2402        | 5.00                          | 30.00                       | 2.81     | 7.81             | 36.00                  | Pass       |
| BLE  | 2Mbps     | 1   | 19  | 2440        | 4.50                          | 30.00                       | 2.81     | 7.31             | 36.00                  | Pass       |
| BLE  | 2Mbps     | 1   | 39  | 2480        | 4.60                          | 30.00                       | 2.81     | 7.41             | 36.00                  | Pass       |

**TEST RESULTS DATA**  
**Peak Power Density**

| Mod. | Data Rate | NTX | CH. | Freq. (MHz) | Peak PSD (dBm /100kHz) | Peak PSD (dBm /3kHz) | DG (dBi) | Peak PSD Limit (dBm /3kHz) | Pass/Fail |
|------|-----------|-----|-----|-------------|------------------------|----------------------|----------|----------------------------|-----------|
| BLE  | 2Mbps     | 1   | 0   | 2402        | 4.75                   | -12.47               | 2.81     | 8.00                       | Pass      |
| BLE  | 2Mbps     | 1   | 19  | 2440        | 4.17                   | -13.06               | 2.81     | 8.00                       | Pass      |
| BLE  | 2Mbps     | 1   | 39  | 2480        | 4.46                   | -12.76               | 2.81     | 8.00                       | Pass      |

Note: PSD (dBm/ 100kHz) is a reference level used for Conducted Band Edges and Conducted Spurious Emission 30dBc limit.

&lt;Ant. 2&gt;

**TEST RESULTS DATA**  
**6dB and 99% Occupied Bandwidth**

| Mod. | Data Rate | NTX | CH. | Freq. (MHz) | 99% Occupied BW (MHz) | 6dB BW (MHz) | 6dB BW Limit (MHz) | Pass/Fail |
|------|-----------|-----|-----|-------------|-----------------------|--------------|--------------------|-----------|
| BLE  | 1Mbps     | 1   | 0   | 2402        | 1.019                 | 0.675        | 0.50               | Pass      |
| BLE  | 1Mbps     | 1   | 19  | 2440        | 1.019                 | 0.673        | 0.50               | Pass      |
| BLE  | 1Mbps     | 1   | 39  | 2480        | 1.017                 | 0.667        | 0.50               | Pass      |

**TEST RESULTS DATA**  
**Average Power Table**

| Mod. | Data Rate | NTX | CH. | Freq. (MHz) | Average Conducted Power (dBm) | Conducted Power Limit (dBm) | DG (dBi) | EIRP Power (dBm) | EIRP Power Limit (dBm) | Pass /Fail |
|------|-----------|-----|-----|-------------|-------------------------------|-----------------------------|----------|------------------|------------------------|------------|
| BLE  | 1Mbps     | 1   | 0   | 2402        | 4.00                          | 30.00                       | 2.80     | 6.80             | 36.00                  | Pass       |
| BLE  | 1Mbps     | 1   | 19  | 2440        | 4.30                          | 30.00                       | 2.80     | 7.10             | 36.00                  | Pass       |
| BLE  | 1Mbps     | 1   | 39  | 2480        | 4.20                          | 30.00                       | 2.80     | 7.00             | 36.00                  | Pass       |

**TEST RESULTS DATA**  
**Peak Power Density**

| Mod. | Data Rate | NTX | CH. | Freq. (MHz) | Peak PSD (dBm /100kHz) | Peak PSD (dBm /3kHz) | DG (dBi) | Peak PSD Limit (dBm /3kHz) | Pass/Fail |
|------|-----------|-----|-----|-------------|------------------------|----------------------|----------|----------------------------|-----------|
| BLE  | 1Mbps     | 1   | 0   | 2402        | 3.17                   | -11.16               | 2.80     | 8.00                       | Pass      |
| BLE  | 1Mbps     | 1   | 19  | 2440        | 3.47                   | -10.87               | 2.80     | 8.00                       | Pass      |
| BLE  | 1Mbps     | 1   | 39  | 2480        | 3.07                   | -11.23               | 2.80     | 8.00                       | Pass      |

Note: PSD (dBm/ 100kHz) is a reference level used for Conducted Band Edges and Conducted Spurious Emission 30dBc limit.

**TEST RESULTS DATA**  
**6dB and 99% Occupied Bandwidth**

| Mod. | Data Rate | NTX | CH. | Freq. (MHz) | 99% Occupied BW (MHz) | 6dB BW (MHz) | 6dB BW Limit (MHz) | Pass/Fail |
|------|-----------|-----|-----|-------------|-----------------------|--------------|--------------------|-----------|
| BLE  | 2Mbps     | 1   | 0   | 2402        | 1.998                 | 1.146        | 0.50               | Pass      |
| BLE  | 2Mbps     | 1   | 19  | 2440        | 1.998                 | 1.148        | 0.50               | Pass      |
| BLE  | 2Mbps     | 1   | 39  | 2480        | 1.998                 | 1.147        | 0.50               | Pass      |

**TEST RESULTS DATA**  
**Average Power Table**

| Mod. | Data Rate | NTX | CH. | Freq. (MHz) | Average Conducted Power (dBm) | Conducted Power Limit (dBm) | DG (dBi) | EIRP Power (dBm) | EIRP Power Limit (dBm) | Pass /Fail |
|------|-----------|-----|-----|-------------|-------------------------------|-----------------------------|----------|------------------|------------------------|------------|
| BLE  | 2Mbps     | 1   | 0   | 2402        | 4.00                          | 30.00                       | 2.80     | 6.80             | 36.00                  | Pass       |
| BLE  | 2Mbps     | 1   | 19  | 2440        | 4.40                          | 30.00                       | 2.80     | 7.20             | 36.00                  | Pass       |
| BLE  | 2Mbps     | 1   | 39  | 2480        | 4.20                          | 30.00                       | 2.80     | 7.00             | 36.00                  | Pass       |

**TEST RESULTS DATA**  
**Peak Power Density**

| Mod. | Data Rate | NTX | CH. | Freq. (MHz) | Peak PSD (dBm /100kHz) | Peak PSD (dBm /3kHz) | DG (dBi) | Peak PSD Limit (dBm /3kHz) | Pass/Fail |
|------|-----------|-----|-----|-------------|------------------------|----------------------|----------|----------------------------|-----------|
| BLE  | 2Mbps     | 1   | 0   | 2402        | 3.15                   | -14.16               | 2.80     | 8.00                       | Pass      |
| BLE  | 2Mbps     | 1   | 19  | 2440        | 3.47                   | -13.81               | 2.80     | 8.00                       | Pass      |
| BLE  | 2Mbps     | 1   | 39  | 2480        | 3.07                   | -14.18               | 2.80     | 8.00                       | Pass      |

Note: PSD (dBm/ 100kHz) is a reference level used for Conducted Band Edges and Conducted Spurious Emission 30dBc limit.

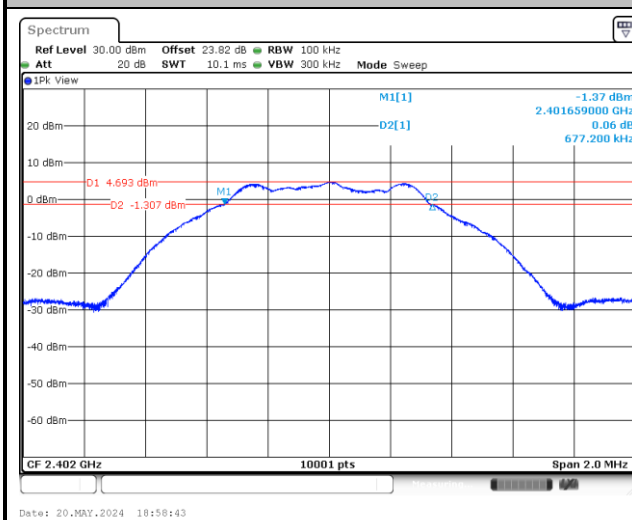


&lt;Ant. 1&gt;

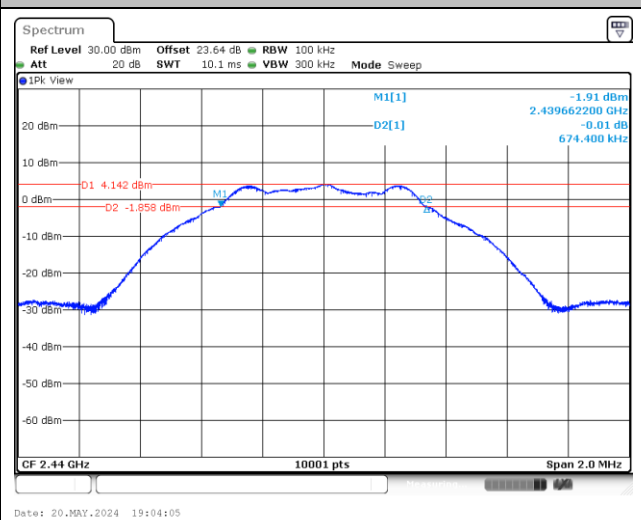
**6dB Bandwidth**

&lt;1Mbps&gt;

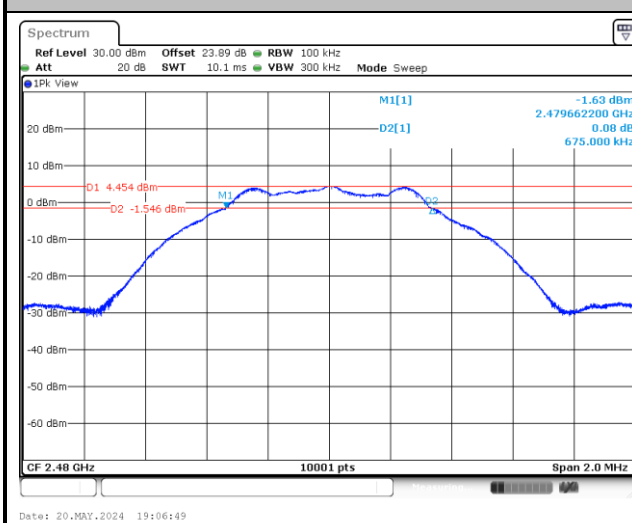
6 dB Bandwidth Plot on Channel 00

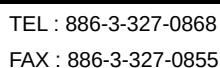


6 dB Bandwidth Plot on Channel 19



6 dB Bandwidth Plot on Channel 39





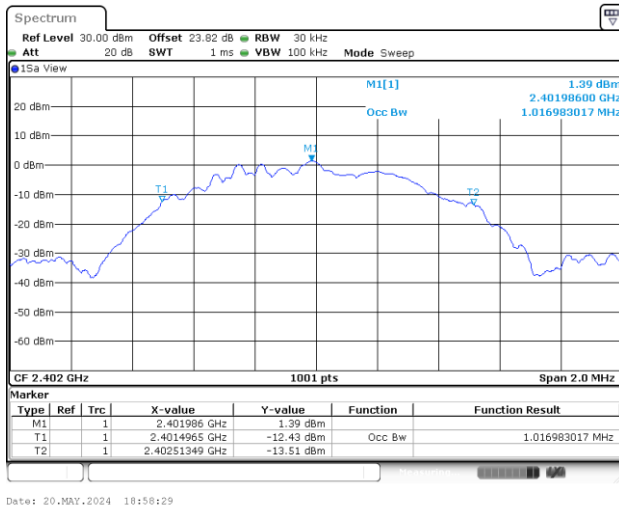




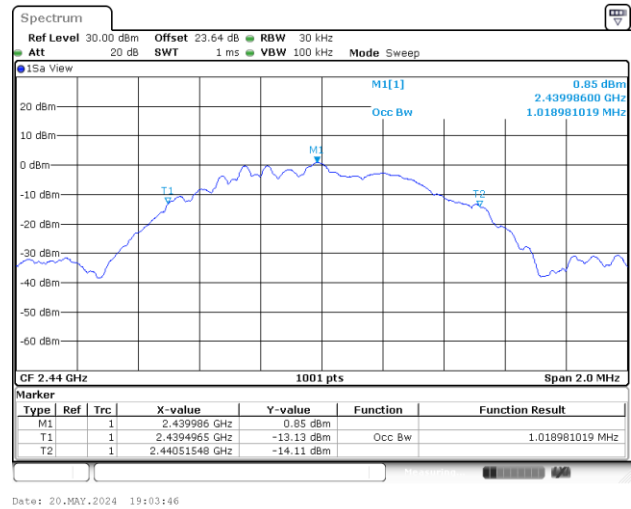
## 99% Occupied Bandwidth

&lt;1Mbps&gt;

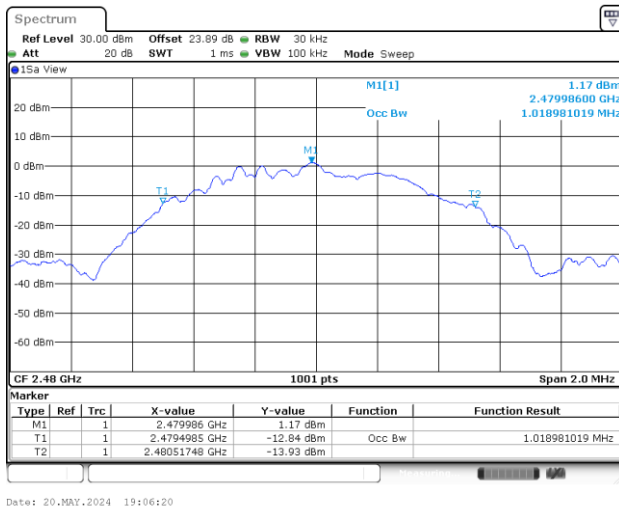
99% Occupied Bandwidth Plot on Channel 00



99% Occupied Bandwidth Plot on Channel 19



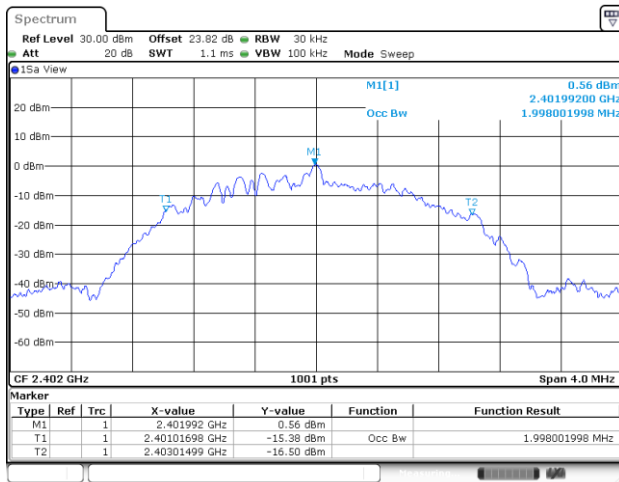
99% Occupied Bandwidth Plot on Channel 39



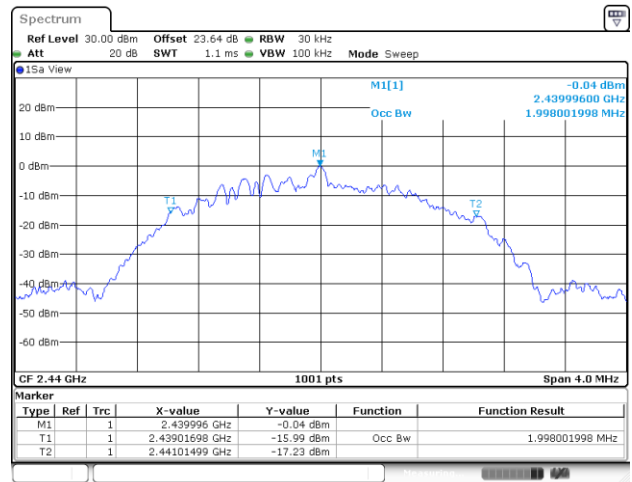


&lt;2Mbps&gt;

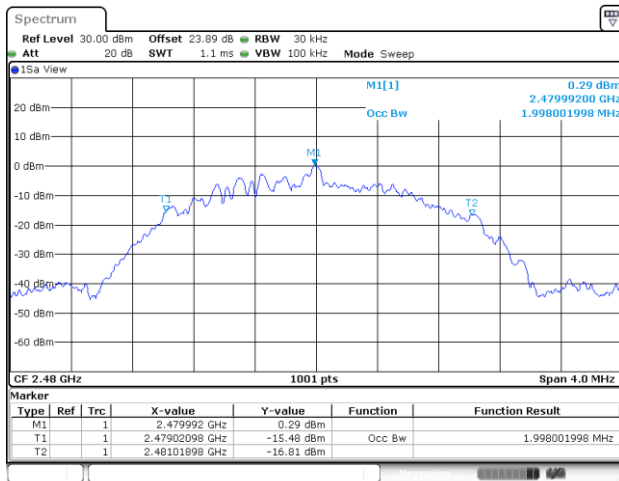
## 99% Occupied Bandwidth Plot on Channel 00



## 99% Occupied Bandwidth Plot on Channel 19



## 99% Occupied Bandwidth Plot on Channel 39

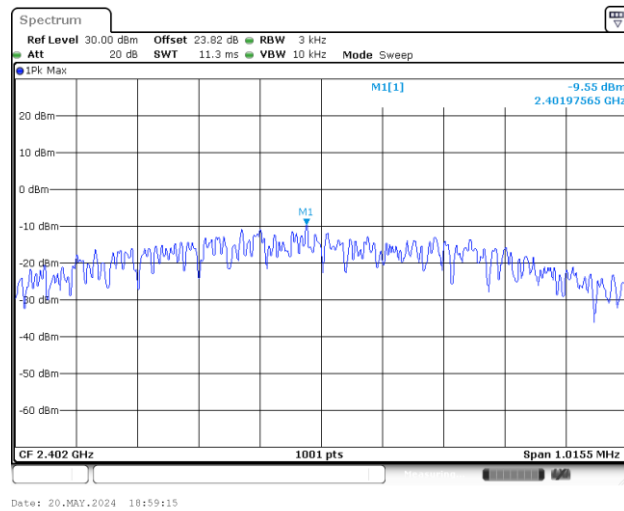




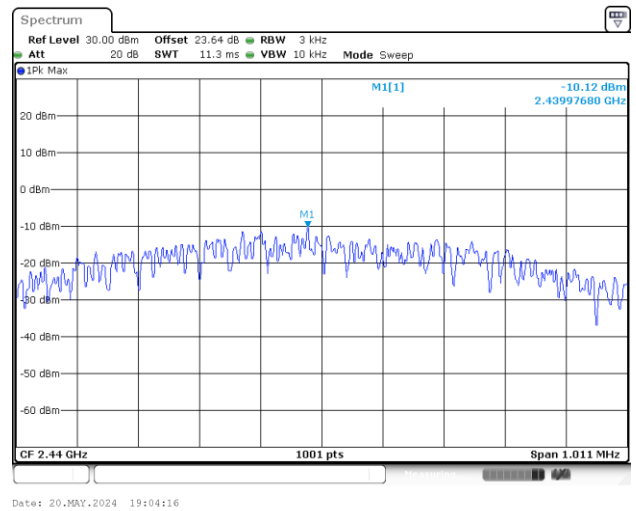
## Power Spectral Density (dBm/3kHz)

&lt;1Mbps&gt;

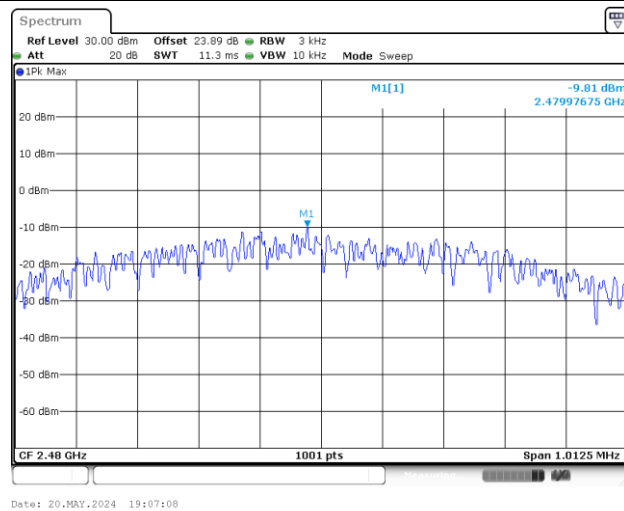
Power Density (dBm/3kHz) Plot Channel 00



Power Density (dBm/3kHz) Plot Channel 19



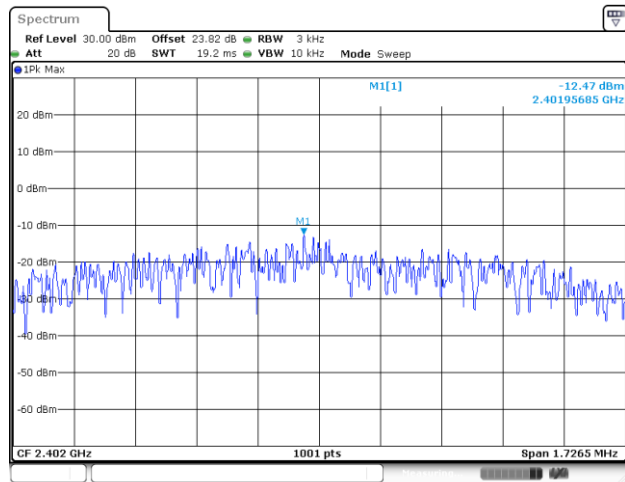
Power Density (dBm/3kHz) Plot Channel 39



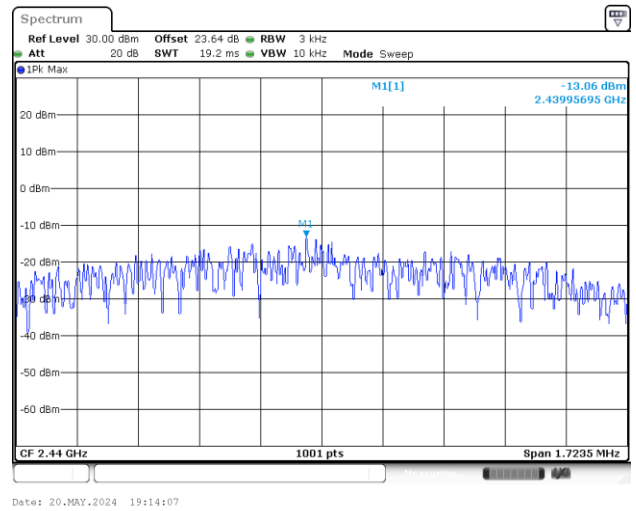


&lt;2Mbps&gt;

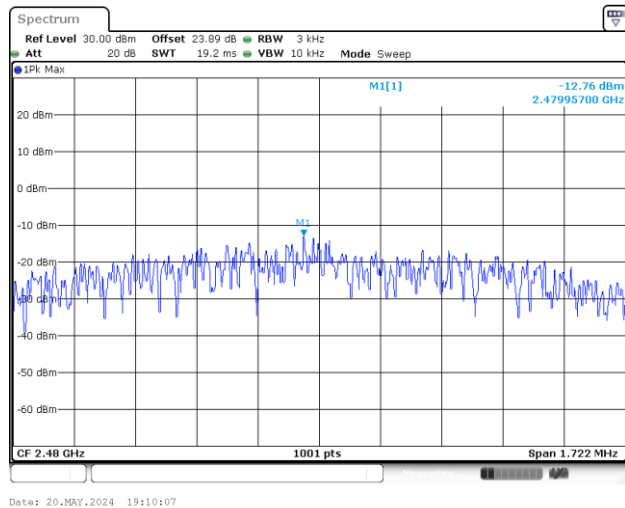
Power Density (dBm/3kHz) Plot Channel 00



Power Density (dBm/3kHz) Plot Channel 19



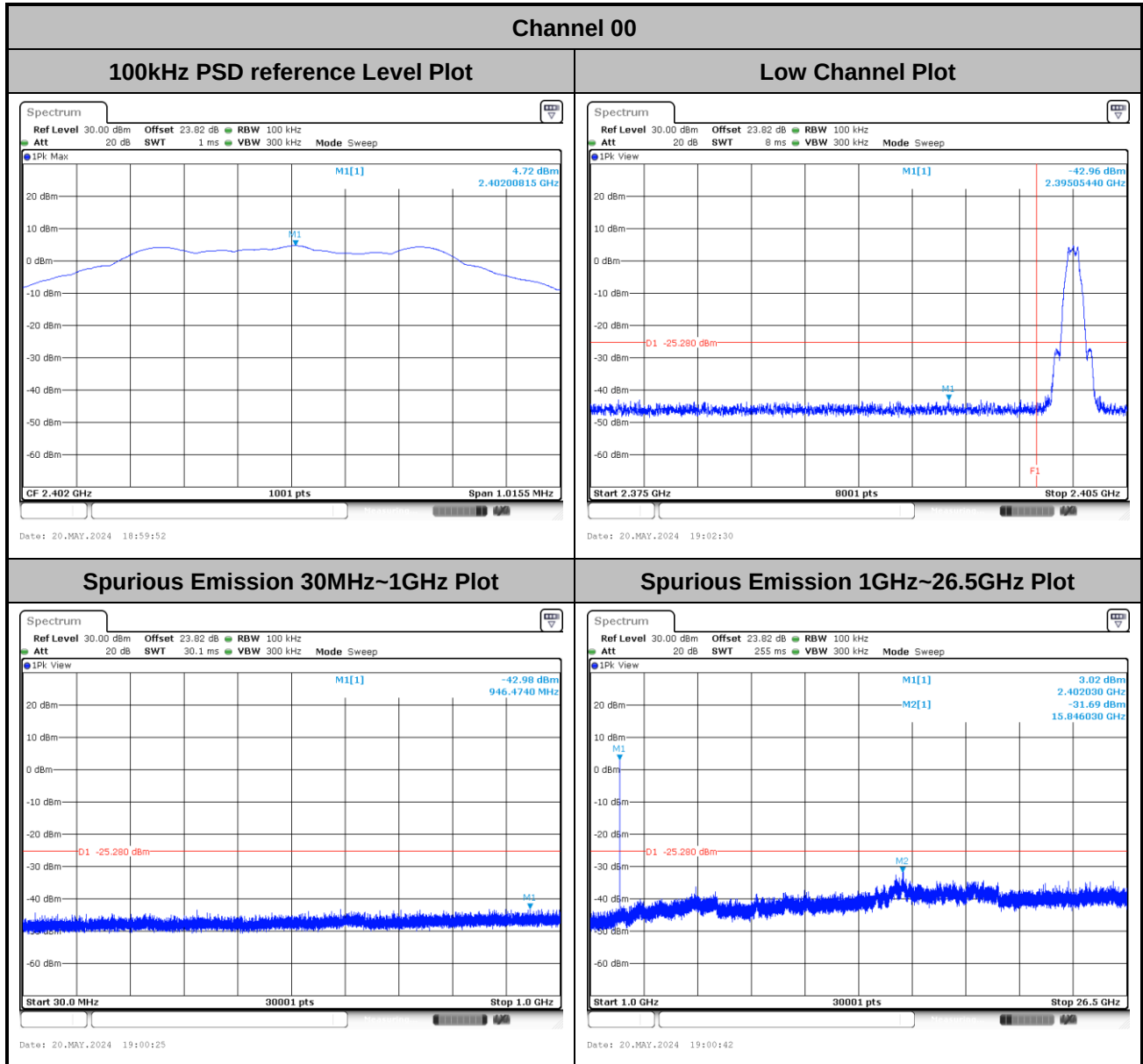
Power Density (dBm/3kHz) Plot Channel 39





