# FCC RADIO TEST REPORT

| | | |
|---|---|---|
| **FCC ID** | : | **2AP4W-BELLEKA** |
| **Equipment** | : | **mPERS** |
| **Brand Name** | : | **Belle** |
| **Model Name** | : | **Belle Versa ATT** |
| **Applicant** | : | **Becklar, LLC**<br>**1069 Stewart Dr, Suites 3-6 Ogden, Utah 84404, United States** |
| **Manufacturer** | : | **Becklar, LLC**<br>**1069 Stewart Dr, Suites 3-6 Ogden, Utah 84404, United States** |
| **Standard** | : | **FCC Part 15 Subpart C §15.247** |

**The product was received on Aug. 05, 2026 and testing was performed from Aug. 28, 2026 to Oct. 06, 2026. 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 |
|---|---|---|---|
| FR672405A | 01 | Initial issue of report | Oct. 16, 2026 |
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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 | - |
| 3.6 | 15.207 | AC Conducted Emission | Pass | - |
| 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/manufacturer 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: Keven Cheng**

**Report Producer: Freda Wu**

# 1 General Description

## 1.1 Product Feature of Equipment Under Test

| Product Specification subject to this standard |
|---|
| **General Specs**<br>LTE, Bluetooth, Wi-Fi 2.4GHz 802.11b/g/n and GPS<br><br>**Antenna Type**<br>Bluetooth: Coulpling Antenna |

**Remark:** The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

| Antenna information | | |
|---|---|---|
| **2400 MHz ~ 2483.5 MHz** | Peak Gain (dBi) | -1.19 |

| EUT Information List | |
|---|---|
| **S/N** | **Performed Test Item** |
| AY6XF5 | Conducted Emission |
| EBN49U | Radiated Spurious Emission |
| PWCBSJ | RF Conducted Measurement |

## 1.2 Modification of EUT

No modifications made to the EUT during the testing.

## 1.3 Testing Location

The test location is accredited based on TAF code 1190 and 3786 designated by NCC (National Communication Commission).

| | |
|---|---|
| **Test Site** | Sporton International Inc. EMC & Wireless Communications Laboratory |
| **Test Site Location** | No.52, Huaya 1st Rd., Guishan Dist.,<br>Taoyuan City 333, Taiwan (R.O.C.) |

| | |
|---|---|
| **Test Site** | Sporton International Inc. Wensan Laboratory |
| **Test Site Location** | No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist.,<br>Taoyuan City 333010, Taiwan (R.O.C.) |

FCC designation No.: TW1190 and TW3786

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

## 1.4 Applicable Standards

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

- FCC KDB Publication No. 558074 D01 15.247 Meas Guidance v05r02
- FCC KDB 414788 D01 Radiated Test Site v01r01
- FCC Part 15 Subpart C §15.247
- ANSI C63.10-2020 + Cor.1-2023

**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. (MHz) | Channel | Freq. (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

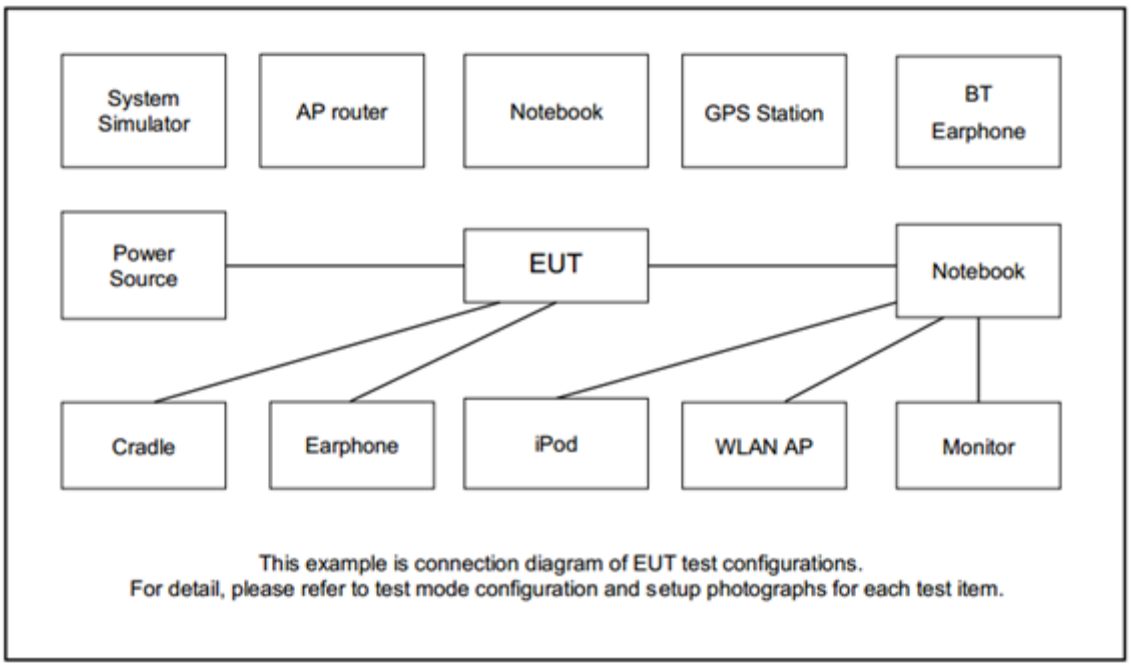
a. The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: conduction emission (150 kHz to 30 MHz), radiation emission (9 kHz to the 10th harmonic of the highest fundamental 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** |
| **Conducted Test Cases** | **Bluetooth – LE / GFSK** |
| | Mode 1: Bluetooth Tx CH00_2402 MHz_125Kbps<br>Mode 2: Bluetooth Tx CH19_2440 MHz_125Kbps<br>Mode 3: Bluetooth Tx CH39_2480 MHz_125Kbps<br>Mode 4: Bluetooth Tx CH00_2402 MHz_500Kbps<br>Mode 5: Bluetooth Tx CH19_2440 MHz_500Kbps<br>Mode 6: Bluetooth Tx CH39_2480 MHz_500Kbps<br>Mode 7: Bluetooth Tx CH00_2402 MHz_1Mbps<br>Mode 8: Bluetooth Tx CH19_2440 MHz_1Mbps<br>Mode 9: Bluetooth Tx CH39_2480 MHz_1Mbps<br>Mode 10: Bluetooth Tx CH00_2402 MHz_2Mbps<br>Mode 11: Bluetooth Tx CH19_2440 MHz_2Mbps<br>Mode 12: Bluetooth Tx CH39_2480 MHz_2Mbps |
| **AC Conducted Emission** | Mode 1: BT Tx+ GPS Rx+ Charging Cradle with adapter |
| **Remark:**<br>1. For radiation spurious emission, the modulation and the data rate picked for testing are determined by the Max. RF conducted power.<br>2. The detailed Radiated test modes are shown in Appendix C. | |

## 2.3 Connection Diagram of Test System




## 2.4 Support Unit used in test configuration and system

| Item | Equipment | Brand Name | Model Name | FCC ID | Data Cable | Power Cord |
|---|---|---|---|---|---|---|
| 1. | GPS Station | Pendulum | GSG-54 | N/A | N/A | Unshielded,1.8m |
| 2. | WLAN AP | ASUS | RT-AC66U | MSQ-RTAC66U | N/A | Unshielded,1.8m |
| 3. | NOTE BOOK | Dell | Latitude 3420 | FCC DoC | N/A | AC I/P : Unshielded, 1.2m DC O/P : Shielded, 1.8m |

## 2.5 EUT Operation Test Setup

The RF test items, utility “BlueTest3” 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 4.85 dB and 20 dB attenuator.

*Offset(dB) = RF cable loss(dB) + attenuator factor(dB).*

= 4.85 + 20 = 24.85 (dB)

# 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.

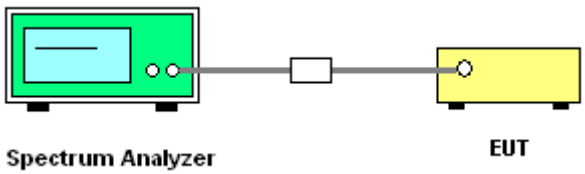
### 3.1.2 Measuring Instruments

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) = 1% to 5% of the OBW but not less than 100 kHz. Set the Video bandwidth VBW ≥ 3 * RBW. In order to make an accurate measurement. The 6dB bandwidth must be greater than 500 kHz.
   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) ≥ 3 * RBW.
5. 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.

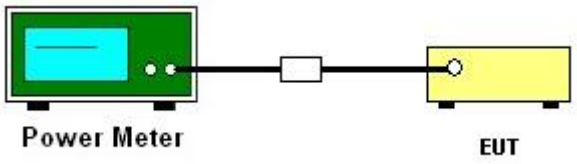
### 3.2.2 Measuring Instruments

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.

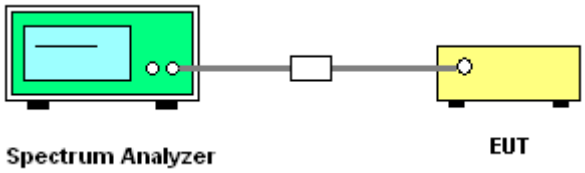
### 3.3.2 Measuring Instruments

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 = No faster than coupled (auto) time, 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.

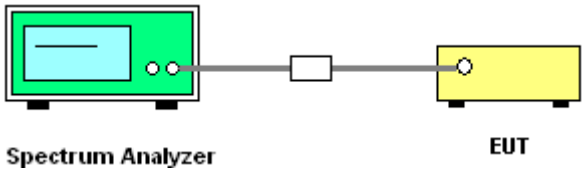
### 3.4.2 Measuring Instruments

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.

| Frequency (MHz) | Field Strength (microvolts/meter) | Measurement Distance (meters) |
|---|---|---|
| 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

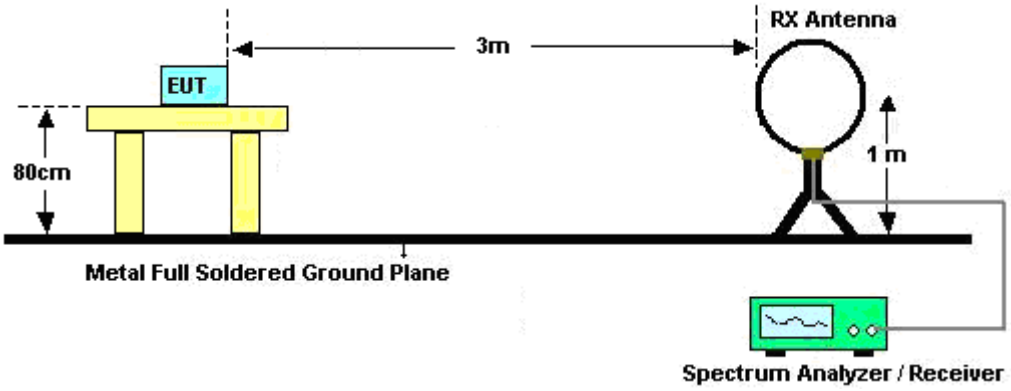
Please refer to the measuring equipment list in this test report.

### 3.5.3 Test Procedures

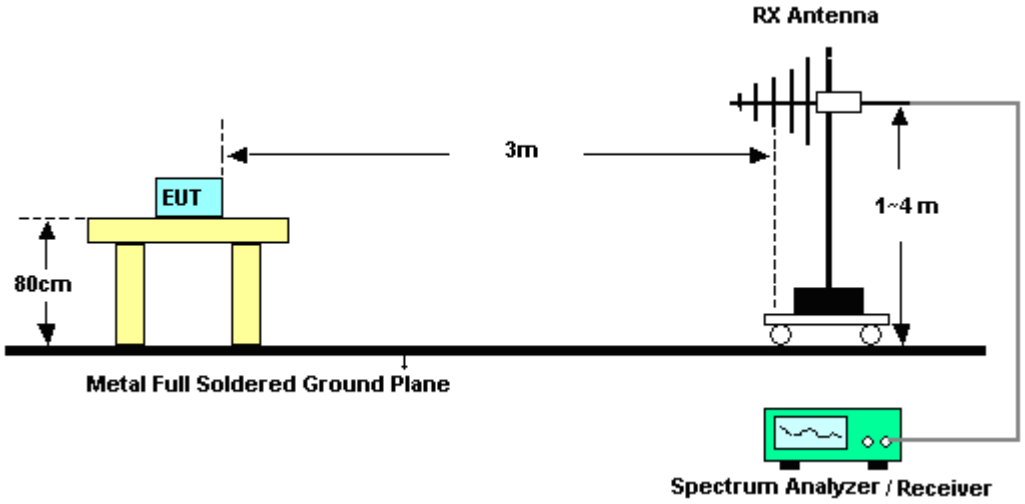
1. The testing follows the ANSI C63.10 Section 11.12.1 Radiated emission measurements.
2. The EUT is arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the 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 ≥ RBW; Sweep = auto; Detector function = peak; Trace = max hold;
   (3) Set RBW = 1 MHz, VBW = 3 MHz for f ≥ 1 GHz for peak measurement.
   For average measurement:
   - VBW = 10 Hz, when duty cycle is no less than 98 percent.
   - VBW ≥ 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

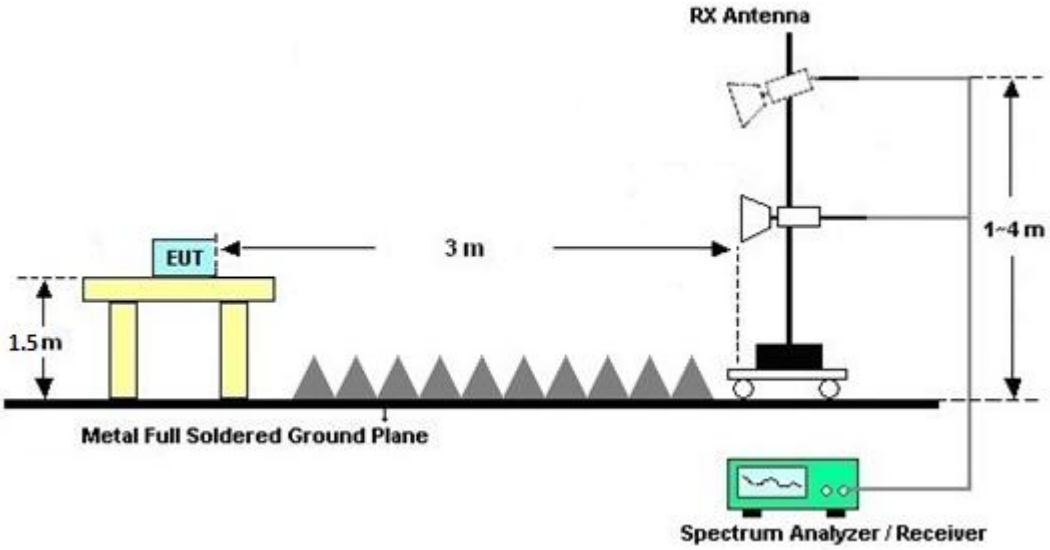
**For radiated test below 30MHz**



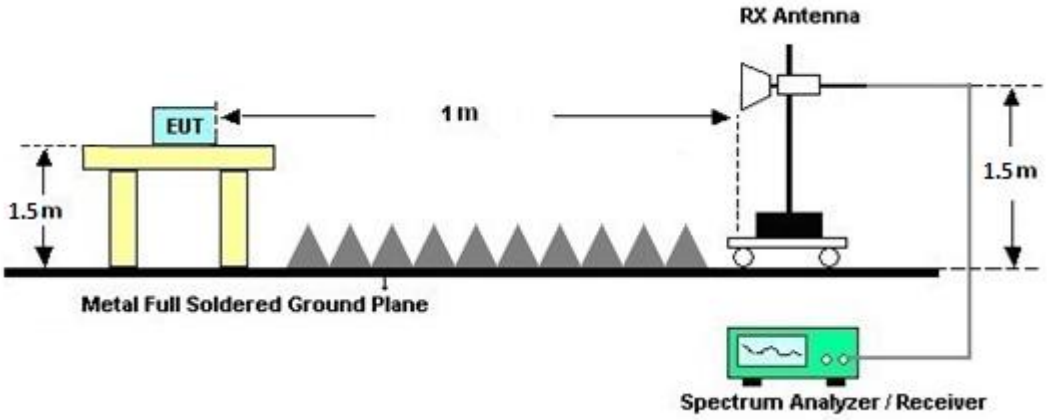

**For radiated test from 30MHz to 1GHz**




**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)

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.

### 3.5.7 Duty Cycle

Please refer to Appendix D.

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

Please refer to Appendix C.

# 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 (dBμV) | |
|---|---|---|
| | 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.

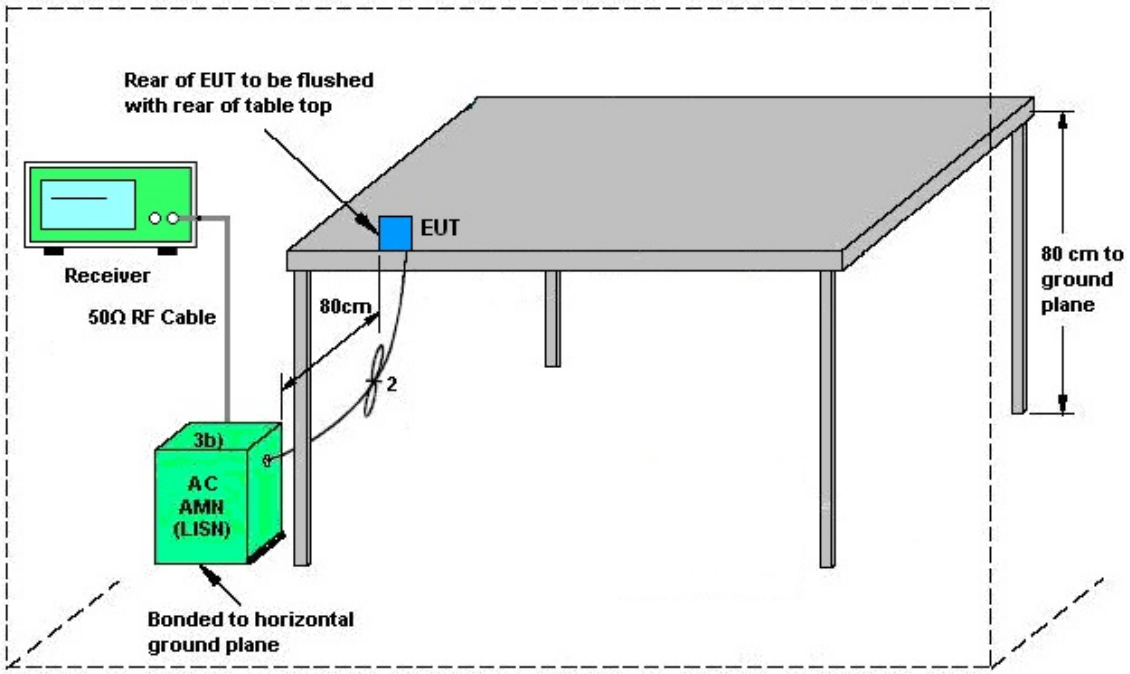
## 3.6.2 Measuring Instruments

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. Both Line and Neutral shall be tested in order to find out the maximum conducted emission.
6. The frequency range from 150 kHz to 30 MHz is scanned.
7. 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




AMN = Artificial mains network (LISN)
AE = Associated equipment
EUT = Equipment under test
ISN = Impedance stabilization network

### 3.6.5 Test Result of AC Conducted Emission

Please refer to Appendix B.

## 3.7 Antenna Requirements

### 3.7.1 Standard Applicable

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. 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 provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of § 15.211, 15.213, 15.217, 15.219, 15.221, or § 15.236. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with § 15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

### 3.7.2 Antenna Anti-Replacement Construction

Unique (non-standard) antenna connector.

# 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-Z2E | 101108 | 9 kHz~30 MHz | Dec. 11, 2025 | Sep. 09, 2026~ Oct. 06, 2026 | Dec. 10, 2026 | Radiation (03CH23-HY) |
| Amplifier | EMEC | EM01G18GA | 060878 | 1GHz~18GHz | Sep. 25, 2025 | Sep. 09, 2026~ Sep. 23, 2026 | Sep. 24, 2026 | Radiation (03CH23-HY) |
| Amplifier | EMEC | EM01G18GA | 060878 | 1GHz~18GHz | Sep. 24, 2026 | Sep. 24, 2026~ Oct. 06, 2026 | Sep. 23, 2027 | Radiation (03CH23-HY) |
| Double Ridged Guide Horn Antenna | RFSPIN | DRH18-E | KV2D06A18ES | 1GHz~18GHz | Nov. 05, 2025 | Sep. 09, 2026~ Oct. 06, 2026 | Nov. 04, 2026 | Radiation (03CH23-HY) |
| Bilog Antenna | TESEQ & WOKEN | CBL 6111D & 00802N1D-06 | 62028 & 003 | 30MHz~1GHz | Nov. 26, 2025 | Sep. 09, 2026~ Oct. 06, 2026 | Nov. 25, 2026 | Radiation (03CH23-HY) |
| Amplifier | SONOMA | 310N | 421582 | 9kHz~1GHz | Jul. 11, 2026 | Sep. 09, 2026~ Oct. 06, 2026 | Jul. 10, 2027 | Radiation (03CH23-HY) |
| Preamplifier | EMEC | EM18G40G | 060715 | 18GHz~40GHz | Dec. 02, 2025 | Sep. 09, 2026~ Oct. 06, 2026 | Dec. 01, 2026 | Radiation (03CH23-HY) |
| Horn Antenna | SCHWARZBECK | BBHA 9170 | 1225 | 18GHz-40GHz | Aug. 12, 2026 | Sep. 09, 2026~ Oct. 06, 2026 | Aug. 11, 2027 | Radiation (03CH23-HY) |
| Signal Analyzer | Keysight | N9010B | MY60241055 | 10Hz~44GHz | Aug. 11, 2026 | Sep. 09, 2026~ Oct. 06, 2026 | Aug. 10, 2027 | Radiation (03CH23-HY) |
| Hygrometer | TECPEL | DTM-303A | TP210001 | N/A | Nov. 06, 2025 | Sep. 09, 2026~ Oct. 06, 2026 | Nov. 05, 2026 | Radiation (03CH23-HY) |
| Controller | EMEC | EM1000 | N/A | Control Turn table & Ant Mast | N/A | Sep. 09, 2026~ Oct. 06, 2026 | N/A | Radiation (03CH23-HY) |
| Antenna Mast | ChainTek | MBS-520-1 | N/A | 1m~4m | N/A | Sep. 09, 2026~ Oct. 06, 2026 | N/A | Radiation (03CH23-HY) |
| Turn Table | ChainTek | T-200-S-1 | N/A | 0~360 Degree | N/A | Sep. 09, 2026~ Oct. 06, 2026 | N/A | Radiation (03CH23-HY) |
| Software | Audix | E3 6.09824_2019122 | RK-002348 | N/A | N/A | Sep. 09, 2026~ Oct. 06, 2026 | N/A | Radiation (03CH23-HY) |
| RF Cable | HUBER + SUHNER | SUCOFLEX 102 | 804395/2 | 30MHz~40GHz | Nov. 25, 2025 | Sep. 09, 2026~ Oct. 06, 2026 | Nov. 24, 2026 | Radiation (03CH23-HY) |
| RF Cable | EMC | EMC101Y | 231115/231119/25104238 | 30MHz~40GHz | May 11, 2026 | Sep. 09, 2026~ Oct. 06, 2026 | May 10, 2027 | Radiation (03CH23-HY) |

| Instrument | Brand Name | Model No. | Serial No. | Characteristics | Calibration Date | Test Date | Due Date | Remark |
|---|---|---|---|---|---|---|---|---|
| AC Power Source | ALL | APC-130 | N/A | N/A | N/A | Sep. 22, 2026 | N/A | Conduction (CO05-HY) |
| EMI Test Receiver | Rohde & Schwarz | ESR3 | 102388 | N/A | Dec. 16, 2025 | Sep. 22, 2026 | Dec. 15, 2026 | Conduction (CO05-HY) |
| Hygrometer | TECPEL | DTM-303A | TP210031 | N/A | Jun. 15, 2026 | Sep. 22, 2026 | Jun. 14, 2027 | Conduction (CO05-HY) |
| Two-Line V-Network | Rohde & Schwarz | ENV 216 +EMCI-EXP-US-US S | 100080+N-021 | N/A | Apr. 22, 2026 | Sep. 22, 2026 | Apr. 21, 2027 | Conduction (CO05-HY) |
| Software | Rohde & Schwarz | EMC32 | N/A | N/A | N/A | Sep. 22, 2026 | N/A | Conduction (CO05-HY) |
| Pulse Limiter | SCHWARZBECK | VTSD 9561-F N | 00691 | N/A | Aug. 07, 2026 | Sep. 22, 2026 | Aug. 06, 2027 | Conduction (CO05-HY) |
| LISN Cable | MVE | RG-400 | MQT24082501 | N/A | Oct. 14, 2025 | Sep. 22, 2026 | Oct. 13, 2026 | Conduction (CO05-HY) |
| Hygrometer | TECPEL | DTM-303A | TP201996 | N/A | Nov. 04, 2025 | Aug. 28, 2026 Sep. 10, 2026 | Nov. 03, 2026 | Conducted (TH05-HY) |
| USB RF Power Sensor | DARE | RPR3006W | 17I00015SNO37 (NO:167) | 10MHz~6GHz | Nov. 14, 2025 | Aug. 28, 2026 Sep. 10, 2026 | Nov. 13, 2026 | Conducted (TH05-HY) |
| Signal & Spectrum Analyzer | Rohde & Schwarz | FSV3044 | 101466 | 10HZ~44GHZ | Nov. 12, 2025 | Aug. 28, 2026 Sep. 10, 2026 | Nov. 11, 2026 | Conducted (TH05-HY) |
| Switch Control Mainframe | EM Electronics | EMSW18SE | SW191204 (BOX8) | N/A | Dec. 29, 2025 | Aug. 28, 2026 Sep. 10, 2026 | Dec. 28, 2026 | Conducted (TH05-HY) |
| Software | Sporton | BTWIFI_Final_version_240513 | N/A | Conducted Other Test Item | N/A | Aug. 28, 2026 Sep. 10, 2026 | N/A | Conducted (TH05-HY) |

