

# ISED Test Report

Report No.: AGC16823250801CR01

**IC** : 25818-RUUVIAIR

**APPLICATION PURPOSE** : Original Equipment

**PRODUCT DESIGNATION** : Ruuvi Air

**BRAND NAME** : Ruuvi

**MODEL NAME** : Ruuvi Air

**APPLICANT** : Ruuvi Innovations Ltd.

**DATE OF ISSUE** : Oct. 16, 2025

**STANDARD(S)** : RSS-247 Issue 3  
RSS-Gen: Issue 5+Amendment 1+Amendment 2

**REPORT VERSION** : V1.0

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**Report Revise Record**

| Report Version | Revise Time | Issued Date   | Valid Version | Notes           |
|----------------|-------------|---------------|---------------|-----------------|
| V1.0           | /           | Oct. 16, 2025 | Valid         | Initial Release |

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**1. General Information**

|                              |   |
|------------------------------|---|
| Applicant                    | Ruubi Innovations Ltd.                        |
| Address                      | Hameenkatu 10 B 132, RIIHIMAKI 11100, Finland |
| Manufacturer                 | Ruubi Innovations Ltd.                        |
| Address                      | Hameenkatu 10 B 132, RIIHIMAKI 11100, Finland |
| Factory                      | Ruubi Innovations Ltd.                        |
| Address                      | Hameenkatu 10 B 132, RIIHIMAKI 11100, Finland |
| Product Designation          | Ruubi Air                                     |
| Brand Name                   | Ruubi   |
| Test Model                   | Ruubi Air                                     |
| Series Model(s)              | N/A   |
| Difference Description       | N/A   |
| Date of receipt of test item | Aug. 15, 2025                                 |
| Date of Test                 | Aug. 15, 2025 to Oct. 15, 2025                |
| Test Sample Number           | 250813062                                     |
| Deviation from Standard      | No any deviation from the test method         |
| Condition of Test Sample     | Normal  |
| Test Result                  | Pass  |
| Test Report Form No          | AGCER-ISED-BLE-V1                             |

Note: The test results of this report relate only to the tested sample identified in this report.

Prepared By

Thea HuangThea Huang  
(Project Engineer)

Oct. 16, 2025

Reviewed By

Bibo ZhangBibo Zhang  
(Reviewer)

Oct. 16, 2025

Approved By

Angela LiAngela Li  
(Authorized Officer)

Oct. 16, 2025

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## 2. Product Information

### 2.1 Product Technical Description

|                                   |  |
|-----------------------------------|--|
| Frequency Band                    | 2400MHz-2483.5MHz  |
| Operation Frequency Range         | 2402MHz-2480MHz  |
| Bluetooth Version                 | V5.4   |
| Modulation Type                   | BLE <input checked="" type="checkbox"/> GFSK 125Kbps BLE <input checked="" type="checkbox"/> GFSK 1Mbps <input checked="" type="checkbox"/> GFSK 2Mbps |
| Number of channels                | 40   |
| Carrier Frequency of Each Channel | 40 Channel (37 Data channels + 3 advertising channel)  |
| Channel Separation                | 2 MHz  |
| Maximum Transmitter Power         | 0.286 dBm  |
| Maximum Transmitter EIRP          | 2.696 dBm  |
| Hardware Version                  | V1.0   |
| Software Version                  | V1.0   |
| Antenna Designation               | PCB Antenna  |
| Antenna Gain                      | 2.41dBi  |
| Power Supply                      | DC 5V  |

### 2.2 Test Frequency List

| Frequency Band | Channel Number | Test Frequency |
|----------------|----------------|----------------|
| 2400~2483.5MHz | 0              | 2402 MHz       |
|                | 1              | 2404 MHz       |
|                | :              | :              |
|                | 19             | 2440MHz        |
|                | :              | :              |
|                | 38             | 2478 MHz       |
|                | 39             | 2480 MHz       |

Note:  $f = 2402 + 2*k$  MHz,  $k = 0, \dots, 39$      $f$  is the operating frequency (MHz)     $k$  is the operating channel.