## Band Edge and Conducted Spurious Emission

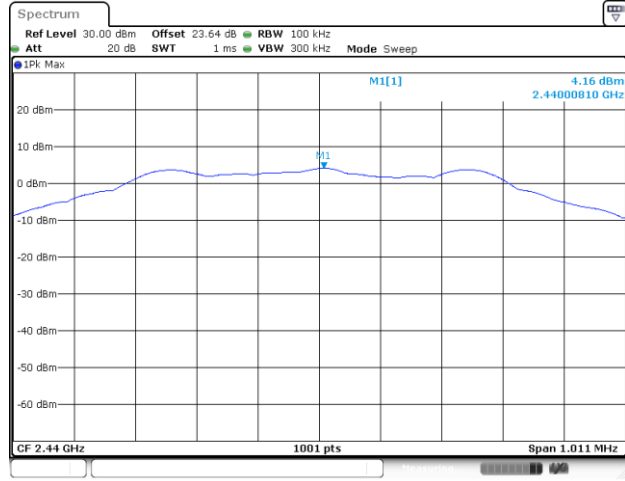
&lt;1Mbps&gt;





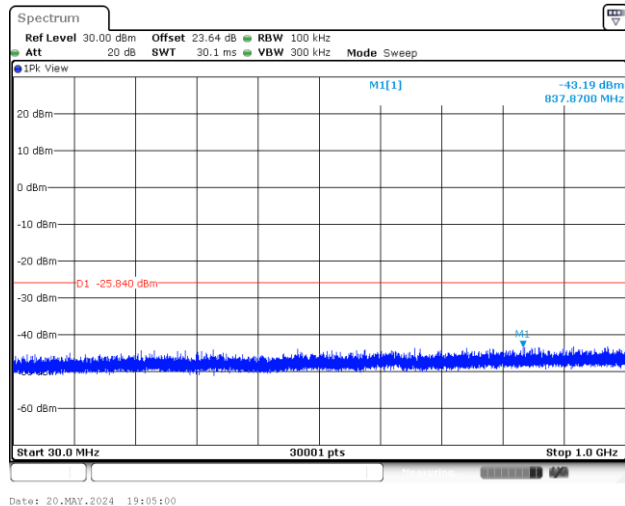
## Channel 19

## 100kHz PSD reference Level Plot

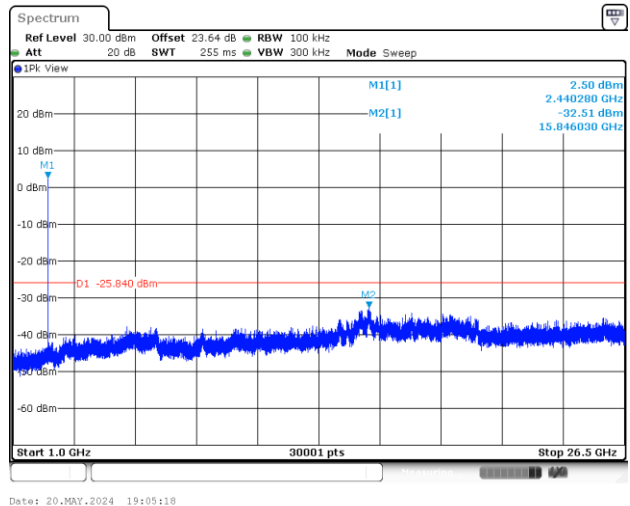


## Mid Channel Plot

## Spurious Emission 30MHz~1GHz Plot



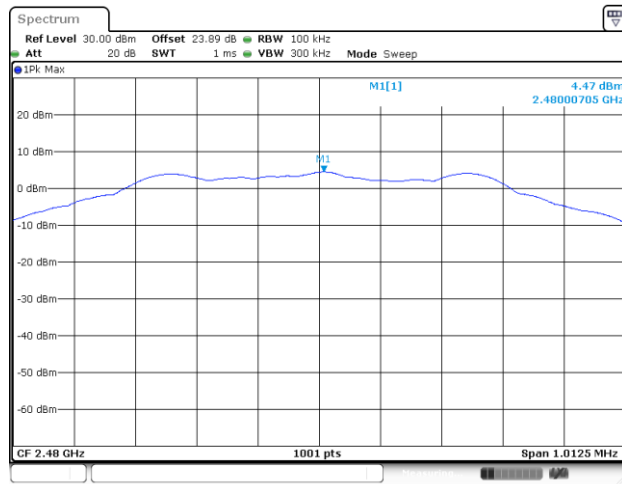
## Spurious Emission 1GHz~26.5GHz Plot



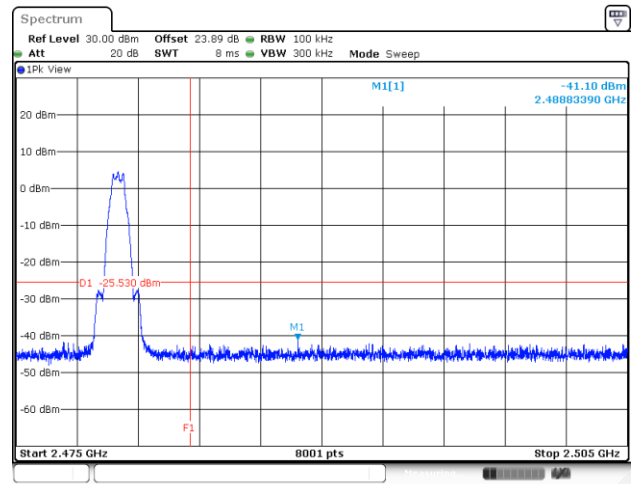


## Channel 39

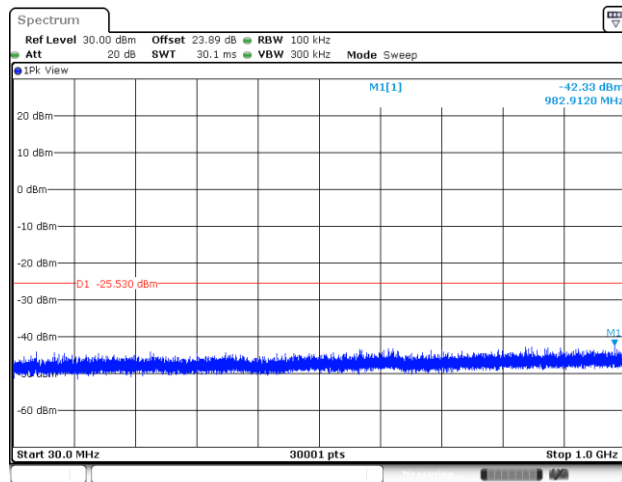
## 100kHz PSD reference Level Plot



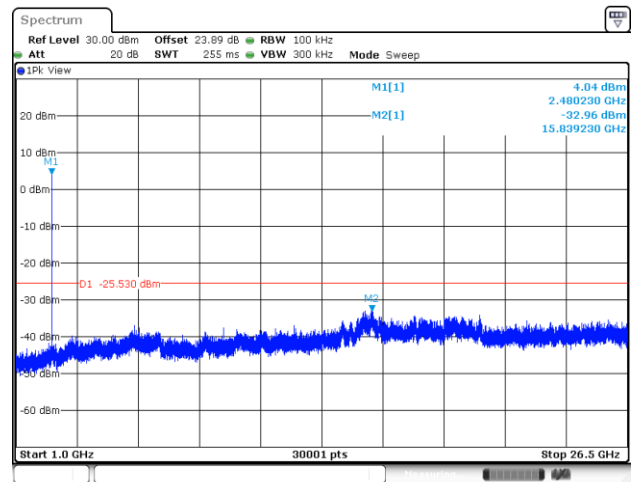
## High Channel Plot



## Spurious Emission 30MHz~1GHz Plot

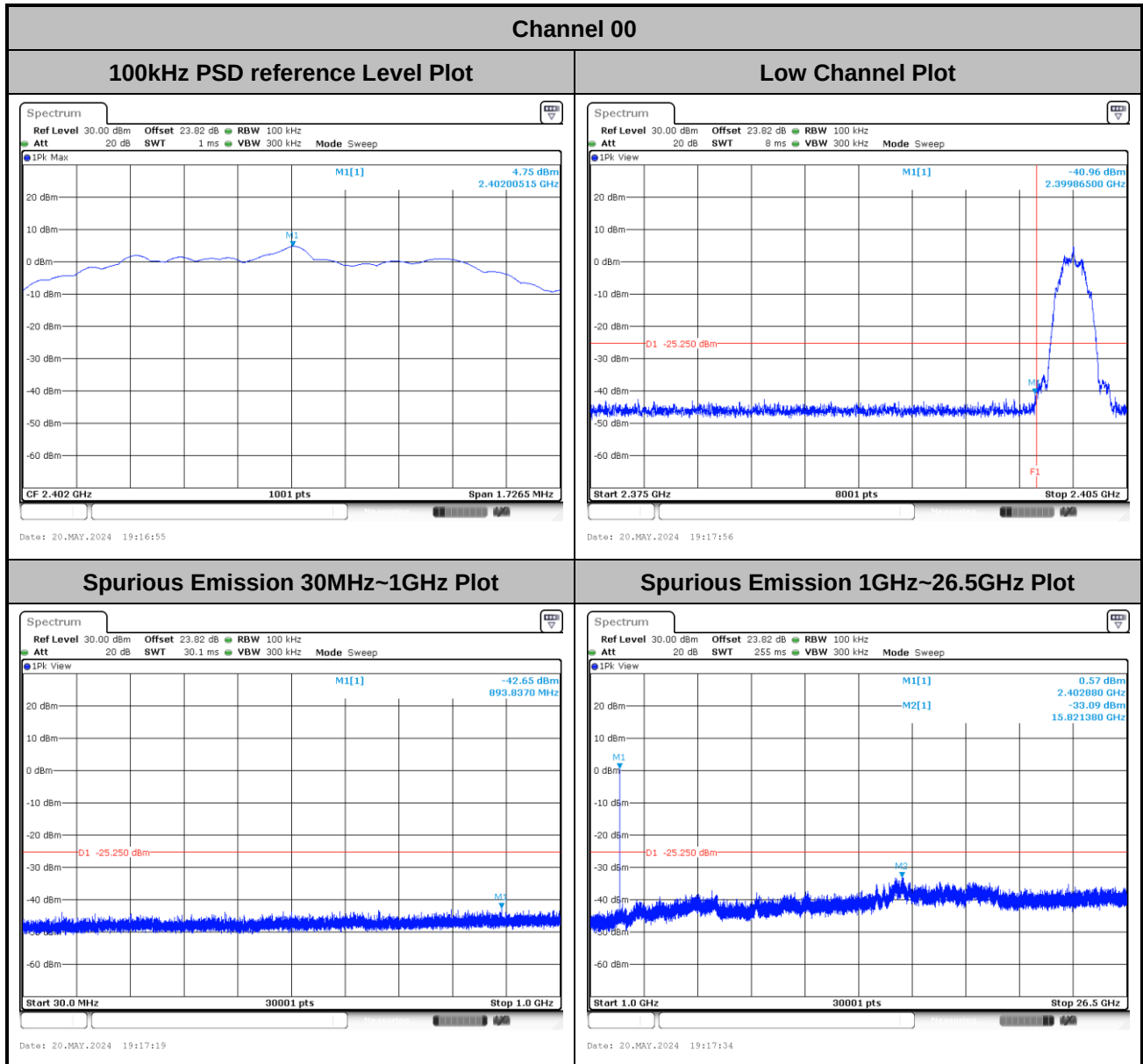


## Spurious Emission 1GHz~26.5GHz Plot





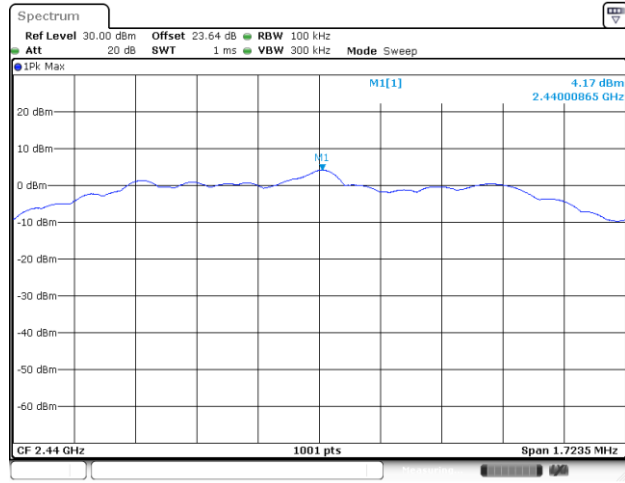
&lt;2Mbps&gt;





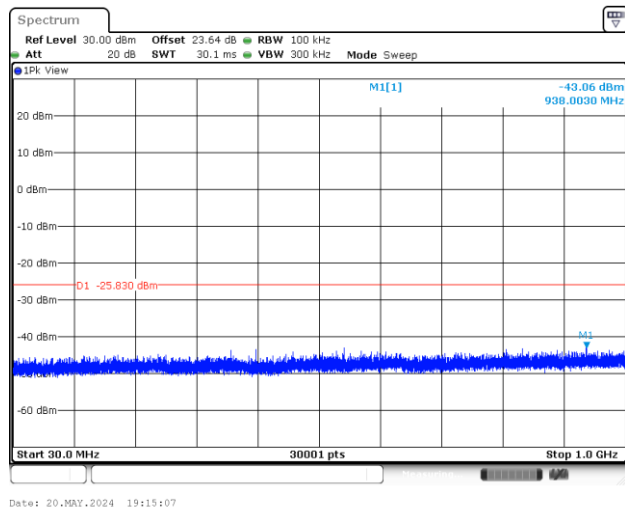
## Channel 19

### 100kHz PSD reference Level Plot

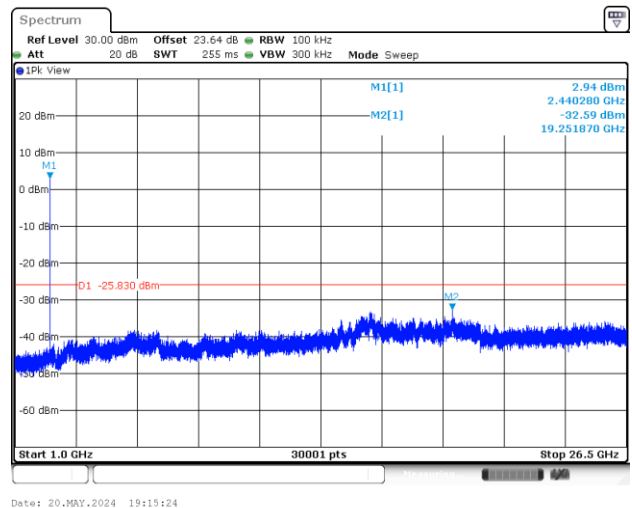


### Mid Channel Plot

### Spurious Emission 30MHz~1GHz Plot



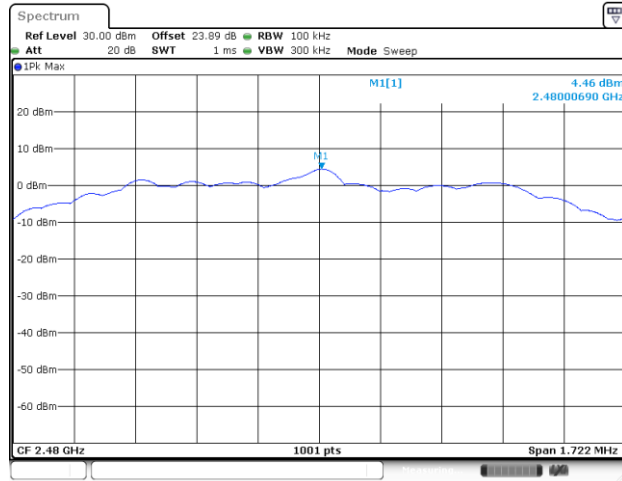
### Spurious Emission 1GHz~26.5GHz Plot



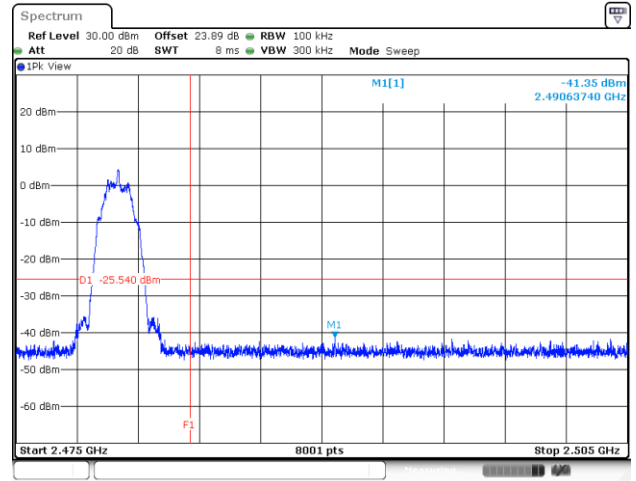


## Channel 39

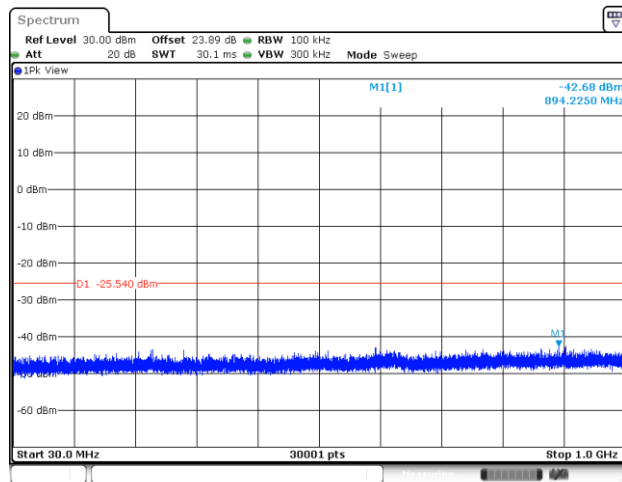
## 100kHz PSD reference Level Plot



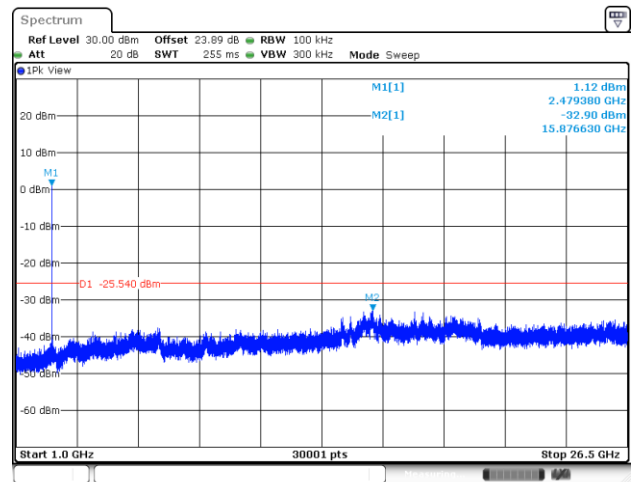
## High Channel Plot



## Spurious Emission 30MHz~1GHz Plot



## Spurious Emission 1GHz~26.5GHz Plot

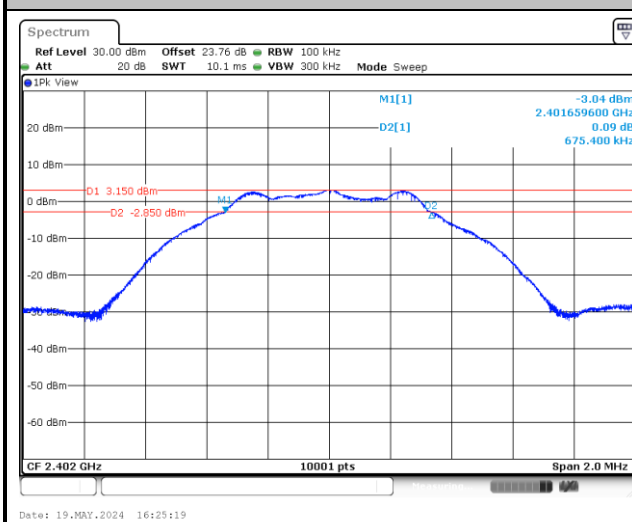
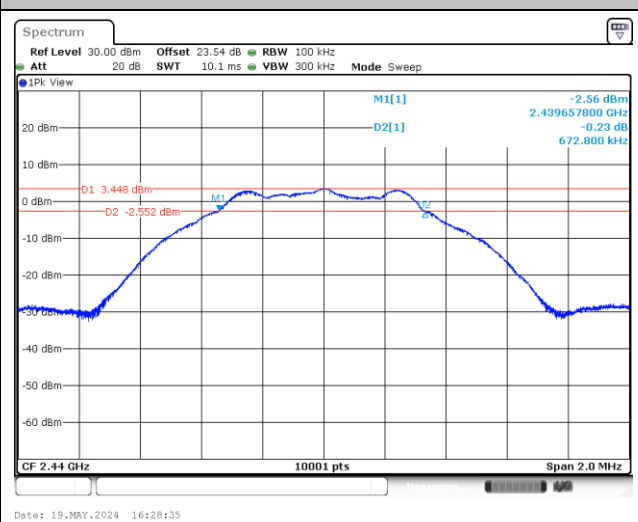
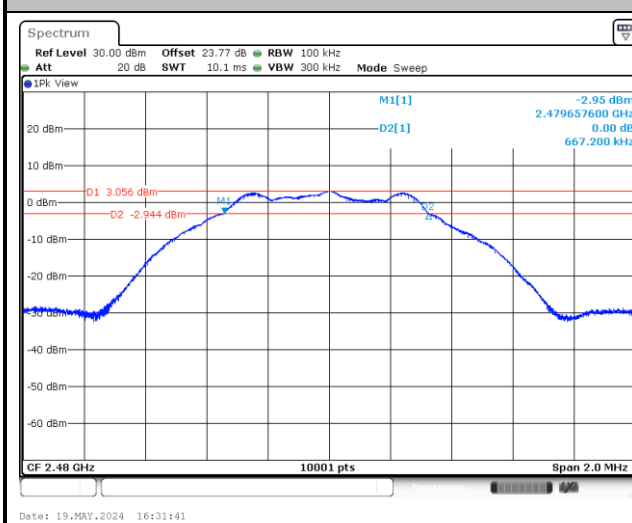




&lt;Ant. 2&gt;

**6dB Bandwidth**

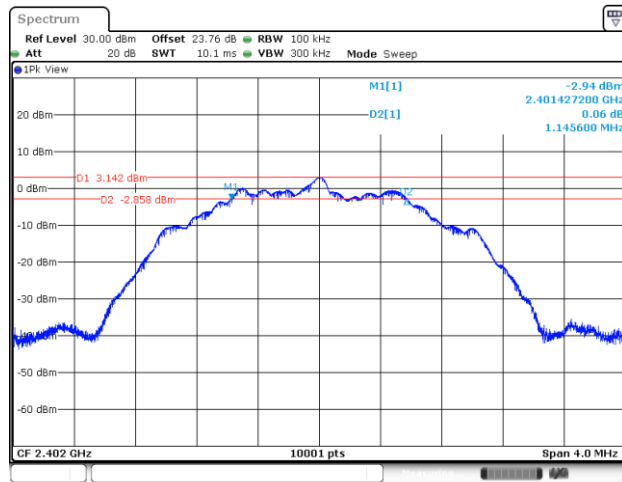
&lt;1Mbps&gt;

**6 dB Bandwidth Plot on Channel 00****6 dB Bandwidth Plot on Channel 19****6 dB Bandwidth Plot on Channel 39**

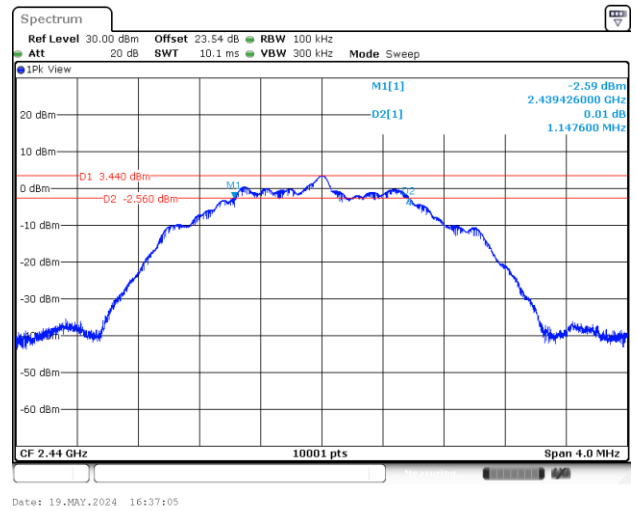


&lt;2Mbps&gt;

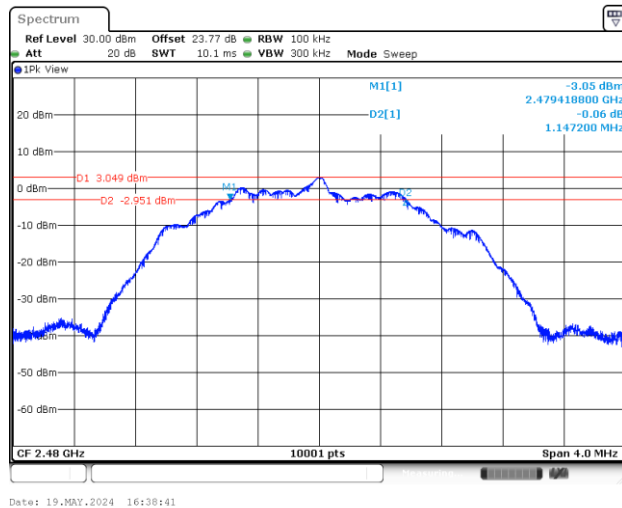
6 dB Bandwidth Plot on Channel 00



6 dB Bandwidth Plot on Channel 19

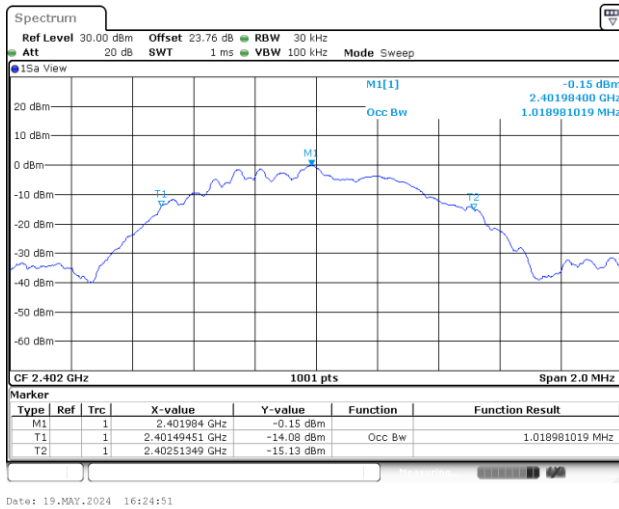
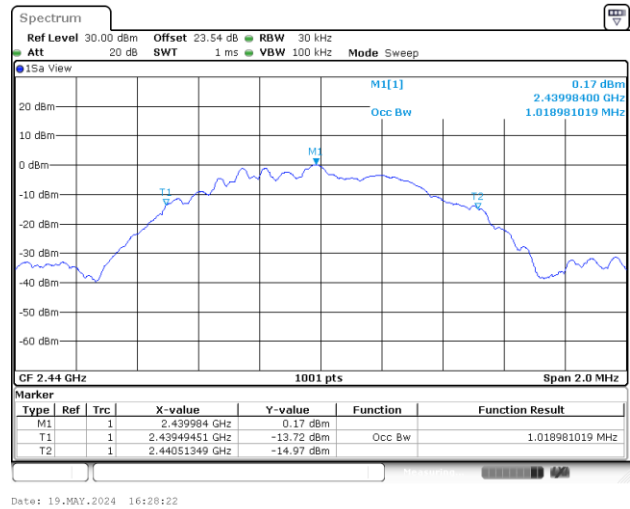
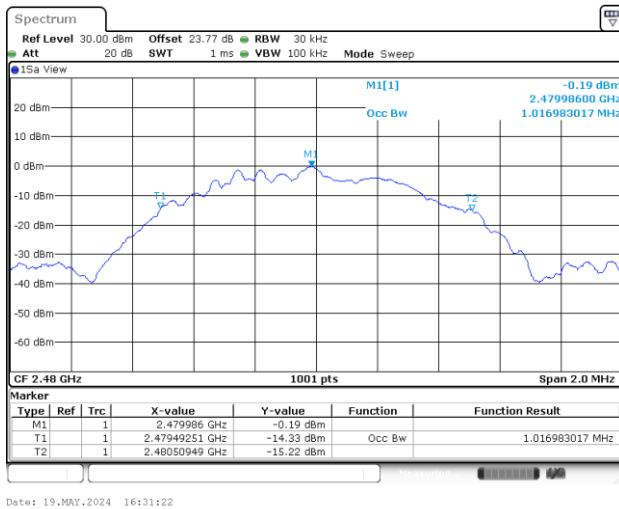