# 5 Measurement Uncertainty

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

| | |
|---|---|
| **Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))** | **3.7 dB** |

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

| | |
|---|---|
| **Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))** | **6.7 dB** |

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

| | |
|---|---|
| **Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))** | **5.2 dB** |

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

| | |
|---|---|
| **Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))** | **4.8 dB** |

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

| | |
|---|---|
| **Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))** | **5.7 dB** |

# A1. Conducted Test Results

| | | | | |
|---|---|---|---|---|
| Test Engineer: | Ching Chen | Temperature: | 21~25 | °C |
| Test Date: | 2026/8/28~2026/09/10 | Relative Humidity: | 51~54 | % |

# Appendix A. Test Result of Conducted Test Items

| Test Engineer: | Ching Chen | Temperature: | 21~25 | °C |
|---|---|---|---|---|
| Test Date: | 2026/8/28~2026/09/10 | Relative Humidity: | 51~54 | % |

## 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 | 1.028 | 0.712 | 0.50 | Pass |
| BLE | 1Mbps | 1 | 19 | 2440 | 1.028 | 0.710 | 0.50 | Pass |
| BLE | 1Mbps | 1 | 39 | 2480 | 1.028 | 0.708 | 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 | Setting |
|---|---|---|---|---|---|---|---|---|---|---|---|
| BLE | 1Mbps | 1 | 0 | 2402 | 2.82 | 30.00 | -1.19 | 1.63 | 36.00 | Pass | 7 |
| BLE | 1Mbps | 1 | 19 | 2440 | 2.98 | 30.00 | -1.19 | 1.79 | 36.00 | Pass | 7 |
| BLE | 1Mbps | 1 | 39 | 2480 | 3.46 | 30.00 | -1.19 | 2.27 | 36.00 | Pass | 7 |

## 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 | 1.78 | -14.26 | -1.19 | 8.00 | Pass |
| BLE | 1Mbps | 1 | 19 | 2440 | 2.01 | -14.05 | -1.19 | 8.00 | Pass |
| BLE | 1Mbps | 1 | 39 | 2480 | 3.47 | -13.62 | -1.19 | 8.00 | Pass |

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

# Appendix A. Test Result of Conducted Test Items

| Test Engineer: | Ching Chen | Temperature: | 21~25 | °C |
|---|---|---|---|---|
| Test Date: | 2026/8/28~2026/09/10 | Relative Humidity: | 51~54 | % |

## 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 | 2.056 | 1.326 | 0.50 | Pass |
| BLE | 2Mbps | 1 | 19 | 2440 | 2.056 | 1.326 | 0.50 | Pass |
| BLE | 2Mbps | 1 | 39 | 2480 | 2.057 | 1.320 | 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 | Setting |
|---|---|---|---|---|---|---|---|---|---|---|---|
| BLE | 2Mbps | 1 | 0 | 2402 | 2.64 | 30.00 | -1.19 | 1.45 | 36.00 | Pass | 7 |
| BLE | 2Mbps | 1 | 19 | 2440 | 2.95 | 30.00 | -1.19 | 1.76 | 36.00 | Pass | 7 |
| BLE | 2Mbps | 1 | 39 | 2480 | 3.35 | 30.00 | -1.19 | 2.16 | 36.00 | Pass | 7 |

## 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 | -0.39 | -18.97 | -1.19 | 8.00 | Pass |
| BLE | 2Mbps | 1 | 19 | 2440 | -0.10 | -18.44 | -1.19 | 8.00 | Pass |
| BLE | 2Mbps | 1 | 39 | 2480 | 0.10 | -18.43 | -1.19 | 8.00 | Pass |

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

# Appendix A. Test Result of Conducted Test Items

| Test Engineer: | Ching Chen | Temperature: | 21~25 | °C |
|---|---|---|---|---|
| Test Date: | 2026/8/28~2026/09/10 | Relative Humidity: | 51~54 | % |

## 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 | 125Kbps | 1 | 0 | 2402 | 1.046 | 0.670 | 0.50 | Pass |
| BLE | 125Kbps | 1 | 19 | 2440 | 1.045 | 0.669 | 0.50 | Pass |
| BLE | 125Kbps | 1 | 39 | 2480 | 1.047 | 0.673 | 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 | Setting |
|---|---|---|---|---|---|---|---|---|---|---|---|
| BLE | 125Kbps | 1 | 0 | 2402 | 2.84 | 30.00 | -1.19 | 1.65 | 36.00 | Pass | 7 |
| BLE | 125Kbps | 1 | 19 | 2440 | 3.23 | 30.00 | -1.19 | 2.04 | 36.00 | Pass | 7 |
| BLE | 125Kbps | 1 | 39 | 2480 | 3.44 | 30.00 | -1.19 | 2.25 | 36.00 | Pass | 7 |

## 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 | 125Kbps | 1 | 0 | 2402 | -0.40 | -3.66 | -1.19 | 8.00 | Pass |
| BLE | 125Kbps | 1 | 19 | 2440 | -0.09 | -3.39 | -1.19 | 8.00 | Pass |
| BLE | 125Kbps | 1 | 39 | 2480 | 0.28 | -3.06 | -1.19 | 8.00 | Pass |

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

# Appendix A. Test Result of Conducted Test Items

| Test Engineer: | Ching Chen | Temperature: | 21~25 | °C |
|---|---|---|---|---|
| Test Date: | 2026/8/28~2026/09/10 | Relative Humidity: | 51~54 | % |

## 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 | 500Kbps | 1 | 0 | 2402 | 1.017 | 0.671 | 0.50 | Pass |
| BLE | 500Kbps | 1 | 19 | 2440 | 1.017 | 0.673 | 0.50 | Pass |
| BLE | 500Kbps | 1 | 39 | 2480 | 1.017 | 0.677 | 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 | Setting |
|---|---|---|---|---|---|---|---|---|---|---|---|
| BLE | 500Kbps | 1 | 0 | 2402 | 2.91 | 30.00 | -1.19 | 1.72 | 36.00 | Pass | 7 |
| BLE | 500Kbps | 1 | 19 | 2440 | 3.30 | 30.00 | -1.19 | 2.11 | 36.00 | Pass | 7 |
| BLE | 500Kbps | 1 | 39 | 2480 | 3.51 | 30.00 | -1.19 | 2.32 | 36.00 | Pass | 7 |

## TEST RESULTS DATA
### Peak Power Density

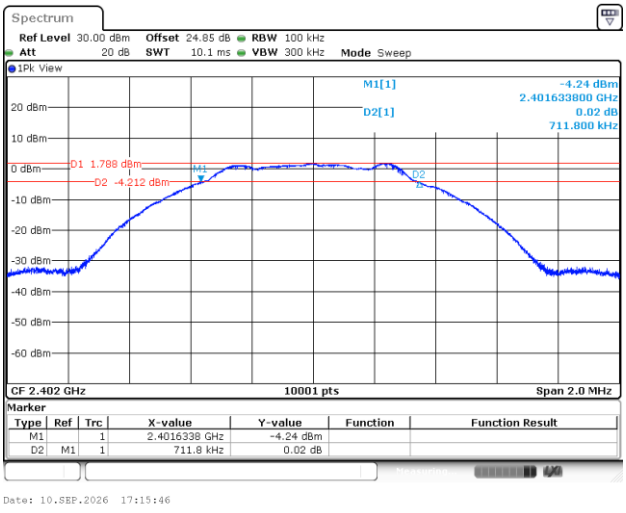
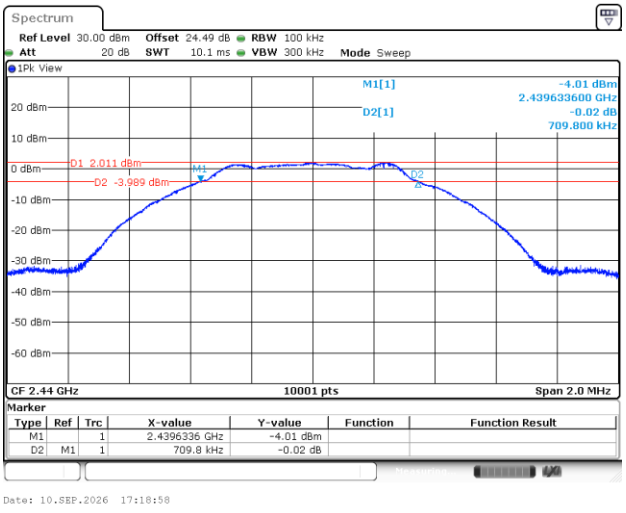
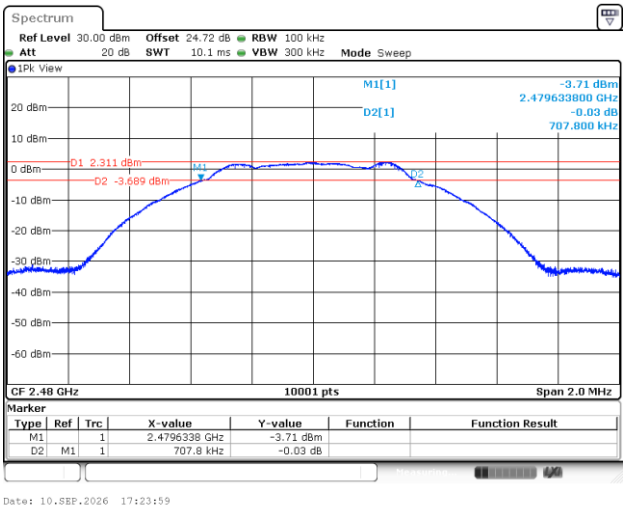
| Mod. | Data Rate | NTX | CH. | Freq. (MHz) | Peak PSD (dBm /100kHz) | Peak PSD (dBm /3kHz) | DG (dBi) | Peak PSD Limit (dBm /3kHz) | Pass/Fail |
|---|---|---|---|---|---|---|---|---|---|
| BLE | 500Kbps | 1 | 0 | 2402 | 2.14 | -11.50 | -1.19 | 8.00 | Pass |
| BLE | 500Kbps | 1 | 19 | 2440 | 2.42 | -11.24 | -1.19 | 8.00 | Pass |
| BLE | 500Kbps | 1 | 39 | 2480 | 2.70 | -10.94 | -1.19 | 8.00 | Pass |

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

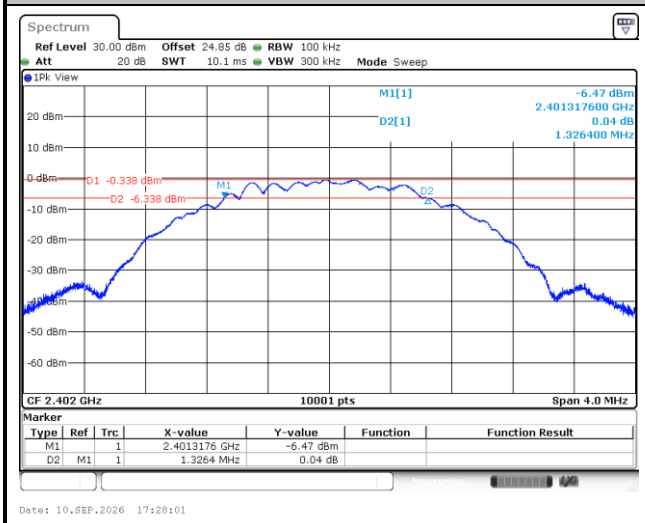
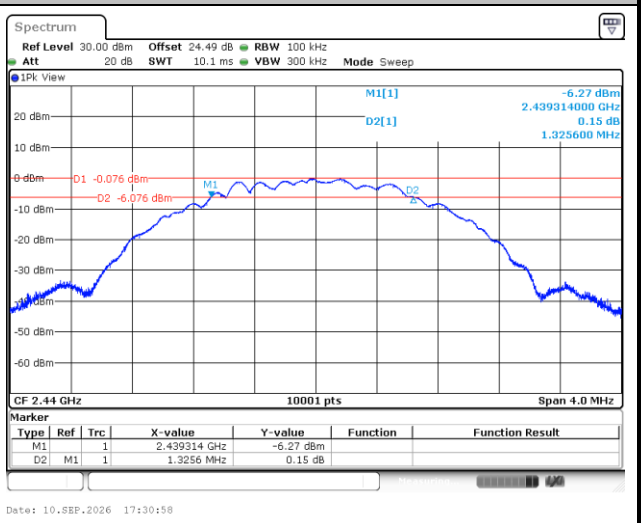
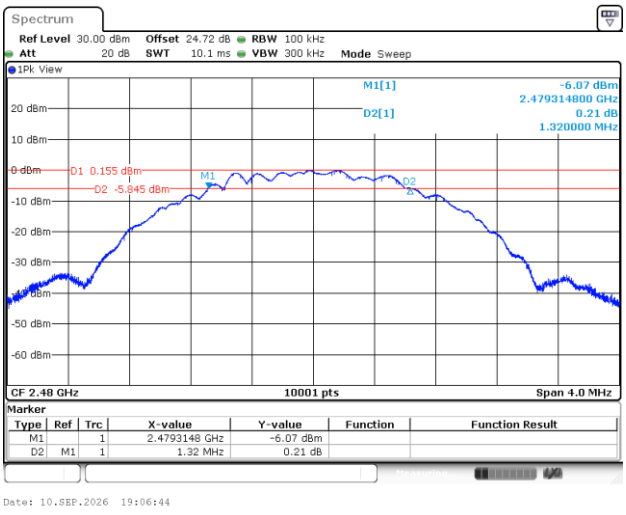
**Number of TX = 1, Ant. 1 (Measured)**

## 6dB Bandwidth

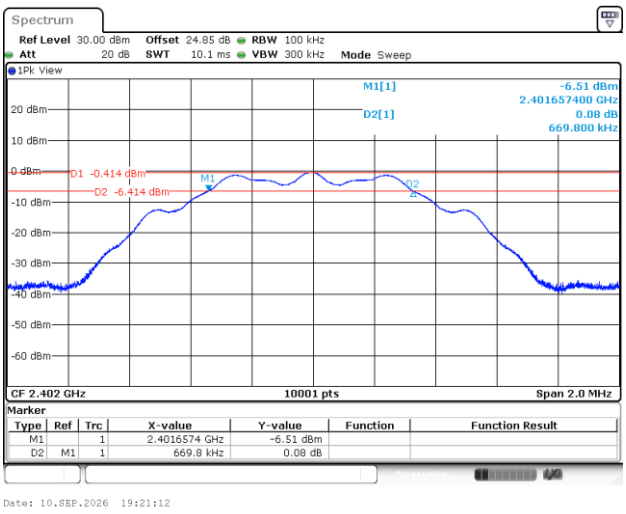
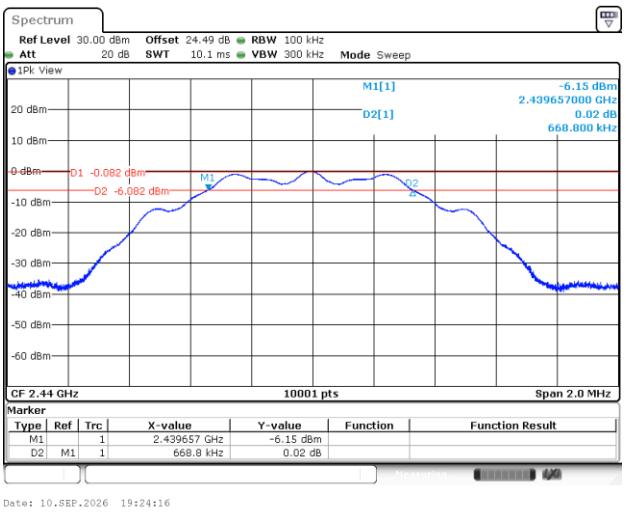
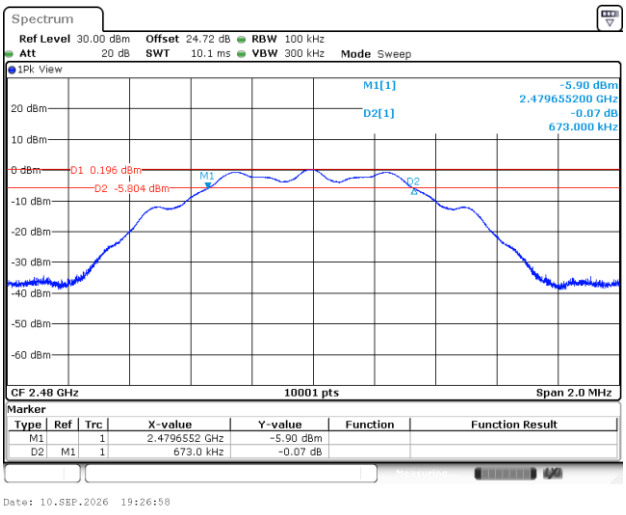
**<1M>**

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

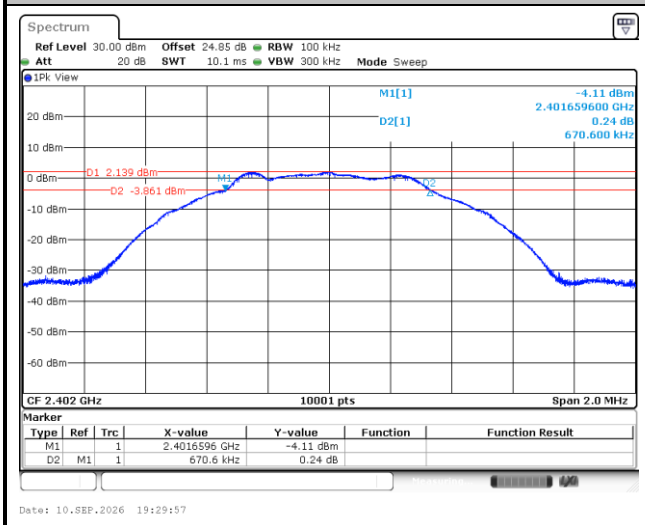
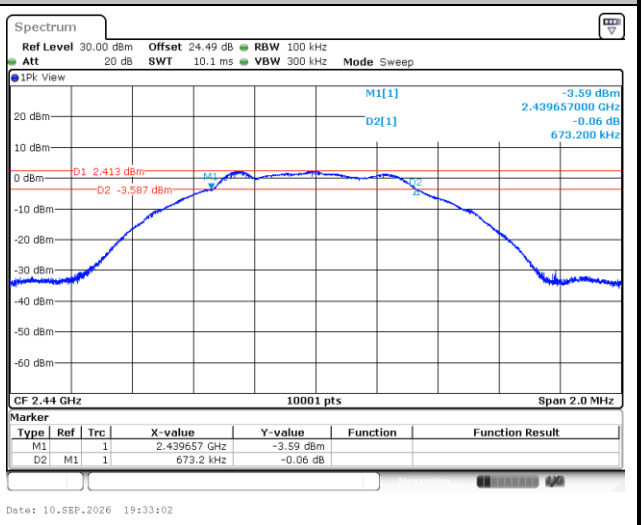
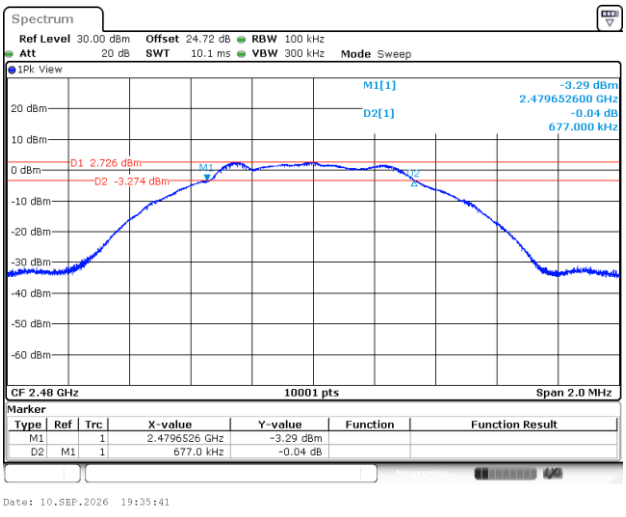
**<2M>**

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

**<(LR)125kbps>**

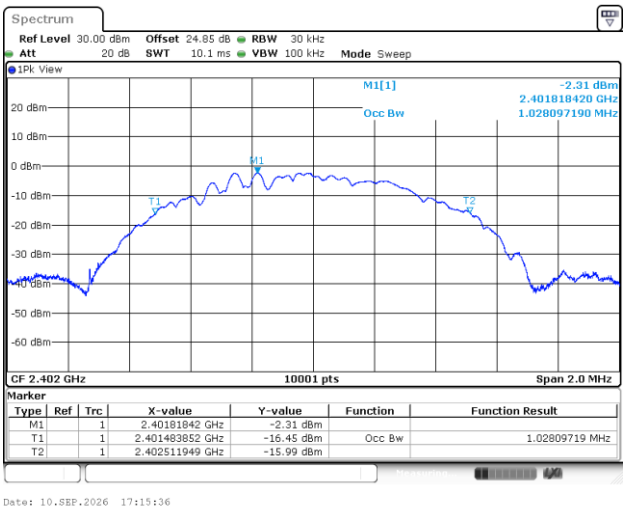
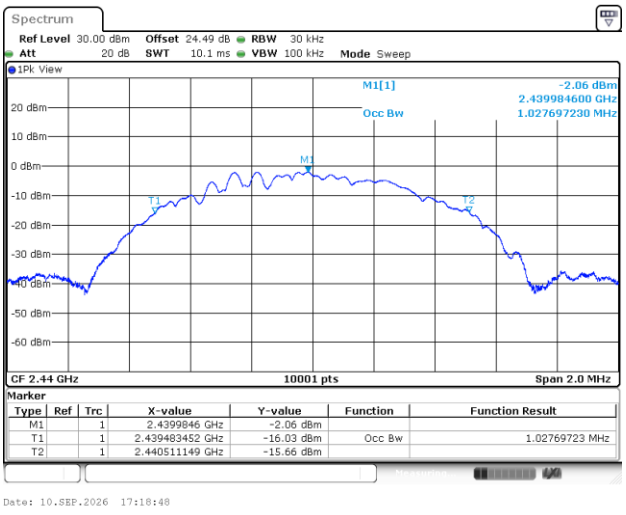
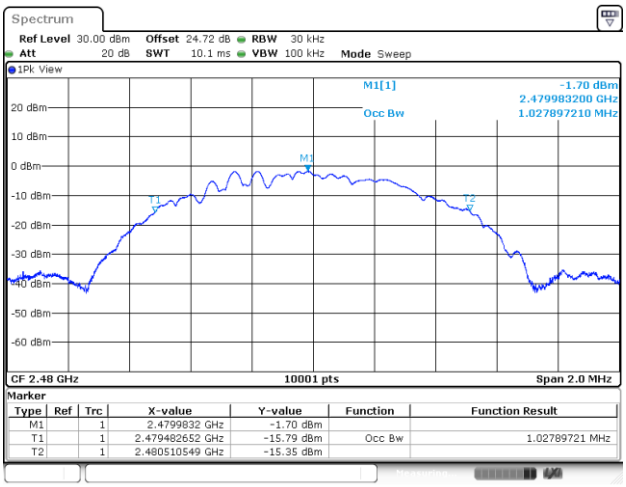
| 6 dB Bandwidth Plot on Channel 00 | 6 dB Bandwidth Plot on Channel 19 |
|---|---|
|  |  |
| **6 dB Bandwidth Plot on Channel 39** | |
|  | |

**<(LR)500kbps>**

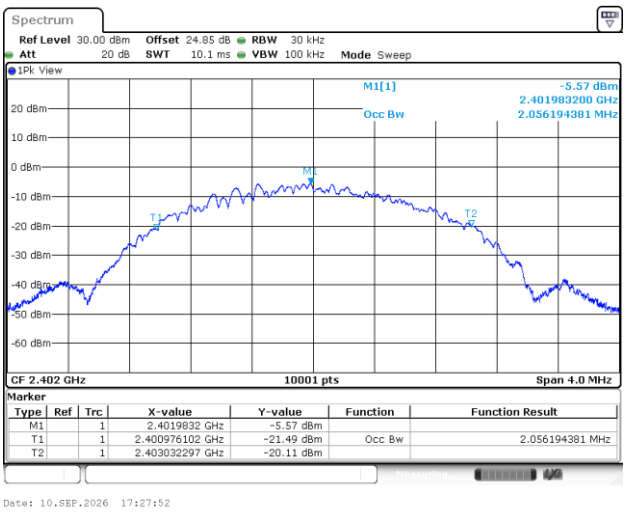
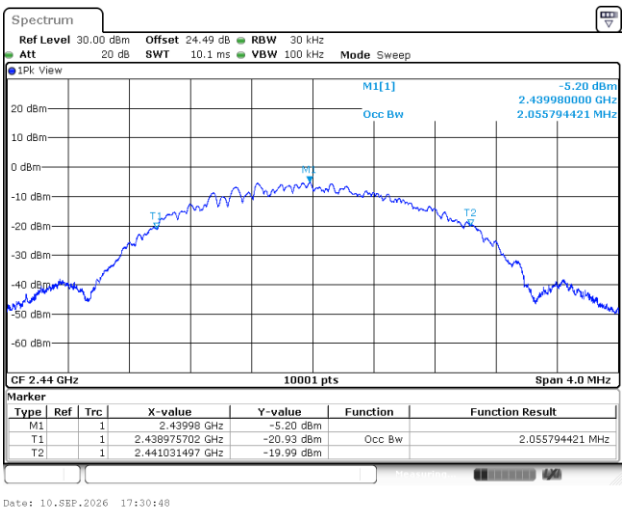
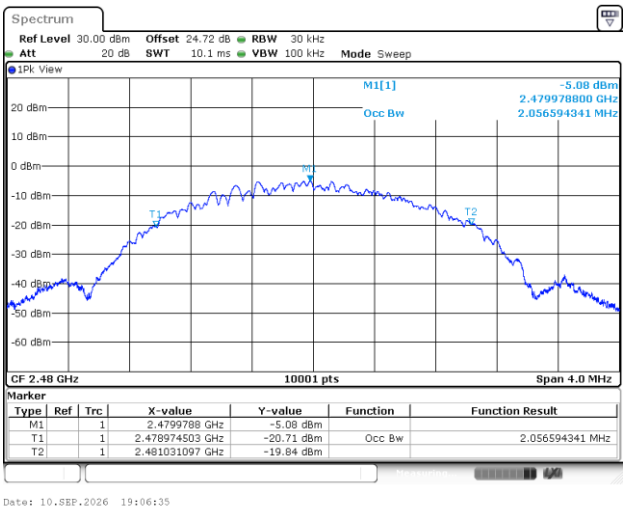
| 6 dB Bandwidth Plot on Channel 00 | 6 dB Bandwidth Plot on Channel 19 |
|---|---|
|  |  |
| **6 dB Bandwidth Plot on Channel 39** | |
|  | |

## 99% Occupied Bandwidth

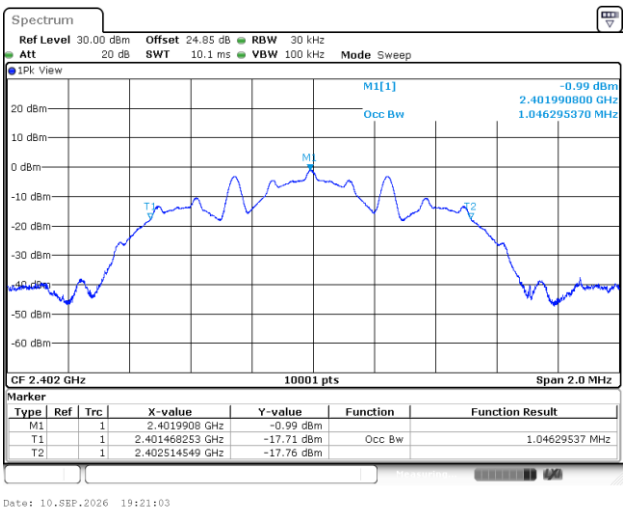
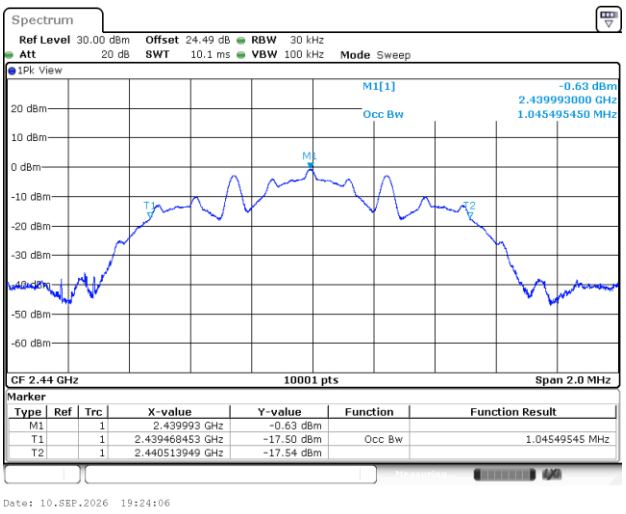
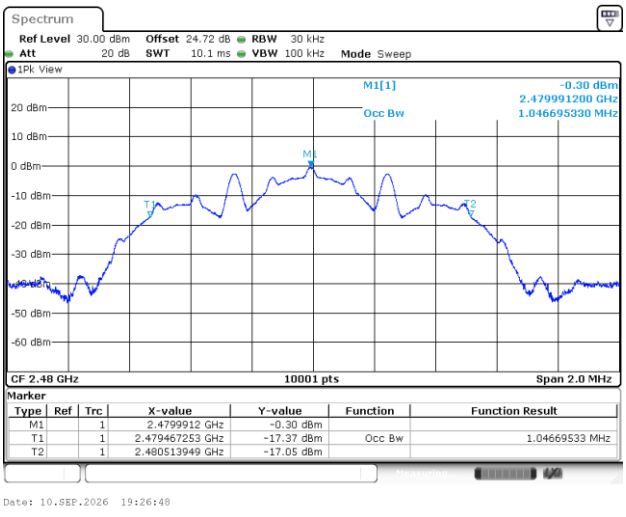
**<1M>**

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

**<2M>**

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

**<(LR)125kbps>**

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

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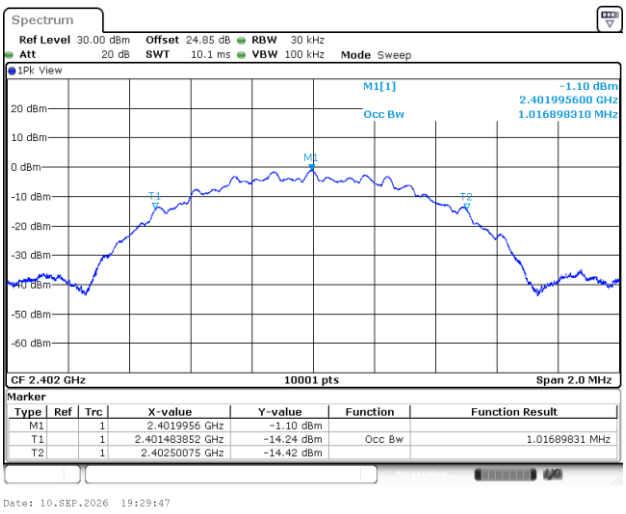
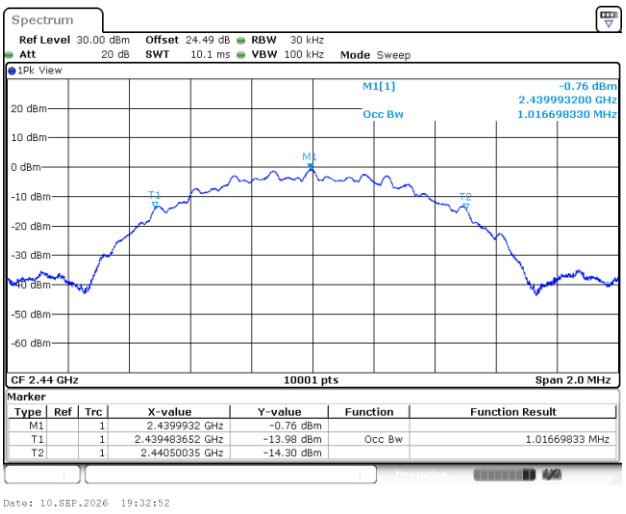
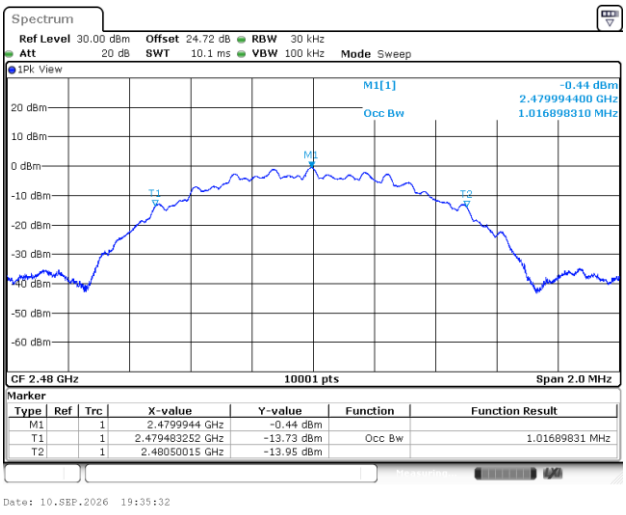
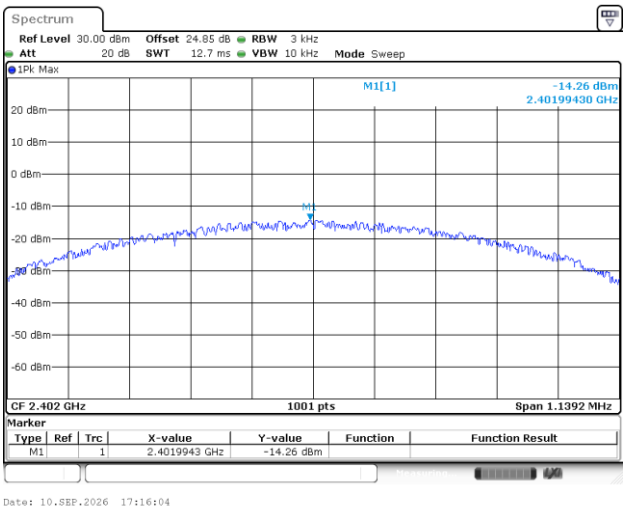
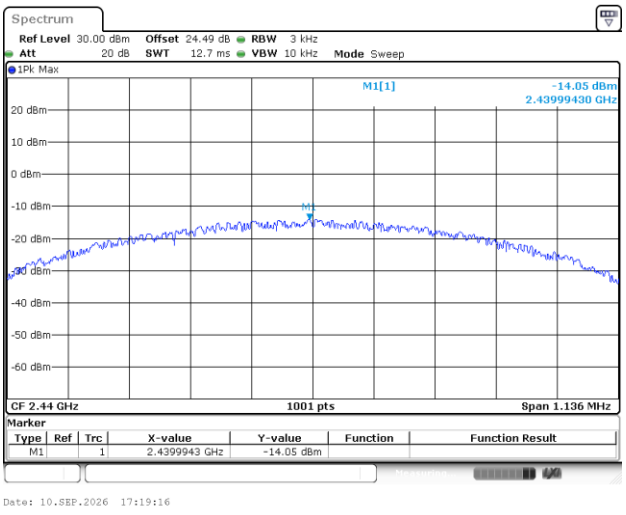
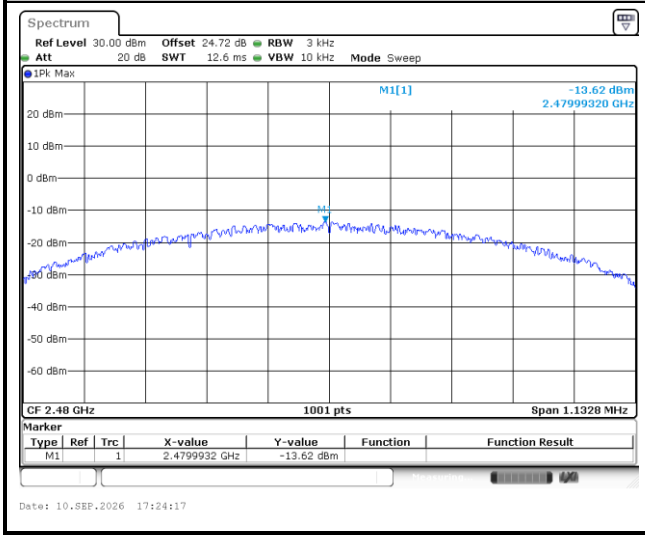
| 99% Occupied Bandwidth Plot on Channel 00 | 99% Occupied Bandwidth Plot on Channel 19 |
|---|---|
|  |  |
| **99% Occupied Bandwidth Plot on Channel 39** | |
|  | |

## Power Spectral Density (dBm/3kHz)

**<1M>**

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

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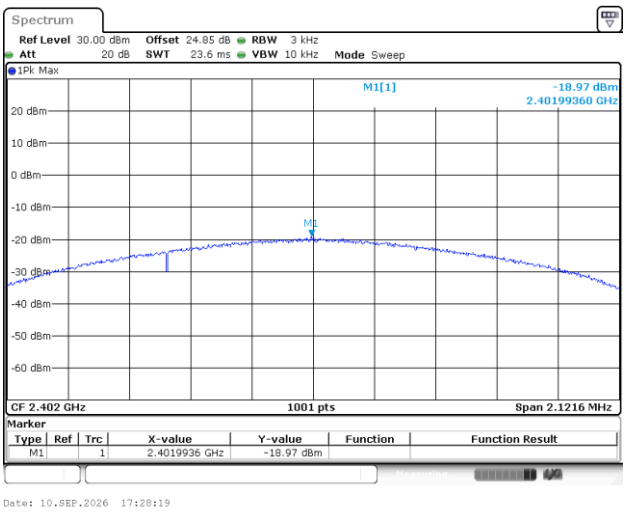
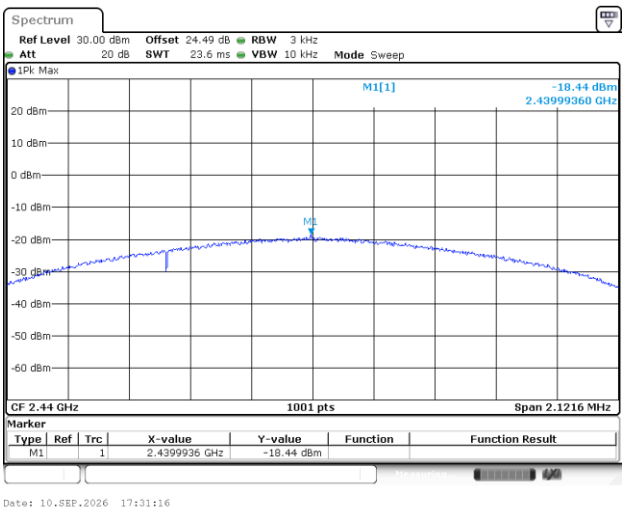
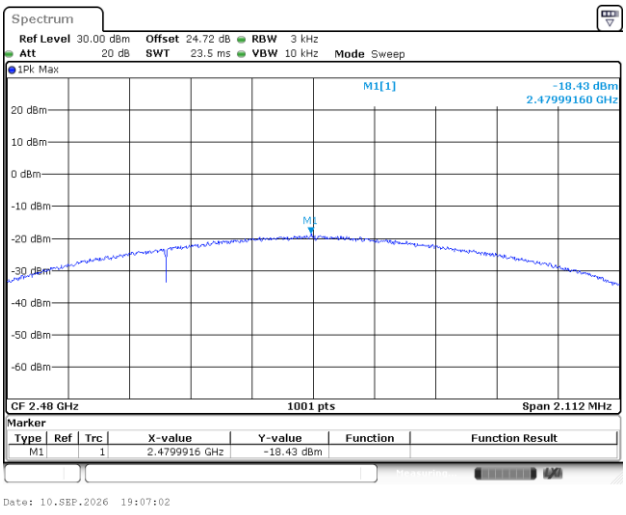
| Power Density (dBm/3kHz) Plot Channel 00 | Power Density (dBm/3kHz) Plot Channel 19 |
|---|---|
|  |  |
| **Power Density (dBm/3kHz) Plot Channel 39** | |
|  | |

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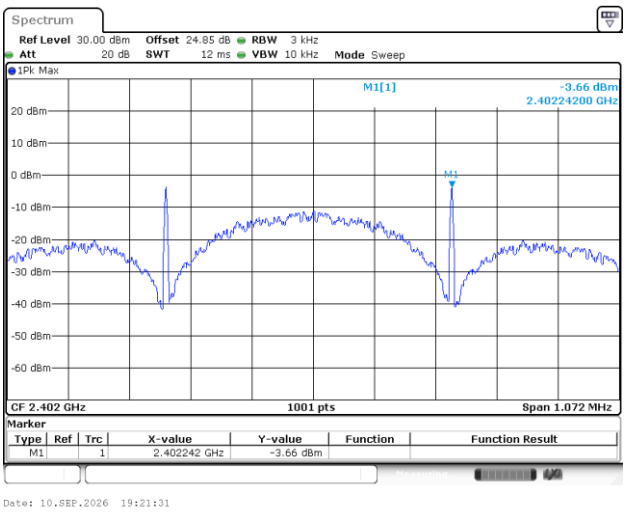
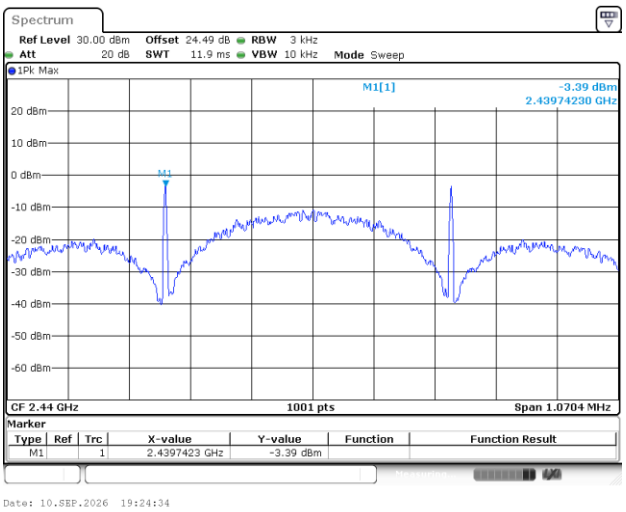
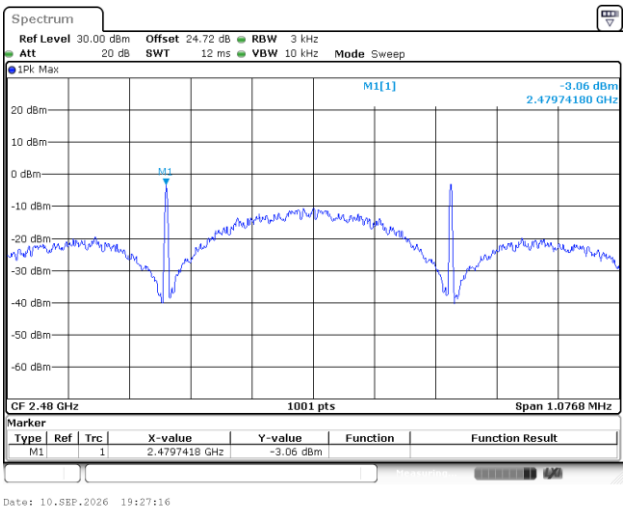
| Power Density (dBm/3kHz) Plot Channel 00 | Power Density (dBm/3kHz) Plot Channel 19 |
|---|---|
|  |  |
| **Power Density (dBm/3kHz) Plot Channel 39** | |
|  | |

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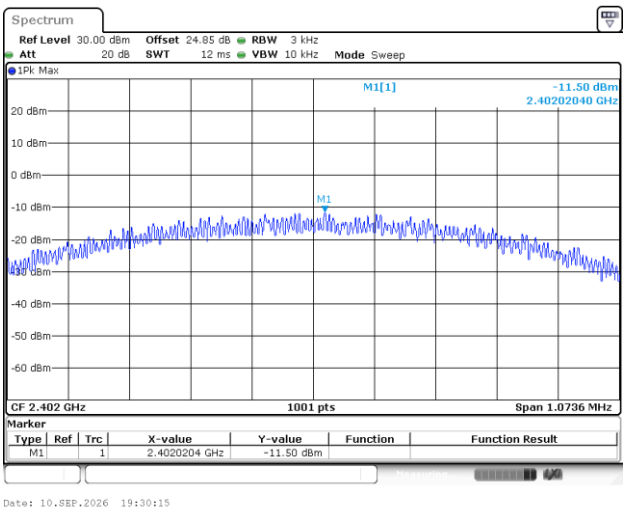
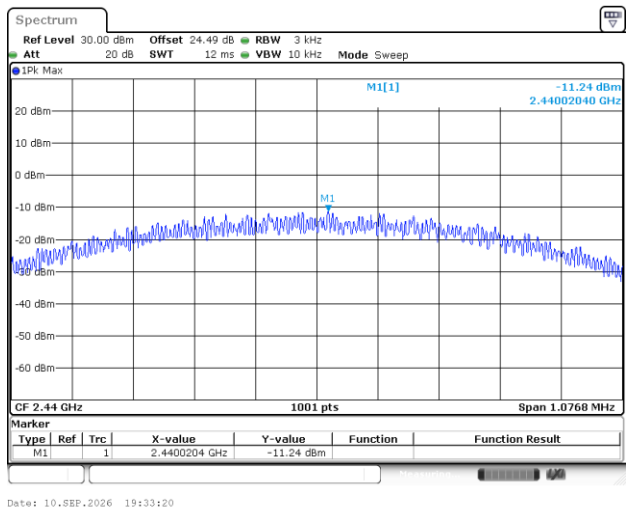
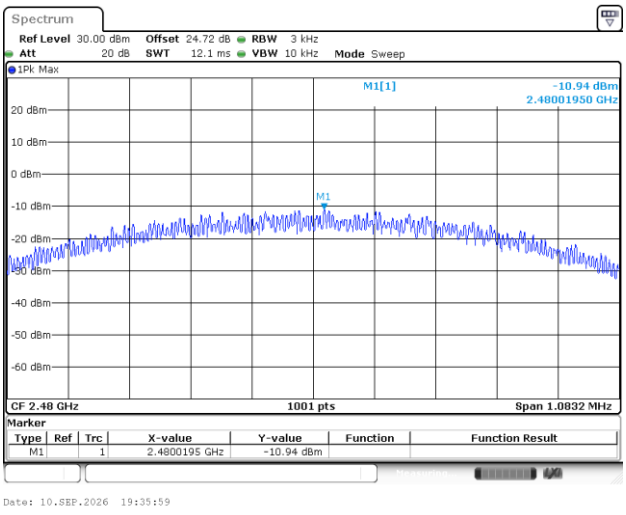
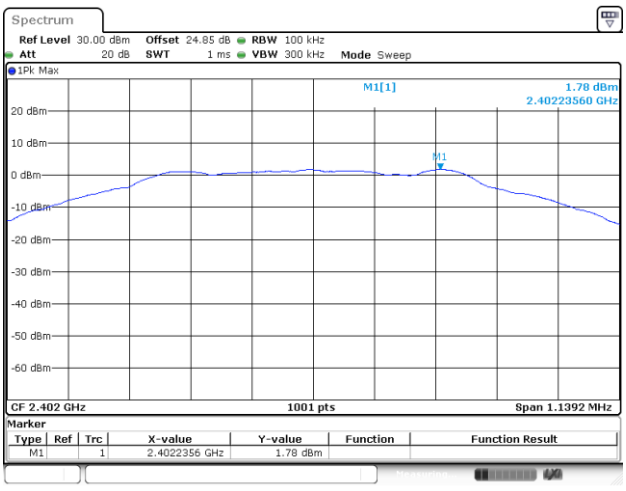
| Power Density (dBm/3kHz) Plot Channel 00 | Power Density (dBm/3kHz) Plot Channel 19 |
|---|---|
|  |  |
| **Power Density (dBm/3kHz) Plot Channel 39** | |
|  | |