6 dB Bandwidth Plot on Channel 39



**99% Occupied Bandwidth**

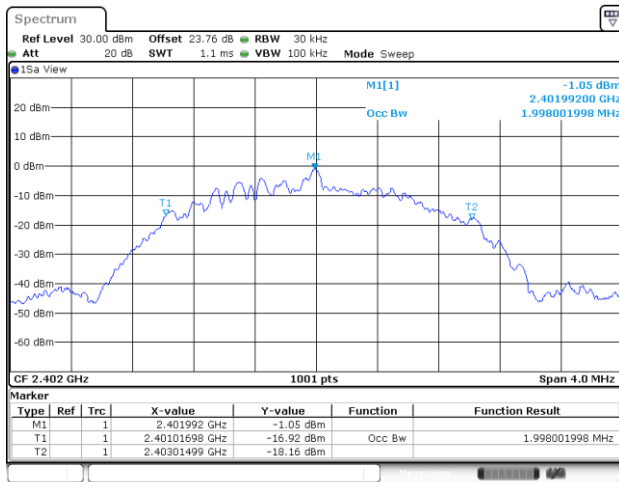
&lt;1Mbps&gt;

**99% Occupied Bandwidth Plot on Channel 00****99% Occupied Bandwidth Plot on Channel 19****99% Occupied Bandwidth Plot on Channel 39**

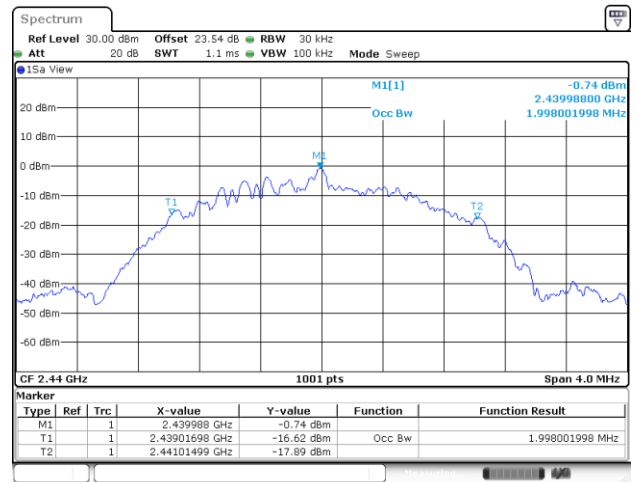


&lt;2Mbps&gt;

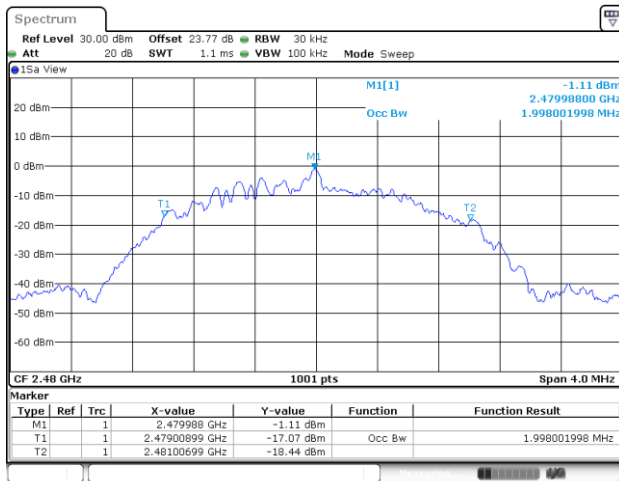
## 99% Occupied Bandwidth Plot on Channel 00



## 99% Occupied Bandwidth Plot on Channel 19

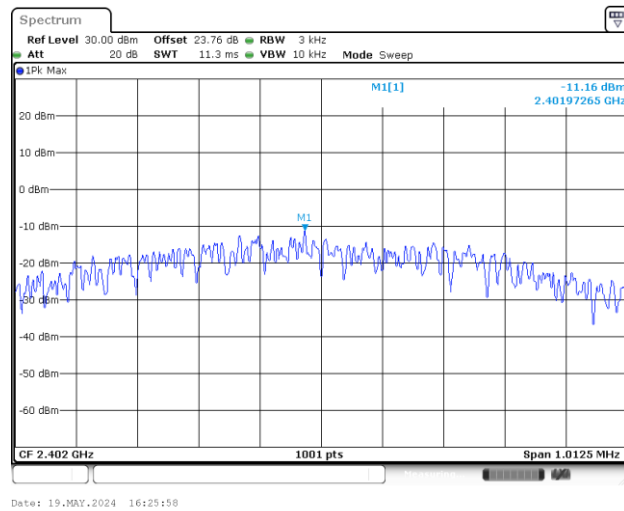
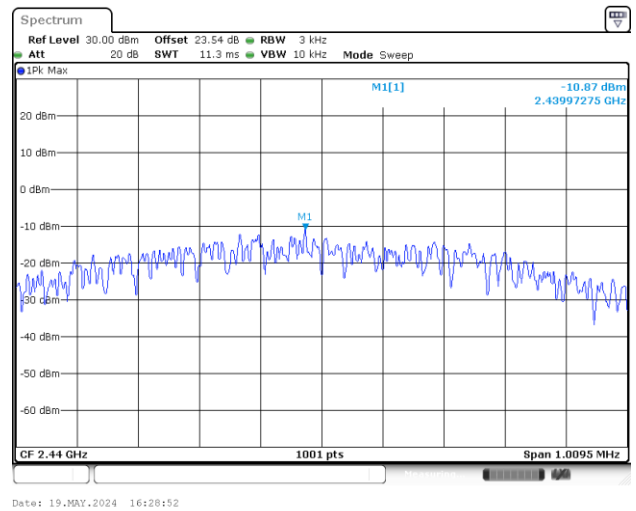
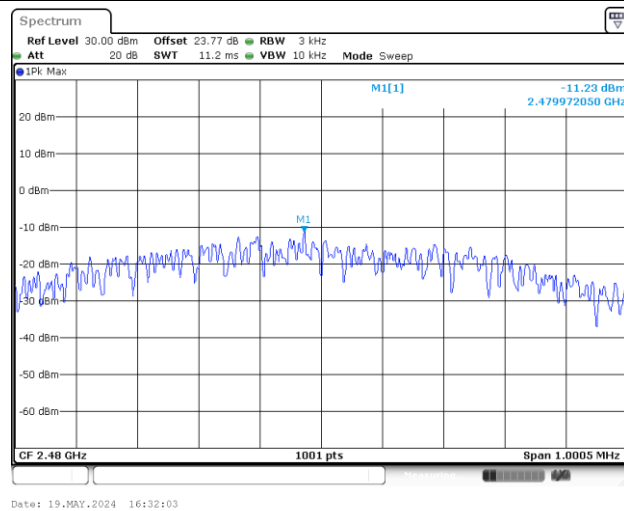


## 99% Occupied Bandwidth Plot on Channel 39



**Power Spectral Density (dBm/3kHz)**

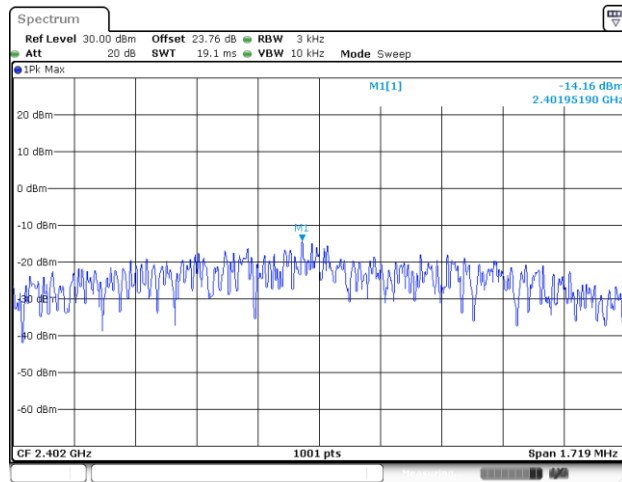
&lt;1Mbps&gt;

**Power Density (dBm/3kHz) Plot Channel 00****Power Density (dBm/3kHz) Plot Channel 19****Power Density (dBm/3kHz) Plot Channel 39**

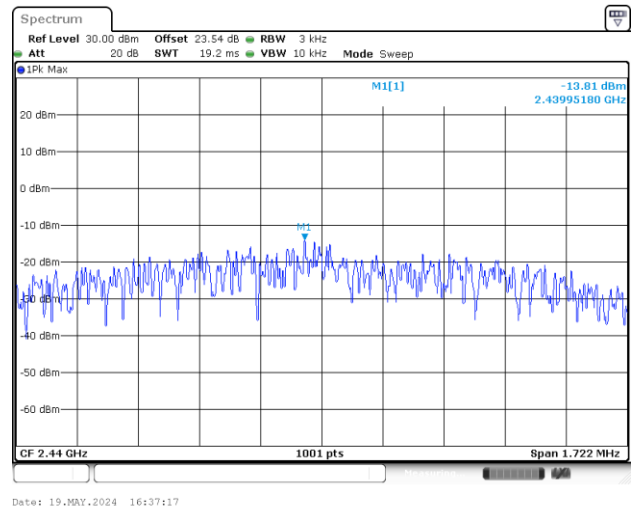


&lt;2Mbps&gt;

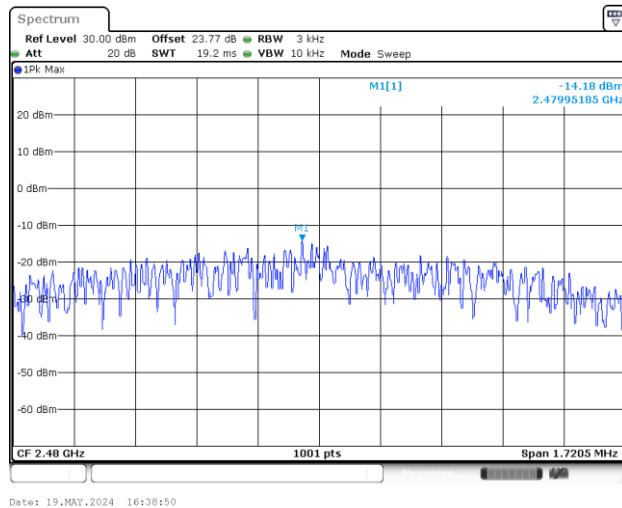
Power Density (dBm/3kHz) Plot Channel 00



Power Density (dBm/3kHz) Plot Channel 19



Power Density (dBm/3kHz) Plot Channel 39

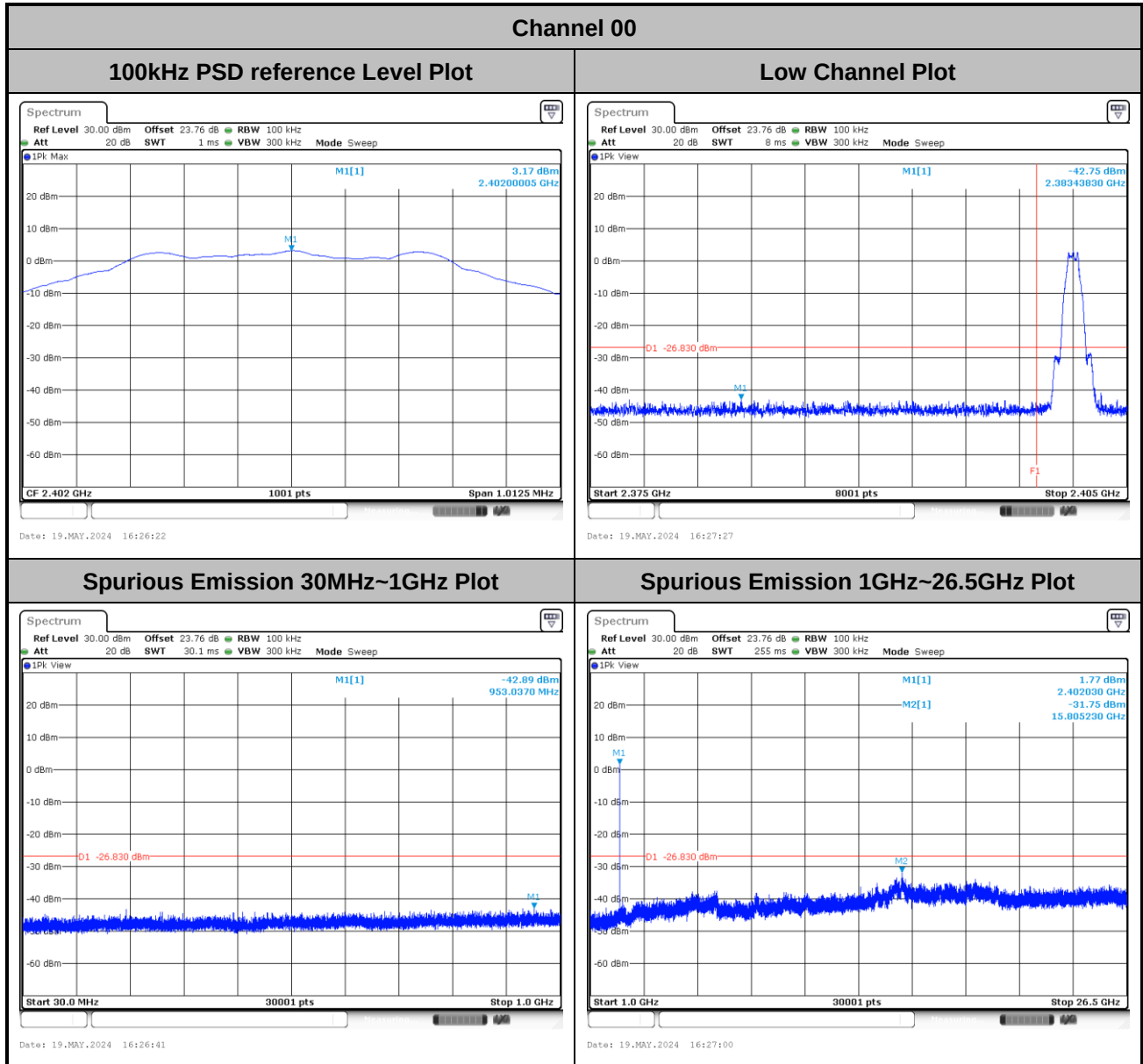






## Band Edge and Conducted Spurious Emission

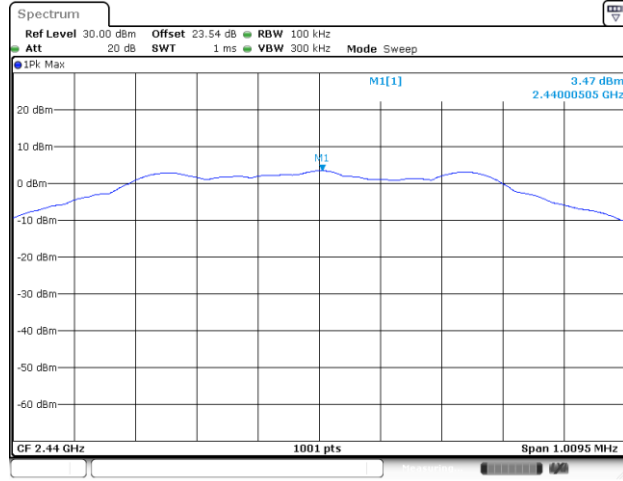
&lt;1Mbps&gt;





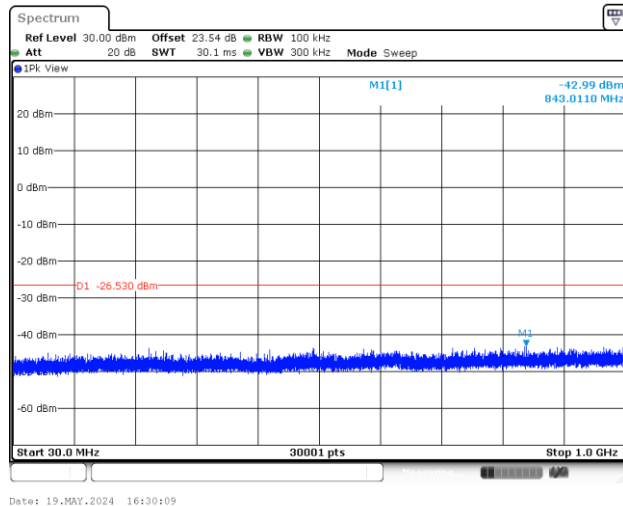
## Channel 19

## 100kHz PSD reference Level Plot

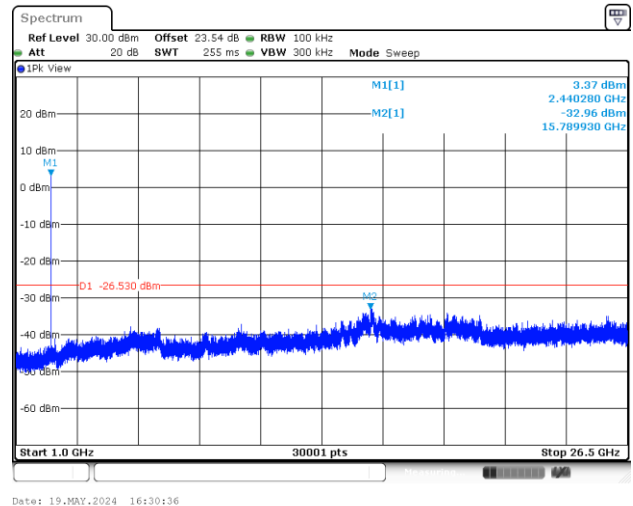


## Mid Channel Plot

## Spurious Emission 30MHz~1GHz Plot



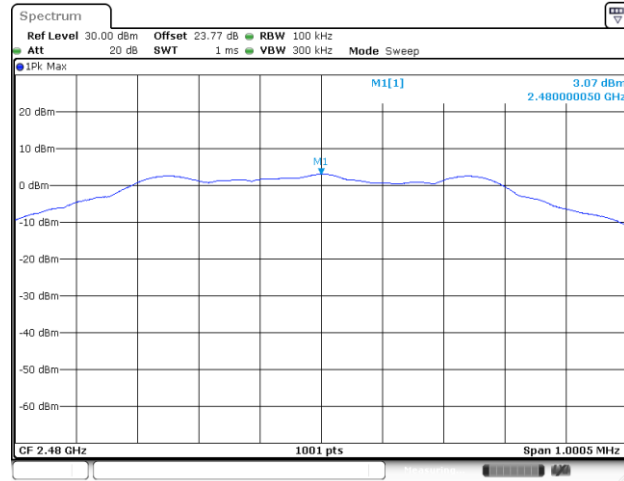
## Spurious Emission 1GHz~26.5GHz Plot



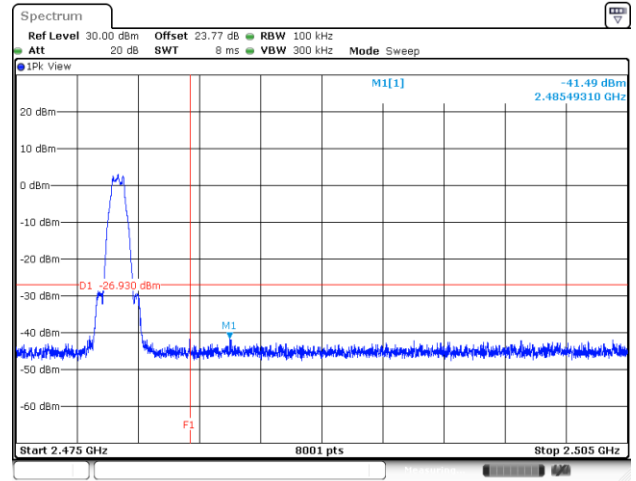


## Channel 39

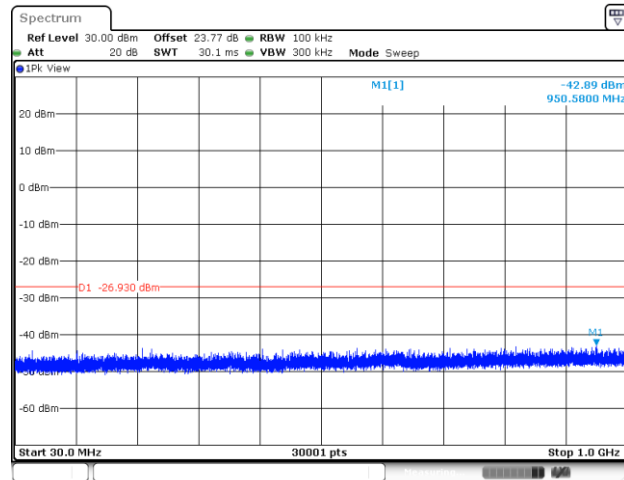
## 100kHz PSD reference Level Plot



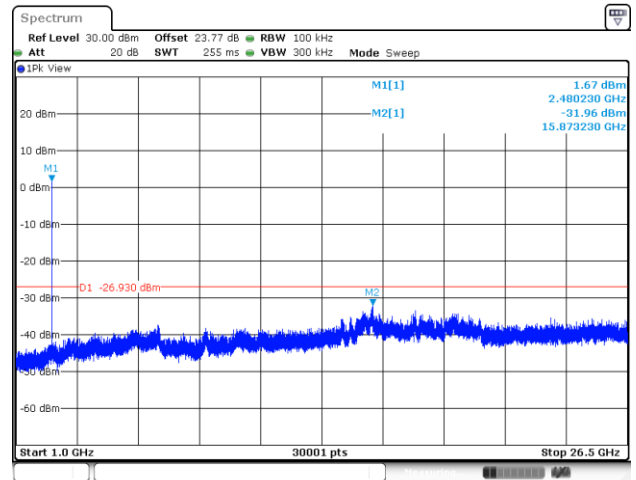
## High Channel Plot



## Spurious Emission 30MHz~1GHz Plot

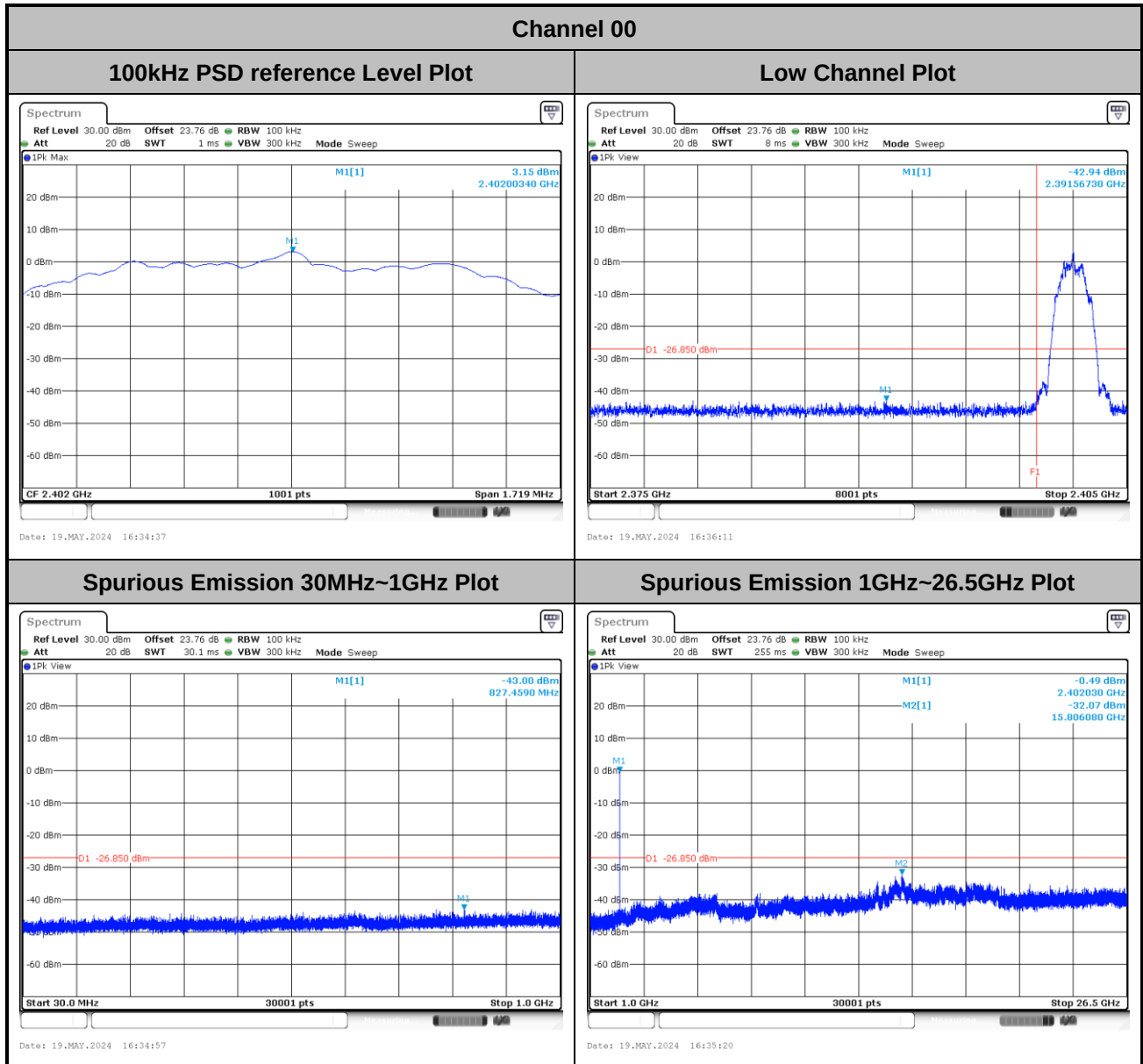


## Spurious Emission 1GHz~26.5GHz Plot





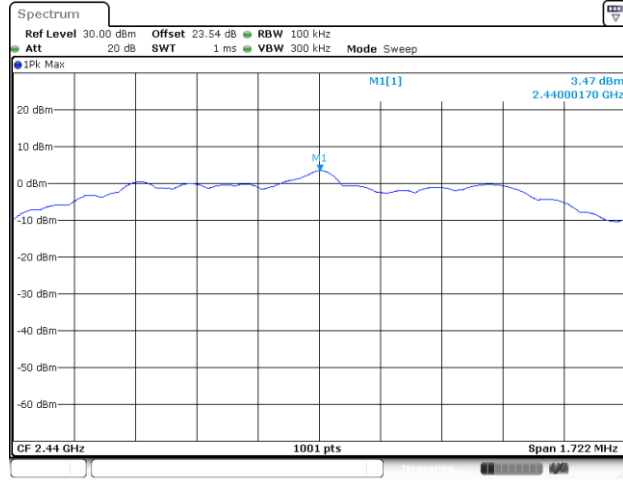
&lt;2M&gt;