## Band Edge and Conducted Spurious Emission

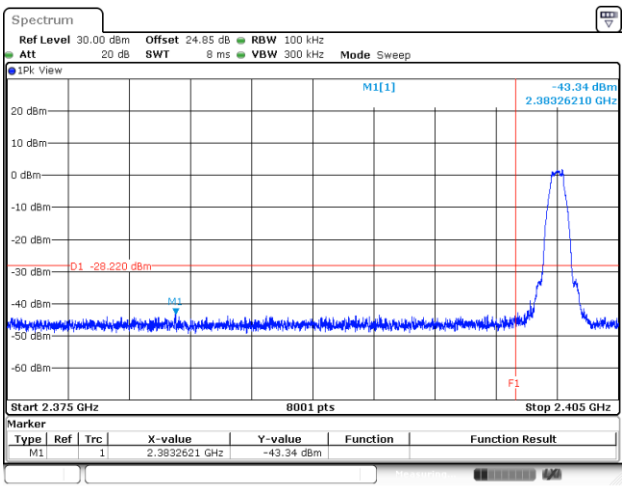
**<1M>**

### Channel 00

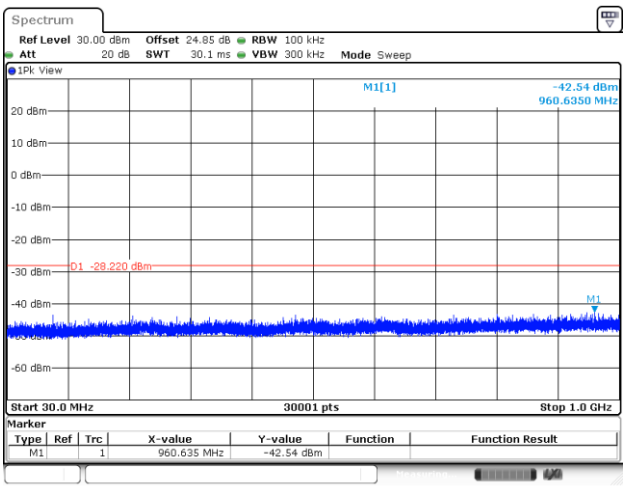
#### 100kHz PSD reference Level Plot



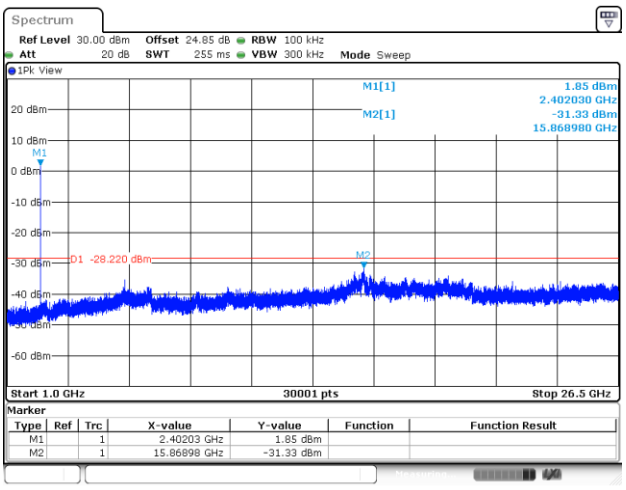

#### Plot on Channel 00

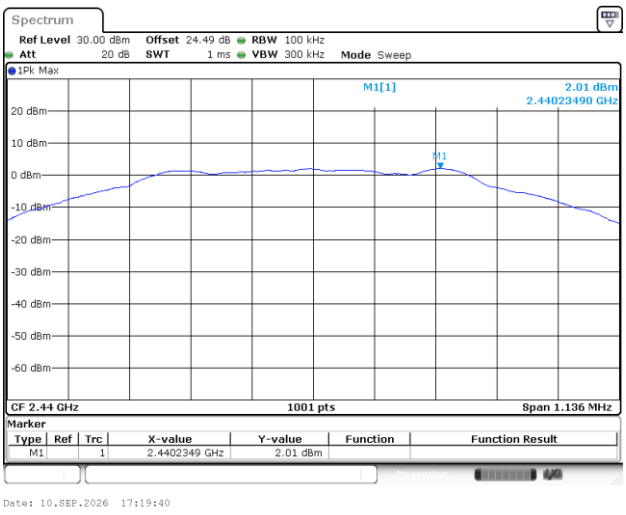
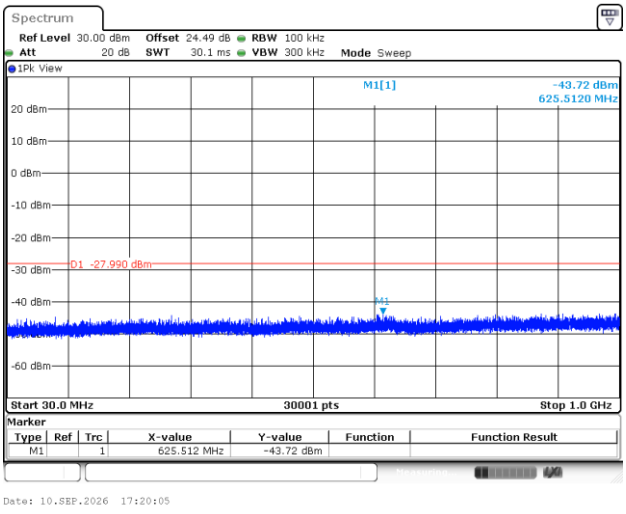
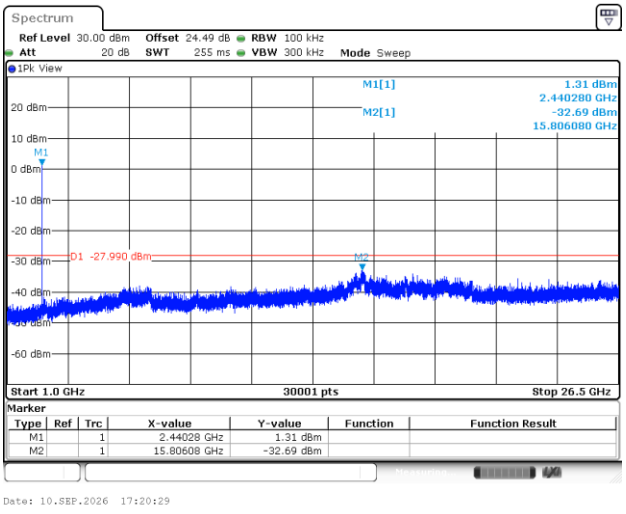


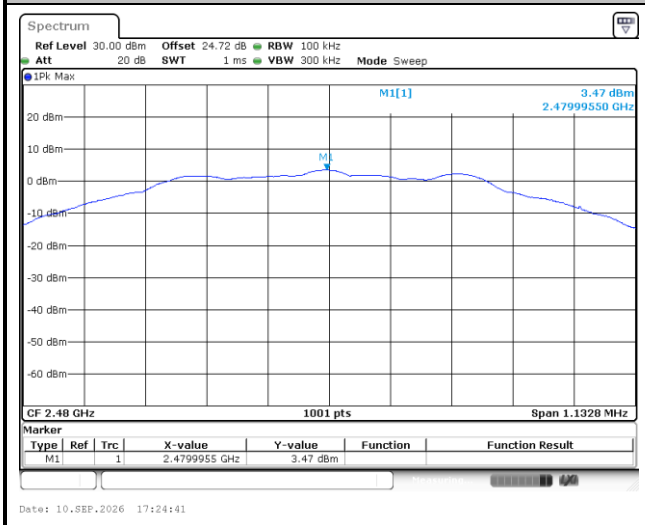
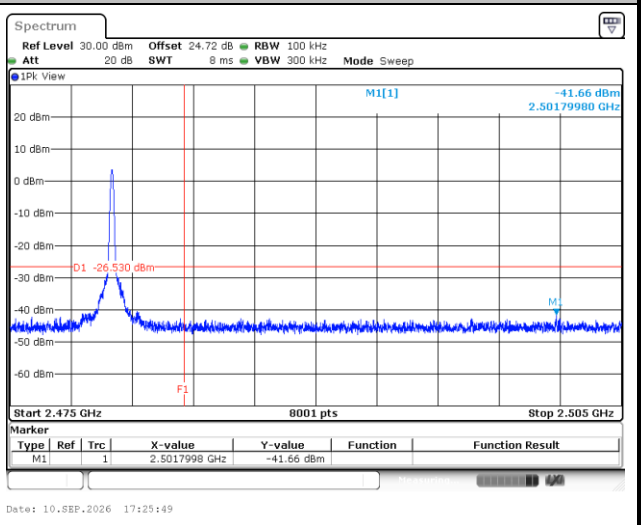
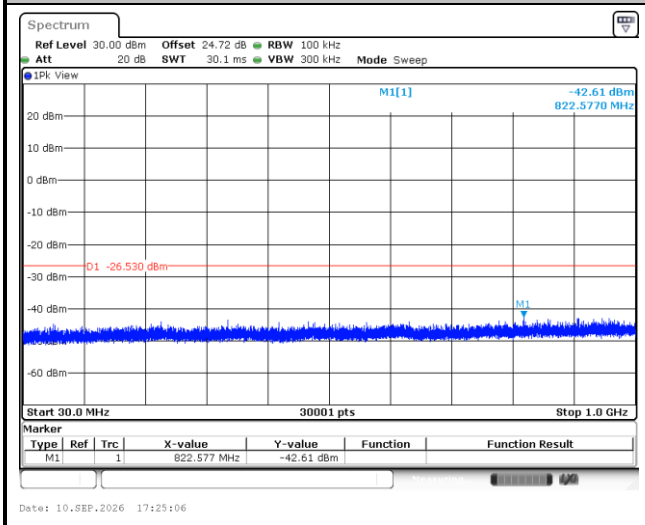
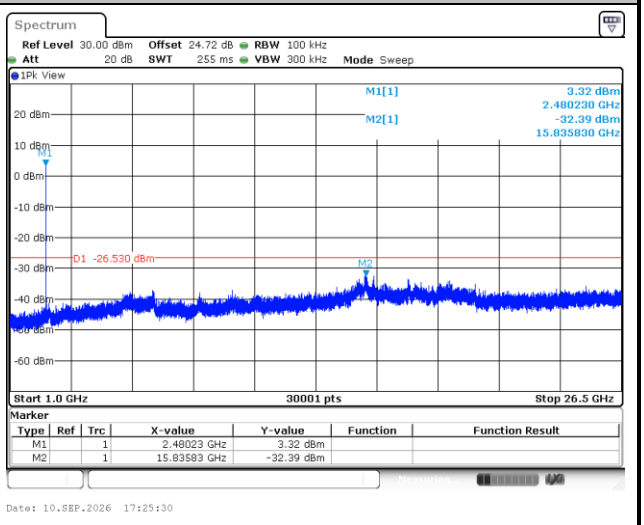

#### Spurious Emission 30MHz~1GHz Plot



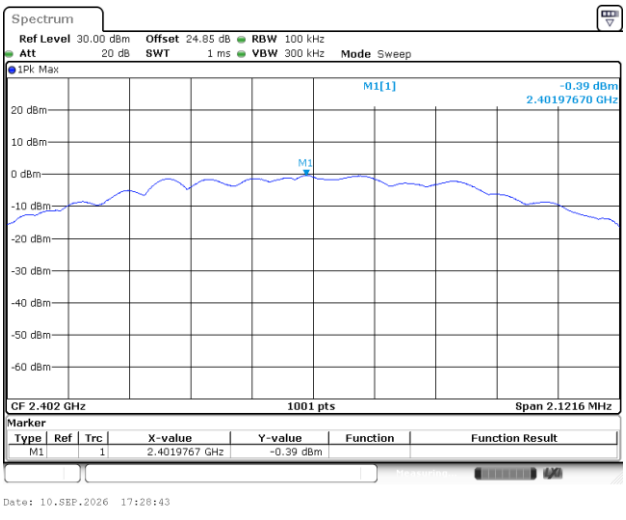
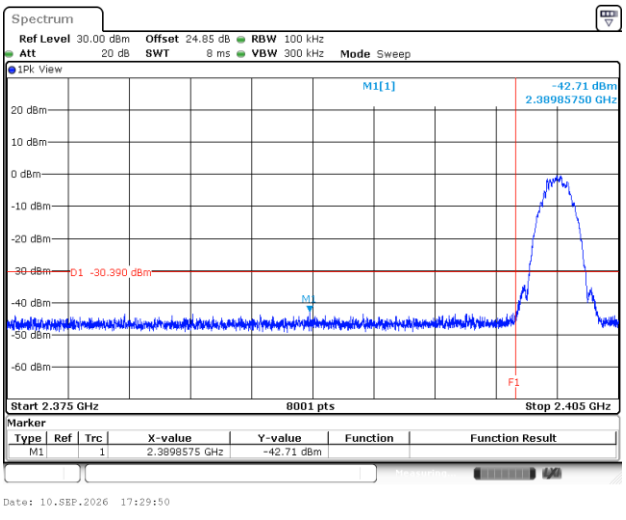
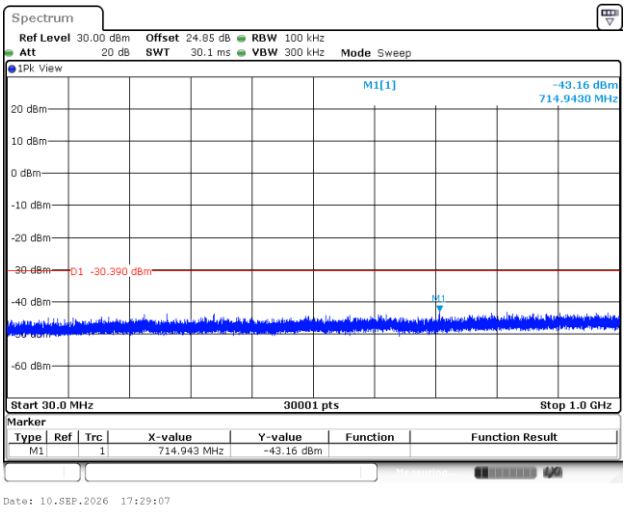
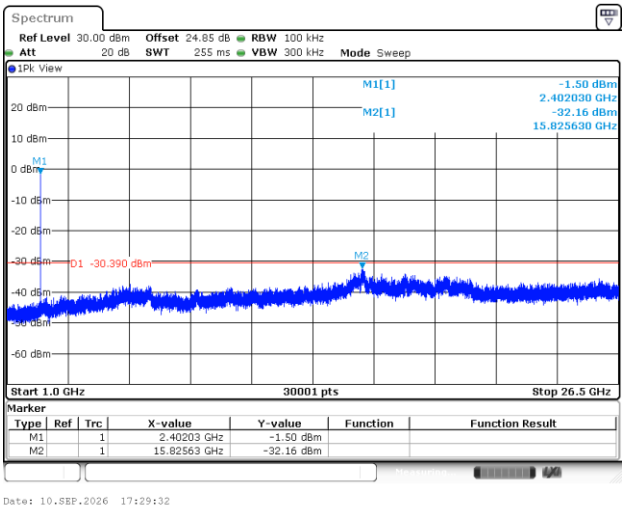

#### Spurious Emission 1GHz~26.5GHz Plot

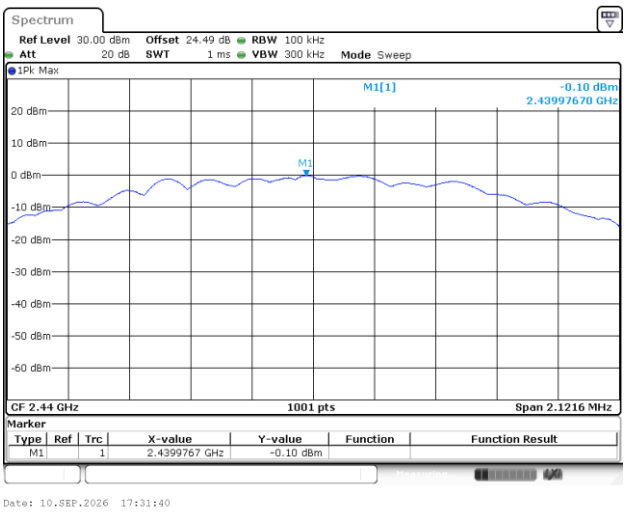
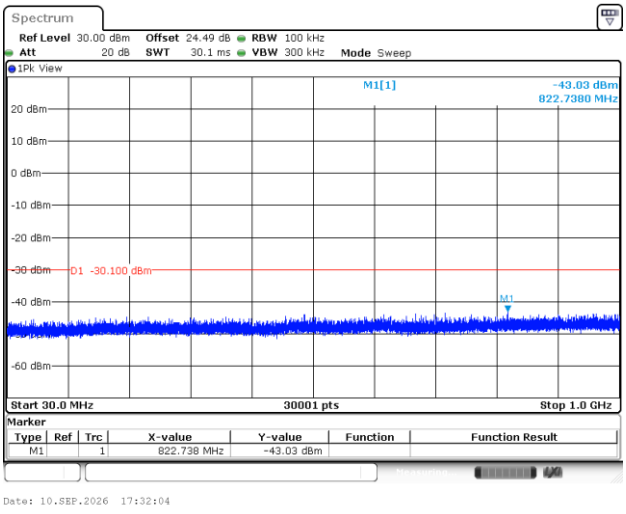
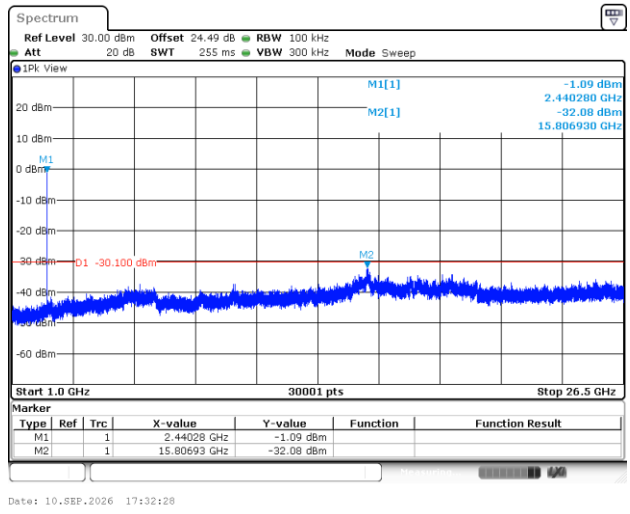


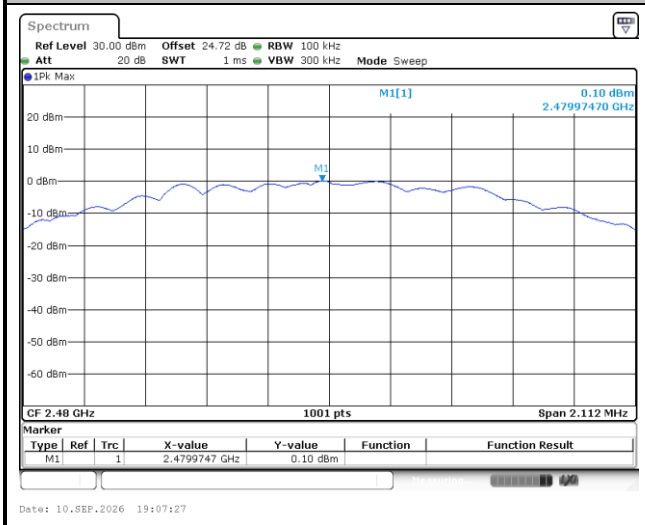
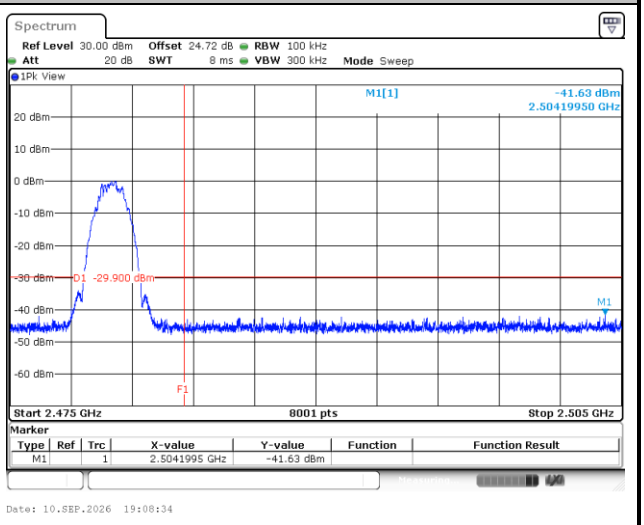
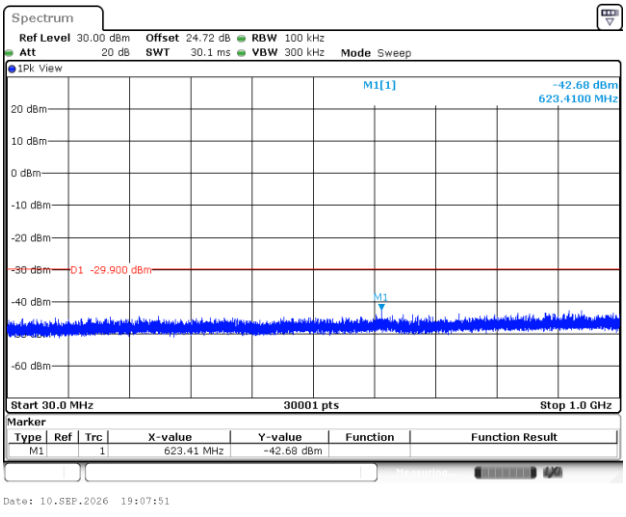
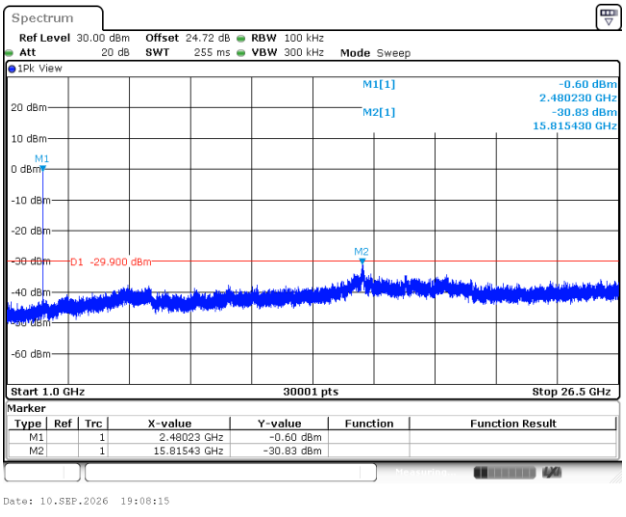
| Channel 19 | |
|---|---|
| **100kHz PSD reference Level Plot** | |
|  | |
| **Spurious Emission 30MHz~1GHz Plot** | **Spurious Emission 1GHz~26.5GHz Plot** |
|  |  |

| Channel 39 | |
|---|---|
| **100kHz PSD reference Level Plot** | **Plot on Channel 39** |
|  |  |
| **Spurious Emission 30MHz~1GHz Plot** | **Spurious Emission 1GHz~26.5GHz Plot** |
|  |  |

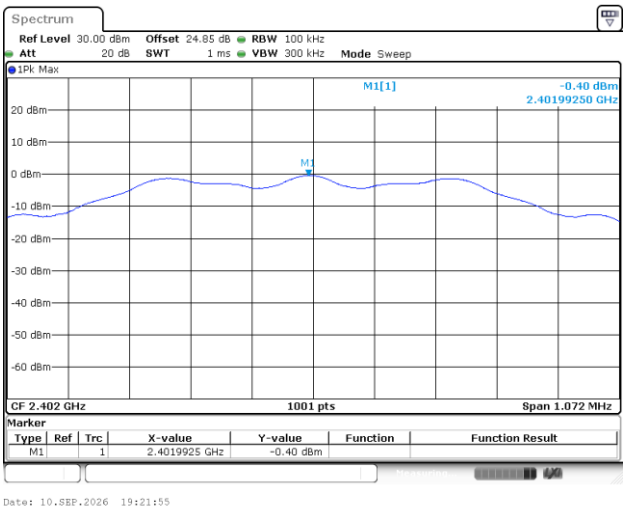
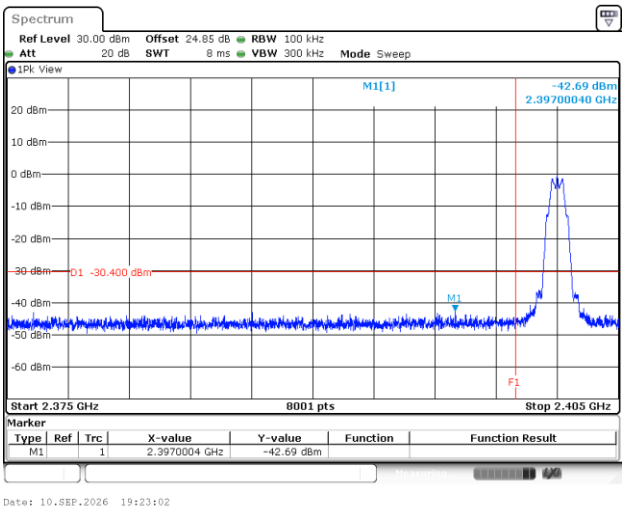
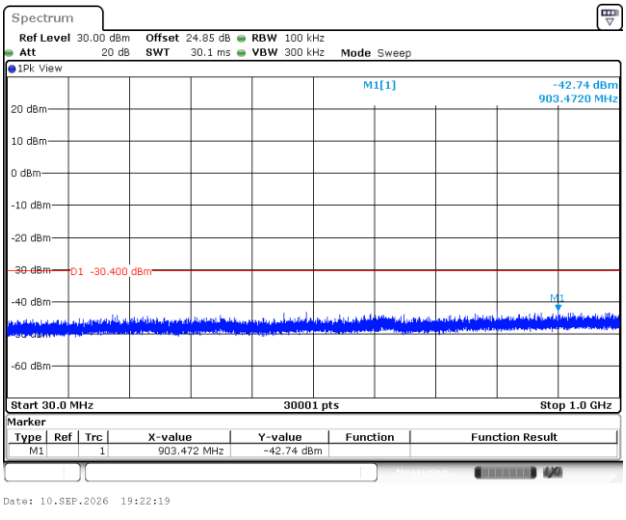
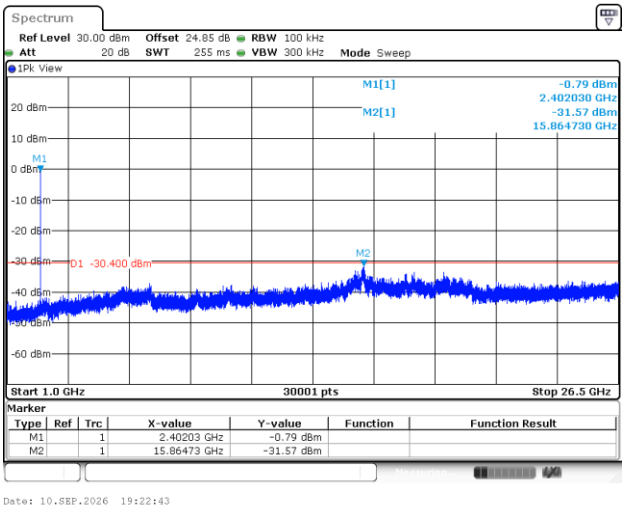
**<2M>**

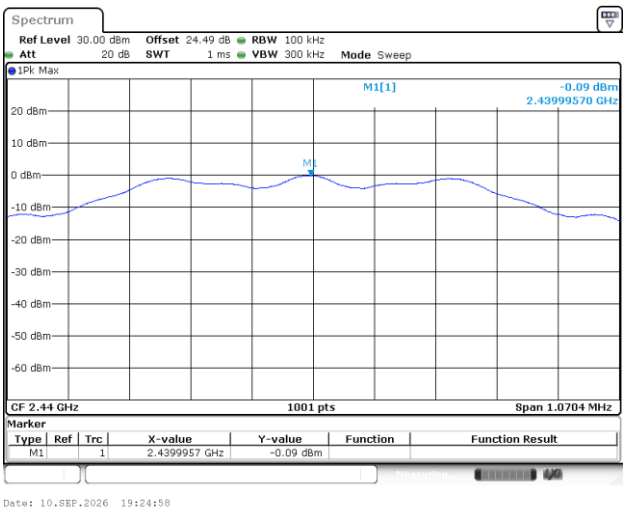
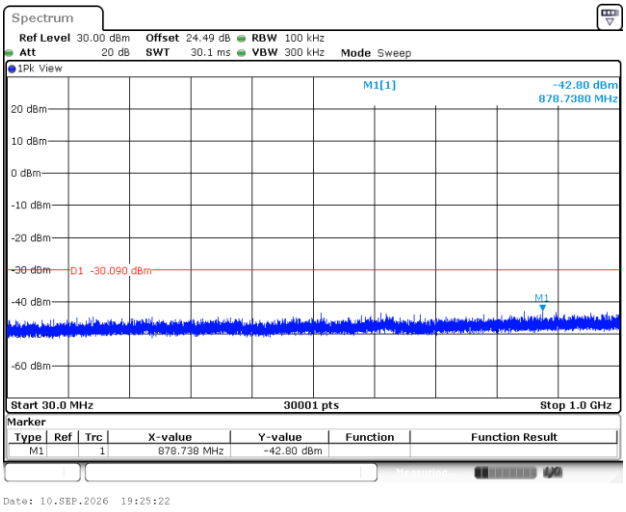
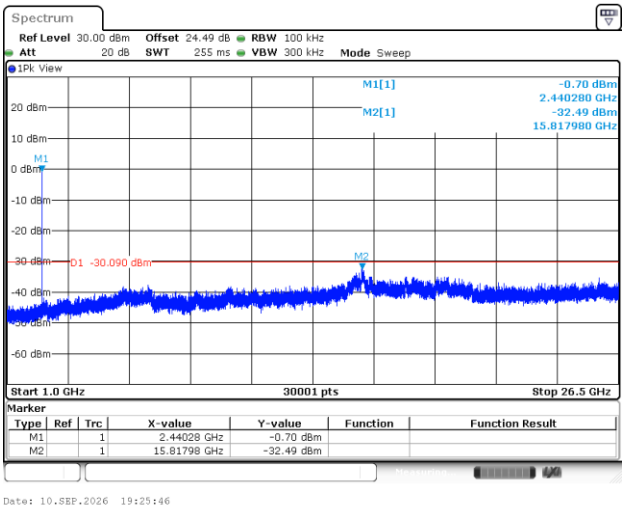
| Channel 00 | |
|---|---|
| **100kHz PSD reference Level Plot** | **Plot on Channel 00** |
|  |  |
| **Spurious Emission 30MHz~1GHz Plot** | **Spurious Emission 1GHz~26.5GHz Plot** |
|  |  |

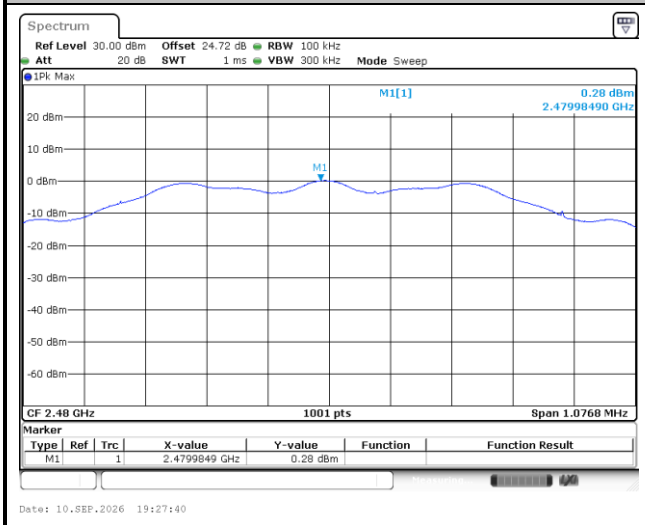
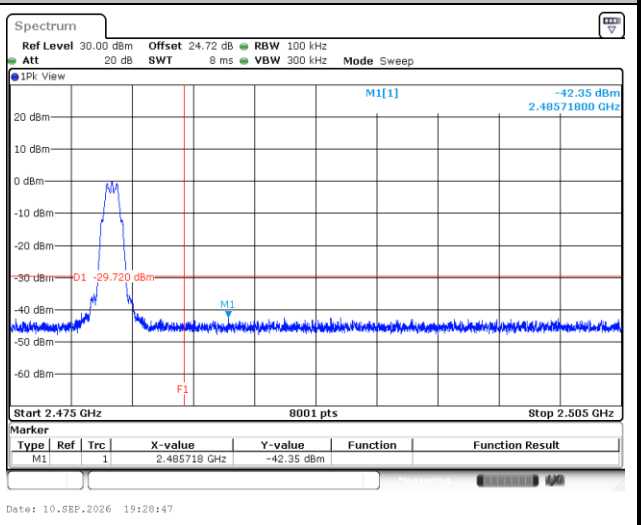
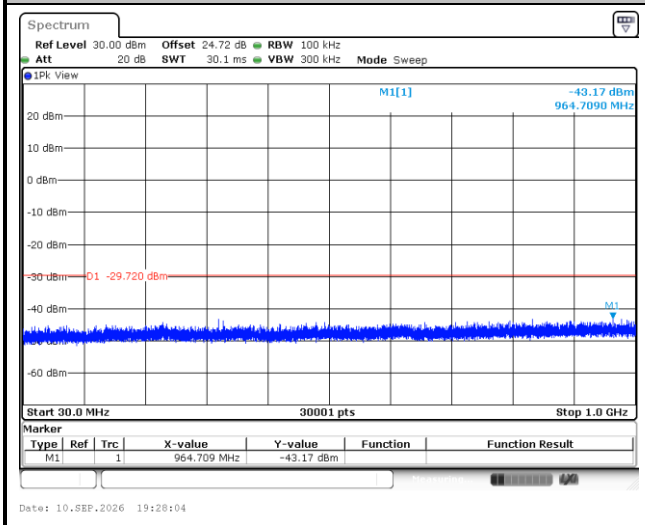
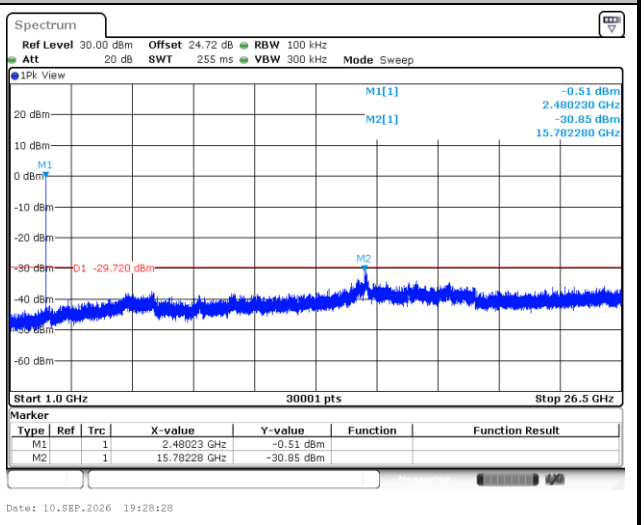
| Channel 19 | |
|---|---|
| **100kHz PSD reference Level Plot** | |
|  | |
| **Spurious Emission 30MHz~1GHz Plot** | **Spurious Emission 1GHz~26.5GHz Plot** |
|  |  |

| Channel 39 | |
|---|---|
| **100kHz PSD reference Level Plot** | **Plot on Channel 39** |
|  |  |
| **Spurious Emission 30MHz~1GHz Plot** | **Spurious Emission 1GHz~26.5GHz Plot** |
|  |  |

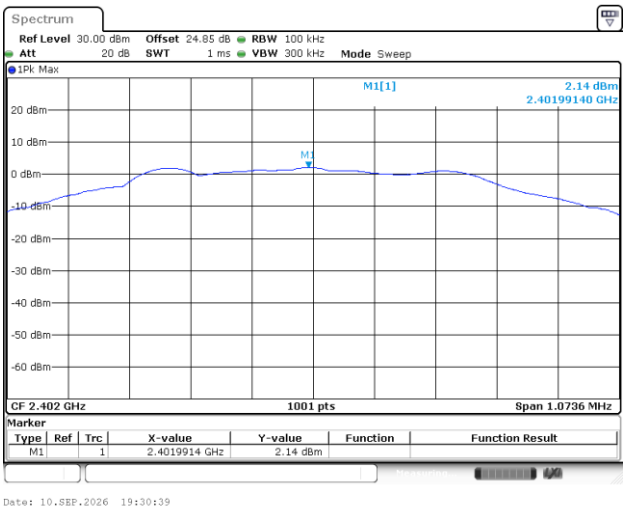
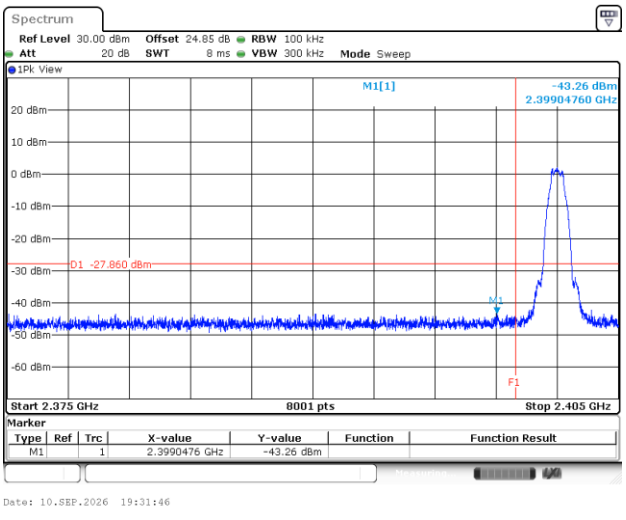
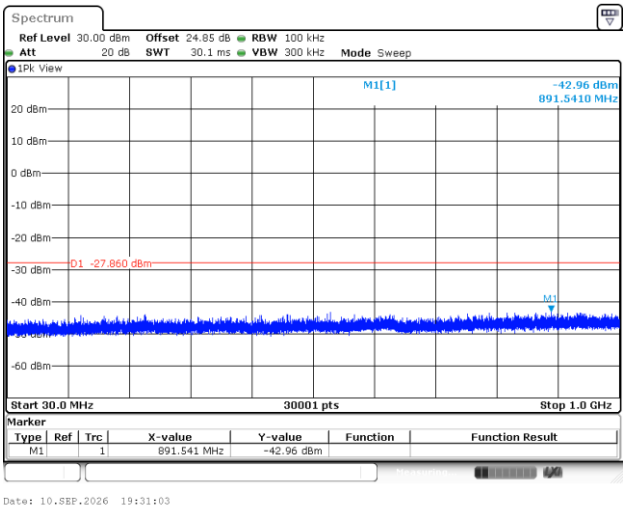
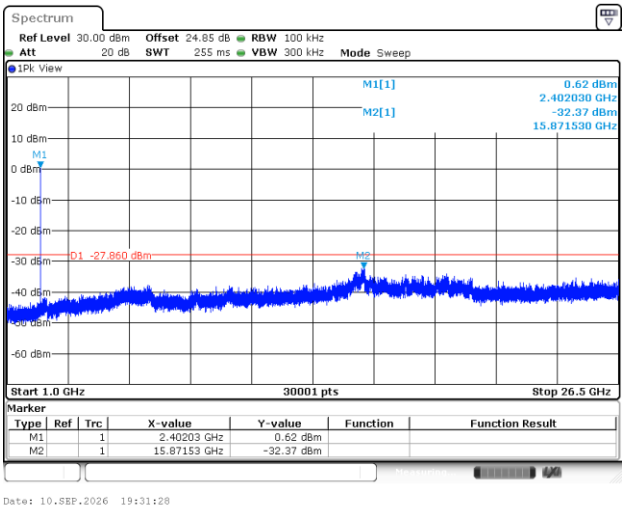
**<(LR)125kbps>**

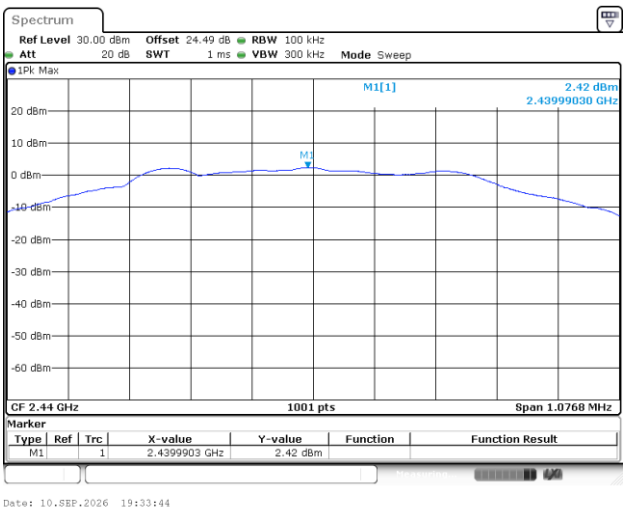
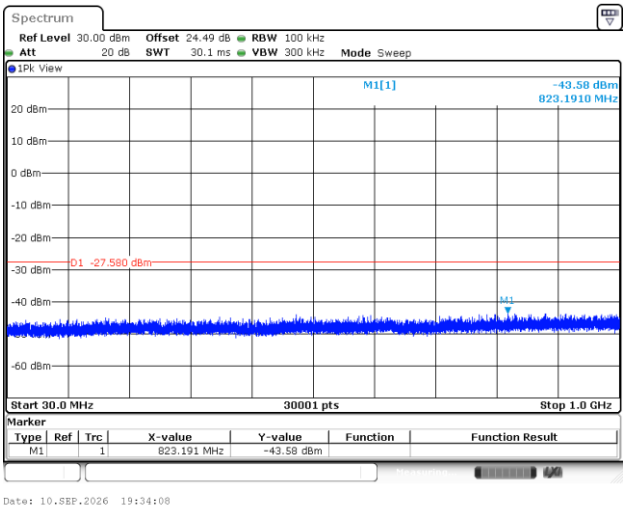
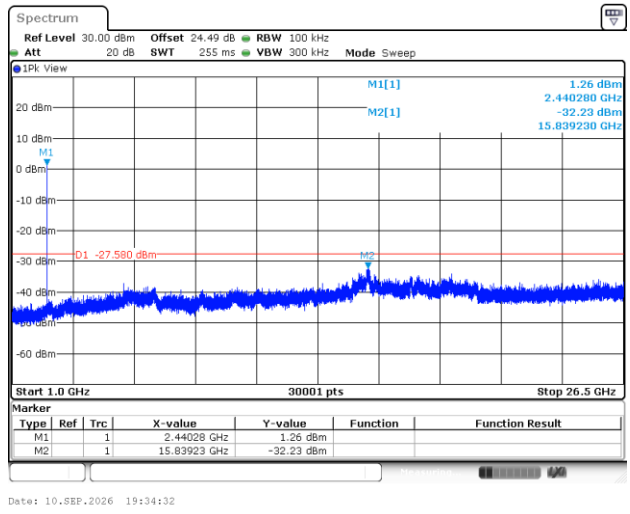
| Channel 00 | |
|---|---|
| **100kHz PSD reference Level Plot** | **Plot on Channel 00** |
|  |  |
| **Spurious Emission 30MHz~1GHz Plot** | **Spurious Emission 1GHz~26.5GHz Plot** |
|  |  |

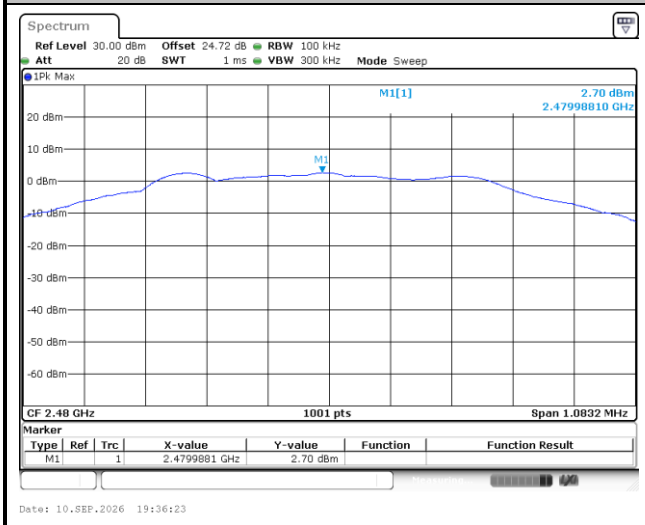
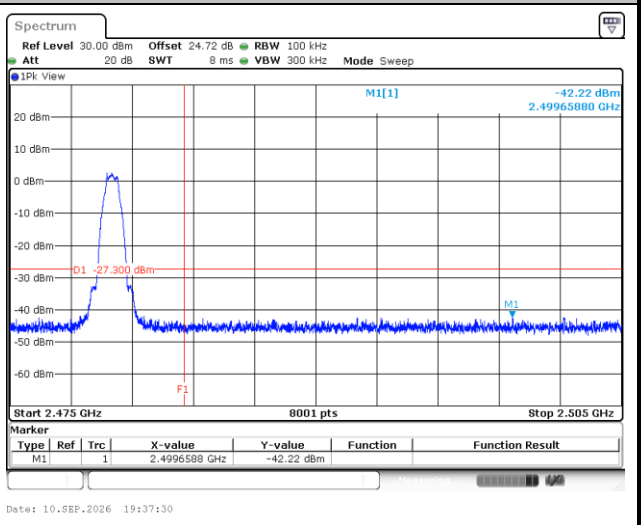
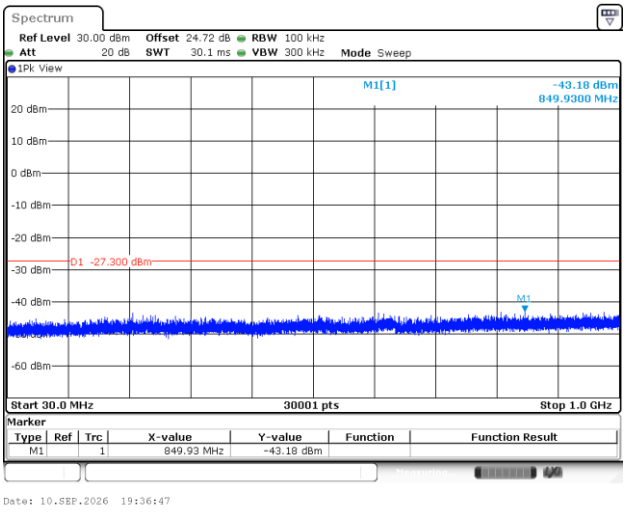
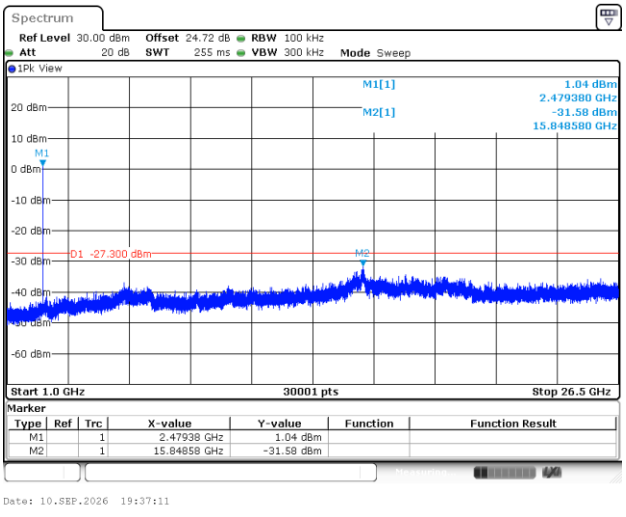
| Channel 19 | |
|---|---|
| **100kHz PSD reference Level Plot** | |
|  | |
| **Spurious Emission 30MHz~1GHz Plot** | **Spurious Emission 1GHz~26.5GHz Plot** |
|  |  |

| Channel 39 | |
|---|---|
| **100kHz PSD reference Level Plot** | **Plot on Channel 39** |
|  |  |
| **Spurious Emission 30MHz~1GHz Plot** | **Spurious Emission 1GHz~26.5GHz Plot** |
|  |  |