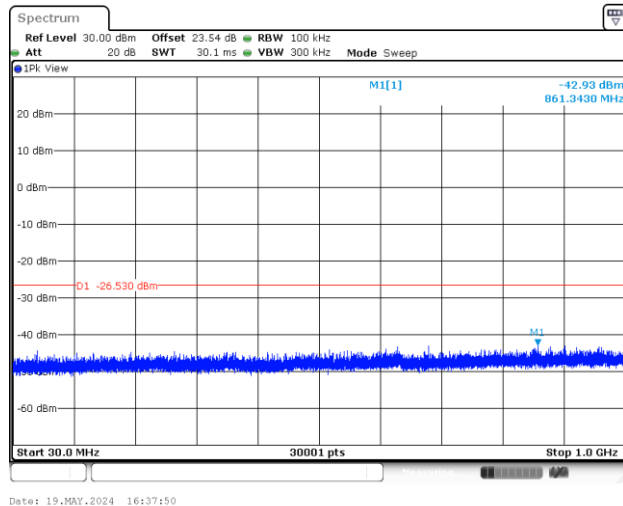
## Channel 19

## 100kHz PSD reference Level Plot

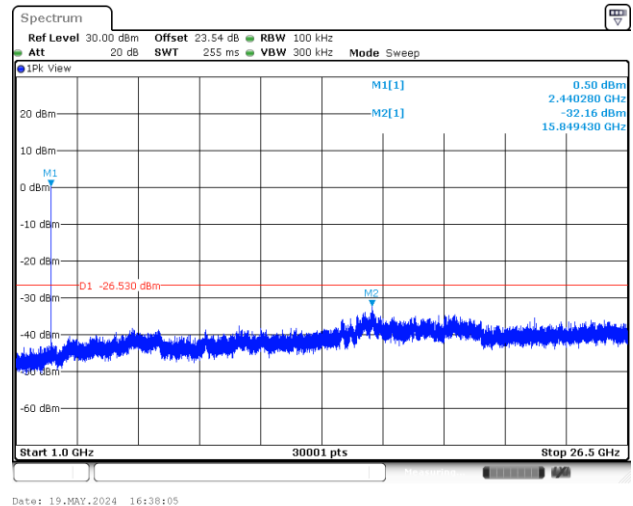


## Mid Channel Plot

## Spurious Emission 30MHz~1GHz Plot



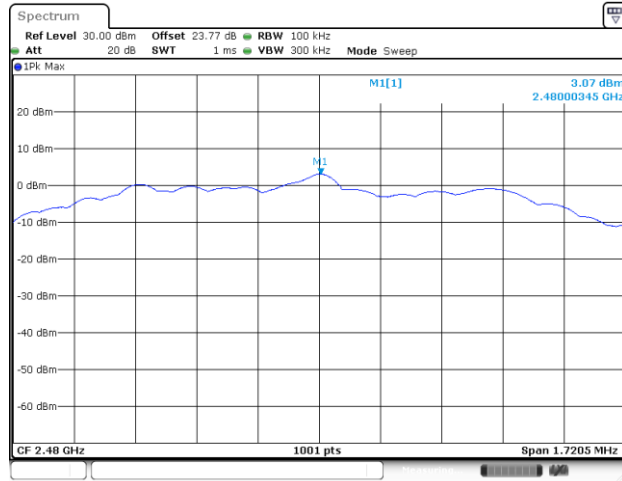
## Spurious Emission 1GHz~26.5GHz Plot



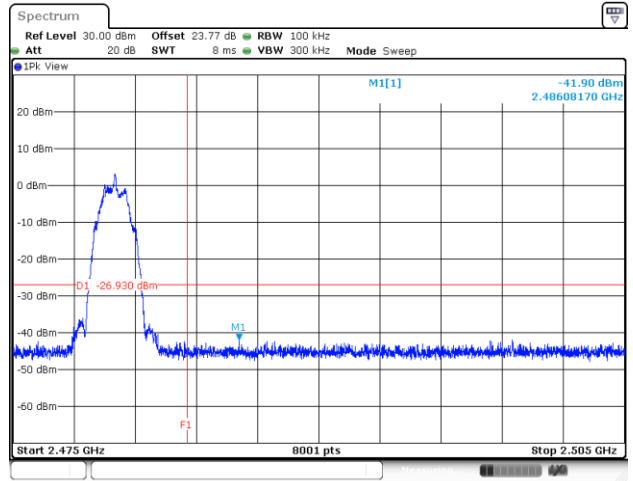


## Channel 39

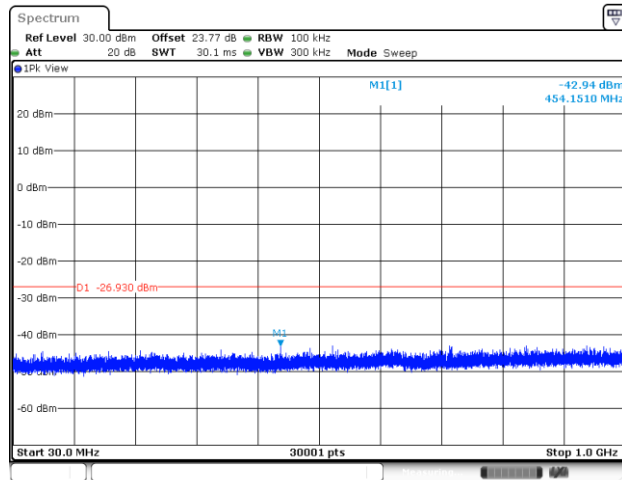
## 100kHz PSD reference Level Plot



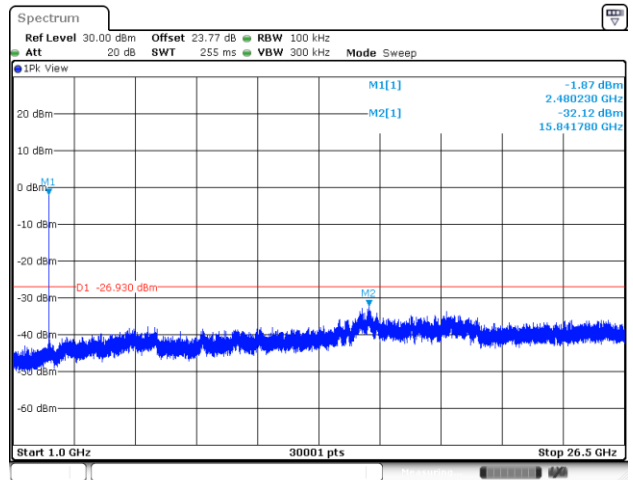
## High Channel Plot



## Spurious Emission 30MHz~1GHz Plot



## Spurious Emission 1GHz~26.5GHz Plot





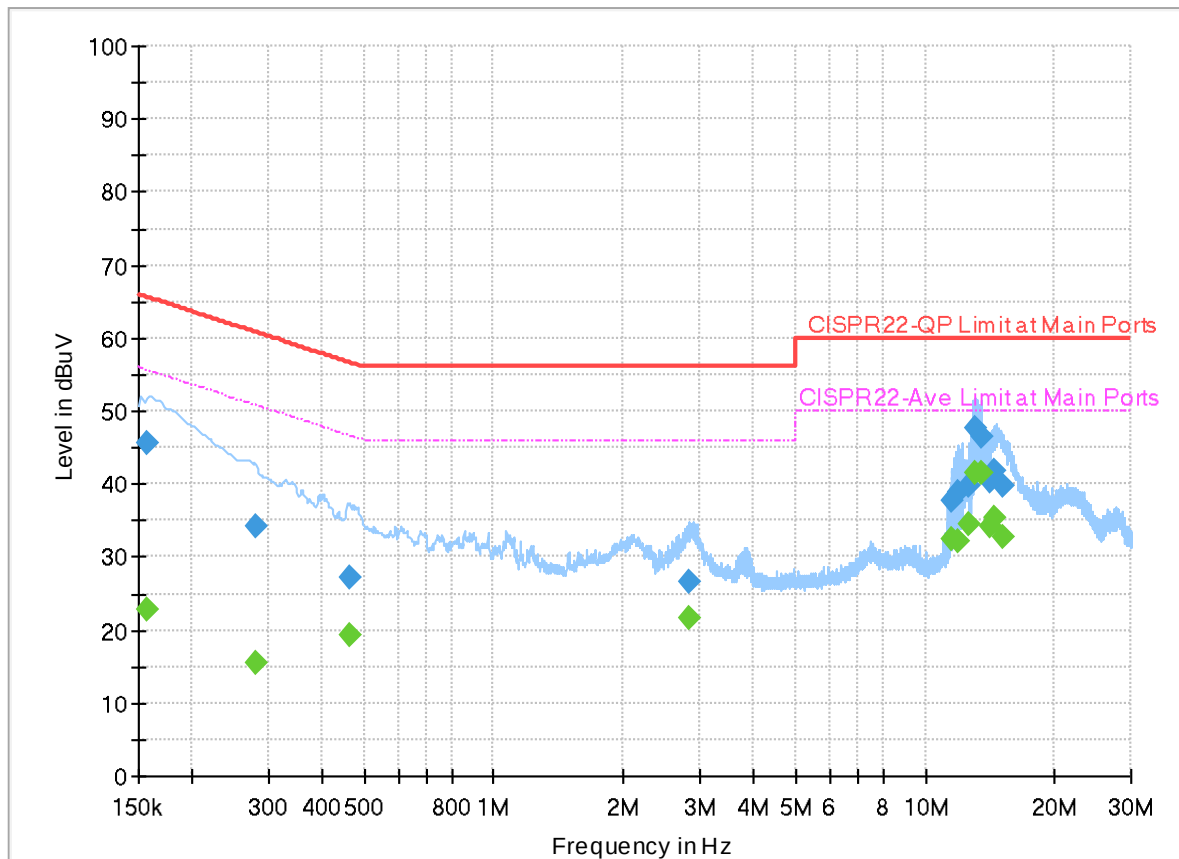
## Appendix B. AC Conducted Emission Test Results

|                 |             |                     |             |
|-----------------|-------------|---------------------|-------------|
| Test Engineer : | Louis Chung | Temperature :       | 22.3~24.7°C |
|                 |             | Relative Humidity : | 40.4~48.9%  |

## EUT Information

Report NO : 450112  
Test Mode : Mode 1  
Test Voltage : 120Vac/60Hz  
Phase : Line

Full Spectrum



## Final\_Result

| Frequency (MHz) | QuasiPeak (dBuV) | CAverage (dBuV) | Limit (dBuV) | Margin (dB) | Line | Filter | Corr. (dB) |
|-----------------|------------------|-----------------|--------------|-------------|------|--------|------------|
| 0.156750        | ---              | 22.86           | 55.63        | 32.77       | L1   | OFF    | 19.9       |
| 0.156750        | 45.74            | ---             | 65.63        | 19.89       | L1   | OFF    | 19.9       |
| 0.280770        | ---              | 15.55           | 50.79        | 35.24       | L1   | OFF    | 19.9       |
| 0.280770        | 34.26            | ---             | 60.79        | 26.53       | L1   | OFF    | 19.9       |
| 0.462840        | ---              | 19.18           | 46.64        | 27.46       | L1   | OFF    | 19.9       |
| 0.462840        | 27.05            | ---             | 56.64        | 29.59       | L1   | OFF    | 19.9       |
| 2.835150        | ---              | 21.54           | 46.00        | 24.46       | L1   | OFF    | 20.0       |
| 2.835150        | 26.52            | ---             | 56.00        | 29.48       | L1   | OFF    | 20.0       |
| 11.564070       | ---              | 32.34           | 50.00        | 17.66       | L1   | OFF    | 20.1       |
| 11.564070       | 37.63            | ---             | 60.00        | 22.37       | L1   | OFF    | 20.1       |
| 11.936670       | ---              | 32.07           | 50.00        | 17.93       | L1   | OFF    | 20.1       |
| 11.936670       | 38.96            | ---             | 60.00        | 21.04       | L1   | OFF    | 20.1       |
| 12.659730       | ---              | 34.51           | 50.00        | 15.49       | L1   | OFF    | 20.1       |
| 12.659730       | 39.76            | ---             | 60.00        | 20.24       | L1   | OFF    | 20.1       |
| 13.059870       | ---              | 41.41           | 50.00        | 8.59        | L1   | OFF    | 20.1       |
| 13.059870       | 47.53            | ---             | 60.00        | 12.47       | L1   | OFF    | 20.1       |
| 13.558920       | ---              | 41.46           | 50.00        | 8.54        | L1   | OFF    | 20.1       |
| 13.558920       | 46.47            | ---             | 60.00        | 13.53       | L1   | OFF    | 20.1       |
| 14.155440       | ---              | 34.12           | 50.00        | 15.88       | L1   | OFF    | 20.1       |

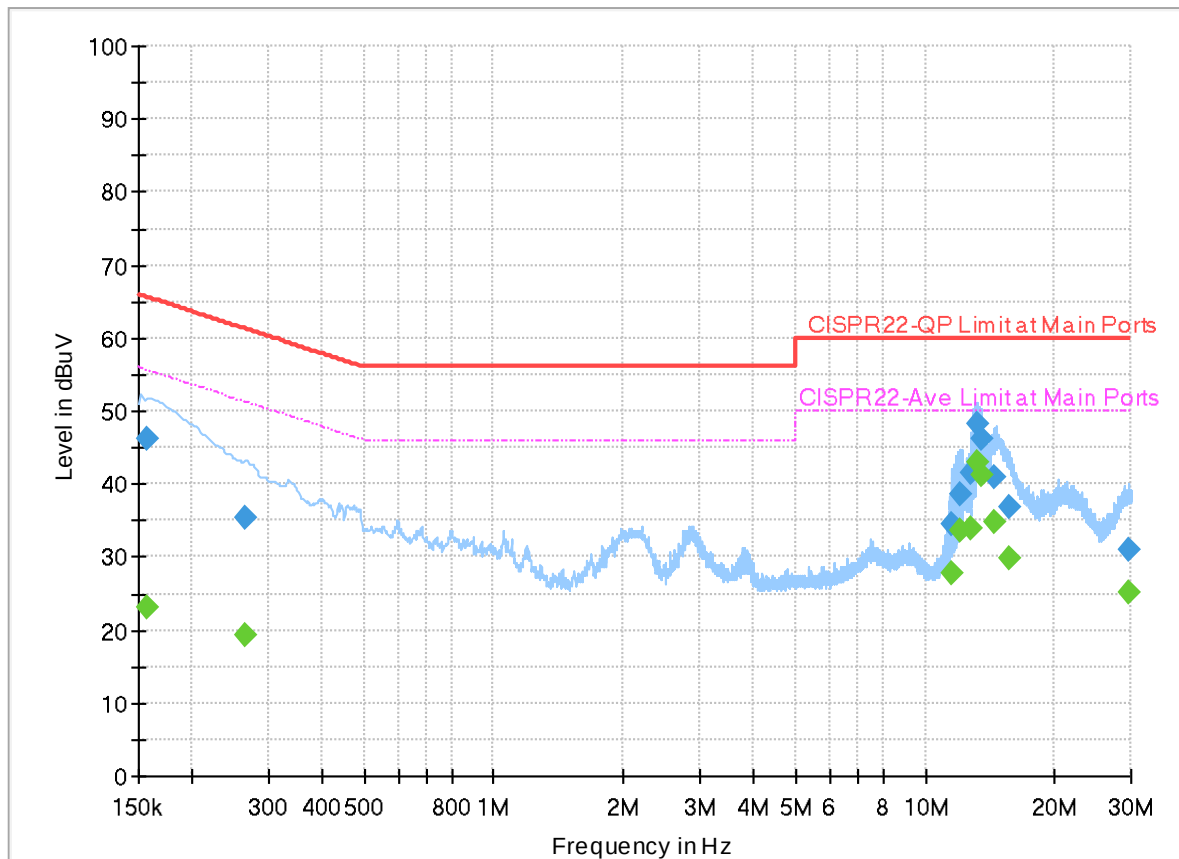


|           |       |       |       |       |    |     |      |
|-----------|-------|-------|-------|-------|----|-----|------|
| 14.155440 | 40.20 | ---   | 60.00 | 19.80 | L1 | OFF | 20.1 |
| 14.550000 | ---   | 35.43 | 50.00 | 14.57 | L1 | OFF | 20.1 |
| 14.550000 | 41.81 | ---   | 60.00 | 18.19 | L1 | OFF | 20.1 |
| 15.148500 | ---   | 32.88 | 50.00 | 17.12 | L1 | OFF | 20.1 |
| 15.148500 | 39.68 | ---   | 60.00 | 20.32 | L1 | OFF | 20.1 |

## EUT Information

Report NO : 450112  
Test Mode : Mode 1  
Test Voltage : 120Vac/60Hz  
Phase : Neutral

Full Spectrum



## Final\_Result

| Frequency (MHz) | QuasiPeak (dBuV) | CAverage (dBuV) | Limit (dBuV) | Margin (dB) | Line | Filter | Corr. (dB) |
|-----------------|------------------|-----------------|--------------|-------------|------|--------|------------|
| 0.156750        | ---              | 23.01           | 55.63        | 32.62       | N    | OFF    | 19.9       |
| 0.156750        | 46.26            | ---             | 65.63        | 19.37       | N    | OFF    | 19.9       |
| 0.264750        | ---              | 19.36           | 51.28        | 31.92       | N    | OFF    | 19.9       |
| 0.264750        | 35.40            | ---             | 61.28        | 25.88       | N    | OFF    | 19.9       |
| 11.571000       | ---              | 27.77           | 50.00        | 22.23       | N    | OFF    | 20.1       |
| 11.571000       | 34.50            | ---             | 60.00        | 25.50       | N    | OFF    | 20.1       |
| 12.032610       | ---              | 33.48           | 50.00        | 16.52       | N    | OFF    | 20.1       |
| 12.032610       | 38.62            | ---             | 60.00        | 21.38       | N    | OFF    | 20.1       |
| 12.766830       | ---              | 33.82           | 50.00        | 16.18       | N    | OFF    | 20.1       |
| 12.766830       | 41.44            | ---             | 60.00        | 18.56       | N    | OFF    | 20.1       |
| 13.152570       | ---              | 42.98           | 50.00        | 7.02        | N    | OFF    | 20.1       |
| 13.152570       | 48.27            | ---             | 60.00        | 11.73       | N    | OFF    | 20.1       |
| 13.561710       | ---              | 41.23           | 50.00        | 8.77        | N    | OFF    | 20.1       |
| 13.561710       | 46.12            | ---             | 60.00        | 13.88       | N    | OFF    | 20.1       |
| 14.550000       | ---              | 34.93           | 50.00        | 15.07       | N    | OFF    | 20.1       |
| 14.550000       | 41.02            | ---             | 60.00        | 18.98       | N    | OFF    | 20.1       |
| 15.744750       | ---              | 29.80           | 50.00        | 20.20       | N    | OFF    | 20.2       |
| 15.744750       | 36.90            | ---             | 60.00        | 23.10       | N    | OFF    | 20.2       |
| 29.617350       | ---              | 25.04           | 50.00        | 24.96       | N    | OFF    | 20.2       |

|           |       |     |       |       |   |     |      |
|-----------|-------|-----|-------|-------|---|-----|------|
| 29.617350 | 30.97 | --- | 60.00 | 29.03 | N | OFF | 20.2 |
|-----------|-------|-----|-------|-------|---|-----|------|



## Appendix C. Radiated Spurious Emission

|                 |                                            |                     |             |
|-----------------|--------------------------------------------|---------------------|-------------|
| Test Engineer : | Ken Kuo, BANK Lin, Fred Tseng and Karl Hou | Temperature :       | 20.8~24.8°C |
|                 |                                            | Relative Humidity : | 52.4~63.8%  |

&lt;Ant. 1\_1Mbps&gt;

2.4GHz 2400~2483.5MHz

BLE (Band Edge @ 3m)

| BLE Ant                 | Note | Frequency | Level      | Margin | Limit Line | Read Level | Antenna Factor | Path Loss | Preamp Factor | Ant Pos | Table Pos | Peak Avg. | Pol.    |
|-------------------------|------|-----------|------------|--------|------------|------------|----------------|-----------|---------------|---------|-----------|-----------|---------|
|                         |      | ( MHz )   | ( dBμV/m ) | ( dB ) | ( dBμV/m ) | ( dBμV )   | ( dB/m )       | ( dB )    | ( dB )        | ( cm )  | ( deg )   | ( P/A )   | ( H/V ) |
| BLE<br>CH 00<br>2402MHz |      | 2375.1    | 51.28      | -22.72 | 74         | 38.3       | 27             | 18.33     | 32.35         | 300     | 45        | P         | H       |
|                         |      | 2376.045  | 41.87      | -12.13 | 54         | 28.88      | 27             | 18.34     | 32.35         | 300     | 45        | A         | H       |
|                         | *    | 2402      | 101.21     | -      | -          | 88.19      | 27             | 18.38     | 32.36         | 300     | 45        | P         | H       |
|                         | *    | 2402      | 100.61     | -      | -          | 87.59      | 27             | 18.38     | 32.36         | 300     | 45        | A         | H       |
|                         |      |           |            |        |            |            |                |           |               |         |           |           | H       |
|                         |      | 2316.09   | 50.6       | -23.4  | 74         | 37.63      | 27.06          | 18.22     | 32.31         | 200     | 39        | P         | V       |
|                         |      | 2332.155  | 41.1       | -12.9  | 54         | 28.09      | 27.08          | 18.25     | 32.32         | 200     | 39        | A         | V       |
|                         | *    | 2402      | 99.19      | -      | -          | 86.17      | 27             | 18.38     | 32.36         | 200     | 39        | P         | V       |
|                         | *    | 2402      | 98.59      | -      | -          | 85.57      | 27             | 18.38     | 32.36         | 200     | 39        | A         | V       |
|                         |      |           |            |        |            |            |                |           |               |         |           |           | V       |
| BLE<br>CH 19<br>2440MHz |      | 2376.4    | 52.19      | -21.81 | 74         | 39.2       | 27             | 18.34     | 32.35         | 292     | 44        | P         | H       |
|                         |      | 2375.92   | 42.5       | -11.5  | 54         | 29.51      | 27             | 18.34     | 32.35         | 292     | 44        | A         | H       |
|                         | *    | 2440      | 102.31     | -      | -          | 89.44      | 26.8           | 18.45     | 32.38         | 292     | 44        | P         | H       |
|                         | *    | 2440      | 101.71     | -      | -          | 88.84      | 26.8           | 18.45     | 32.38         | 292     | 44        | A         | H       |
|                         |      | 2499.12   | 51.21      | -22.79 | 74         | 38.08      | 26.99          | 18.56     | 32.42         | 292     | 44        | P         | H       |
|                         |      | 2498.16   | 41.32      | -12.68 | 54         | 28.2       | 26.98          | 18.56     | 32.42         | 292     | 44        | A         | H       |
|                         |      | 2378.48   | 50.91      | -23.09 | 74         | 37.92      | 27             | 18.34     | 32.35         | 216     | 34        | P         | V       |
|                         |      | 2377.04   | 40.86      | -13.14 | 54         | 27.87      | 27             | 18.34     | 32.35         | 216     | 34        | A         | V       |
|                         | *    | 2440      | 99.33      | -      | -          | 86.46      | 26.8           | 18.45     | 32.38         | 216     | 34        | P         | V       |
|                         | *    | 2440      | 98.78      | -      | -          | 85.91      | 26.8           | 18.45     | 32.38         | 216     | 34        | A         | V       |
|                         |      | 2496.08   | 50.59      | -23.41 | 74         | 37.5       | 26.96          | 18.55     | 32.42         | 216     | 34        | P         | V       |
|                         |      | 2491.76   | 41.29      | -12.71 | 54         | 28.24      | 26.92          | 18.55     | 32.42         | 216     | 34        | A         | V       |



| BLE<br>Ant              | Note                                                                                        | Frequency<br>( MHz ) | Level<br>( dBμV/m ) | Margin<br>( dB ) | Limit<br>Line<br>( dBμV/m ) | Read<br>Level<br>( dBμV ) | Antenna<br>Factor<br>( dB/m ) | Path<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Peak<br>Avg.<br>( P/A ) | Pol.<br>( H/V ) |
|-------------------------|---------------------------------------------------------------------------------------------|----------------------|---------------------|------------------|-----------------------------|---------------------------|-------------------------------|------------------------|----------------------------|----------------------|-------------------------|-------------------------|-----------------|
| BLE<br>CH 39<br>2480MHz | *                                                                                           | 2480                 | 101.93              | -                | -                           | 88.92                     | 26.9                          | 18.52                  | 32.41                      | 277                  | 43                      | P                       | H               |
|                         | *                                                                                           | 2480                 | 101.32              | -                | -                           | 88.31                     | 26.9                          | 18.52                  | 32.41                      | 277                  | 43                      | A                       | H               |
|                         |                                                                                             | 2498.6               | 50.83               | -23.17           | 74                          | 37.7                      | 26.99                         | 18.56                  | 32.42                      | 277                  | 43                      | P                       | H               |
|                         |                                                                                             | 2483.64              | 41.26               | -12.74           | 54                          | 28.24                     | 26.9                          | 18.53                  | 32.41                      | 277                  | 43                      | A                       | H               |
|                         |                                                                                             |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |                                                                                             |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         | *                                                                                           | 2480                 | 98.55               | -                | -                           | 85.54                     | 26.9                          | 18.52                  | 32.41                      | 258                  | 3                       | P                       | V               |
|                         | *                                                                                           | 2480                 | 97.97               | -                | -                           | 84.96                     | 26.9                          | 18.52                  | 32.41                      | 258                  | 3                       | A                       | V               |
|                         |                                                                                             | 2484.12              | 50.87               | -23.13           | 74                          | 37.85                     | 26.9                          | 18.53                  | 32.41                      | 258                  | 3                       | P                       | V               |
|                         |                                                                                             | 2495.16              | 41.23               | -12.77           | 54                          | 28.15                     | 26.95                         | 18.55                  | 32.42                      | 258                  | 3                       | A                       | V               |
|                         |                                                                                             |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |                                                                                             |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |                                                                                             |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
| Remark                  | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         |                 |