**<(LR)500kbps>**

| Channel 00 | |
|---|---|
| **100kHz PSD reference Level Plot** | **Plot on Channel 00** |
|  |  |
| **Spurious Emission 30MHz~1GHz Plot** | **Spurious Emission 1GHz~26.5GHz Plot** |
|  |  |

| Channel 19 | |
|---|---|
| **100kHz PSD reference Level Plot** | |
|  | |
| **Spurious Emission 30MHz~1GHz Plot** | **Spurious Emission 1GHz~26.5GHz Plot** |
|  |  |

| Channel 39 | |
|---|---|
| **100kHz PSD reference Level Plot** | **Plot on Channel 39** |
|  |  |
| **Spurious Emission 30MHz~1GHz Plot** | **Spurious Emission 1GHz~26.5GHz Plot** |
|  |  |

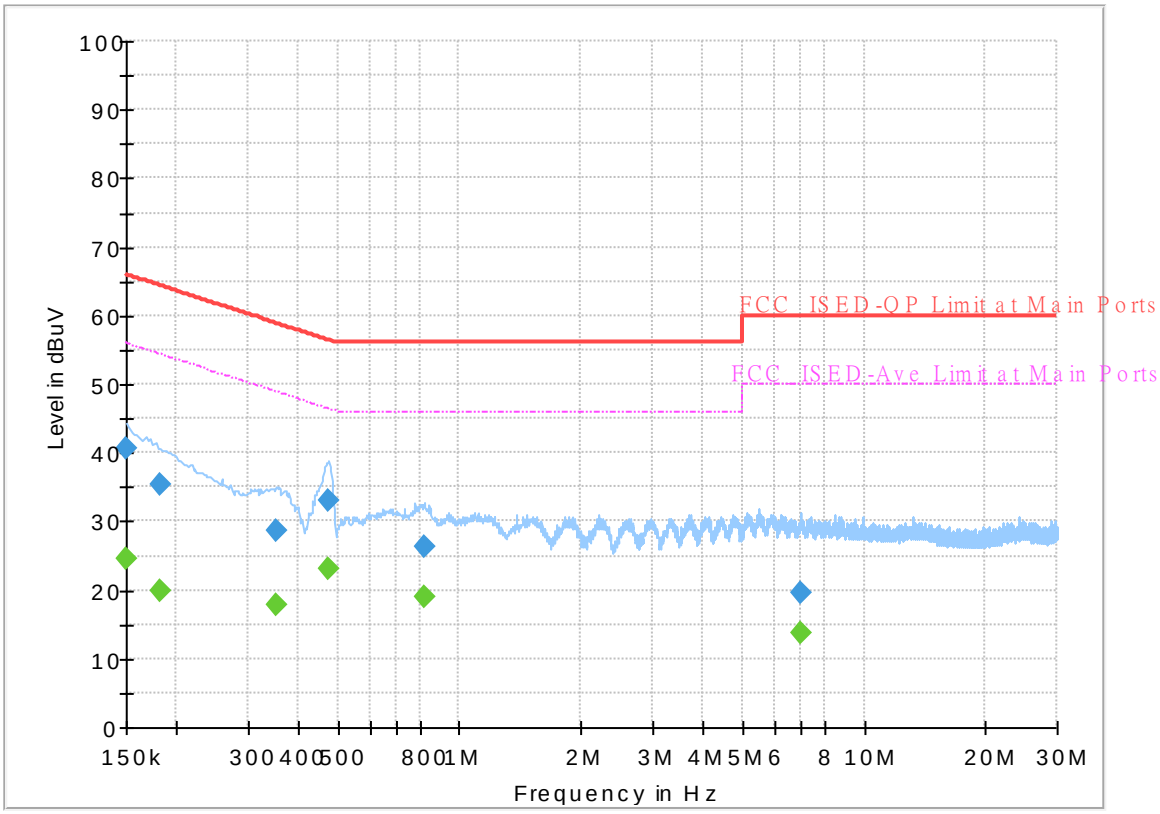
# Appendix B. AC Conducted Emission Test Results

| | | | |
|---|---|---|---|
| **Test Engineer :** | Calvin Wang | **Temperature :** | 23~26℃ |
| | | **Relative Humidity :** | 45~55% |

# EUT Information

| | |
|---|---|
| Report NO : | 672405 |
| Test Mode : | Mode 1 |
| Test Voltage : | 120Vac/60Hz |
| Phase : | Line |

Full Spectrum



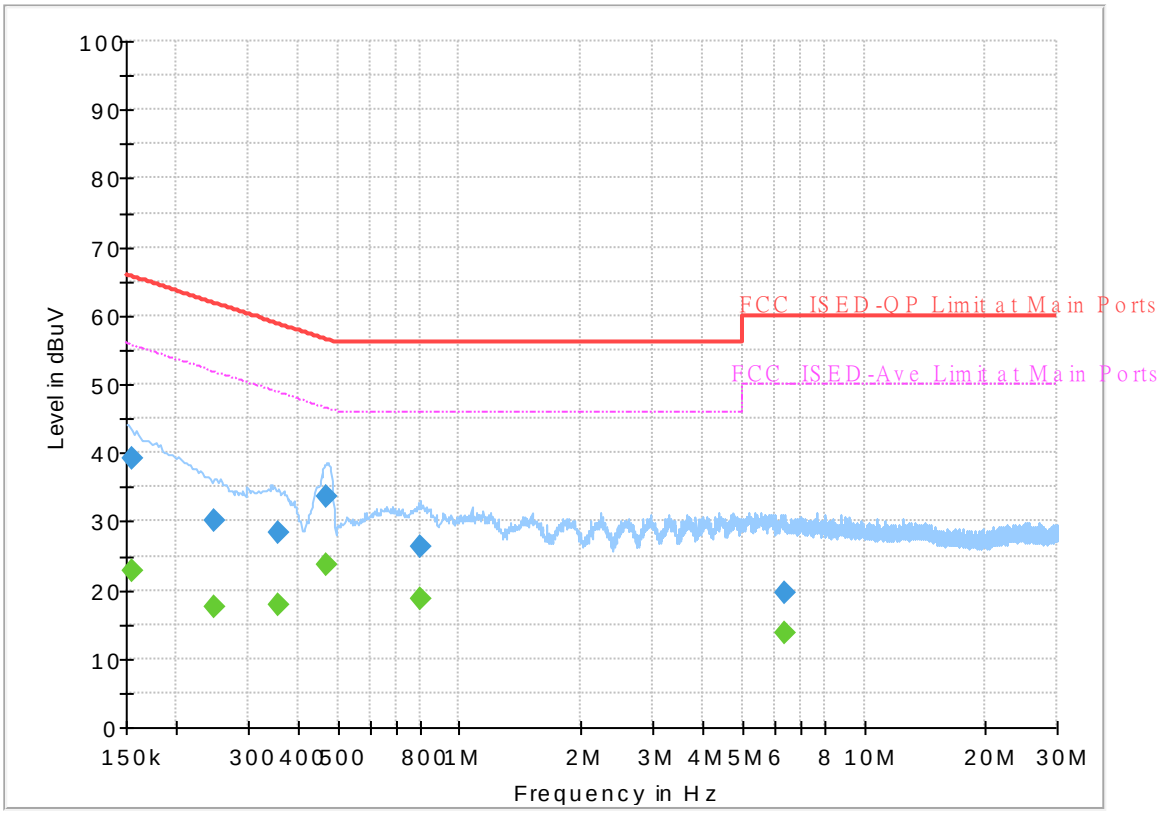

# Final_Result

| Frequency (MHz) | QuasiPeak (dBuV) | CAverage (dBuV) | Limit (dBuV) | Margin (dB) | Line | Filter | Corr. (dB) |
|---|---|---|---|---|---|---|---|
| 0.150000 | --- | 24.69 | 56.00 | 31.31 | L1 | OFF | 19.9 |
| 0.150000 | 40.62 | --- | 66.00 | 25.38 | L1 | OFF | 19.9 |
| 0.181500 | --- | 19.87 | 54.42 | 34.55 | L1 | OFF | 19.9 |
| 0.181500 | 35.26 | --- | 64.42 | 29.16 | L1 | OFF | 19.9 |
| 0.352500 | --- | 17.96 | 48.90 | 30.94 | L1 | OFF | 19.9 |
| 0.352500 | 28.62 | --- | 58.90 | 30.28 | L1 | OFF | 19.9 |
| 0.476250 | --- | 23.13 | 46.40 | 23.27 | L1 | OFF | 19.9 |
| 0.476250 | 32.99 | --- | 56.40 | 23.41 | L1 | OFF | 19.9 |
| 0.820500 | --- | 18.90 | 46.00 | 27.10 | L1 | OFF | 19.9 |
| 0.820500 | 26.36 | --- | 56.00 | 29.64 | L1 | OFF | 19.9 |
| 6.990000 | --- | 13.68 | 50.00 | 36.32 | L1 | OFF | 20.3 |
| 6.990000 | 19.68 | --- | 60.00 | 40.32 | L1 | OFF | 20.3 |

# EUT Information

| | |
|---|---|
| Report NO : | 672405 |
| 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) |
|---|---|---|---|---|---|---|---|
| 0.154500 | --- | 22.79 | 55.75 | 32.96 | N | OFF | 19.9 |
| 0.154500 | 39.23 | --- | 65.75 | 26.52 | N | OFF | 19.9 |
| 0.249000 | --- | 17.45 | 51.79 | 34.34 | N | OFF | 19.9 |
| 0.249000 | 29.98 | --- | 61.79 | 31.81 | N | OFF | 19.9 |
| 0.354750 | --- | 17.76 | 48.85 | 31.09 | N | OFF | 19.9 |
| 0.354750 | 28.34 | --- | 58.85 | 30.51 | N | OFF | 19.9 |
| 0.469500 | --- | 23.55 | 46.52 | 22.97 | N | OFF | 19.9 |
| 0.469500 | 33.53 | --- | 56.52 | 22.99 | N | OFF | 19.9 |
| 0.800250 | --- | 18.86 | 46.00 | 27.14 | N | OFF | 20.0 |
| 0.800250 | 26.34 | --- | 56.00 | 29.66 | N | OFF | 20.0 |
| 6.337500 | --- | 13.73 | 50.00 | 36.27 | N | OFF | 20.3 |
| 6.337500 | 19.52 | --- | 60.00 | 40.48 | N | OFF | 20.3 |

# Appendix C1.Radiated Spurious Emission Test Data

| | | | |
|---|---|---|---|
| **Test Engineer :** | Leo Li , Karl Hou , Chun Hao Lu | **Temperature :** | 19.9 ~ 21.6°C |
| | | **Relative Humidity :** | 62.6 ~ 67.5% |

## Note symbol

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

# C1.1.Radiated Spurious Emission Test Modes

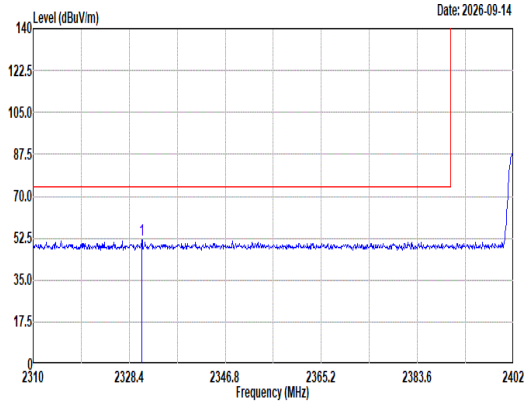
| Mode | Band (MHz) | Antenna | Modulation | Channel | Frequency | Data Rate | RU | Remark |
|---|---|---|---|---|---|---|---|---|
| Mode 1 | 2400-2483.5 | 1 | Bluetooth-LE_GFSK | 00 | 2402 | 125kbps | - | - |
| Mode 2 | 2400-2483.5 | 1 | Bluetooth-LE_GFSK | 19 | 2440 | 125kbps | - | - |
| Mode 3 | 2400-2483.5 | 1 | Bluetooth-LE_GFSK | 39 | 2480 | 125kbps | - | - |

# C1.2.Summary of each worse mode

| Mode | Modulation | Ch. | Freq. (MHz) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Pol. | Peak Avg. | Result | RU | Remark |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Bluetooth-LE_GFSK | 00 | 2345.24 | 41.74 | 54.00 | -12.26 | V | Avg. | Pass | - | Band Edge |
| | Bluetooth-LE_GFSK | 00 | 4804.00 | 46.30 | 74.00 | -27.70 | V | Peak | Pass | - | Harmonic |
| 2 | Bluetooth-LE_GFSK | 19 | 2360.05 | 41.75 | 54.00 | -12.25 | H | Avg. | Pass | - | Band Edge |
| | Bluetooth-LE_GFSK | 19 | 7320.00 | 39.97 | 54.00 | -14.03 | H | Avg. | Pass | - | Harmonic |
| 3 | Bluetooth-LE_GFSK | 39 | 2495.28 | 41.82 | 54.00 | -12.18 | H | Avg. | Pass | - | Band Edge |
| | Bluetooth-LE_GFSK | 39 | 7440.00 | 39.84 | 54.00 | -14.16 | V | Avg. | Pass | - | Harmonic |

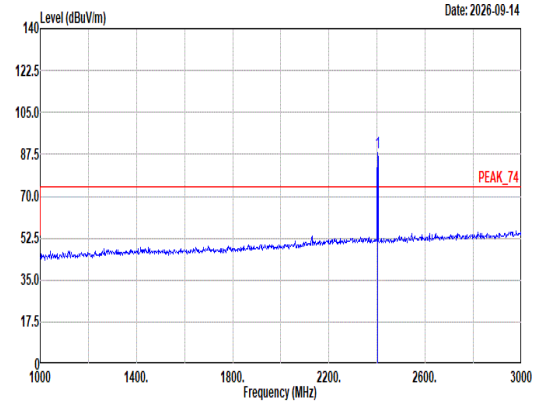
| Mode | 1 | |
|---|---|---|
| | Band Edge | |
| | 2400-2483.5_Bluetooth-LE_GFSK _CH00_2402MHz | |
| ANT | 1 | |
| Pol. | Horizontal | Fundamental |

**Peak**




Site : 03CH23-HY
Condition: PEAK_BE_74 3m DRH18-E_KV2D06A18ES_251105 HORIZONTAL
: RBW:1000.000kHz VBW:3000.000kHz SWT:Auto

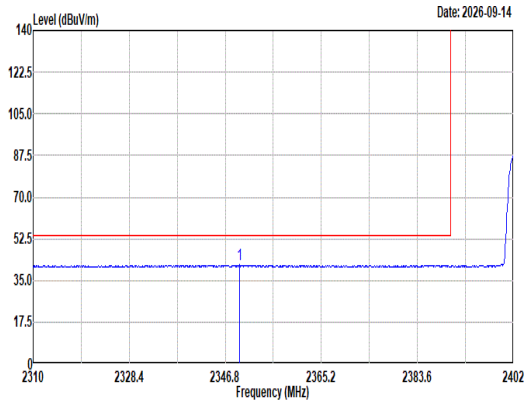
| | Freq | Level | Limit Line | Margin | Read Level | Ant Factor | Cable Loss | Preamp Factor | Aux Factor | APos | TPos | Remark |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dBuV/m | dB | dBuV | dB/m | dB | dB | dB | cm | deg | |
| 1 | 2330.79 | 51.92 | 74.00 | -22.08 | 38.95 | 27.10 | 7.41 | 31.81 | 10.27 | 100 | 102 | Peak |




Site : 03CH23-HY
Condition: PEAK_74 3m DRH18-E_KV2D06A18ES_251105 HORIZONTAL
: RBW:1000.000kHz VBW:3000.000kHz SWT:Auto

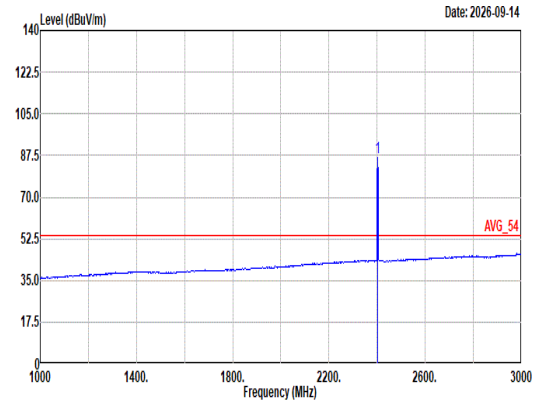
| | Freq | Level | Limit Line | Margin | Read Level | Ant Factor | Cable Loss | Preamp Factor | Aux Factor | APos | TPos | Remark |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dBuV/m | dB | dBuV | dB/m | dB | dB | dB | cm | deg | |
| 1 | 2402.00 | 88.02 | ------ | ------ | 75.26 | 26.80 | 7.52 | 31.84 | 10.28 | 100 | 102 | Peak |

**Avg**




Site : 03CH23-HY
Condition: AVG_BE_54 3m DRH18-E_KV2D06A18ES_251105 HORIZONTAL
: RBW:1000.000kHz VBW:2.700kHz SWT:Auto

| | Freq | Level | Limit Line | Margin | Read Level | Ant Factor | Cable Loss | Preamp Factor | Aux Factor | APos | TPos | Remark |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dBuV/m | dB | dBuV | dB/m | dB | dB | dB | cm | deg | |
| 1 | 2349.56 | 41.48 | 54.00 | -12.52 | 28.49 | 27.10 | 7.44 | 31.82 | 10.27 | 100 | 102 | Average |

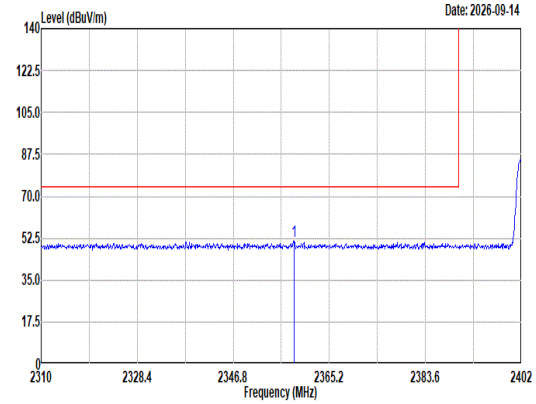



Site : 03CH23-HY
Condition: AVG_54 3m DRH18-E_KV2D06A18ES_251105 HORIZONTAL
: RBW:1000.000kHz VBW:2.700kHz SWT:Auto

| | Freq | Level | Limit Line | Margin | Read Level | Ant Factor | Cable Loss | Preamp Factor | Aux Factor | APos | TPos | Remark |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dBuV/m | dB | dBuV | dB/m | dB | dB | dB | cm | deg | |
| 1 | 2402.00 | 86.80 | ------ | ------ | 74.04 | 26.80 | 7.52 | 31.84 | 10.28 | 100 | 102 | Average |

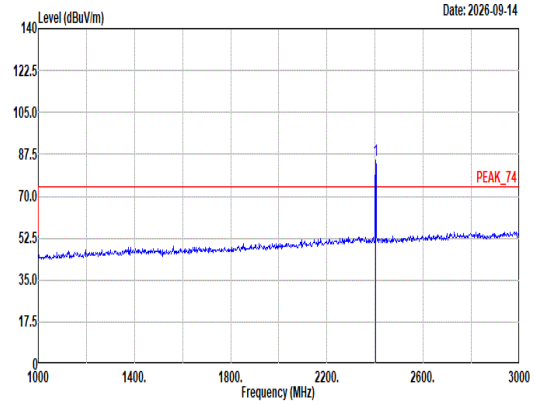
| Mode | 1 | |
|---|---|---|
| | Band Edge | |
| | 2400-2483.5_Bluetooth-LE_GFSK _CH00_2402MHz | |
| ANT | 1 | |
| Pol. | Vertical | Fundamental |

**Peak**




Site : 03CH23-HY
Condition: PEAK_BE_74 3m DRH18-E_KV2D06A18ES_251105 VERTICAL
: RBW:1000.000kHz VBW:3000.000kHz SWT:Auto

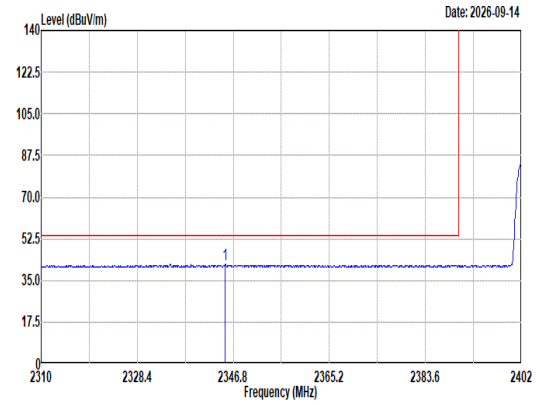
| | Freq | Level | Limit Line | Margin | Read Level | Ant Factor | Cable Loss | Preamp Factor | Aux Factor | APos | TPos | Remark |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dBuV/m | dB | dBuV | dB/m | dB | dB | dB | cm | deg | |
| 1 | 2358.39 | 51.08 | 74.00 | -22.92 | 38.16 | 27.02 | 7.45 | 31.82 | 10.27 | 386 | 48 | Peak |




Site : 03CH23-HY
Condition: PEAK_74 3m DRH18-E_KV2D06A18ES_251105 VERTICAL
: RBW:1000.000kHz VBW:3000.000kHz SWT:Auto

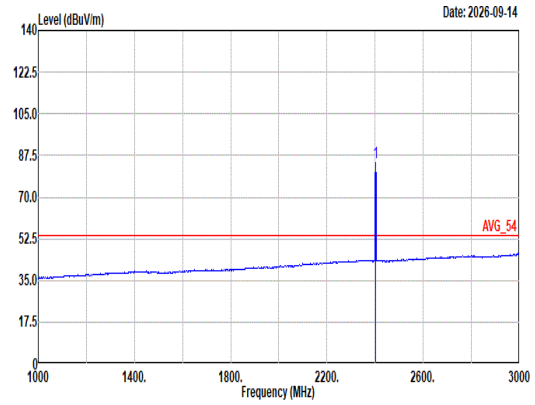
| | Freq | Level | Limit Line | Margin | Read Level | Ant Factor | Cable Loss | Preamp Factor | Aux Factor | APos | TPos | Remark |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dBuV/m | dB | dBuV | dB/m | dB | dB | dB | cm | deg | |
| 1 | 2402.00 | 85.10 | ------ | ------ | 72.34 | 26.80 | 7.52 | 31.84 | 10.28 | 386 | 48 | Peak |