## 2.4GHz 2400~2483.5MHz

## BLE (Harmonic @ 3m)

| BLE<br>Ant              | Note | Frequency<br>( MHz ) | Level<br>( dBμV/m ) | Margin<br>( dB ) | Limit<br>Line<br>( dBμV/m ) | Read<br>Level<br>( dBμV ) | Antenna<br>Factor<br>( dB/m ) | Path<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Peak<br>Avg.<br>( P/A ) | Pol.<br>( H/V ) |
|-------------------------|------|----------------------|---------------------|------------------|-----------------------------|---------------------------|-------------------------------|------------------------|----------------------------|----------------------|-------------------------|-------------------------|-----------------|
| BLE<br>CH 00<br>2402MHz |      | 1262                 | 54.17               | -19.83           | 74                          | 45.67                     | 24.3                          | 15.99                  | 31.79                      | 300                  | 45                      | P                       | H               |
|                         |      | 1336                 | 53.68               | -20.32           | 74                          | 44.88                     | 24.44                         | 16.16                  | 31.8                       | 300                  | 45                      | P                       | H               |
|                         |      | 4804                 | 43.76               | -30.24           | 74                          | 31.91                     | 32.32                         | 13.03                  | 33.5                       | -                    | -                       | P                       | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      | 1262                 | 48.44               | -25.56           | 74                          | 39.94                     | 24.3                          | 15.99                  | 31.79                      | 200                  | 39                      | P                       | V               |
|                         |      | 1412                 | 50.03               | -23.97           | 74                          | 40.71                     | 24.8                          | 16.33                  | 31.81                      | 200                  | 39                      | P                       | V               |
|                         |      | 4804                 | 44.41               | -29.59           | 74                          | 32.56                     | 32.32                         | 13.03                  | 33.5                       | -                    | -                       | P                       | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |



| BLE<br>Ant              | Note | Frequency<br>( MHz ) | Level<br>( dBμV/m ) | Margin<br>( dB ) | Limit<br>Line<br>( dBμV/m ) | Read<br>Level<br>( dBμV ) | Antenna<br>Factor<br>( dB/m ) | Path<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Peak<br>Avg.<br>( P/A ) | Pol.<br>( H/V ) |
|-------------------------|------|----------------------|---------------------|------------------|-----------------------------|---------------------------|-------------------------------|------------------------|----------------------------|----------------------|-------------------------|-------------------------|-----------------|
| BLE<br>CH 19<br>2440MHz |      | 1262                 | 54.07               | -19.93           | 74                          | 45.57                     | 24.3                          | 15.99                  | 31.79                      | 292                  | 44                      | P                       | H               |
|                         |      | 1336                 | 52.39               | -21.61           | 74                          | 43.59                     | 24.44                         | 16.16                  | 31.8                       | 292                  | 44                      | P                       | H               |
|                         |      | 4880                 | 44.62               | -29.38           | 74                          | 32.48                     | 32.56                         | 13.07                  | 33.49                      | -                    | -                       | P                       | H               |
|                         |      | 7320                 | 49.27               | -24.73           | 74                          | 31.61                     | 37.5                          | 16.01                  | 35.85                      | -                    | -                       | P                       | H               |
|                         |      | 7320                 | 40.15               | -13.85           | 54                          | 22.49                     | 37.5                          | 16.01                  | 35.85                      | -                    | -                       | A                       | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      | 1262                 | 48.72               | -25.28           | 74                          | 40.22                     | 24.3                          | 15.99                  | 31.79                      | 216                  | 34                      | P                       | V               |
|                         |      | 1410                 | 50.69               | -23.31           | 74                          | 41.38                     | 24.8                          | 16.32                  | 31.81                      | 216                  | 34                      | P                       | V               |
|                         |      | 4880                 | 44.8                | -29.2            | 74                          | 32.66                     | 32.56                         | 13.07                  | 33.49                      | -                    | -                       | P                       | V               |
|                         |      | 7320                 | 49.18               | -24.82           | 74                          | 31.52                     | 37.5                          | 16.01                  | 35.85                      | -                    | -                       | P                       | V               |
|                         |      | 7320                 | 40.02               | -13.98           | 54                          | 22.36                     | 37.5                          | 16.01                  | 35.85                      | -                    | -                       | A                       | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |

| BLE Ant                 | Note                                                                                                                                                                                                                                   | Frequency<br><br>( MHz ) | Level<br><br>( dBμV/m ) | Margin<br><br>( dB ) | Limit<br>Line<br><br>( dBμV/m ) | Read<br>Level<br><br>( dBμV ) | Antenna<br>Factor<br><br>( dB/m ) | Path<br>Loss<br><br>( dB ) | Preamp<br>Factor<br><br>( dB ) | Ant<br>Pos<br><br>( cm ) | Table<br>Pos<br><br>( deg ) | Peak<br>Avg.<br><br>(P/A) | Pol.<br><br>(H/V) |   |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|-------------------------|----------------------|---------------------------------|-------------------------------|-----------------------------------|----------------------------|--------------------------------|--------------------------|-----------------------------|---------------------------|-------------------|---|
| BLE<br>CH 39<br>2480MHz |                                                                                                                                                                                                                                        | 1262                     | 55.83                   | -18.17               | 74                              | 47.33                         | 24.3                              | 15.99                      | 31.79                          | 277                      | 43                          | P                         | H                 |   |
|                         |                                                                                                                                                                                                                                        | 1338                     | 52.24                   | -21.76               | 74                              | 43.45                         | 24.42                             | 16.17                      | 31.8                           | 277                      | 43                          | P                         | H                 |   |
|                         |                                                                                                                                                                                                                                        | 4960                     | 44.87                   | -29.13               | 74                              | 32.53                         | 32.7                              | 13.11                      | 33.47                          | -                        | -                           | P                         | H                 |   |
|                         |                                                                                                                                                                                                                                        | 7440                     | 49.06                   | -24.94               | 74                              | 31.52                         | 37.32                             | 16.15                      | 35.93                          | -                        | -                           | P                         | H                 |   |
|                         |                                                                                                                                                                                                                                        | 7440                     | 39.39                   | -14.61               | 54                              | 21.85                         | 37.32                             | 16.15                      | 35.93                          | -                        | -                           | A                         | H                 |   |
|                         |                                                                                                                                                                                                                                        |                          |                         |                      |                                 |                               |                                   |                            |                                |                          |                             |                           |                   | H |
|                         |                                                                                                                                                                                                                                        |                          |                         |                      |                                 |                               |                                   |                            |                                |                          |                             |                           |                   | H |
|                         |                                                                                                                                                                                                                                        |                          |                         |                      |                                 |                               |                                   |                            |                                |                          |                             |                           |                   | H |
|                         |                                                                                                                                                                                                                                        |                          |                         |                      |                                 |                               |                                   |                            |                                |                          |                             |                           |                   | H |
|                         |                                                                                                                                                                                                                                        |                          |                         |                      |                                 |                               |                                   |                            |                                |                          |                             |                           |                   | H |
|                         |                                                                                                                                                                                                                                        |                          |                         |                      |                                 |                               |                                   |                            |                                |                          |                             |                           |                   | H |
|                         |                                                                                                                                                                                                                                        |                          |                         |                      |                                 |                               |                                   |                            |                                |                          |                             |                           |                   | H |
|                         |                                                                                                                                                                                                                                        |                          |                         |                      |                                 |                               |                                   |                            |                                |                          |                             |                           |                   | H |
|                         |                                                                                                                                                                                                                                        | 1336                     | 50.2                    | -23.8                | 74                              | 41.4                          | 24.44                             | 16.16                      | 31.8                           | 258                      | 3                           | 3                         | P                 | V |
|                         |                                                                                                                                                                                                                                        | 1782                     | 49.65                   | -24.35               | 74                              | 39.78                         | 24.72                             | 17.14                      | 31.99                          | 258                      | 3                           | 3                         | P                 | V |
|                         |                                                                                                                                                                                                                                        | 4960                     | 44.97                   | -29.03               | 74                              | 32.63                         | 32.7                              | 13.11                      | 33.47                          | -                        | -                           | -                         | P                 | V |
|                         |                                                                                                                                                                                                                                        | 7440                     | 49.06                   | -24.94               | 74                              | 31.52                         | 37.32                             | 16.15                      | 35.93                          | -                        | -                           | -                         | P                 | V |
|                         |                                                                                                                                                                                                                                        | 7440                     | 39.37                   | -14.63               | 54                              | 21.83                         | 37.32                             | 16.15                      | 35.93                          | -                        | -                           | -                         | A                 | V |
|                         |                                                                                                                                                                                                                                        |                          |                         |                      |                                 |                               |                                   |                            |                                |                          |                             |                           |                   | V |
|                         |                                                                                                                                                                                                                                        |                          |                         |                      |                                 |                               |                                   |                            |                                |                          |                             |                           |                   | V |
|                         |                                                                                                                                                                                                                                        |                          |                         |                      |                                 |                               |                                   |                            |                                |                          |                             |                           |                   | V |
|                         |                                                                                                                                                                                                                                        |                          |                         |                      |                                 |                               |                                   |                            |                                |                          |                             |                           |                   | V |
|                         |                                                                                                                                                                                                                                        |                          |                         |                      |                                 |                               |                                   |                            |                                |                          |                             |                           |                   | V |
|                         |                                                                                                                                                                                                                                        |                          |                         |                      |                                 |                               |                                   |                            |                                |                          |                             |                           |                   | V |
|                         |                                                                                                                                                                                                                                        |                          |                         |                      |                                 |                               |                                   |                            |                                |                          |                             |                           | V                 |   |
|                         |                                                                                                                                                                                                                                        |                          |                         |                      |                                 |                               |                                   |                            |                                |                          |                             |                           | V                 |   |
| Remark                  | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line.<br>3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only. |                          |                         |                      |                                 |                               |                                   |                            |                                |                          |                             |                           |                   |   |



## Emission above 18GHz

## 2.4GHz BLE (SHF)

| BLE                          | Note | Frequency | Level      | Margin | Limit      | Read   | Antenna  | Path   | Preamp | Ant    | Table   | Peak  | Pol.  |
|------------------------------|------|-----------|------------|--------|------------|--------|----------|--------|--------|--------|---------|-------|-------|
| Ant                          |      |           |            |        | Line       | Level  | Factor   | Loss   | Factor | Pos    | Pos     | Avg.  |       |
|                              |      | ( MHz )   | ( dBμV/m ) | ( dB ) | ( dBμV/m ) | (dBμV) | ( dB/m ) | ( dB ) | ( dB ) | ( cm ) | ( deg ) | (P/A) | (H/V) |
| 2.4GHz<br><br>BLE<br><br>SHF |      | 24958     | 38.05      | -35.95 | 74         | 38.55  | 39.33    | 19.75  | 59.58  | -      | -       | P     | H     |
|                              |      |           |            |        |            |        |          |        |        |        |         |       | H     |
|                              |      |           |            |        |            |        |          |        |        |        |         |       | H     |
|                              |      |           |            |        |            |        |          |        |        |        |         |       | H     |
|                              |      |           |            |        |            |        |          |        |        |        |         |       | H     |
|                              |      |           |            |        |            |        |          |        |        |        |         |       | H     |
|                              |      |           |            |        |            |        |          |        |        |        |         |       | H     |
|                              |      |           |            |        |            |        |          |        |        |        |         |       | H     |
|                              |      |           |            |        |            |        |          |        |        |        |         |       | H     |
|                              |      |           |            |        |            |        |          |        |        |        |         |       | H     |
|                              |      |           |            |        |            |        |          |        |        |        |         |       | H     |
|                              |      |           |            |        |            |        |          |        |        |        |         |       | H     |
|                              |      |           |            |        |            |        |          |        |        |        |         |       | H     |
|                              |      |           |            |        |            |        |          |        |        |        |         |       | H     |
|                              |      |           |            |        |            |        |          |        |        |        |         |       | H     |
|                              |      |           |            |        |            |        |          |        |        |        |         |       | H     |
|                              |      |           |            |        |            |        |          |        |        |        |         |       | H     |
|                              |      |           |            |        |            |        |          |        |        |        |         |       | H     |
|                              |      |           |            |        |            |        |          |        |        |        |         |       | H     |
|                              |      |           |            |        |            |        |          |        |        |        |         |       | H     |
|                              |      |           |            |        |            |        |          |        |        |        |         |       | H     |
|                              |      |           |            |        |            |        |          |        |        |        |         |       | H     |
|                              |      |           |            |        |            |        |          |        |        |        |         |       | H     |
|                              |      |           |            |        |            |        |          |        |        |        |         |       | H     |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |

## Emission below 1GHz

## 2.4GHz BLE (LF)

| BLE                         | Note                                                                                                                                                               | Frequency | Level      | Margin | Limit      | Read   | Antenna  | Path   | Preamp | Ant    | Table   | Peak  | Pol.  |
|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|------------|--------|------------|--------|----------|--------|--------|--------|---------|-------|-------|
| Ant                         |                                                                                                                                                                    |           |            |        | Line       | Level  | Factor   | Loss   | Factor | Pos    | Pos     | Avg.  |       |
|                             |                                                                                                                                                                    | ( MHz )   | ( dBμV/m ) | ( dB ) | ( dBμV/m ) | (dBμV) | ( dB/m ) | ( dB ) | ( dB ) | ( cm ) | ( deg ) | (P/A) | (H/V) |
| 2.4GHz<br><br>BLE<br><br>LF |                                                                                                                                                                    | 45.39     | 26.96      | -13.04 | 40         | 41.4   | 17.12    | 1.16   | 32.72  | -      | -       | P     | H     |
|                             |                                                                                                                                                                    | 150.15    | 31.94      | -11.56 | 43.5       | 45.45  | 17.01    | 2.19   | 32.71  | -      | -       | P     | H     |
|                             |                                                                                                                                                                    | 225.21    | 37.77      | -8.23  | 46         | 52.17  | 15.61    | 2.66   | 32.67  | -      | -       | P     | H     |
|                             |                                                                                                                                                                    | 449.8     | 36.55      | -9.45  | 46         | 42.56  | 22.95    | 3.79   | 32.75  | -      | -       | P     | H     |
|                             |                                                                                                                                                                    | 661.2     | 39.85      | -6.15  | 46         | 41.76  | 26.35    | 4.55   | 32.81  | -      | -       | P     | H     |
|                             |                                                                                                                                                                    | 749.4     | 37.46      | -8.54  | 46         | 37     | 28.23    | 4.9    | 32.67  | -      | -       | P     | H     |
|                             |                                                                                                                                                                    |           |            |        |            |        |          |        |        |        |         |       | H     |
|                             |                                                                                                                                                                    |           |            |        |            |        |          |        |        |        |         |       | H     |
|                             |                                                                                                                                                                    |           |            |        |            |        |          |        |        |        |         |       | H     |
|                             |                                                                                                                                                                    |           |            |        |            |        |          |        |        |        |         |       | H     |
|                             |                                                                                                                                                                    |           |            |        |            |        |          |        |        |        |         |       | H     |
|                             |                                                                                                                                                                    |           |            |        |            |        |          |        |        |        |         |       | H     |
|                             |                                                                                                                                                                    |           |            |        |            |        |          |        |        |        |         |       | H     |
|                             |                                                                                                                                                                    | 45.39     | 33.7       | -6.3   | 40         | 48.14  | 17.12    | 1.16   | 32.72  | -      | -       | P     | V     |
|                             |                                                                                                                                                                    | 146.91    | 33.81      | -9.69  | 43.5       | 47.11  | 17.25    | 2.16   | 32.71  | -      | -       | P     | V     |
|                             |                                                                                                                                                                    | 224.94    | 38         | -8     | 46         | 52.45  | 15.58    | 2.64   | 32.67  | -      | -       | P     | V     |
|                             |                                                                                                                                                                    | 449.8     | 42.35      | -3.65  | 46         | 48.36  | 22.95    | 3.79   | 32.75  | 100    | 170     | Q     | V     |
|                             |                                                                                                                                                                    | 675.2     | 38.93      | -7.07  | 46         | 40.73  | 26.39    | 4.61   | 32.8   | -      | -       | P     | V     |
|                             |                                                                                                                                                                    | 717.9     | 38.85      | -7.15  | 46         | 39.74  | 27.09    | 4.77   | 32.75  | -      | -       | P     | V     |
|                             |                                                                                                                                                                    |           |            |        |            |        |          |        |        |        |         |       | V     |
|                             |                                                                                                                                                                    |           |            |        |            |        |          |        |        |        |         |       | V     |
|                             |                                                                                                                                                                    |           |            |        |            |        |          |        |        |        |         |       | V     |
|                             |                                                                                                                                                                    |           |            |        |            |        |          |        |        |        |         |       | V     |
|                             |                                                                                                                                                                    |           |            |        |            |        |          |        |        |        |         |       | V     |
|                             |                                                                                                                                                                    |           |            |        |            |        |          |        |        |        |         | V     |       |
| Remark                      | 1. No other spurious found.                                                                                                                                        |           |            |        |            |        |          |        |        |        |         |       |       |
|                             | 2. All results are PASS against limit line.                                                                                                                        |           |            |        |            |        |          |        |        |        |         |       |       |
|                             | 3. The emission position marked as “-” means no suspected emission found and emission level has at least 6dB margin against limit or emission is noise floor only. |           |            |        |            |        |          |        |        |        |         |       |       |



&lt;Ant. 1\_2Mbps&gt;

2.4GHz 2400~2483.5MHz

BLE (Band Edge @ 3m)

| BLE<br>Ant              | Note | Frequency | Level      | Margin | Limit<br>Line | Read<br>Level | Antenna<br>Factor | Path<br>Loss | Preamp<br>Factor | Ant<br>Pos | Table<br>Pos | Peak<br>Avg. | Pol.    |
|-------------------------|------|-----------|------------|--------|---------------|---------------|-------------------|--------------|------------------|------------|--------------|--------------|---------|
|                         |      | ( MHz )   | ( dBμV/m ) | ( dB ) | ( dBμV/m )    | ( dBμV )      | ( dB/m )          | ( dB )       | ( dB )           | ( cm )     | ( deg )      | ( P/A )      | ( H/V ) |
| BLE<br>CH 00<br>2402MHz |      | 2383.29   | 50.19      | -23.81 | 74            | 37.22         | 26.97             | 18.35        | 32.35            | 279        | 304          | P            | H       |
|                         |      | 2349.165  | 41.55      | -12.45 | 54            | 28.59         | 27                | 18.29        | 32.33            | 279        | 304          | A            | H       |
|                         | *    | 2402      | 99.95      | -      | -             | 86.93         | 27                | 18.38        | 32.36            | 279        | 304          | P            | H       |
|                         | *    | 2402      | 98.51      | -      | -             | 85.49         | 27                | 18.38        | 32.36            | 279        | 304          | A            | H       |
|                         |      |           |            |        |               |               |                   |              |                  |            |              |              | H       |
|                         |      |           |            |        |               |               |                   |              |                  |            |              |              | H       |
|                         |      | 2388.96   | 50.51      | -23.49 | 74            | 37.59         | 26.91             | 18.36        | 32.35            | 328        | 314          | P            | V       |
|                         |      | 2354.625  | 41.66      | -12.34 | 54            | 28.69         | 27                | 18.3         | 32.33            | 328        | 314          | A            | V       |
|                         | *    | 2402      | 98.98      | -      | -             | 85.96         | 27                | 18.38        | 32.36            | 328        | 314          | P            | V       |
|                         | *    | 2402      | 97.47      | -      | -             | 84.45         | 27                | 18.38        | 32.36            | 328        | 314          | A            | V       |
|                         |      |           |            |        |               |               |                   |              |                  |            |              |              | V       |
|                         |      |           |            |        |               |               |                   |              |                  |            |              |              | V       |
| BLE<br>CH 19<br>2440MHz |      | 2364.72   | 50.95      | -23.05 | 74            | 37.98         | 27                | 18.31        | 32.34            | 202        | 312          | P            | H       |
|                         |      | 2363.12   | 41.54      | -12.46 | 54            | 28.57         | 27                | 18.31        | 32.34            | 202        | 312          | A            | H       |
|                         | *    | 2440      | 99.66      | -      | -             | 86.79         | 26.8              | 18.45        | 32.38            | 202        | 312          | P            | H       |
|                         | *    | 2440      | 98.26      | -      | -             | 85.39         | 26.8              | 18.45        | 32.38            | 202        | 312          | A            | H       |
|                         |      | 2488.48   | 50.07      | -23.93 | 74            | 37.04         | 26.9              | 18.54        | 32.41            | 202        | 312          | P            | H       |
|                         |      | 2496.4    | 41.6       | -12.4  | 54            | 28.51         | 26.96             | 18.55        | 32.42            | 202        | 312          | A            | H       |
|                         |      | 2353.52   | 50.76      | -23.24 | 74            | 37.8          | 27                | 18.29        | 32.33            | 213        | 315          | P            | V       |
|                         |      | 2373.04   | 41.86      | -12.14 | 54            | 28.87         | 27                | 18.33        | 32.34            | 213        | 315          | A            | V       |
|                         | *    | 2440      | 99.61      | -      | -             | 86.74         | 26.8              | 18.45        | 32.38            | 213        | 315          | P            | V       |
|                         | *    | 2440      | 98.23      | -      | -             | 85.36         | 26.8              | 18.45        | 32.38            | 213        | 315          | A            | V       |
|                         |      | 2487.28   | 50.19      | -23.81 | 74            | 37.16         | 26.9              | 18.54        | 32.41            | 213        | 315          | P            | V       |
|                         |      | 2495.12   | 41.59      | -12.41 | 54            | 28.51         | 26.95             | 18.55        | 32.42            | 213        | 315          | A            | V       |



| BLE<br>Ant              | Note                                                                                        | Frequency<br>( MHz ) | Level<br>( dBμV/m ) | Margin<br>( dB ) | Limit<br>Line<br>( dBμV/m ) | Read<br>Level<br>( dBμV ) | Antenna<br>Factor<br>( dB/m ) | Path<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Peak<br>Avg.<br>( P/A ) | Pol.<br>( H/V ) |
|-------------------------|---------------------------------------------------------------------------------------------|----------------------|---------------------|------------------|-----------------------------|---------------------------|-------------------------------|------------------------|----------------------------|----------------------|-------------------------|-------------------------|-----------------|
| BLE<br>CH 39<br>2480MHz | *                                                                                           | 2480                 | 99.65               | -                | -                           | 86.64                     | 26.9                          | 18.52                  | 32.41                      | 202                  | 305                     | P                       | H               |
|                         | *                                                                                           | 2480                 | 98.35               | -                | -                           | 85.34                     | 26.9                          | 18.52                  | 32.41                      | 202                  | 305                     | A                       | H               |
|                         |                                                                                             | 2483.72              | 50.62               | -23.38           | 74                          | 37.6                      | 26.9                          | 18.53                  | 32.41                      | 202                  | 305                     | P                       | H               |
|                         |                                                                                             | 2498.08              | 42.16               | -11.84           | 54                          | 29.04                     | 26.98                         | 18.56                  | 32.42                      | 202                  | 305                     | A                       | H               |
|                         |                                                                                             |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |                                                                                             |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         | *                                                                                           | 2480                 | 99.91               | -                | -                           | 86.9                      | 26.9                          | 18.52                  | 32.41                      | 293                  | 318                     | P                       | V               |
|                         | *                                                                                           | 2480                 | 98.61               | -                | -                           | 85.6                      | 26.9                          | 18.52                  | 32.41                      | 293                  | 318                     | A                       | V               |
|                         |                                                                                             | 2487.84              | 51.23               | -22.77           | 74                          | 38.2                      | 26.9                          | 18.54                  | 32.41                      | 293                  | 318                     | P                       | V               |
|                         |                                                                                             | 2496.08              | 42.01               | -11.99           | 54                          | 28.92                     | 26.96                         | 18.55                  | 32.42                      | 293                  | 318                     | A                       | V               |
|                         |                                                                                             |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |                                                                                             |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |                                                                                             |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
| Remark                  | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         |                 |

**2.4GHz 2400~2483.5MHz****BLE (Harmonic @ 3m)**

| BLE<br>Ant              | Note | Frequency<br>( MHz ) | Level<br>( dBμV/m ) | Margin<br>( dB ) | Limit<br>Line<br>( dBμV/m ) | Read<br>Level<br>( dBμV ) | Antenna<br>Factor<br>( dB/m ) | Path<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Peak<br>Avg.<br>( P/A ) | Pol.<br>( H/V ) |
|-------------------------|------|----------------------|---------------------|------------------|-----------------------------|---------------------------|-------------------------------|------------------------|----------------------------|----------------------|-------------------------|-------------------------|-----------------|
| BLE<br>CH 00<br>2402MHz |      | 4804                 | 44.09               | -29.91           | 74                          | 32.24                     | 32.32                         | 13.03                  | 33.5                       | -                    | -                       | P                       | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      | 4804                 | 45.34               | -28.66           | 74                          | 33.49                     | 32.32                         | 13.03                  | 33.5                       | -                    | -                       | P                       | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |



| BLE<br>Ant              | Note | Frequency<br>( MHz ) | Level<br>( dBμV/m ) | Margin<br>( dB ) | Limit<br>Line<br>( dBμV/m ) | Read<br>Level<br>( dBμV ) | Antenna<br>Factor<br>( dB/m ) | Path<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Peak<br>Avg.<br>( P/A ) | Pol.<br>( H/V ) |
|-------------------------|------|----------------------|---------------------|------------------|-----------------------------|---------------------------|-------------------------------|------------------------|----------------------------|----------------------|-------------------------|-------------------------|-----------------|
| BLE<br>CH 19<br>2440MHz |      | 4880                 | 44.84               | -29.16           | 74                          | 32.7                      | 32.56                         | 13.07                  | 33.49                      | -                    | -                       | P                       | H               |
|                         |      | 7320                 | 49.8                | -24.2            | 74                          | 32.14                     | 37.5                          | 16.01                  | 35.85                      | -                    | -                       | P                       | H               |
|                         |      | 7320                 | 40.22               | -13.78           | 54                          | 22.56                     | 37.5                          | 16.01                  | 35.85                      | -                    | -                       | A                       | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      | 4880                 | 45.56               | -28.44           | 74                          | 33.42                     | 32.56                         | 13.07                  | 33.49                      | -                    | -                       | P                       | V               |
|                         |      | 7320                 | 49.8                | -24.2            | 74                          | 32.14                     | 37.5                          | 16.01                  | 35.85                      | -                    | -                       | P                       | V               |
|                         |      | 7320                 | 40.29               | -13.71           | 54                          | 22.63                     | 37.5                          | 16.01                  | 35.85                      | -                    | -                       | A                       | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |

| BLE<br>Ant              | Note                                                                                                                                    | Frequency<br><br>( MHz ) | Level<br><br>( dBμV/m ) | Margin<br><br>( dB ) | Limit<br>Line<br>( dBμV/m ) | Read<br>Level<br>( dBμV ) | Antenna<br>Factor<br>( dB/m ) | Path<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Peak<br>Avg.<br>(P/A) | Pol.<br><br>(H/V) |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|--------------------------|-------------------------|----------------------|-----------------------------|---------------------------|-------------------------------|------------------------|----------------------------|----------------------|-------------------------|-----------------------|-------------------|
| BLE<br>CH 39<br>2480MHz |                                                                                                                                         | 4960                     | 45.02                   | -28.98               | 74                          | 32.68                     | 32.7                          | 13.11                  | 33.47                      | -                    | -                       | P                     | H                 |
|                         |                                                                                                                                         | 7440                     | 49.62                   | -24.38               | 74                          | 32.08                     | 37.32                         | 16.15                  | 35.93                      | -                    | -                       | P                     | H                 |
|                         |                                                                                                                                         | 7440                     | 40.43                   | -13.57               | 54                          | 22.89                     | 37.32                         | 16.15                  | 35.93                      | -                    | -                       | A                     | H                 |
|                         |                                                                                                                                         |                          |                         |                      |                             |                           |                               |                        |                            |                      |                         |                       | H                 |
|                         |                                                                                                                                         |                          |                         |                      |                             |                           |                               |                        |                            |                      |                         |                       | H                 |
|                         |                                                                                                                                         |                          |                         |                      |                             |                           |                               |                        |                            |                      |                         |                       | H                 |
|                         |                                                                                                                                         |                          |                         |                      |                             |                           |                               |                        |                            |                      |                         |                       | H                 |
|                         |                                                                                                                                         |                          |                         |                      |                             |                           |                               |                        |                            |                      |                         |                       | H                 |
|                         |                                                                                                                                         |                          |                         |                      |                             |                           |                               |                        |                            |                      |                         |                       | H                 |
|                         |                                                                                                                                         |                          |                         |                      |                             |                           |                               |                        |                            |                      |                         |                       | H                 |
|                         |                                                                                                                                         |                          |                         |                      |                             |                           |                               |                        |                            |                      |                         |                       | H                 |
|                         |                                                                                                                                         |                          |                         |                      |                             |                           |                               |                        |                            |                      |                         |                       | H                 |
|                         |                                                                                                                                         |                          |                         |                      |                             |                           |                               |                        |                            |                      |                         |                       | H                 |
|                         |                                                                                                                                         | 4960                     | 45.25                   | -28.75               | 74                          | 32.91                     | 32.7                          | 13.11                  | 33.47                      | -                    | -                       | P                     | V                 |
|                         |                                                                                                                                         | 7440                     | 49.48                   | -24.52               | 74                          | 31.94                     | 37.32                         | 16.15                  | 35.93                      | -                    | -                       | P                     | V                 |
|                         |                                                                                                                                         | 7440                     | 40.51                   | -13.49               | 54                          | 22.97                     | 37.32                         | 16.15                  | 35.93                      | -                    | -                       | A                     | V                 |
|                         |                                                                                                                                         |                          |                         |                      |                             |                           |                               |                        |                            |                      |                         |                       | V                 |
|                         |                                                                                                                                         |                          |                         |                      |                             |                           |                               |                        |                            |                      |                         |                       | V                 |
|                         |                                                                                                                                         |                          |                         |                      |                             |                           |                               |                        |                            |                      |                         |                       | V                 |
|                         |                                                                                                                                         |                          |                         |                      |                             |                           |                               |                        |                            |                      |                         |                       | V                 |
|                         |                                                                                                                                         |                          |                         |                      |                             |                           |                               |                        |                            |                      |                         |                       | V                 |
|                         |                                                                                                                                         |                          |                         |                      |                             |                           |                               |                        |                            |                      |                         |                       | V                 |
|                         |                                                                                                                                         |                          |                         |                      |                             |                           |                               |                        |                            |                      |                         |                       | V                 |
|                         |                                                                                                                                         |                          |                         |                      |                             |                           |                               |                        |                            |                      |                         |                       | V                 |
|                         |                                                                                                                                         |                          |                         |                      |                             |                           |                               |                        |                            |                      |                         |                       | V                 |
|                         |                                                                                                                                         |                          |                         |                      |                             |                           |                               |                        |                            |                      |                         |                       | V                 |
|                         |                                                                                                                                         |                          |                         |                      |                             |                           |                               |                        |                            |                      |                         | V                     |                   |
| Remark                  | 1. No other spurious found.                                                                                                             |                          |                         |                      |                             |                           |                               |                        |                            |                      |                         |                       |                   |
|                         | 2. All results are PASS against Peak and Average limit line.                                                                            |                          |                         |                      |                             |                           |                               |                        |                            |                      |                         |                       |                   |
|                         | 3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only. |                          |                         |                      |                             |                           |                               |                        |                            |                      |                         |                       |                   |



&lt;Ant. 2\_1Mbps&gt;

2.4GHz 2400~2483.5MHz

BLE (Band Edge @ 3m)

| BLE<br>Ant              | Note | Frequency<br>( MHz ) | Level<br>( dBμV/m ) | Margin<br>( dB ) | Limit<br>Line<br>( dBμV/m ) | Read<br>Level<br>( dBμV ) | Antenna<br>Factor<br>( dB/m ) | Path<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Peak<br>Avg.<br>( P/A ) | Pol.<br>( H/V ) |
|-------------------------|------|----------------------|---------------------|------------------|-----------------------------|---------------------------|-------------------------------|------------------------|----------------------------|----------------------|-------------------------|-------------------------|-----------------|
| BLE<br>CH 00<br>2402MHz |      | 2374.995             | 50.91               | -23.09           | 74                          | 37.92                     | 27                            | 18.33                  | 32.34                      | 389                  | 33                      | P                       | H               |
|                         |      | 2376.15              | 41.54               | -12.46           | 54                          | 28.55                     | 27                            | 18.34                  | 32.35                      | 389                  | 33                      | A                       | H               |
|                         | *    | 2402                 | 100.59              | -                | -                           | 87.57                     | 27                            | 18.38                  | 32.36                      | 389                  | 33                      | P                       | H               |
|                         | *    | 2402                 | 100.02              | -                | -                           | 87                        | 27                            | 18.38                  | 32.36                      | 389                  | 33                      | A                       | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      | 2334.57              | 50.7                | -23.3            | 74                          | 37.71                     | 27.05                         | 18.26                  | 32.32                      | 347                  | 346                     | P                       | V               |
|                         |      | 2388.645             | 41.02               | -12.98           | 54                          | 28.1                      | 26.91                         | 18.36                  | 32.35                      | 347                  | 346                     | A                       | V               |
|                         | *    | 2402                 | 98.72               | -                | -                           | 85.7                      | 27                            | 18.38                  | 32.36                      | 347                  | 346                     | P                       | V               |
|                         | *    | 2402                 | 98.17               | -                | -                           | 85.15                     | 27                            | 18.38                  | 32.36                      | 347                  | 346                     | A                       | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
| BLE<br>CH 19<br>2440MHz |      | 2327.28              | 50.75               | -23.25           | 74                          | 37.72                     | 27.1                          | 18.25                  | 32.32                      | 383                  | 29                      | P                       | H               |
|                         |      | 2376.72              | 41.43               | -12.57           | 54                          | 28.44                     | 27                            | 18.34                  | 32.35                      | 383                  | 29                      | A                       | H               |
|                         | *    | 2440                 | 101.76              | -                | -                           | 88.89                     | 26.8                          | 18.45                  | 32.38                      | 383                  | 29                      | P                       | H               |
|                         | *    | 2440                 | 101.24              | -                | -                           | 88.37                     | 26.8                          | 18.45                  | 32.38                      | 383                  | 29                      | A                       | H               |
|                         |      | 2490.4               | 50.3                | -23.7            | 74                          | 37.27                     | 26.9                          | 18.54                  | 32.41                      | 383                  | 29                      | P                       | H               |
|                         |      | 2499.28              | 41.2                | -12.8            | 54                          | 28.07                     | 26.99                         | 18.56                  | 32.42                      | 383                  | 29                      | A                       | H               |
|                         |      | 2351.44              | 50.72               | -23.28           | 74                          | 37.76                     | 27                            | 18.29                  | 32.33                      | 361                  | 360                     | P                       | V               |
|                         |      | 2376.88              | 41.17               | -12.83           | 54                          | 28.18                     | 27                            | 18.34                  | 32.35                      | 361                  | 360                     | A                       | V               |
|                         | *    | 2440                 | 99.81               | -                | -                           | 86.94                     | 26.8                          | 18.45                  | 32.38                      | 361                  | 360                     | P                       | V               |
|                         | *    | 2440                 | 99.29               | -                | -                           | 86.42                     | 26.8                          | 18.45                  | 32.38                      | 361                  | 360                     | A                       | V               |
|                         |      | 2491.36              | 50.22               | -23.78           | 74                          | 37.18                     | 26.91                         | 18.54                  | 32.41                      | 361                  | 360                     | P                       | V               |
|                         |      | 2484.56              | 40.97               | -13.03           | 54                          | 27.95                     | 26.9                          | 18.53                  | 32.41                      | 361                  | 360                     | A                       | V               |





| BLE<br>Ant              | Note                                                                                        | Frequency<br>( MHz ) | Level<br>( dBμV/m ) | Margin<br>( dB ) | Limit<br>Line<br>( dBμV/m ) | Read<br>Level<br>( dBμV ) | Antenna<br>Factor<br>( dB/m ) | Path<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Peak<br>Avg.<br>( P/A ) | Pol.<br>( H/V ) |
|-------------------------|---------------------------------------------------------------------------------------------|----------------------|---------------------|------------------|-----------------------------|---------------------------|-------------------------------|------------------------|----------------------------|----------------------|-------------------------|-------------------------|-----------------|
| BLE<br>CH 39<br>2480MHz | *                                                                                           | 2480                 | 101.99              | -                | -                           | 88.98                     | 26.9                          | 18.52                  | 32.41                      | 369                  | 29                      | P                       | H               |
|                         | *                                                                                           | 2480                 | 101.44              | -                | -                           | 88.43                     | 26.9                          | 18.52                  | 32.41                      | 369                  | 29                      | A                       | H               |
|                         |                                                                                             | 2497.92              | 50.46               | -23.54           | 74                          | 37.34                     | 26.98                         | 18.56                  | 32.42                      | 369                  | 29                      | P                       | H               |
|                         |                                                                                             | 2493.92              | 41.08               | -12.92           | 54                          | 28.01                     | 26.94                         | 18.55                  | 32.42                      | 369                  | 29                      | A                       | H               |
|                         |                                                                                             |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |                                                                                             |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         | *                                                                                           | 2480                 | 99.46               | -                | -                           | 86.45                     | 26.9                          | 18.52                  | 32.41                      | 354                  | 360                     | P                       | V               |
|                         | *                                                                                           | 2480                 | 98.92               | -                | -                           | 85.91                     | 26.9                          | 18.52                  | 32.41                      | 354                  | 360                     | A                       | V               |
|                         |                                                                                             | 2498                 | 50.5                | -23.5            | 74                          | 37.38                     | 26.98                         | 18.56                  | 32.42                      | 354                  | 360                     | P                       | V               |
|                         |                                                                                             | 2486.6               | 41.26               | -12.74           | 54                          | 28.23                     | 26.9                          | 18.54                  | 32.41                      | 354                  | 360                     | A                       | V               |
|                         |                                                                                             |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |                                                                                             |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |                                                                                             |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
| Remark                  | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         |                 |



## 2.4GHz 2400~2483.5MHz

## BLE (Harmonic @ 3m)

| BLE<br>Ant              | Note | Frequency<br>( MHz ) | Level<br>( dBμV/m ) | Margin<br>( dB ) | Limit<br>Line<br>( dBμV/m ) | Read<br>Level<br>( dBμV ) | Antenna<br>Factor<br>( dB/m ) | Path<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Peak<br>Avg.<br>( P/A ) | Pol.<br>( H/V ) |
|-------------------------|------|----------------------|---------------------|------------------|-----------------------------|---------------------------|-------------------------------|------------------------|----------------------------|----------------------|-------------------------|-------------------------|-----------------|
| BLE<br>CH 00<br>2402MHz |      | 1262                 | 53.36               | -20.64           | 74                          | 44.86                     | 24.3                          | 15.99                  | 31.79                      | 389                  | 33                      | P                       | H               |
|                         |      | 1336                 | 49.37               | -24.63           | 74                          | 40.57                     | 24.44                         | 16.16                  | 31.8                       | 389                  | 33                      | P                       | H               |
|                         |      | 4804                 | 43.66               | -30.34           | 74                          | 31.81                     | 32.32                         | 13.03                  | 33.5                       | -                    | -                       | P                       | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      | 1114                 | 50.96               | -23.04           | 74                          | 43.12                     | 23.98                         | 15.62                  | 31.76                      | 347                  | 346                     | P                       | V               |
|                         |      | 1262                 | 50.44               | -23.56           | 74                          | 41.94                     | 24.3                          | 15.99                  | 31.79                      | 347                  | 346                     | P                       | V               |
|                         |      | 4804                 | 44.54               | -29.46           | 74                          | 32.69                     | 32.32                         | 13.03                  | 33.5                       | -                    | -                       | P                       | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |



| BLE<br>Ant              | Note | Frequency<br>( MHz ) | Level<br>( dBμV/m ) | Margin<br>( dB ) | Limit<br>Line<br>( dBμV/m ) | Read<br>Level<br>( dBμV ) | Antenna<br>Factor<br>( dB/m ) | Path<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Peak<br>Avg.<br>( P/A ) | Pol.<br>( H/V ) |
|-------------------------|------|----------------------|---------------------|------------------|-----------------------------|---------------------------|-------------------------------|------------------------|----------------------------|----------------------|-------------------------|-------------------------|-----------------|
| BLE<br>CH 19<br>2440MHz |      | 1262                 | 53.89               | -20.11           | 74                          | 45.39                     | 24.3                          | 15.99                  | 31.79                      | 383                  | 29                      | P                       | H               |
|                         |      | 1336                 | 50.12               | -23.88           | 74                          | 41.32                     | 24.44                         | 16.16                  | 31.8                       | 383                  | 29                      | P                       | H               |
|                         |      | 4880                 | 44.67               | -29.33           | 74                          | 32.53                     | 32.56                         | 13.07                  | 33.49                      | -                    | -                       | P                       | H               |
|                         |      | 7320                 | 49.48               | -24.52           | 74                          | 31.82                     | 37.5                          | 16.01                  | 35.85                      | -                    | -                       | P                       | H               |
|                         |      | 7320                 | 39.99               | -14.01           | 54                          | 22.33                     | 37.5                          | 16.01                  | 35.85                      | -                    | -                       | A                       | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      | 1262                 | 50.86               | -23.14           | 74                          | 42.36                     | 24.3                          | 15.99                  | 31.79                      | 361                  | 360                     | P                       | V               |
|                         |      | 1410                 | 51.91               | -22.09           | 74                          | 42.6                      | 24.8                          | 16.32                  | 31.81                      | 361                  | 360                     | P                       | V               |
|                         |      | 4880                 | 45.22               | -28.78           | 74                          | 33.08                     | 32.56                         | 13.07                  | 33.49                      | -                    | -                       | P                       | V               |
|                         |      | 7320                 | 49.06               | -24.94           | 74                          | 31.4                      | 37.5                          | 16.01                  | 35.85                      | -                    | -                       | P                       | V               |
|                         |      | 7320                 | 40.09               | -13.91           | 54                          | 22.43                     | 37.5                          | 16.01                  | 35.85                      | -                    | -                       | A                       | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |

| BLE Ant                 | Note                                                                                                                                                                                                                                   | Frequency<br>( MHz ) | Level<br>( dBμV/m ) | Margin<br>( dB ) | Limit<br>Line<br>( dBμV/m ) | Read<br>Level<br>( dBμV ) | Antenna<br>Factor<br>( dB/m ) | Path<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Peak<br>Avg.<br>(P/A) | Pol.<br>(H/V) |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|---------------------|------------------|-----------------------------|---------------------------|-------------------------------|------------------------|----------------------------|----------------------|-------------------------|-----------------------|---------------|
| BLE<br>CH 39<br>2480MHz |                                                                                                                                                                                                                                        | 1262                 | 53.48               | -20.52           | 74                          | 44.98                     | 24.3                          | 15.99                  | 31.79                      | 369                  | 29                      | P                     | H             |
|                         |                                                                                                                                                                                                                                        | 1336                 | 50.12               | -23.88           | 74                          | 41.32                     | 24.44                         | 16.16                  | 31.8                       | 369                  | 29                      | P                     | H             |
|                         |                                                                                                                                                                                                                                        | 4960                 | 45.98               | -28.02           | 74                          | 33.64                     | 32.7                          | 13.11                  | 33.47                      | -                    | -                       | P                     | H             |
|                         |                                                                                                                                                                                                                                        | 7440                 | 49.08               | -24.92           | 74                          | 31.54                     | 37.32                         | 16.15                  | 35.93                      | -                    | -                       | P                     | H             |
|                         |                                                                                                                                                                                                                                        | 7440                 | 39.27               | -14.73           | 54                          | 21.73                     | 37.32                         | 16.15                  | 35.93                      | -                    | -                       | A                     | H             |
|                         |                                                                                                                                                                                                                                        |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                       | H             |
|                         |                                                                                                                                                                                                                                        |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                       | H             |
|                         |                                                                                                                                                                                                                                        |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                       | H             |
|                         |                                                                                                                                                                                                                                        |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                       | H             |
|                         |                                                                                                                                                                                                                                        |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                       | H             |
|                         |                                                                                                                                                                                                                                        |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                       | H             |
|                         |                                                                                                                                                                                                                                        |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                       | H             |
|                         |                                                                                                                                                                                                                                        |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                       | H             |
|                         |                                                                                                                                                                                                                                        | 1262                 | 51.26               | -22.74           | 74                          | 42.76                     | 24.3                          | 15.99                  | 31.79                      | 354                  | 360                     | P                     | V             |
|                         |                                                                                                                                                                                                                                        | 1336                 | 49.68               | -24.32           | 74                          | 40.88                     | 24.44                         | 16.16                  | 31.8                       | 354                  | 360                     | P                     | V             |
|                         |                                                                                                                                                                                                                                        | 4960                 | 44.96               | -29.04           | 74                          | 32.62                     | 32.7                          | 13.11                  | 33.47                      | -                    | -                       | P                     | V             |
|                         |                                                                                                                                                                                                                                        | 7440                 | 49.66               | -24.34           | 74                          | 32.12                     | 37.32                         | 16.15                  | 35.93                      | -                    | -                       | P                     | V             |
|                         |                                                                                                                                                                                                                                        | 7440                 | 39.45               | -14.55           | 54                          | 21.91                     | 37.32                         | 16.15                  | 35.93                      | -                    | -                       | A                     | V             |
|                         |                                                                                                                                                                                                                                        |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                       | V             |
|                         |                                                                                                                                                                                                                                        |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                       | V             |
|                         |                                                                                                                                                                                                                                        |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         | V                     |               |
|                         |                                                                                                                                                                                                                                        |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         | V                     |               |
|                         |                                                                                                                                                                                                                                        |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         | V                     |               |
|                         |                                                                                                                                                                                                                                        |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         | V                     |               |
|                         |                                                                                                                                                                                                                                        |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         | V                     |               |
|                         |                                                                                                                                                                                                                                        |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         | V                     |               |
| Remark                  | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line.<br>3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only. |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                       |               |

## Emission above 18GHz

## 2.4GHz BLE (SHF)

| BLE                          | Note | Frequency | Level      | Margin | Limit      | Read   | Antenna  | Path   | Preamp | Ant    | Table   | Peak  | Pol.  |
|------------------------------|------|-----------|------------|--------|------------|--------|----------|--------|--------|--------|---------|-------|-------|
| Ant                          |      |           |            |        | Line       | Level  | Factor   | Loss   | Factor | Pos    | Pos     | Avg.  |       |
|                              |      | ( MHz )   | ( dBμV/m ) | ( dB ) | ( dBμV/m ) | (dBμV) | ( dB/m ) | ( dB ) | ( dB ) | ( cm ) | ( deg ) | (P/A) | (H/V) |
| 2.4GHz<br><br>BLE<br><br>SHF |      | 23705     | 38.4       | -35.6  | 74         | 40.56  | 38.78    | 19.08  | 60.02  | -      | -       | P     | H     |
|                              |      |           |            |        |            |        |          |        |        |        |         |       | H     |
|                              |      |           |            |        |            |        |          |        |        |        |         |       | H     |
|                              |      |           |            |        |            |        |          |        |        |        |         |       | H     |
|                              |      |           |            |        |            |        |          |        |        |        |         |       | H     |
|                              |      |           |            |        |            |        |          |        |        |        |         |       | H     |
|                              |      |           |            |        |            |        |          |        |        |        |         |       | H     |
|                              |      |           |            |        |            |        |          |        |        |        |         |       | H     |
|                              |      |           |            |        |            |        |          |        |        |        |         |       | H     |
|                              |      |           |            |        |            |        |          |        |        |        |         |       | H     |
|                              |      |           |            |        |            |        |          |        |        |        |         |       | H     |
|                              |      |           |            |        |            |        |          |        |        |        |         |       | H     |
|                              |      |           |            |        |            |        |          |        |        |        |         |       | H     |
|                              |      |           |            |        |            |        |          |        |        |        |         |       | H     |
|                              |      |           |            |        |            |        |          |        |        |        |         |       | H     |
|                              |      |           |            |        |            |        |          |        |        |        |         |       | H     |
|                              |      |           |            |        |            |        |          |        |        |        |         |       | H     |
|                              |      |           |            |        |            |        |          |        |        |        |         |       | H     |
|                              |      |           |            |        |            |        |          |        |        |        |         |       | H     |
|                              |      |           |            |        |            |        |          |        |        |        |         |       | H     |
|                              |      |           |            |        |            |        |          |        |        |        |         |       | H     |
|                              |      |           |            |        |            |        |          |        |        |        |         |       | H     |
|                              |      |           |            |        |            |        |          |        |        |        |         |       | H     |
|                              |      |           |            |        |            |        |          |        |        |        |         |       | H     |
|                              |      |           |            |        |            |        |          |        |        |        |         |       | H     |
|                              |      |           |            |        |            |        |          |        |        |        |         |       | H     |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         | H     |       |
|                              |      |           |            |        |            |        |          |        |        |        |         |       |       |

## Emission below 1GHz

## 2.4GHz BLE (LF)

| BLE                         | Note                                                                                                                                                               | Frequency | Level      | Margin | Limit      | Read   | Antenna  | Path   | Preamp | Ant    | Table   | Peak  | Pol.  |
|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|------------|--------|------------|--------|----------|--------|--------|--------|---------|-------|-------|
| Ant                         |                                                                                                                                                                    |           |            |        | Line       | Level  | Factor   | Loss   | Factor | Pos    | Pos     | Avg.  |       |
|                             |                                                                                                                                                                    | ( MHz )   | ( dBμV/m ) | ( dB ) | ( dBμV/m ) | (dBμV) | ( dB/m ) | ( dB ) | ( dB ) | ( cm ) | ( deg ) | (P/A) | (H/V) |
| 2.4GHz<br><br>BLE<br><br>LF |                                                                                                                                                                    | 45.39     | 26.96      | -13.04 | 40         | 41.4   | 17.12    | 1.16   | 32.72  | -      | -       | P     | H     |
|                             |                                                                                                                                                                    | 150.15    | 31.94      | -11.56 | 43.5       | 45.45  | 17.01    | 2.19   | 32.71  | -      | -       | P     | H     |
|                             |                                                                                                                                                                    | 225.21    | 37.77      | -8.23  | 46         | 52.17  | 15.61    | 2.66   | 32.67  | -      | -       | P     | H     |
|                             |                                                                                                                                                                    | 449.8     | 36.55      | -9.45  | 46         | 42.56  | 22.95    | 3.79   | 32.75  | -      | -       | P     | H     |
|                             |                                                                                                                                                                    | 661.2     | 39.85      | -6.15  | 46         | 41.76  | 26.35    | 4.55   | 32.81  | -      | -       | P     | H     |
|                             |                                                                                                                                                                    | 749.4     | 37.46      | -8.54  | 46         | 37     | 28.23    | 4.9    | 32.67  | -      | -       | P     | H     |
|                             |                                                                                                                                                                    |           |            |        |            |        |          |        |        |        |         |       | H     |
|                             |                                                                                                                                                                    |           |            |        |            |        |          |        |        |        |         |       | H     |
|                             |                                                                                                                                                                    |           |            |        |            |        |          |        |        |        |         |       | H     |
|                             |                                                                                                                                                                    |           |            |        |            |        |          |        |        |        |         |       | H     |
|                             |                                                                                                                                                                    |           |            |        |            |        |          |        |        |        |         |       | H     |
|                             |                                                                                                                                                                    |           |            |        |            |        |          |        |        |        |         |       | H     |
|                             |                                                                                                                                                                    |           |            |        |            |        |          |        |        |        |         |       | H     |
|                             |                                                                                                                                                                    | 45.39     | 33.7       | -6.3   | 40         | 48.14  | 17.12    | 1.16   | 32.72  | -      | -       | P     | V     |
|                             |                                                                                                                                                                    | 146.91    | 33.81      | -9.69  | 43.5       | 47.11  | 17.25    | 2.16   | 32.71  | -      | -       | P     | V     |
|                             |                                                                                                                                                                    | 224.94    | 38         | -8     | 46         | 52.45  | 15.58    | 2.64   | 32.67  | -      | -       | P     | V     |
|                             |                                                                                                                                                                    | 449.8     | 42.35      | -3.65  | 46         | 48.36  | 22.95    | 3.79   | 32.75  | 100    | 170     | Q     | V     |
|                             |                                                                                                                                                                    | 675.2     | 38.93      | -7.07  | 46         | 40.73  | 26.39    | 4.61   | 32.8   | -      | -       | P     | V     |
|                             |                                                                                                                                                                    | 717.9     | 38.85      | -7.15  | 46         | 39.74  | 27.09    | 4.77   | 32.75  | -      | -       | P     | V     |
|                             |                                                                                                                                                                    |           |            |        |            |        |          |        |        |        |         |       | V     |
|                             |                                                                                                                                                                    |           |            |        |            |        |          |        |        |        |         |       | V     |
|                             |                                                                                                                                                                    |           |            |        |            |        |          |        |        |        |         |       | V     |
|                             |                                                                                                                                                                    |           |            |        |            |        |          |        |        |        |         |       | V     |
|                             |                                                                                                                                                                    |           |            |        |            |        |          |        |        |        |         |       | V     |
|                             |                                                                                                                                                                    |           |            |        |            |        |          |        |        |        |         | V     |       |
| Remark                      | 1. No other spurious found.                                                                                                                                        |           |            |        |            |        |          |        |        |        |         |       |       |
|                             | 2. All results are PASS against limit line.                                                                                                                        |           |            |        |            |        |          |        |        |        |         |       |       |
|                             | 3. The emission position marked as “-” means no suspected emission found and emission level has at least 6dB margin against limit or emission is noise floor only. |           |            |        |            |        |          |        |        |        |         |       |       |
|                             |                                                                                                                                                                    |           |            |        |            |        |          |        |        |        |         |       |       |