**Avg**



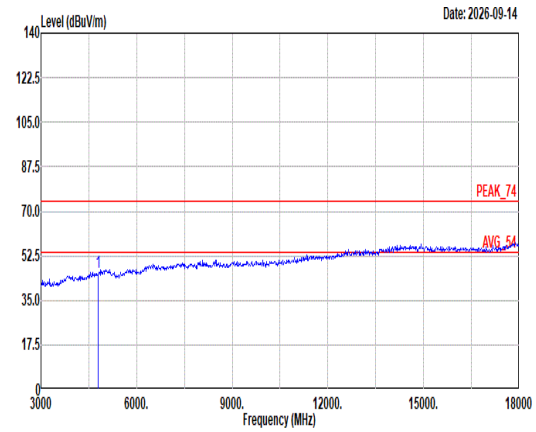
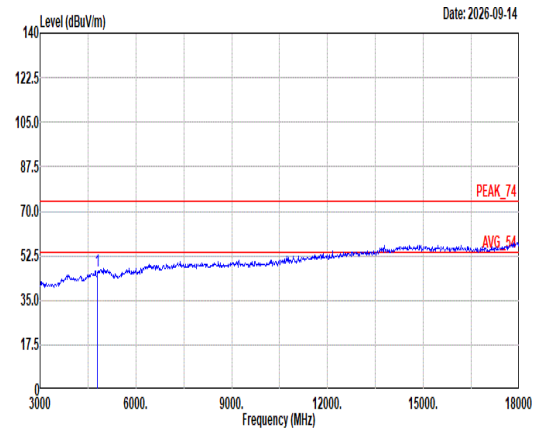

Site : 03CH23-HY
Condition: AVG_BE_54 3m DRH18-E_KV2D06A18ES_251105 VERTICAL
: RBW:1000.000kHz VBW:2.700kHz SWT:Auto

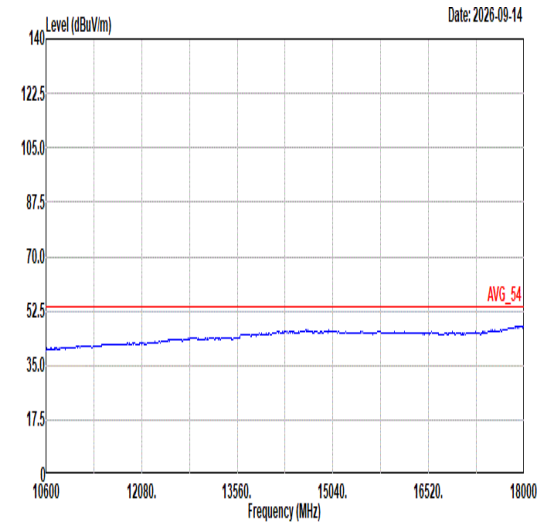
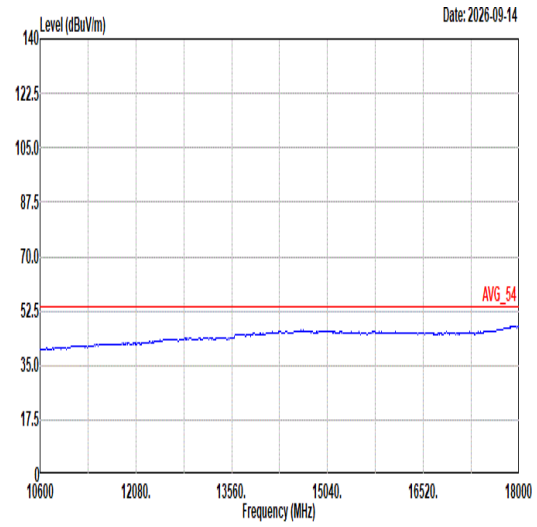
| | Freq | Level | Limit Line | Margin | Read Level | Ant Factor | Cable Loss | Preamp Factor | Aux Factor | APos | TPos | Remark |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dBuV/m | dB | dBuV | dB/m | dB | dB | dB | cm | deg | |
| 1 | 2345.24 | 41.74 | 54.00 | -12.26 | 28.76 | 27.10 | 7.43 | 31.82 | 10.27 | 386 | 48 | Average |




Site : 03CH23-HY
Condition: AVG_54 3m DRH18-E_KV2D06A18ES_251105 VERTICAL
: RBW:1000.000kHz VBW:2.700kHz SWT:Auto

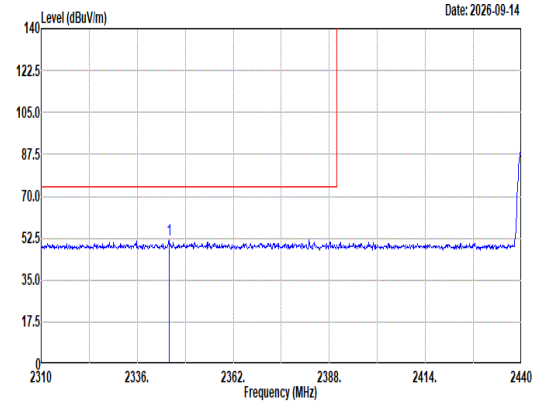
| | Freq | Level | Limit Line | Margin | Read Level | Ant Factor | Cable Loss | Preamp Factor | Aux Factor | APos | TPos | Remark |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dBuV/m | dB | dBuV | dB/m | dB | dB | dB | cm | deg | |
| 1 | 2402.00 | 84.58 | ------ | ------ | 71.82 | 26.80 | 7.52 | 31.84 | 10.28 | 386 | 48 | Average |

| Mode | 1 | |
|---|---|---|
| | Harmonic | |
| | 2400-2483.5_Bluetooth-LE_GFSK _CH00_2402MHz | |
| ANT | 1 | |
| Pol. | Horizontal | Vertical |
| Peak<br>Avg | <br>Site : 03CH23-HY<br>Condition: PEAK_74 3m DRH18-E_KV2D06A18ES_251105 HORIZONTAL<br><br>Freq / Level / Limit Line / Margin / Read Level / Ant Factor / Cable Loss / Preamp Factor / Aux Factor / APos / TPos / Remark<br>MHz / dBuV/m / dBuV/m / dB / dBuV / dB/m / dB / dB / dB / cm / deg<br>1 4804.00 45.90 74.00 -28.10 34.02 32.21 10.55 32.33 1.45 -- -- Peak | <br>Site : 03CH23-HY<br>Condition: PEAK_74 3m DRH18-E_KV2D06A18ES_251105 VERTICAL<br><br>Freq / Level / Limit Line / Margin / Read Level / Ant Factor / Cable Loss / Preamp Factor / Aux Factor / APos / TPos / Remark<br>MHz / dBuV/m / dBuV/m / dB / dBuV / dB/m / dB / dB / dB / cm / deg<br>1 4804.00 46.30 74.00 -27.70 34.42 32.21 10.55 32.33 1.45 -- -- Peak |

| Mode | 1 | |
|---|---|---|
| | Harmonic | |
| | 2400-2483.5_Bluetooth-LE_GFSK _CH00_2402MHz | |
| ANT | 1 | |
| Pol. | Horizontal | Vertical |
| 10.6G ~18G Avg | <br>Site : 03CH23-HY<br>Condition: AVG_54 3m DRH18-E_KV2D06A18ES_251105 HORIZONTAL | <br>Site : 03CH23-HY<br>Condition: AVG_54 3m DRH18-E_KV2D06A18ES_251105 VERTICAL |

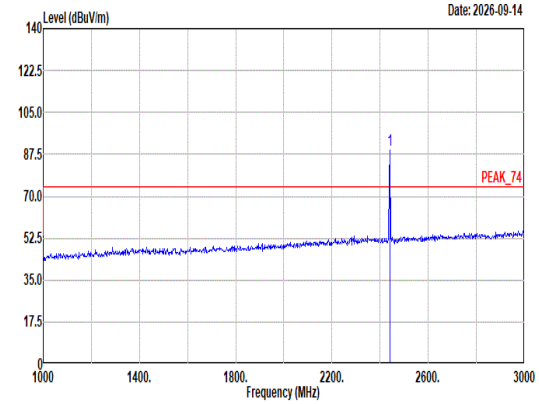
| Mode | 2 | |
|---|---|---|
| | Band Edge - L | |
| | 2400-2483.5_Bluetooth-LE_GFSK _CH19_2440MHz | |
| ANT | 1 | |
| Pol. | Horizontal | Fundamental |

**Peak**




Site : 03CH23-HY
Condition: PEAK_BE_74 3m DRH18-E_KV2D06A18ES_251105 HORIZONTAL
: RBW:1000.000kHz VBW:3000.000kHz SWT:Auto

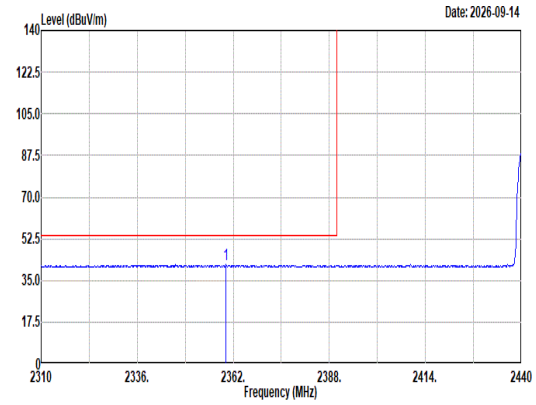
| | Freq | Level | Limit Line | Margin | Read Level | Ant Factor | Cable Loss | Preamp Factor | Aux Factor | APos | TPos | Remark |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dBuV/m | dB | dBuV | dB/m | dB | dB | dB | cm | deg | |
| 1 | 2344.58 | 51.68 | 74.00 | -22.32 | 38.70 | 27.10 | 7.43 | 31.82 | 10.27 | 200 | 93 | Peak |




Site : 03CH23-HY
Condition: PEAK_74 3m DRH18-E_KV2D06A18ES_251105 HORIZONTAL
: RBW:1000.000kHz VBW:3000.000kHz SWT:Auto

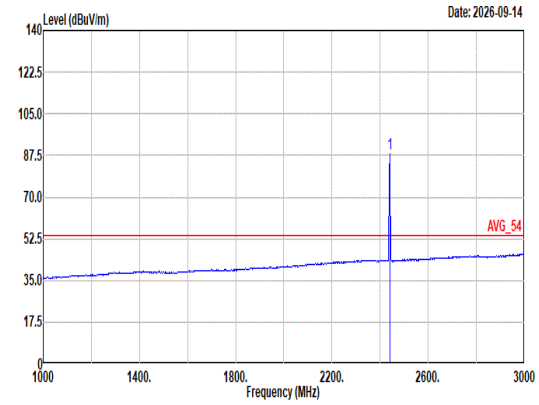
| | Freq | Level | Limit Line | Margin | Read Level | Ant Factor | Cable Loss | Preamp Factor | Aux Factor | APos | TPos | Remark |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dBuV/m | dB | dBuV | dB/m | dB | dB | dB | cm | deg | |
| 1 | 2440.00 | 89.07 | ------ | ------ | 76.47 | 26.60 | 7.58 | 31.86 | 10.28 | 200 | 93 | Peak |

**Avg**



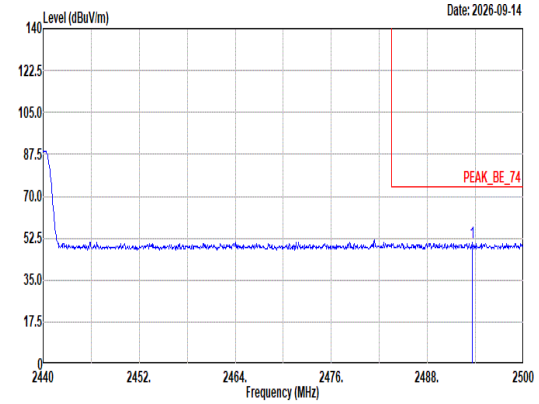
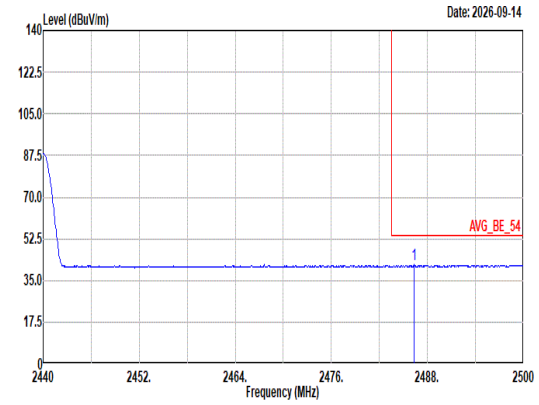

Site : 03CH23-HY
Condition: AVG_BE_54 3m DRH18-E_KV2D06A18ES_251105 HORIZONTAL
: RBW:1000.000kHz VBW:2.700kHz SWT:Auto

| | Freq | Level | Limit Line | Margin | Read Level | Ant Factor | Cable Loss | Preamp Factor | Aux Factor | APos | TPos | Remark |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dBuV/m | dB | dBuV | dB/m | dB | dB | dB | cm | deg | |
| 1 | 2360.05 | 41.75 | 54.00 | -12.25 | 28.84 | 27.00 | 7.46 | 31.82 | 10.27 | 200 | 93 | Average |



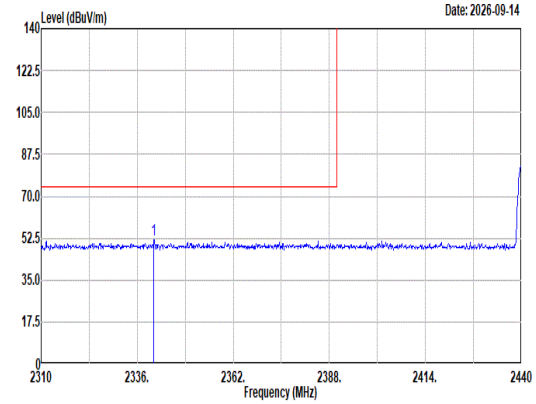

Site : 03CH23-HY
Condition: AVG_54 3m DRH18-E_KV2D06A18ES_251105 HORIZONTAL
: RBW:1000.000kHz VBW:2.700kHz SWT:Auto

| | Freq | Level | Limit Line | Margin | Read Level | Ant Factor | Cable Loss | Preamp Factor | Aux Factor | APos | TPos | Remark |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dBuV/m | dB | dBuV | dB/m | dB | dB | dB | cm | deg | |
| 1 | 2440.00 | 88.44 | ------ | ------ | 75.84 | 26.60 | 7.58 | 31.86 | 10.28 | 200 | 93 | Average |

| Mode | 2 | |
|---|---|---|
| | Band Edge - R | |
| | 2400-2483.5_Bluetooth-LE_GFSK _CH19_2440MHz | |
| ANT | 1 | |
| Pol. | Horizontal | Fundamental |
| Peak | <br>Site : 03CH23-HY<br>Condition: PEAK_BE_74 3m DRH18-E_KV2D06A18ES_251105 HORIZONTAL<br>: RBW:1000.000kHz VBW:3000.000kHz SWT:Auto<br><br>Freq / Level / Limit Line / Margin / Read Level / Ant Factor / Cable Loss / Preamp Factor / Aux Factor / APos / TPos / Remark<br>MHz / dBuV/m / dBuV/m / dB / dBuV / dB/m / dB / dB / dB / cm / deg<br>1 2493.58 50.54 74.00 -23.46 37.73 26.74 7.67 31.89 10.29 200 93 Peak | Blank |
| Avg | <br>Site : 03CH23-HY<br>Condition: AVG_BE_54 3m DRH18-E_KV2D06A18ES_251105 HORIZONTAL<br>: RBW:1000.000kHz VBW:2.700kHz SWT:Auto<br><br>Freq / Level / Limit Line / Margin / Read Level / Ant Factor / Cable Loss / Preamp Factor / Aux Factor / APos / TPos / Remark<br>MHz / dBuV/m / dBuV/m / dB / dBuV / dB/m / dB / dB / dB / cm / deg<br>1 2486.32 41.59 54.00 -12.41 28.82 26.70 7.66 31.88 10.29 200 93 Average | Blank |

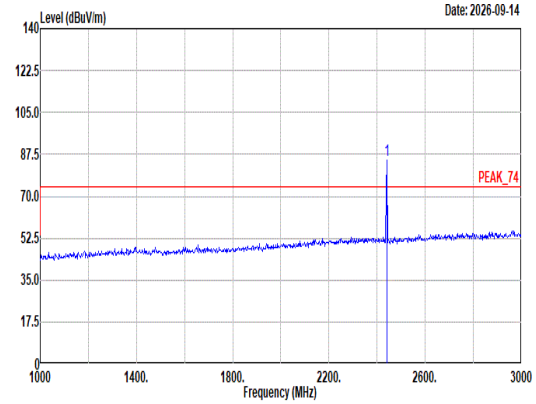
| Mode | 2 | |
|---|---|---|
| | Band Edge - L | |
| | 2400-2483.5_Bluetooth-LE_GFSK _CH19_2440MHz | |
| ANT | 1 | |
| Pol. | Vertical | Fundamental |

**Peak**




Site : 03CH23-HY
Condition: PEAK_BE_74 3m DRH18-E_KV2D06A18ES_251105 VERTICAL
: RBW:1000.000kHz VBW:3000.000kHz SWT:Auto

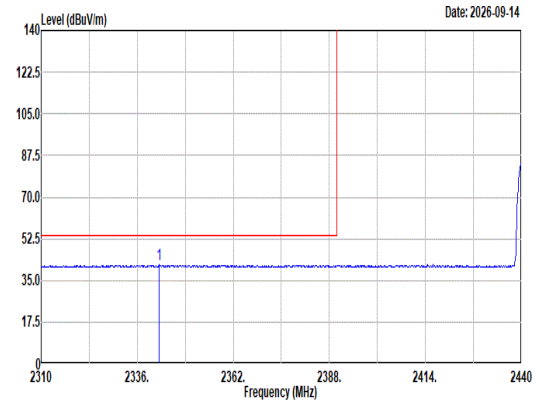
| | Freq | Level | Limit Line | Margin | Read Level | Ant Factor | Cable Loss | Preamp Factor | Aux Factor | APos | TPos | Remark |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dBuV/m | dB | dBuV | dB/m | dB | dB | dB | cm | deg | |
| 1 | 2340.55 | 51.56 | 74.00 | -22.44 | 38.58 | 27.10 | 7.42 | 31.81 | 10.27 | 100 | 172 | Peak |




Site : 03CH23-HY
Condition: PEAK_74 3m DRH18-E_KV2D06A18ES_251105 VERTICAL
: RBW:1000.000kHz VBW:3000.000kHz SWT:Auto

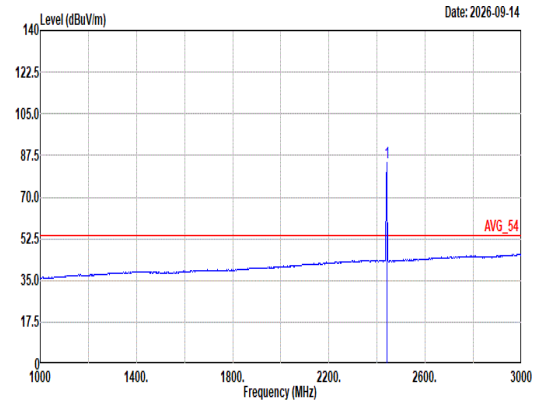
| | Freq | Level | Limit Line | Margin | Read Level | Ant Factor | Cable Loss | Preamp Factor | Aux Factor | APos | TPos | Remark |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dBuV/m | dB | dBuV | dB/m | dB | dB | dB | cm | deg | |
| 1 | 2440.00 | 85.10 | ------ | ------ | 72.50 | 26.60 | 7.58 | 31.86 | 10.28 | 100 | 172 | Peak |

**Avg**



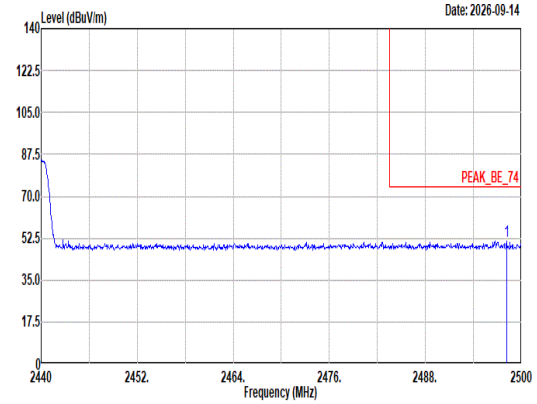
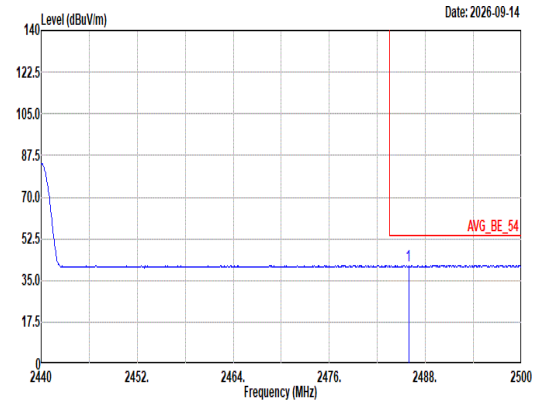

Site : 03CH23-HY
Condition: AVG_BE_54 3m DRH18-E_KV2D06A18ES_251105 VERTICAL
: RBW:1000.000kHz VBW:2.700kHz SWT:Auto

| | Freq | Level | Limit Line | Margin | Read Level | Ant Factor | Cable Loss | Preamp Factor | Aux Factor | APos | TPos | Remark |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dBuV/m | dB | dBuV | dB/m | dB | dB | dB | cm | deg | |
| 1 | 2341.85 | 41.51 | 54.00 | -12.49 | 28.52 | 27.10 | 7.43 | 31.81 | 10.27 | 100 | 172 | Average |

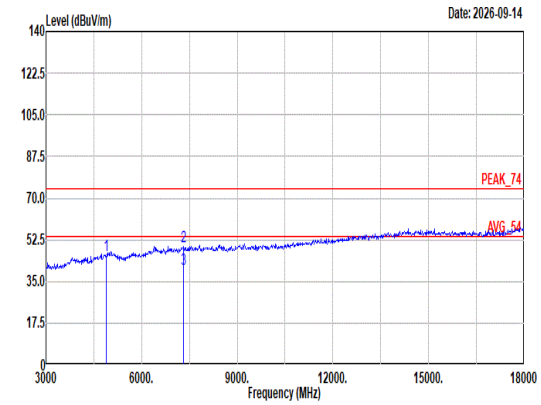
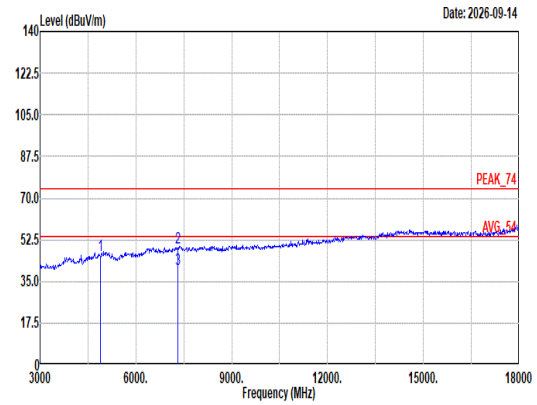



Site : 03CH23-HY
Condition: AVG_54 3m DRH18-E_KV2D06A18ES_251105 VERTICAL
: RBW:1000.000kHz VBW:2.700kHz SWT:Auto

| | Freq | Level | Limit Line | Margin | Read Level | Ant Factor | Cable Loss | Preamp Factor | Aux Factor | APos | TPos | Remark |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dBuV/m | dB | dBuV | dB/m | dB | dB | dB | cm | deg | |
| 1 | 2440.00 | 84.45 | ------ | ------ | 71.85 | 26.60 | 7.58 | 31.86 | 10.28 | 100 | 172 | Average |

| Mode | 2 | |
|---|---|---|
| | Band Edge - R | |
| | 2400-2483.5_Bluetooth-LE_GFSK _CH19_2440MHz | |
| ANT | 1 | |
| Pol. | Vertical | Fundamental |
| Peak | <br>Site : 03CH23-HY<br>Condition: PEAK_BE_74 3m DRH18-E_KV2D06A18ES_251105 VERTICAL<br>: RBW:1000.000kHz VBW:3000.000kHz SWT:Auto<br><br>Limit Read Ant Cable Preamp Aux APos TPos<br>Freq Level Line Margin Level Factor Loss Factor Factor Remark<br>MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg<br>1 2498.14 51.40 74.00 -22.60 38.54 26.78 7.68 31.89 10.29 100 172 Peak | Blank |
| Avg | <br>Site : 03CH23-HY<br>Condition: AVG_BE_54 3m DRH18-E_KV2D06A18ES_251105 VERTICAL<br>: RBW:1000.000kHz VBW:2.700kHz SWT:Auto<br><br>Limit Read Ant Cable Preamp Aux APos TPos<br>Freq Level Line Margin Level Factor Loss Factor Factor Remark<br>MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg<br>1 2485.90 41.40 54.00 -12.60 28.63 26.70 7.66 31.88 10.29 100 172 Average | Blank |

| Mode | 2 |
|---|---|
| | Harmonic |
| | 2400-2483.5_Bluetooth-LE_GFSK _CH19_2440MHz |
| ANT | 1 |