&lt;Ant. 2\_2Mbps&gt;

2.4GHz 2400~2483.5MHz

BLE (Band Edge @ 3m)

| BLE<br>Ant              | Note | Frequency<br>( MHz ) | Level<br>( dBμV/m ) | Margin<br>( dB ) | Limit<br>Line<br>( dBμV/m ) | Read<br>Level<br>( dBμV ) | Antenna<br>Factor<br>( dB/m ) | Path<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Peak<br>Avg.<br>( P/A ) | Pol.<br>( H/V ) |
|-------------------------|------|----------------------|---------------------|------------------|-----------------------------|---------------------------|-------------------------------|------------------------|----------------------------|----------------------|-------------------------|-------------------------|-----------------|
| BLE<br>CH 00<br>2402MHz |      | 2368.695             | 51.21               | -22.79           | 74                          | 38.23                     | 27                            | 18.32                  | 32.34                      | 387                  | 29                      | P                       | H               |
|                         |      | 2375.835             | 42.13               | -11.87           | 54                          | 29.14                     | 27                            | 18.34                  | 32.35                      | 387                  | 29                      | A                       | H               |
|                         | *    | 2402                 | 101.01              | -                | -                           | 87.99                     | 27                            | 18.38                  | 32.36                      | 387                  | 29                      | P                       | H               |
|                         | *    | 2402                 | 99.59               | -                | -                           | 86.57                     | 27                            | 18.38                  | 32.36                      | 387                  | 29                      | A                       | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      | 2389.38              | 50.29               | -23.71           | 74                          | 37.37                     | 26.91                         | 18.36                  | 32.35                      | 374                  | 360                     | P                       | V               |
|                         |      | 2374.785             | 42.01               | -11.99           | 54                          | 29.02                     | 27                            | 18.33                  | 32.34                      | 374                  | 360                     | A                       | V               |
|                         | *    | 2402                 | 100.41              | -                | -                           | 87.39                     | 27                            | 18.38                  | 32.36                      | 374                  | 360                     | P                       | V               |
|                         | *    | 2402                 | 98.84               | -                | -                           | 85.82                     | 27                            | 18.38                  | 32.36                      | 374                  | 360                     | A                       | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
| BLE<br>CH 19<br>2440MHz |      | 2377.68              | 51.17               | -22.83           | 74                          | 38.18                     | 27                            | 18.34                  | 32.35                      | 383                  | 31                      | P                       | H               |
|                         |      | 2375.92              | 42.15               | -11.85           | 54                          | 29.16                     | 27                            | 18.34                  | 32.35                      | 383                  | 31                      | A                       | H               |
|                         | *    | 2440                 | 101.52              | -                | -                           | 88.65                     | 26.8                          | 18.45                  | 32.38                      | 383                  | 31                      | P                       | H               |
|                         | *    | 2440                 | 100.08              | -                | -                           | 87.21                     | 26.8                          | 18.45                  | 32.38                      | 383                  | 31                      | A                       | H               |
|                         |      | 2497.12              | 50.32               | -23.68           | 74                          | 37.22                     | 26.97                         | 18.55                  | 32.42                      | 383                  | 31                      | P                       | H               |
|                         |      | 2499.04              | 41.78               | -12.22           | 54                          | 28.65                     | 26.99                         | 18.56                  | 32.42                      | 383                  | 31                      | A                       | H               |
|                         |      | 2332.4               | 50.44               | -23.56           | 74                          | 37.43                     | 27.08                         | 18.25                  | 32.32                      | 368                  | 360                     | P                       | V               |
|                         |      | 2379.44              | 41.72               | -12.28           | 54                          | 28.73                     | 27                            | 18.34                  | 32.35                      | 368                  | 360                     | A                       | V               |
|                         | *    | 2440                 | 99.81               | -                | -                           | 86.94                     | 26.8                          | 18.45                  | 32.38                      | 368                  | 360                     | P                       | V               |
|                         | *    | 2440                 | 98.38               | -                | -                           | 85.51                     | 26.8                          | 18.45                  | 32.38                      | 368                  | 360                     | A                       | V               |
|                         |      | 2500                 | 50.28               | -23.72           | 74                          | 37.13                     | 27                            | 18.57                  | 32.42                      | 368                  | 360                     | P                       | V               |
|                         |      | 2498.96              | 42.01               | -11.99           | 54                          | 28.88                     | 26.99                         | 18.56                  | 32.42                      | 368                  | 360                     | A                       | V               |



| BLE<br>Ant              | Note                                                                                        | Frequency | Level      | Margin | Limit<br>Line | Read<br>Level | Antenna<br>Factor | Path<br>Loss | Preamp<br>Factor | Ant<br>Pos | Table<br>Pos | Peak<br>Avg. | Pol.    |
|-------------------------|---------------------------------------------------------------------------------------------|-----------|------------|--------|---------------|---------------|-------------------|--------------|------------------|------------|--------------|--------------|---------|
|                         |                                                                                             | ( MHz )   | ( dBμV/m ) | ( dB ) | ( dBμV/m )    | ( dBμV )      | ( dB/m )          | ( dB )       | ( dB )           | ( cm )     | ( deg )      | ( P/A )      | ( H/V ) |
| BLE<br>CH 39<br>2480MHz | *                                                                                           | 2480      | 101.82     | -      | -             | 88.81         | 26.9              | 18.52        | 32.41            | 365        | 28           | P            | H       |
|                         | *                                                                                           | 2480      | 100.35     | -      | -             | 87.34         | 26.9              | 18.52        | 32.41            | 365        | 28           | A            | H       |
|                         |                                                                                             | 2495.8    | 50.46      | -23.54 | 74            | 37.37         | 26.96             | 18.55        | 32.42            | 365        | 28           | P            | H       |
|                         |                                                                                             | 2491.72   | 41.57      | -12.43 | 54            | 28.52         | 26.92             | 18.55        | 32.42            | 365        | 28           | A            | H       |
|                         |                                                                                             |           |            |        |               |               |                   |              |                  |            |              |              | H       |
|                         |                                                                                             |           |            |        |               |               |                   |              |                  |            |              |              | H       |
|                         | *                                                                                           | 2480      | 99.44      | -      | -             | 86.43         | 26.9              | 18.52        | 32.41            | 355        | 360          | P            | V       |
|                         | *                                                                                           | 2480      | 98.04      | -      | -             | 85.03         | 26.9              | 18.52        | 32.41            | 355        | 360          | A            | V       |
|                         |                                                                                             | 2495.68   | 50.89      | -23.11 | 74            | 37.8          | 26.96             | 18.55        | 32.42            | 355        | 360          | P            | V       |
|                         |                                                                                             | 2497.32   | 41.84      | -12.16 | 54            | 28.73         | 26.97             | 18.56        | 32.42            | 355        | 360          | A            | V       |
|                         |                                                                                             |           |            |        |               |               |                   |              |                  |            |              |              | V       |
|                         |                                                                                             |           |            |        |               |               |                   |              |                  |            |              |              | V       |
|                         |                                                                                             |           |            |        |               |               |                   |              |                  |            |              |              | V       |
| Remark                  | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |           |            |        |               |               |                   |              |                  |            |              |              |         |





## 2.4GHz 2400~2483.5MHz

## BLE (Harmonic @ 3m)

| BLE<br>Ant              | Note | Frequency<br>( MHz ) | Level<br>( dBμV/m ) | Margin<br>( dB ) | Limit<br>Line<br>( dBμV/m ) | Read<br>Level<br>( dBμV ) | Antenna<br>Factor<br>( dB/m ) | Path<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Peak<br>Avg.<br>( P/A ) | Pol.<br>( H/V ) |
|-------------------------|------|----------------------|---------------------|------------------|-----------------------------|---------------------------|-------------------------------|------------------------|----------------------------|----------------------|-------------------------|-------------------------|-----------------|
| BLE<br>CH 00<br>2402MHz |      | 1262                 | 54.59               | -19.41           | 74                          | 46.09                     | 24.3                          | 15.99                  | 31.79                      | 387                  | 29                      | P                       | H               |
|                         |      | 1336                 | 49.31               | -24.69           | 74                          | 40.51                     | 24.44                         | 16.16                  | 31.8                       | 387                  | 29                      | P                       | H               |
|                         |      | 4804                 | 43.45               | -30.55           | 74                          | 31.6                      | 32.32                         | 13.03                  | 33.5                       | -                    | -                       | P                       | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      | 1262                 | 51.35               | -22.65           | 74                          | 42.85                     | 24.3                          | 15.99                  | 31.79                      | 374                  | 360                     | P                       | V               |
|                         |      | 1410                 | 51.26               | -22.74           | 74                          | 41.95                     | 24.8                          | 16.32                  | 31.81                      | 374                  | 360                     | P                       | V               |
|                         |      | 4804                 | 43.87               | -30.13           | 74                          | 32.02                     | 32.32                         | 13.03                  | 33.5                       | -                    | -                       | P                       | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |



| BLE<br>Ant              | Note | Frequency<br>( MHz ) | Level<br>( dBμV/m ) | Margin<br>( dB ) | Limit<br>Line<br>( dBμV/m ) | Read<br>Level<br>( dBμV ) | Antenna<br>Factor<br>( dB/m ) | Path<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Peak<br>Avg.<br>( P/A ) | Pol.<br>( H/V ) |
|-------------------------|------|----------------------|---------------------|------------------|-----------------------------|---------------------------|-------------------------------|------------------------|----------------------------|----------------------|-------------------------|-------------------------|-----------------|
| BLE<br>CH 19<br>2440MHz |      | 1262                 | 53.78               | -20.22           | 74                          | 45.28                     | 24.3                          | 15.99                  | 31.79                      | 383                  | 31                      | P                       | H               |
|                         |      | 1336                 | 51.18               | -22.82           | 74                          | 42.38                     | 24.44                         | 16.16                  | 31.8                       | 383                  | 31                      | P                       | H               |
|                         |      | 4880                 | 44.85               | -29.15           | 74                          | 32.71                     | 32.56                         | 13.07                  | 33.49                      | -                    | -                       | P                       | H               |
|                         |      | 7320                 | 50.05               | -23.95           | 74                          | 32.39                     | 37.5                          | 16.01                  | 35.85                      | -                    | -                       | P                       | H               |
|                         |      | 7320                 | 40.3                | -13.7            | 54                          | 22.64                     | 37.5                          | 16.01                  | 35.85                      | -                    | -                       | A                       | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                         |      | 1262                 | 50.98               | -23.02           | 74                          | 42.48                     | 24.3                          | 15.99                  | 31.79                      | 368                  | 360                     | P                       | V               |
|                         |      | 1410                 | 50.61               | -23.39           | 74                          | 41.3                      | 24.8                          | 16.32                  | 31.81                      | 368                  | 360                     | P                       | V               |
|                         |      | 4880                 | 44.62               | -29.38           | 74                          | 32.48                     | 32.56                         | 13.07                  | 33.49                      | -                    | -                       | P                       | V               |
|                         |      | 7320                 | 48.81               | -25.19           | 74                          | 31.15                     | 37.5                          | 16.01                  | 35.85                      | -                    | -                       | P                       | V               |
|                         |      | 7320                 | 40.16               | -13.84           | 54                          | 22.5                      | 37.5                          | 16.01                  | 35.85                      | -                    | -                       | A                       | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                         |      |                      |                     |                  |                             |                           |                               |                        |                            |                      |                         |                         | V               |

[illegible]



**Note symbol**

|     |                                                                                                                                                          |
|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| *   | <b>Fundamental Frequency</b> which can be ignored. However, the level of any unwanted emissions shall not exceed the level of the fundamental frequency. |
| !   | Test result is <b>Margin</b> line.                                                                                                                       |
| P/A | <b>Peak</b> or <b>Average</b>                                                                                                                            |
| H/V | <b>Horizontal</b> or <b>Vertical</b>                                                                                                                     |



A calculation example for radiated spurious emission is shown as below:

| BLE                     | Note | Frequency | Level      | Margin | Limit      | Read     | Antenna  | Path   | Preamp | Ant    | Table   | Peak    | Pol.    |
|-------------------------|------|-----------|------------|--------|------------|----------|----------|--------|--------|--------|---------|---------|---------|
|                         |      |           |            |        | Line       | Level    | Factor   | Loss   | Factor | Pos    | Pos     | Avg.    |         |
|                         |      | ( MHz )   | ( dBμV/m ) | ( dB ) | ( dBμV/m ) | ( dBμV ) | ( dB/m ) | ( dB ) | ( dB ) | ( cm ) | ( deg ) | ( P/A ) | ( H/V ) |
| BLE<br>CH 00<br>2402MHz |      | 2390      | 55.45      | -18.55 | 74         | 54.51    | 32.22    | 4.58   | 35.86  | 103    | 308     | P       | H       |
|                         |      | 2390      | 43.54      | -10.46 | 54         | 42.6     | 32.22    | 4.58   | 35.86  | 103    | 308     | A       | H       |

1. Path Loss(dB) = Cable loss(dB) + Filter loss(dB) + Attenuator loss(dB)
2. Level(dBμV/m) =  
Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)
3. Margin (dB) = Level(dBμV/m) – Limit Line(dBμV/m)

**For Peak Limit @ 2390MHz:**

1. Level(dBμV/m)  
= Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)  
= 32.22(dB/m) + 4.58(dB) + 54.51(dBμV) – 35.86 (dB)  
= 55.45 (dBμV/m)
2. Margin (dB)  
= Level(dBμV/m) – Limit Line(dBμV/m)  
= 55.45(dBμV/m) – 74(dBμV/m)  
= -18.55(dB)

**For Average Limit @ 2390MHz:**

1. Level(dBμV/m)  
= Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)  
= 32.22(dB/m) + 4.58(dB) + 42.6(dBμV) – 35.86 (dB)  
= 43.54 (dBμV/m)
2. Margin (dB)  
= Level(dBμV/m) – Limit Line(dBμV/m)  
= 43.54(dBμV/m) – 54(dBμV/m)  
= -10.46(dB)

Both peak and average measured complies with the limit line, so test result is “PASS”.



## Appendix D. Radiated Spurious Emission Plots

|                        |                                            |                            |             |
|------------------------|--------------------------------------------|----------------------------|-------------|
| <b>Test Engineer :</b> | Ken Kuo, BANK Lin, Fred Tseng and Karl Hou | <b>Temperature :</b>       | 20.8~24.8°C |
|                        |                                            | <b>Relative Humidity :</b> | 52.4~63.8%  |

### Note symbol

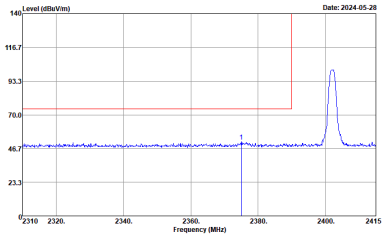
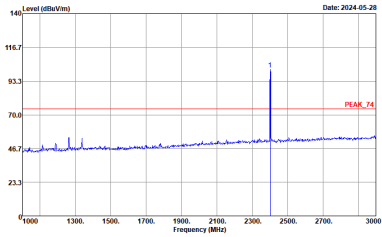
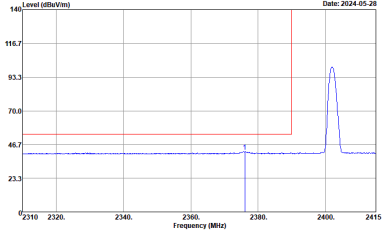
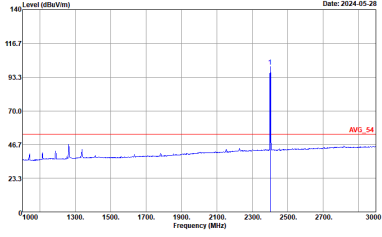
|    |                       |
|----|-----------------------|
| -L | Low channel location  |
| -R | High channel location |



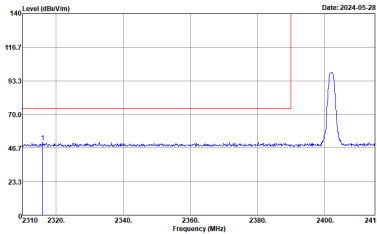
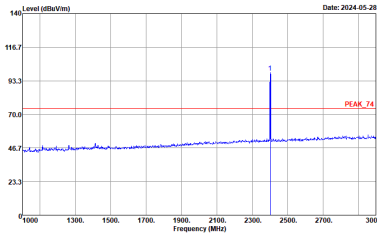
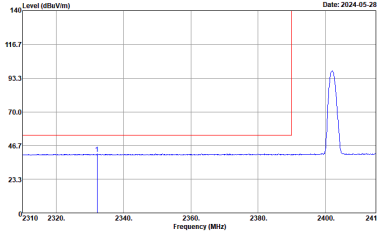
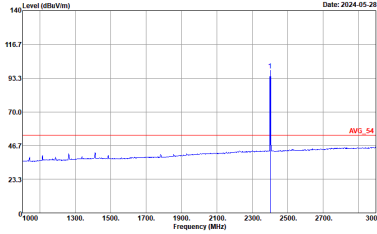
&lt;Ant. 1\_1Mbps&gt;

2.4GHz 2400~2483.5MHz

BLE (Band Edge @ 3m)

| BLE  | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                                                                                                                 |                                                                                                                                                                                                                    |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | BLE CH00 2402MHz                                                                                                                                                                                                     |                                                                                                                                                                                                                    |
|      | Horizontal                                                                                                                                                                                                           | Fundamental                                                                                                                                                                                                        |
| Peak |  <p>Site : 03CH22-HY<br/>Condition : PEAK_BE_74 3m LE2C04A18EN_230712 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |  <p>Site : 03CH22-HY<br/>Condition : PEAK_74 3m LE2C04A18EN_230712 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |
| Avg. |  <p>Site : 03CH22-HY<br/>Condition : AVG_BE_54 3m LE2C04A18EN_230712 HORIZONTAL<br/>: RBW:1000.000KHz VBW:2700KHz SWT:Auto</p>    |  <p>Site : 03CH22-HY<br/>Condition : AVG_54 3m LE2C04A18EN_230712 HORIZONTAL<br/>: RBW:1000.000KHz VBW:2700KHz SWT:Auto</p>    |



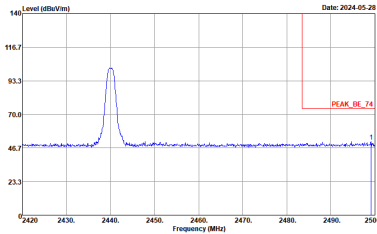
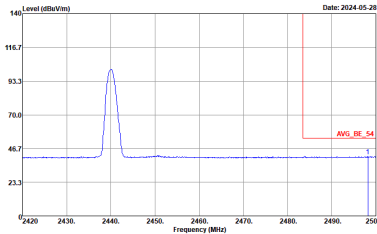
| BLE  | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                                                                                                                |                                                                                                                                                                                                                   |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | BLE CH00 2402MHz                                                                                                                                                                                                    |                                                                                                                                                                                                                   |
|      | Vertical                                                                                                                                                                                                            | Fundamental                                                                                                                                                                                                       |
| Peak |  <p>Site : 03CH22-HY<br/>Condition : PEAK_BE_74 3m LEZ004A18ENL_230712 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |  <p>Site : 03CH22-HY<br/>Condition : PEAK_74 3m LEZ004A18ENL_230712 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |
| Avg  |  <p>Site : 03CH22-HY<br/>Condition : AVG_BE_54 3m LEZ004A18ENL_230712 VERTICAL<br/>: RBW:1000.000KHz VBW:2.700KHz SWT:Auto</p>   |  <p>Site : 03CH22-HY<br/>Condition : AVG_54 3m LEZ004A18ENL_230712 VERTICAL<br/>: RBW:1000.000KHz VBW:2.700KHz SWT:Auto</p>   |



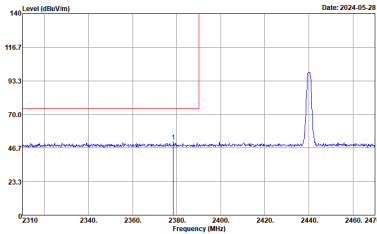
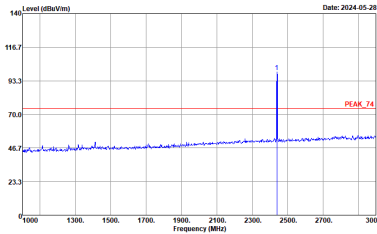
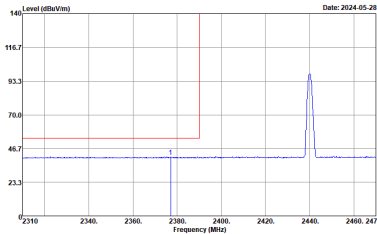
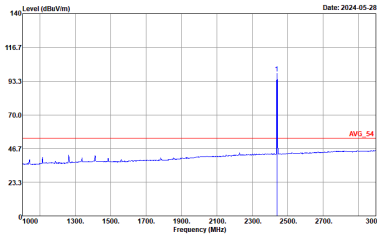


| BLE  | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                               |                                                                                                                                 |
|------|------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| ANT  | BLE CH19 2440MHz - L                                                                                                               |                                                                                                                                 |
|      | Horizontal                                                                                                                         | Fundamental                                                                                                                     |
| Peak | <p>Site : 03CH22-HY<br/>Condition : PEAK_BE_74 3m LE2C04A18EN_230712 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> | <p>Site : 03CH22-HY<br/>Condition : PEAK_74 3m LE2C04A18EN_230712 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |
| Avg. | <p>Site : 03CH22-HY<br/>Condition : AVG_BE_54 3m LE2C04A18EN_230712 HORIZONTAL<br/>: RBW:1000.000KHz VBW:2.700KHz SWT:Auto</p>     | <p>Site : 03CH22-HY<br/>Condition : AVG_54 3m LE2C04A18EN_230712 HORIZONTAL<br/>: RBW:1000.000KHz VBW:2.700KHz SWT:Auto</p>     |

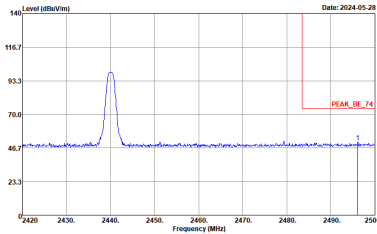
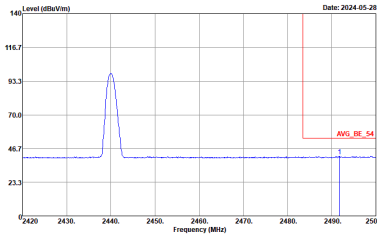


| BLE  | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                                                                                                                         |             |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| ANT  | BLE CH19 2440MHz - R                                                                                                                                                                                                         |             |
|      | Horizontal                                                                                                                                                                                                                   | Fundamental |
| Peak | <div><p>Site : 03CH22-HY<br/>Condition : PEAK_BE_74 3m LE2C04A18EN_230712 HORIZONTAL<br/>RBW:1000.000kHz VBW:3000.000kHz SWT:Auto</p></div> | Left blank  |
| Avg. | <div><p>Site : 03CH22-HY<br/>Condition : AVG_BE_54 3m LE2C04A18EN_230712 HORIZONTAL<br/>RBW:1000.000kHz VBW:2700kHz SWT:Auto</p></div>    | Left blank  |



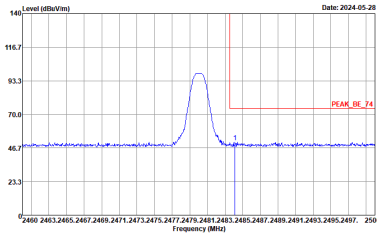
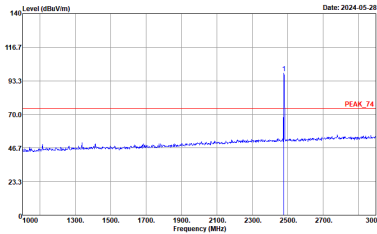
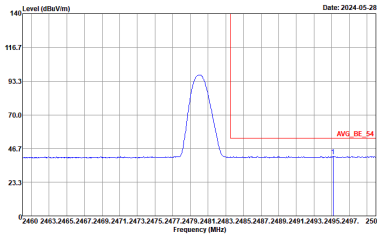
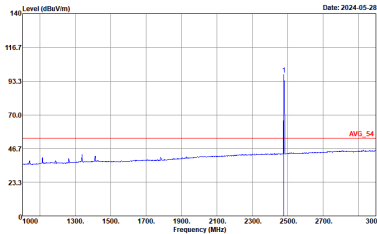
| BLE  | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                                                                                                              |                                                                                                                                                                                                                 |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | BLE CH19 2440MHz - L                                                                                                                                                                                              |                                                                                                                                                                                                                 |
|      | Vertical                                                                                                                                                                                                          | Fundamental                                                                                                                                                                                                     |
| Peak |  <p>Site : 03CH22-HY<br/>Condition : PEAK_BE_74 3m LE2004A18ENL_230712 VERTICAL<br/>RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |  <p>Site : 03CH22-HY<br/>Condition : PEAK_74 3m LE2004A18ENL_230712 VERTICAL<br/>RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |
| Avg. |  <p>Site : 03CH22-HY<br/>Condition : AVG_BE_54 3m LE2004A18ENL_230712 VERTICAL<br/>RBW:1000.000KHz VBW:2700KHz SWT:Auto</p>    |  <p>Site : 03CH22-HY<br/>Condition : AVG_54 3m LE2004A18ENL_230712 VERTICAL<br/>RBW:1000.000KHz VBW:2700KHz SWT:Auto</p>    |



| BLE  | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                                                                                                                       |             |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| ANT  | BLE CH19 2440MHz - R                                                                                                                                                                                                       |             |
|      | Vertical                                                                                                                                                                                                                   | Fundamental |
| Peak | <div><p>Site : 03CH22-HY<br/>Condition : PEAK_BE_74 3m LE2C04A18EN_230712 VERTICAL<br/>RBW:1000.000kHz VBW:3000.000kHz SWT:Auto</p></div> | Left blank  |
| Avg. | <div><p>Site : 03CH22-HY<br/>Condition : AVG_BE_54 3m LE2C04A18EN_230712 VERTICAL<br/>RBW:1000.000kHz VBW:2700kHz SWT:Auto</p></div>    | Left blank  |



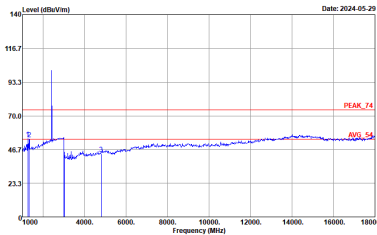
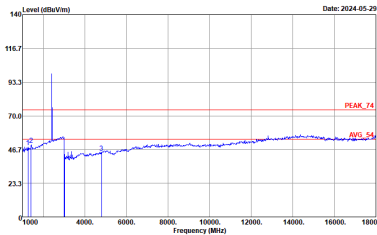
| BLE  | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                               |                                                                                                                                 |
|------|------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| ANT  | BLE CH39 2480MHz                                                                                                                   |                                                                                                                                 |
|      | Horizontal                                                                                                                         | Fundamental                                                                                                                     |
| Peak | <p>Site : 03CH22-HY<br/>Condition : PEAK_BE_74 3m LEZ004A18EN_230712 HORIZONTAL<br/>: RBW:1000.000kHz VBW:3000.000kHz SWT:Auto</p> | <p>Site : 03CH22-HY<br/>Condition : PEAK_74 3m LEZ004A18EN_230712 HORIZONTAL<br/>: RBW:1000.000kHz VBW:3000.000kHz SWT:Auto</p> |
| Avg. | <p>Site : 03CH22-HY<br/>Condition : AVG_BE_54 3m LEZ004A18EN_230712 HORIZONTAL<br/>: RBW:1000.000kHz VBW:2.700kHz SWT:Auto</p>     | <p>Site : 03CH22-HY<br/>Condition : AVG_54 3m LEZ004A18EN_230712 HORIZONTAL<br/>: RBW:1000.000kHz VBW:2.700kHz SWT:Auto</p>     |

| BLE  | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                                                                                                             |                                                                                                                                                                                                                |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | BLE CH39 2480MHz                                                                                                                                                                                                 |                                                                                                                                                                                                                |
|      | Vertical                                                                                                                                                                                                         | Fundamental                                                                                                                                                                                                    |
| Peak |  <p>Site : 03CH22-HY<br/>Condition : PEAK_BE_74 3m LEZ004A18EN_230712 VERTICAL<br/>RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |  <p>Site : 03CH22-HY<br/>Condition : PEAK_74 3m LEZ004A18EN_230712 VERTICAL<br/>RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |
| Avg. |  <p>Site : 03CH22-HY<br/>Condition : AVG_BE_54 3m LEZ004A18EN_230712 VERTICAL<br/>RBW:1000.000KHz VBW:2.700KHz SWT:Auto</p>   |  <p>Site : 03CH22-HY<br/>Condition : AVG_54 3m LEZ004A18EN_230712 VERTICAL<br/>RBW:1000.000KHz VBW:2.700KHz SWT:Auto</p>   |

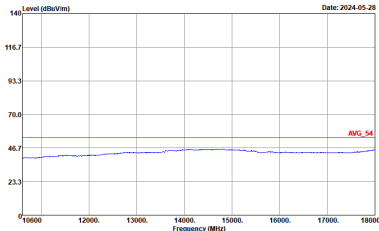
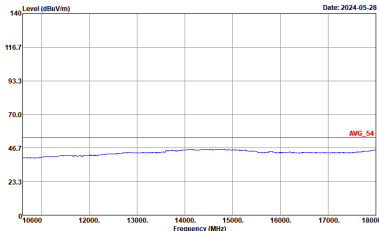


2.4GHz 2400~2483.5MHz

BLE (Harmonic @ 3m)

|              |                                                                                                                                                                                     |                                                                                                                                                                                    |
|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| BLE          | 2.4GHz 2400~2483.5MHz Harmonic @ 3m                                                                                                                                                 |                                                                                                                                                                                    |
| ANT          | BLE CH00 2402MHz                                                                                                                                                                    |                                                                                                                                                                                    |
|              | Horizontal                                                                                                                                                                          | Vertical                                                                                                                                                                           |
| Peak<br>Avg. | <div><p>Site : 03CH22-1HY<br/>Condition : PEAK_74 3m LE2CD4A18EN_230712 HORIZONTAL<br/>:</p></div> | <div><p>Site : 03CH22-1HY<br/>Condition : PEAK_74 3m LE2CD4A18EN_230712 VERTICAL<br/>:</p></div> |



|                       |                                                                                                                                                                                   |                                                                                                                                                                                  |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| BLE                   | 2.4GHz 2400~2483.5MHz Harmonic @ 3m                                                                                                                                               |                                                                                                                                                                                  |
| ANT                   | BLE CH00 2402MHz                                                                                                                                                                  |                                                                                                                                                                                  |
|                       | Horizontal                                                                                                                                                                        | Vertical                                                                                                                                                                         |
| 10.6G<br>~18G<br>Avg. | <div><p>Site : 03CH22-HY<br/>Condition : AVG_54 3m LE2C04A18EN_230712 HORIZONTAL<br/>:</p></div> | <div><p>Site : 03CH22-HY<br/>Condition : AVG_54 3m LE2C04A18EN_230712 VERTICAL<br/>:</p></div> |



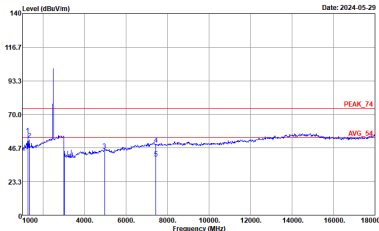
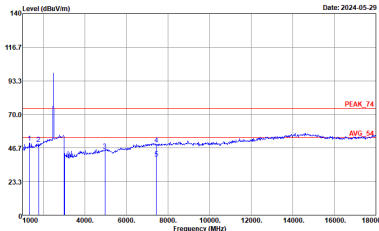


|              |                                                                                                   |                                                                                                 |
|--------------|---------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| BLE          | 2.4GHz 2400~2483.5MHz Harmonic @ 3m                                                               |                                                                                                 |
| ANT          | BLE CH19 2440MHz                                                                                  |                                                                                                 |
|              | Horizontal                                                                                        | Vertical                                                                                        |
| Peak<br>Avg. | <div><p>Site : 03CH22-HY<br/>Condition : PEAK_74 3m LE2004A18EN_230712 HORIZONTAL<br/>:</p></div> | <div><p>Site : 03CH22-HY<br/>Condition : PEAK_74 3m LE2004A18EN_230712 VERTICAL<br/>:</p></div> |

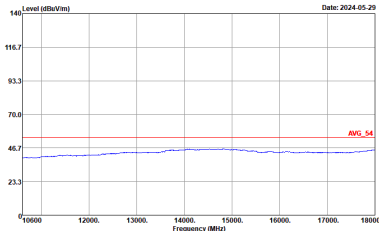
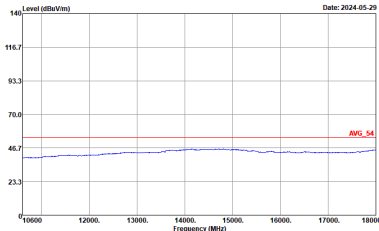


|                       |                                                                                                                                              |                                                                                                                                            |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| BLE                   | 2.4GHz 2400~2483.5MHz Harmonic @ 3m                                                                                                          |                                                                                                                                            |
| ANT                   | BLE CH19 2440MHz                                                                                                                             |                                                                                                                                            |
|                       | Horizontal                                                                                                                                   | Vertical                                                                                                                                   |
| 10.6G<br>~18G<br>Avg. | <div><p>Level (dBuV/m)</p><p>Date: 2024-05-28</p><p>Site : 03CH22-HY<br/>Condition : AVG_54 3m LE2C04A18EN_230712 HORIZONTAL<br/>:</p></div> | <div><p>Level (dBuV/m)</p><p>Date: 2024-05-28</p><p>Site : 03CH22-HY<br/>Condition : AVG_54 3m LE2C04A18EN_230712 VERTICAL<br/>:</p></div> |



|      |                                                                                                                                                                                    |                                                                                                                                                                                   |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| BLE  | 2.4GHz 2400~2483.5MHz Harmonic @ 3m                                                                                                                                                |                                                                                                                                                                                   |
| ANT  | BLE CH39 2480MHz                                                                                                                                                                   |                                                                                                                                                                                   |
|      | Horizontal                                                                                                                                                                         | Vertical                                                                                                                                                                          |
| Peak | <div><p>Site : 03CH22-HY<br/>Condition : PEAK_74 3m LE2004A18EN_230712 HORIZONTAL<br/>:</p></div> | <div><p>Site : 03CH22-HY<br/>Condition : PEAK_74 3m LE2004A18EN_230712 VERTICAL<br/>:</p></div> |



|                       |                                                                                                                                                                                   |                                                                                                                                                                                  |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| BLE                   | 2.4GHz 2400~2483.5MHz Harmonic @ 3m                                                                                                                                               |                                                                                                                                                                                  |
| ANT                   | BLE CH39 2480MHz                                                                                                                                                                  |                                                                                                                                                                                  |
|                       | Horizontal                                                                                                                                                                        | Vertical                                                                                                                                                                         |
| 10.6G<br>~18G<br>Avg. | <div><p>Site : 03CH22-HY<br/>Condition : AVG_54 3m LE2C04A18EN_230712 HORIZONTAL<br/>:</p></div> | <div><p>Site : 03CH22-HY<br/>Condition : AVG_54 3m LE2C04A18EN_230712 VERTICAL<br/>:</p></div> |



Emission above 18GHz

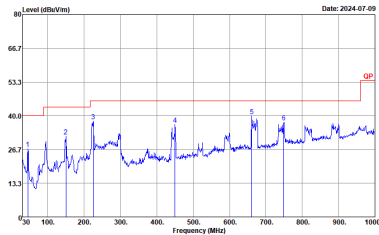
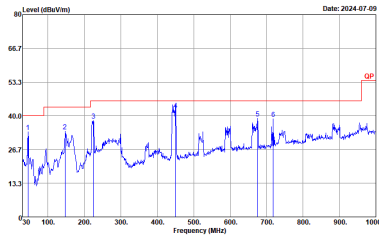
2.4GHz BLE (SHF @ 1m)

|              |                                                                                                                                             |                                                                                                                                           |
|--------------|---------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| BLE          | 2.4GHz 2400~2483.5MHz                                                                                                                       |                                                                                                                                           |
| ANT          | BLE SHF                                                                                                                                     |                                                                                                                                           |
|              | Horizontal                                                                                                                                  | Vertical                                                                                                                                  |
| Peak<br>Avg. | <div><p>Level (dBuV/m)</p><p>Date: 2024-07-11</p><p>Site : 03CH22-1HY<br/>Condition : PEAK_74 1m SHF 1224_240624 HORIZONTAL<br/>:</p></div> | <div><p>Level (dBuV/m)</p><p>Date: 2024-07-11</p><p>Site : 03CH22-1HY<br/>Condition : PEAK_74 1m SHF 1224_240624 VERTICAL<br/>:</p></div> |



Emission below 1GHz

2.4GHz BLE (LF)

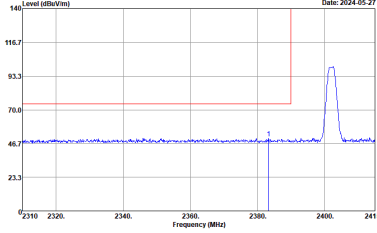
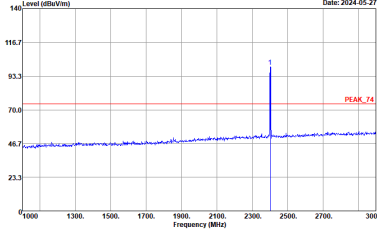
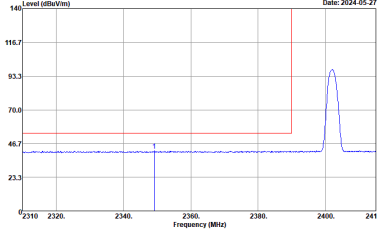
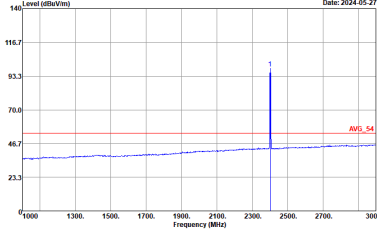
|              |                                                                                                                                                                                  |                                                                                                                                                                                 |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| BLE          | 2.4GHz 2400~2483.5MHz                                                                                                                                                            |                                                                                                                                                                                 |
| ANT          | BLE LF                                                                                                                                                                           |                                                                                                                                                                                 |
|              | Horizontal                                                                                                                                                                       | Vertical                                                                                                                                                                        |
| QP /<br>Peak | <div><p>Site : 03CH22-4HY<br/>Condition : QP 3m BIL0663304_231015_16 HORIZONTAL<br/>:</p></div> | <div><p>Site : 03CH22-4HY<br/>Condition : QP 3m BIL0663304_231015_16 VERTICAL<br/>:</p></div> |



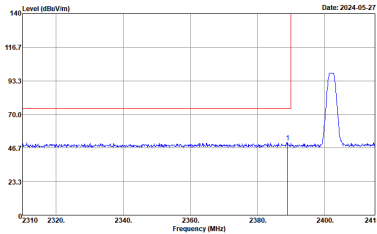
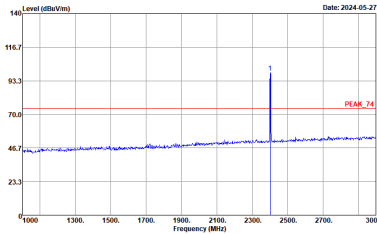
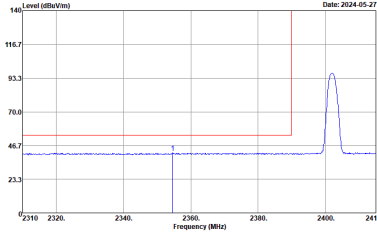
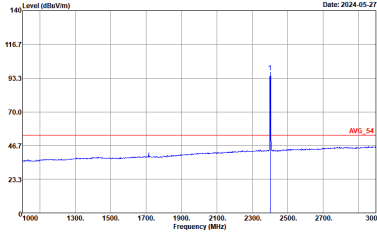
&lt;Ant. 1\_2Mbps&gt;

2.4GHz 2400~2483.5MHz

BLE (Band Edge @ 3m)

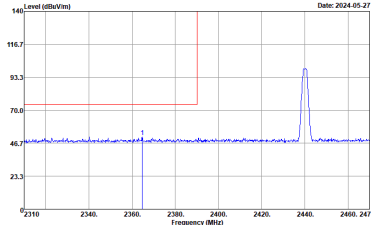
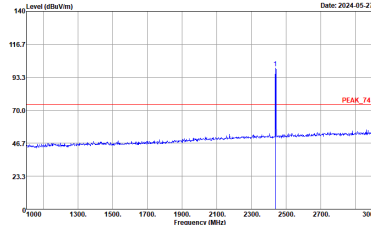
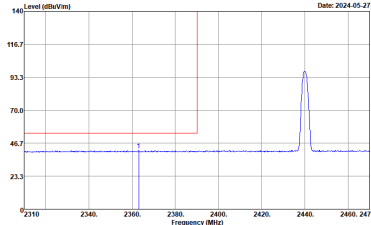
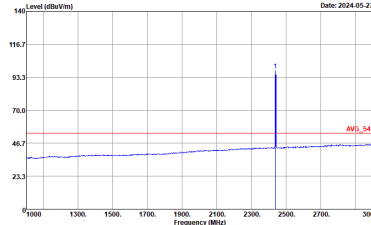
| BLE  | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                                                                                                                 |                                                                                                                                                                                                                    |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | BLE CH00 2402MHz                                                                                                                                                                                                     |                                                                                                                                                                                                                    |
|      | Horizontal                                                                                                                                                                                                           | Fundamental                                                                                                                                                                                                        |
| Peak |  <p>Site : 03CH22-HY<br/>Condition : PEAK_BE_74 3m LE2C04A18EN_230712 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |  <p>Site : 03CH22-HY<br/>Condition : PEAK_74 3m LE2C04A18EN_230712 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |
| Avg. |  <p>Site : 03CH22-HY<br/>Condition : AVG_BE_54 3m LE2C04A18EN_230712 HORIZONTAL<br/>: RBW:1000.000KHz VBW:5.100KHz SWT:Auto</p>   |  <p>Site : 03CH22-HY<br/>Condition : AVG_54 3m LE2C04A18EN_230712 HORIZONTAL<br/>: RBW:1000.000KHz VBW:5.100KHz SWT:Auto</p>   |



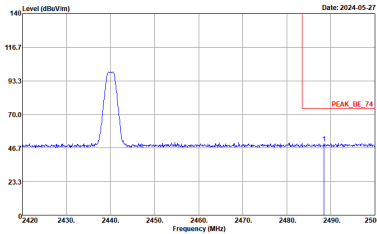
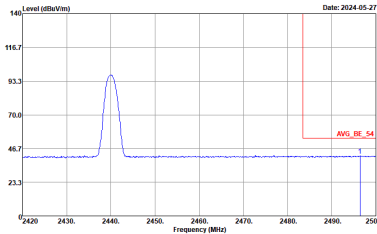
| BLE  | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                                                                                                                |                                                                                                                                                                                                                   |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | BLE CH00 2402MHz                                                                                                                                                                                                    |                                                                                                                                                                                                                   |
|      | Vertical                                                                                                                                                                                                            | Fundamental                                                                                                                                                                                                       |
| Peak |  <p>Site : 03CH22-HY<br/>Condition : PEAK_BE_74 3m LEZ004A18ENL_230712 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |  <p>Site : 03CH22-HY<br/>Condition : PEAK_74 3m LEZ004A18ENL_230712 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |
| Avg  |  <p>Site : 03CH22-HY<br/>Condition : AVG_BE_54 3m LEZ004A18ENL_230712 VERTICAL<br/>: RBW:1000.000KHz VBW:5.000KHz SWT:Auto</p>   |  <p>Site : 03CH22-HY<br/>Condition : AVG_54 3m LEZ004A18ENL_230712 VERTICAL<br/>: RBW:1000.000KHz VBW:5.000KHz SWT:Auto</p>   |



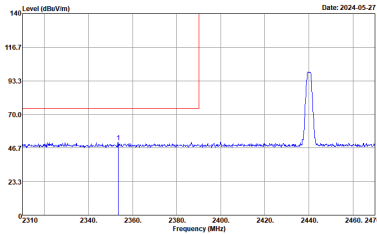
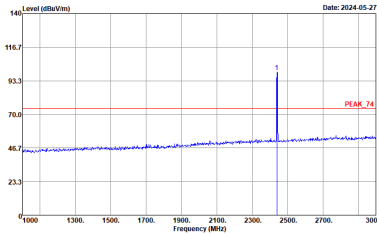
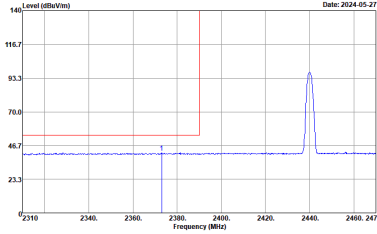
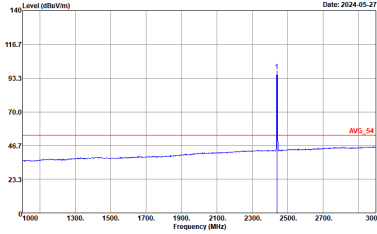


| BLE  | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                                                                                                                 |                                                                                                                                                                                                                    |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | BLE CH19 2440MHz - L                                                                                                                                                                                                 |                                                                                                                                                                                                                    |
|      | Horizontal                                                                                                                                                                                                           | Fundamental                                                                                                                                                                                                        |
| Peak |  <p>Site : 03CH22-HY<br/>Condition : PEAK_BE_74 3m LE2C04A18EN_230712 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |  <p>Site : 03CH22-HY<br/>Condition : PEAK_74 3m LE2C04A18EN_230712 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |
| Avg. |  <p>Site : 03CH22-HY<br/>Condition : AVG_BE_54 3m LE2C04A18EN_230712 HORIZONTAL<br/>: RBW:1000.000KHz VBW:5.000KHz SWT:Auto</p>   |  <p>Site : 03CH22-HY<br/>Condition : AVG_54 3m LE2C04A18EN_230712 HORIZONTAL<br/>: RBW:1000.000KHz VBW:5.000KHz SWT:Auto</p>   |

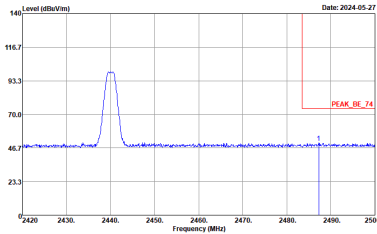
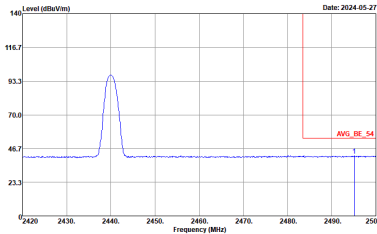


| BLE  | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                                                                                                                         |             |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| ANT  | BLE CH19 2440MHz - R                                                                                                                                                                                                         |             |
|      | Horizontal                                                                                                                                                                                                                   | Fundamental |
| Peak | <div><p>Site : 03CH22-HY<br/>Condition : PEAK_BE_74 3m LEZC04A18EN_230712 HORIZONTAL<br/>RBW:1000.000kHz VBW:3000.000kHz SWT:Auto</p></div> | Left blank  |
| Avg. | <div><p>Site : 03CH22-HY<br/>Condition : AVG_BE_54 3m LEZC04A18EN_230712 HORIZONTAL<br/>RBW:1000.000kHz VBW:5.000kHz SWT:Auto</p></div>   | Left blank  |



| BLE  | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                                                                                                                       |                                                                                                                                                                                                                          |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | BLE CH19 2440MHz - L                                                                                                                                                                                                       |                                                                                                                                                                                                                          |
|      | Vertical                                                                                                                                                                                                                   | Fundamental                                                                                                                                                                                                              |
| Peak | <div><p>Site : 03CH22-HY<br/>Condition : PEAK_BE_74 3m LE2004A18EN_230712 VERTICAL<br/>RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p></div> | <div><p>Site : 03CH22-HY<br/>Condition : PEAK_74 3m LE2004A18EN_230712 VERTICAL<br/>RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p></div> |
| Avg. | <div><p>Site : 03CH22-HY<br/>Condition : AVG_BE_54 3m LE2004A18EN_230712 VERTICAL<br/>RBW:1000.000KHz VBW:5.000KHz SWT:Auto</p></div>   | <div><p>Site : 03CH22-HY<br/>Condition : AVG_54 3m LE2004A18EN_230712 VERTICAL<br/>RBW:1000.000KHz VBW:5.000KHz SWT:Auto</p></div>   |



| BLE  | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                                                                                                                       |             |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| ANT  | BLE CH19 2440MHz - R                                                                                                                                                                                                       |             |
|      | Vertical                                                                                                                                                                                                                   | Fundamental |
| Peak | <div><p>Site : 03CH22-HY<br/>Condition : PEAK_BE_74 3m LEZC04A18EN_230712 VERTICAL<br/>RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p></div> | Left blank  |
| Avg. | <div><p>Site : 03CH22-HY<br/>Condition : AVG_BE_54 3m LEZC04A18EN_230712 VERTICAL<br/>RBW:1000.000KHz VBW:5.000KHz SWT:Auto</p></div>   | Left blank  |



| BLE  | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                             |                                                                                                                               |
|------|----------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| ANT  | BLE CH39 2480MHz                                                                                                                 |                                                                                                                               |
|      | Horizontal                                                                                                                       | Fundamental                                                                                                                   |
| Peak | <p>Site : 03CH22-HY<br/>Condition : PEAK_BE_74 3m LEZ004A18EN_230712 HORIZONTAL<br/>RBW:1000.000kHz VBW:3000.000kHz SWT:Auto</p> | <p>Site : 03CH22-HY<br/>Condition : PEAK_74 3m LEZ004A18EN_230712 HORIZONTAL<br/>RBW:1000.000kHz VBW:3000.000kHz SWT:Auto</p> |
| Avg. | <p>Site : 03CH22-HY<br/>Condition : AVG_BE_54 3m LEZ004A18EN_230712 HORIZONTAL<br/>RBW:1000.000kHz VBW:5.000kHz SWT:Auto</p>     | <p>Site : 03CH22-HY<br/>Condition : AVG_54 3m LEZ004A18EN_230712 HORIZONTAL<br/>RBW:1000.000kHz VBW:5.000kHz SWT:Auto</p>     |



| BLE  | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                           |                                                                                                                             |
|------|--------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| ANT  | BLE CH39 2480MHz                                                                                                               |                                                                                                                             |
|      | Vertical                                                                                                                       | Fundamental                                                                                                                 |
| Peak | <p>Site : 03CH22-HY<br/>Condition : PEAK_BE_74 3m LEZ004A18EN_230712 VERTICAL<br/>RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> | <p>Site : 03CH22-HY<br/>Condition : PEAK_74 3m LEZ004A18EN_230712 VERTICAL<br/>RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |
| Avg. | <p>Site : 03CH22-HY<br/>Condition : AVG_BE_54 3m LEZ004A18EN_230712 VERTICAL<br/>RBW:1000.000KHz VBW:5.000KHz SWT:Auto</p>     | <p>Site : 03CH22-HY<br/>Condition : AVG_54 3m LEZ004A18EN_230712 VERTICAL<br/>RBW:1000.000KHz VBW:5.000KHz SWT:Auto</p>     |

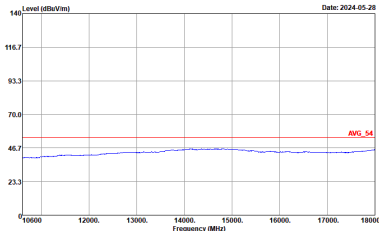
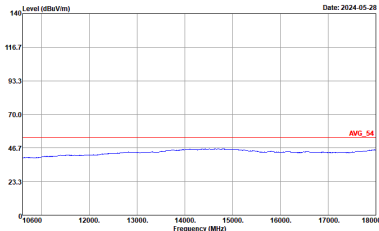


2.4GHz 2400~2483.5MHz

BLE (Harmonic @ 3m)

|              |                                                                                                                                                |                                                                                                                                              |
|--------------|------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| BLE          | 2.4GHz 2400~2483.5MHz Harmonic @ 3m                                                                                                            |                                                                                                                                              |
| ANT          | BLE CH00 2402MHz                                                                                                                               |                                                                                                                                              |
|              | Horizontal                                                                                                                                     | Vertical                                                                                                                                     |
| Peak<br>Avg. | <div><p>Level (dBuV/m)</p><p>Date: 2024-05-28</p><p>Site : 03CH22-1HY<br/>Condition : PEAK_74 3m LE2CD4A18EN_230712 HORIZONTAL<br/>:</p></div> | <div><p>Level (dBuV/m)</p><p>Date: 2024-05-28</p><p>Site : 03CH22-1HY<br/>Condition : PEAK_74 3m LE2CD4A18EN_230712 VERTICAL<br/>:</p></div> |



|                       |                                                                                                                                                                                   |                                                                                                                                                                                  |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| BLE                   | 2.4GHz 2400~2483.5MHz Harmonic @ 3m                                                                                                                                               |                                                                                                                                                                                  |
| ANT                   | BLE CH00 2402MHz                                                                                                                                                                  |                                                                                                                                                                                  |
|                       | Horizontal                                                                                                                                                                        | Vertical                                                                                                                                                                         |
| 10.6G<br>~18G<br>Avg. | <div><p>Site : 03CH22-HY<br/>Condition : AVG_54 3m LE2C04A18EN_230712 HORIZONTAL<br/>:</p></div> | <div><p>Site : 03CH22-HY<br/>Condition : AVG_54 3m LE2C04A18EN_230712 VERTICAL<br/>:</p></div> |