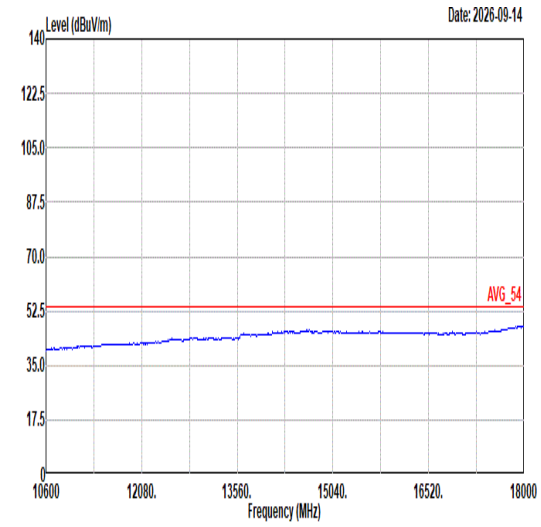
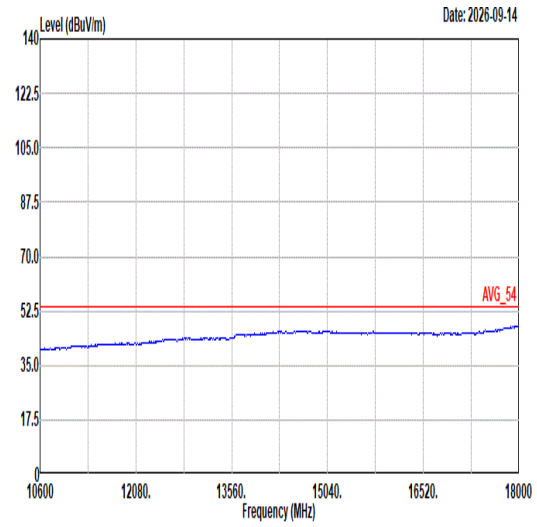
| Pol. | Horizontal | Vertical |
|---|---|---|
| Peak<br>Avg |  |  |

Site : 03CH23-HY
Condition: PEAK_74 3m DRH18-E_KV2D06A18ES_251105 HORIZONTAL

| | Freq | Level | Limit Line | Margin | Read Level | Ant Factor | Cable Loss | Preamp Factor | Aux Factor | APos | TPos | Remark |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dBuV/m | dB | dBuV | dB/m | dB | dB | dB | cm | deg | |
| 1 | 4880.00 | 45.88 | 74.00 | -28.12 | 33.68 | 32.42 | 10.64 | 32.29 | 1.43 | -- | -- | Peak |
| 2 | 7320.00 | 49.71 | 74.00 | -24.29 | 33.72 | 37.00 | 13.27 | 35.68 | 1.40 | -- | -- | Peak |
| 3 | 7320.00 | 39.97 | 54.00 | -14.03 | 23.98 | 37.00 | 13.27 | 35.68 | 1.40 | -- | -- | Average |

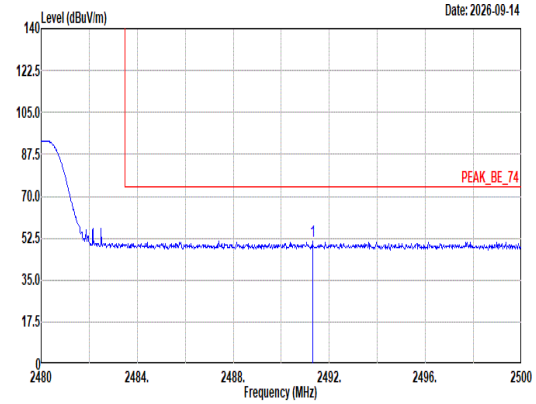
Site : 03CH23-HY
Condition: PEAK_74 3m DRH18-E_KV2D06A18ES_251105 VERTICAL

| | Freq | Level | Limit Line | Margin | Read Level | Ant Factor | Cable Loss | Preamp Factor | Aux Factor | APos | TPos | Remark |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dBuV/m | dB | dBuV | dB/m | dB | dB | dB | cm | deg | |
| 1 | 4880.00 | 45.92 | 74.00 | -28.08 | 33.72 | 32.42 | 10.64 | 32.29 | 1.43 | -- | -- | Peak |
| 2 | 7320.00 | 49.28 | 74.00 | -24.72 | 33.29 | 37.00 | 13.27 | 35.68 | 1.40 | -- | -- | Peak |
| 3 | 7320.00 | 39.92 | 54.00 | -14.08 | 23.93 | 37.00 | 13.27 | 35.68 | 1.40 | -- | -- | Average |

| Mode | 2 | |
|---|---|---|
| | Harmonic | |
| | 2400-2483.5_Bluetooth-LE_GFSK _CH19_2440MHz | |
| ANT | 1 | |
| Pol. | Horizontal | Vertical |
| 10.6G ~18G Avg | <br>Site : 03CH23-HY<br>Condition: AVG_54 3m DRH18-E_KV2D06A18ES_251105 HORIZONTAL | <br>Site : 03CH23-HY<br>Condition: AVG_54 3m DRH18-E_KV2D06A18ES_251105 VERTICAL |

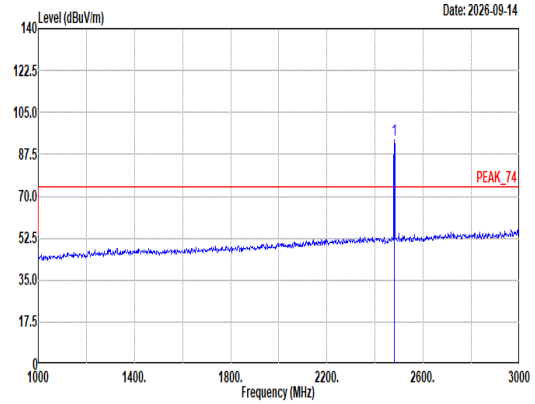
| Mode | 3 | |
|---|---|---|
| | Band Edge | |
| | 2400-2483.5_Bluetooth-LE_GFSK _CH39_2480MHz | |
| ANT | 1 | |
| Pol. | Horizontal | Fundamental |

**Peak**




Site : 03CH23-HY
Condition: PEAK_BE_74 3m DRH18-E_KV2D06A18ES_251105 HORIZONTAL
: RBW:1000.000kHz VBW:3000.000kHz SWT:Auto

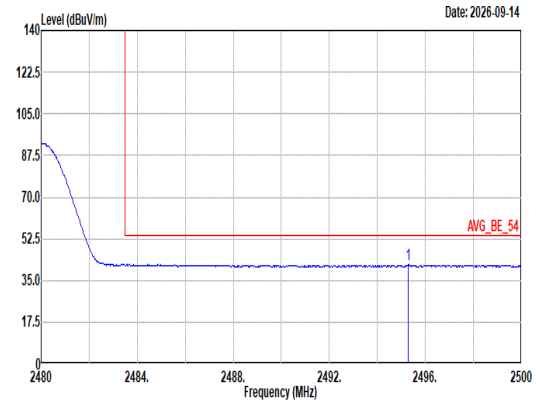
| | Freq | Level | Limit Line | Margin | Read Level | Ant Factor | Cable Loss | Preamp Factor | Aux Factor | APos | TPos | Remark |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dBuV/m | dB | dBuV | dB/m | dB | dB | dB | cm | deg | |
| 1 | 2491.30 | 51.40 | 74.00 | -22.60 | 38.62 | 26.71 | 7.67 | 31.89 | 10.29 | 137 | 321 | Peak |




Site : 03CH23-HY
Condition: PEAK_74 3m DRH18-E_KV2D06A18ES_251105 HORIZONTAL
: RBW:1000.000kHz VBW:3000.000kHz SWT:Auto

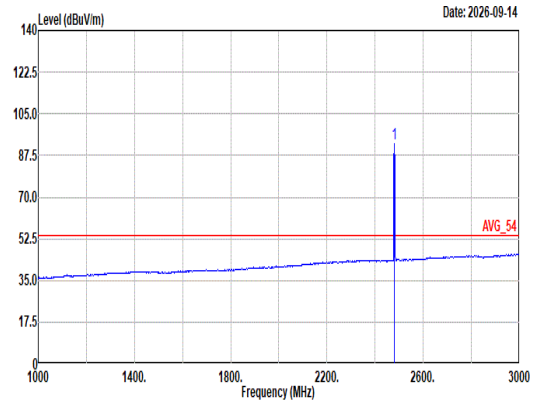
| | Freq | Level | Limit Line | Margin | Read Level | Ant Factor | Cable Loss | Preamp Factor | Aux Factor | APos | TPos | Remark |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dBuV/m | dB | dBuV | dB/m | dB | dB | dB | cm | deg | |
| 1 | 2480.00 | 93.39 | ------ | ------ | 80.63 | 26.70 | 7.65 | 31.88 | 10.29 | 137 | 321 | Peak |

**Avg**




Site : 03CH23-HY
Condition: AVG_BE_54 3m DRH18-E_KV2D06A18ES_251105 HORIZONTAL
: RBW:1000.000kHz VBW:2.700kHz SWT:Auto

| | Freq | Level | Limit Line | Margin | Read Level | Ant Factor | Cable Loss | Preamp Factor | Aux Factor | APos | TPos | Remark |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dBuV/m | dB | dBuV | dB/m | dB | dB | dB | cm | deg | |
| 1 | 2495.28 | 41.82 | 54.00 | -12.18 | 29.00 | 26.75 | 7.67 | 31.89 | 10.29 | 137 | 321 | Average |

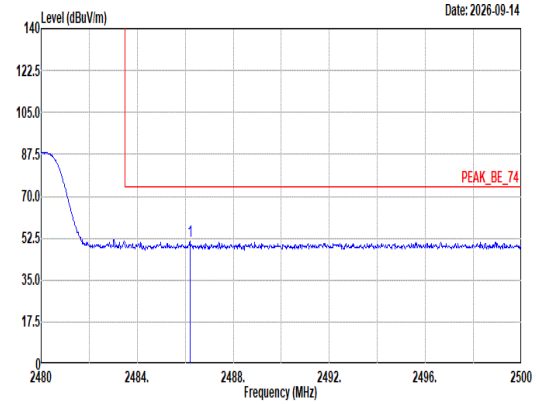



Site : 03CH23-HY
Condition: AVG_54 3m DRH18-E_KV2D06A18ES_251105 HORIZONTAL
: RBW:1000.000kHz VBW:2.700kHz SWT:Auto

| | Freq | Level | Limit Line | Margin | Read Level | Ant Factor | Cable Loss | Preamp Factor | Aux Factor | APos | TPos | Remark |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dBuV/m | dB | dBuV | dB/m | dB | dB | dB | cm | deg | |
| 1 | 2480.00 | 92.37 | ------ | ------ | 79.61 | 26.70 | 7.65 | 31.88 | 10.29 | 137 | 321 | Average |

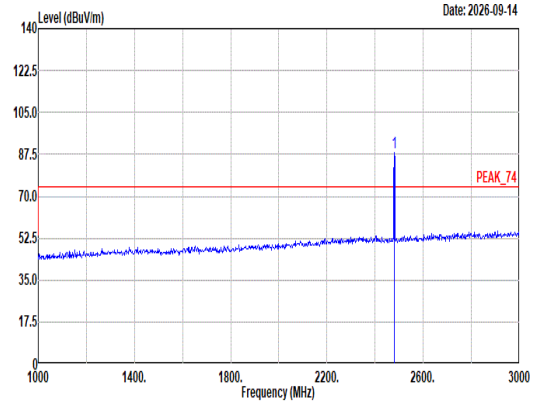
| Mode | 3 | |
|---|---|---|
| | Band Edge | |
| | 2400-2483.5_Bluetooth-LE_GFSK _CH39_2480MHz | |
| ANT | 1 | |
| Pol. | Vertical | Fundamental |

**Peak**




Site : 03CH23-HY
Condition: PEAK_BE_74 3m DRH18-E_KV2D06A18ES_251105 VERTICAL
: RBW:1000.000kHz VBW:3000.000kHz SWT:Auto

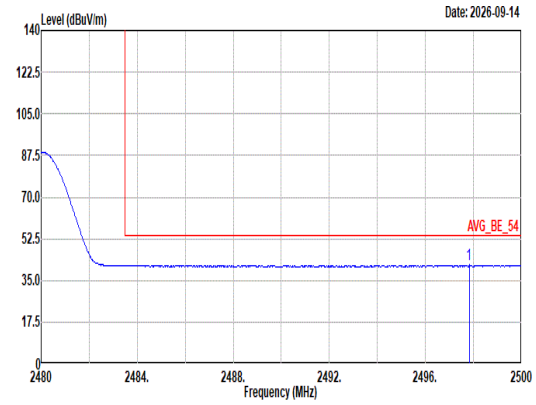
| | Freq | Level | Limit Line | Margin | Read Level | Ant Factor | Cable Loss | Preamp Factor | Aux Factor | APos | TPos | Remark |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dBuV/m | dB | dBuV | dB/m | dB | dB | dB | cm | deg | |
| 1 | 2486.20 | 51.03 | 74.00 | -22.97 | 38.26 | 26.70 | 7.66 | 31.88 | 10.29 | 400 | 346 | Peak |




Site : 03CH23-HY
Condition: PEAK_74 3m DRH18-E_KV2D06A18ES_251105 VERTICAL
: RBW:1000.000kHz VBW:3000.000kHz SWT:Auto

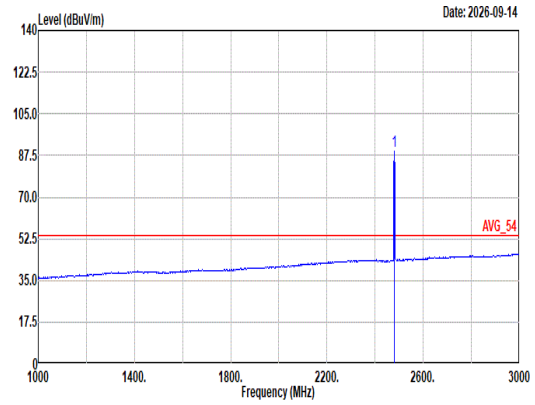
| | Freq | Level | Limit Line | Margin | Read Level | Ant Factor | Cable Loss | Preamp Factor | Aux Factor | APos | TPos | Remark |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dBuV/m | dB | dBuV | dB/m | dB | dB | dB | cm | deg | |
| 1 | 2480.00 | 88.39 | ------ | ------ | 75.63 | 26.70 | 7.65 | 31.88 | 10.29 | 400 | 346 | Peak |

**Avg**




Site : 03CH23-HY
Condition: AVG_BE_54 3m DRH18-E_KV2D06A18ES_251105 VERTICAL
: RBW:1000.000kHz VBW:2.700kHz SWT:Auto

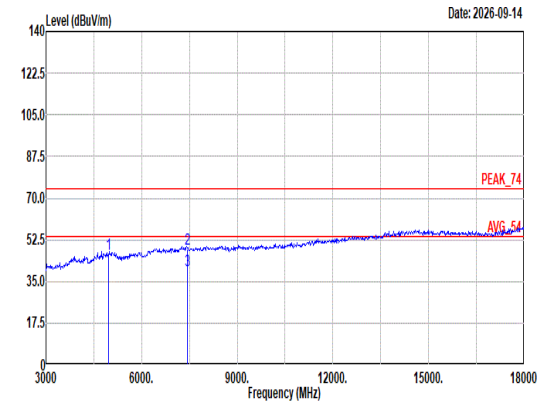
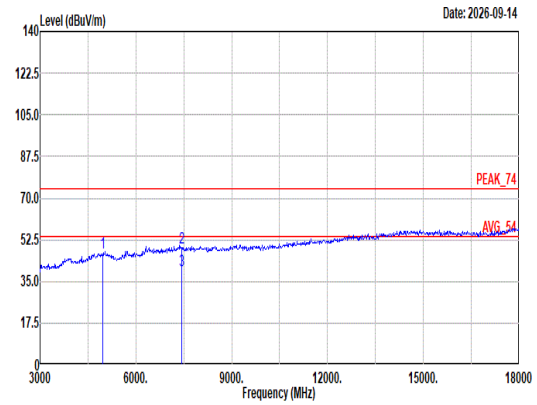
| | Freq | Level | Limit Line | Margin | Read Level | Ant Factor | Cable Loss | Preamp Factor | Aux Factor | APos | TPos | Remark |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dBuV/m | dB | dBuV | dB/m | dB | dB | dB | cm | deg | |
| 1 | 2497.82 | 41.66 | 54.00 | -12.34 | 28.80 | 26.78 | 7.68 | 31.89 | 10.29 | 400 | 346 | Average |

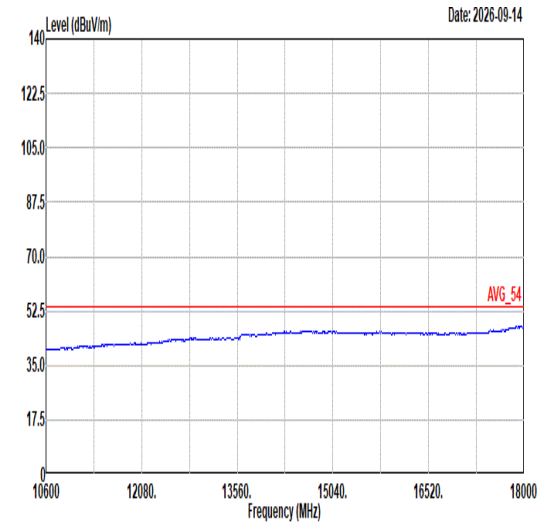
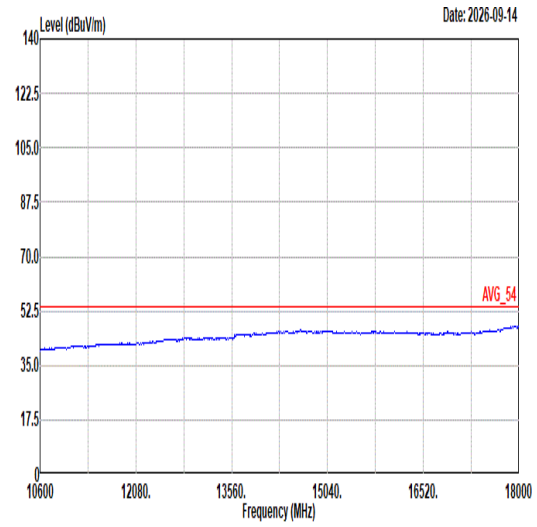



Site : 03CH23-HY
Condition: AVG_54 3m DRH18-E_KV2D06A18ES_251105 VERTICAL
: RBW:1000.000kHz VBW:2.700kHz SWT:Auto

| | Freq | Level | Limit Line | Margin | Read Level | Ant Factor | Cable Loss | Preamp Factor | Aux Factor | APos | TPos | Remark |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dBuV/m | dB | dBuV | dB/m | dB | dB | dB | cm | deg | |
| 1 | 2480.00 | 89.16 | ------ | ------ | 76.40 | 26.70 | 7.65 | 31.88 | 10.29 | 400 | 346 | Average |

| Mode | 3 |
|---|---|
| | Harmonic |
| | 2400-2483.5_Bluetooth-LE_GFSK _CH39_2480MHz |
| ANT | 1 |

| Pol. | Horizontal | Vertical |
|---|---|---|
| Peak<br>Avg | <br>Site : 03CH23-HY<br>Condition: PEAK_74 3m DRH18-E_KV2D06A18ES_251105 HORIZONTAL<br>Limit Read Ant Cable Preamp Aux APos TPos<br>Freq Level Line Margin Level Factor Loss Factor Factor Remark<br>MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg<br>1 4960.00 46.44 74.00 -27.56 33.81 32.72 10.75 32.24 1.40 -- -- Peak<br>2 7440.00 48.77 74.00 -25.23 32.70 37.02 13.42 35.78 1.41 -- -- Peak<br>3 7440.00 39.51 54.00 -14.49 23.44 37.02 13.42 35.78 1.41 -- -- Average | <br>Site : 03CH23-HY<br>Condition: PEAK_74 3m DRH18-E_KV2D06A18ES_251105 VERTICAL<br>Limit Read Ant Cable Preamp Aux APos TPos<br>Freq Level Line Margin Level Factor Loss Factor Factor Remark<br>MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg<br>1 4960.00 47.07 74.00 -26.93 34.44 32.72 10.75 32.24 1.40 -- -- Peak<br>2 7440.00 49.27 74.00 -24.73 33.20 37.02 13.42 35.78 1.41 -- -- Peak<br>3 7440.00 39.84 54.00 -14.16 23.77 37.02 13.42 35.78 1.41 -- -- Average |

| Mode | 3 | |
|---|---|---|
| | Harmonic | |
| | 2400-2483.5_Bluetooth-LE_GFSK _CH39_2480MHz | |
| ANT | 1 | |
| Pol. | Horizontal | Vertical |
| 10.6G ~18G Avg | <br>Site : 03CH23-HY<br>Condition: AVG_54 3m DRH18-E_KV2D06A18ES_251105 HORIZONTAL | <br>Site : 03CH23-HY<br>Condition: AVG_54 3m DRH18-E_KV2D06A18ES_251105 VERTICAL |

# Appendix C2. Radiated Spurious Emission Test Data

| | | | |
|---|---|---|---|
| **Test Engineer :** | Leo Li , Karl Hou , Chun Hao Lu | **Temperature :** | 19.9 ~ 21.6°C |
| | | **Relative Humidity :** | 62.6 ~ 67.5% |

## Note symbol

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

# C2.1.Radiated Spurious Emission Test Modes

| Mode | Band (MHz) | Antenna | Modulation | Channel | Frequency | Data Rate | RU | Remark |
|---|---|---|---|---|---|---|---|---|
| Mode 4 | 2400-2483.5 | 1 | Bluetooth-LE_GFSK | 00 | 2402 | 500kbps | - | - |
| Mode 5 | 2400-2483.5 | 1 | Bluetooth-LE_GFSK | 19 | 2440 | 500kbps | - | - |
| Mode 6 | 2400-2483.5 | 1 | Bluetooth-LE_GFSK | 39 | 2480 | 500kbps | - | - |

# C2.2.Summary of each worse mode

| Mode | Modulation | Ch. | Freq. (MHz) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Pol. | Peak Avg. | Result | RU | Remark |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 | Bluetooth-LE_GFSK | 00 | 2389.86 | 41.67 | 54.00 | -12.33 | H | Avg. | Pass | - | Band Edge |
| | Bluetooth-LE_GFSK | 00 | 4804.00 | 47.40 | 74.00 | -26.60 | H | Peak | Pass | - | Harmonic |
| 5 | Bluetooth-LE_GFSK | 19 | 2338.47 | 41.72 | 54.00 | -12.28 | V | Avg. | Pass | - | Band Edge |
| | Bluetooth-LE_GFSK | 19 | 7320.00 | 39.90 | 54.00 | -14.10 | H | Avg. | Pass | - | Harmonic |
| 6 | Bluetooth-LE_GFSK | 39 | 2483.56 | 41.84 | 54.00 | -12.16 | V | Avg. | Pass | - | Band Edge |
| | Bluetooth-LE_GFSK | 39 | 7440.00 | 40.08 | 54.00 | -13.92 | H | Avg. | Pass | - | Harmonic |