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## 2.3 Related Submittal(S) / Grant (S)

This submittal(s) (test report) is intended for IC: 25818-RUUUIAIR, filing to comply with RSS-247 of the Science and Economic Development Canada rules.

## 2.4 Test Methodology

The tests were performed according to following standards:

| No. | Identity                    | Document Title   |
|-----|-----------------------------|--|
| 1   | RSS-247 Issue 3             | Digital Transmission Systems (DTSS), Frequency Hopping Systems (FHSs) and License-Exempt Local Area Network (LE-LAN) Devices |
| 2   | RSS-Gen Issue 5             | General Requirements for Compliance of Radio Apparatus   |
| 3   | ANSI C63.10-2020+Cor.1-2023 | American National Standard for Testing Unlicensed Wireless Devices   |

## 2.5 Special Accessories

Not available for this EUT intended for grant.

## 2.6 Equipment Modifications

Not available for this EUT intended for grant.

## 2.7 Antenna Requirement

| Standard Requirement  |
|---|
| <b>RSS-Gen Issue 5, Section 6.8 requirement:</b><br>According to RSS-Gen Issue 5, Section 6.8, a transmitter can only be sold or operated with antennas with which it was certified. A transmitter may be certified with multiple antenna types. An antenna type comprises antennas having similar in-band and out-of-band radiation patterns |
| <b>EUT Antenna:</b><br>The non-detachable antenna inside the device cannot be replaced by the user at will. The gain of the antenna is 2.41dBi.   |

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### 3. Test Environment

#### 3.1 Address of the Test Laboratory

Laboratory: Attestation of Global Compliance (Shenzhen) Co., Ltd.

Address: 1-2/F, Building 19, Junfeng Industrial Park, Chongqing Road, Heping Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China

#### 3.2 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

##### **CNAS-Lab Code: L5488**

Attestation of Global Compliance (Shenzhen) Co., Ltd. has been assessed and proved to follow CNAS-CL01 Accreditation Criteria for Testing and Calibration Laboratories (identical to ISO/IEC17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories).

##### **A2LA-Lab Cert. No.: 5054.02**

Attestation of Global Compliance (Shenzhen) Co., Ltd. EMC Laboratory has been accredited by A2LA for technical competence in the field of electrical testing, and proved to follow ISO/IEC 17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

##### **FCC-Registration No.: 975832**

Attestation of Global Compliance (Shenzhen) Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the FCC (Federal Communications Commission). The acceptance letter from the FCC is maintained in our files with Registration 975832.

##### **IC-Registration No.: 24842 (CAB identifier: CN0063)**

Attestation of Global Compliance (Shenzhen) Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the Certification and Engineering Bureau of Industry Canada. The acceptance letter from the IC is maintained in our files with Registration 24842.

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### 3.3 Environmental Conditions

| Normal Conditions       |             |
|-------------------------|-------------|
| Temperature range (°C)  | 15 - 35     |
| Relative humidity range | 20 % - 75 % |
| Pressure range (kPa)    | 86 - 106    |
| Power supply            | DC 5V       |

### 3.4 Measurement Uncertainty

The reported uncertainty of measurement  $y \pm U$ , where expended uncertainty  $U$  is based on a standard uncertainty multiplied by a coverage factor of  $k=2$ , providing a level of confidence of approximately 95%.

| Item  | Measurement Uncertainty    |
|---|----------------------------|
| Uncertainty of Conducted Emission for AC Port | $U_c = \pm 2.9 \text{ dB}$ |
| Uncertainty of Radiated Emission below 1GHz   | $U_c = \pm 3.9 \text{ dB}$ |
| Uncertainty of Radiated Emission above 1GHz   | $U_c = \pm 4.9 \text{ dB}$ |
| Uncertainty of total RF power, conducted      | $U_c = \pm 0.8 \text{ dB}$ |
| Uncertainty of RF power density, conducted    | $U_c = \pm 2.6 \text{ dB}$ |
| Uncertainty of spurious emissions, conducted  | $U_c = \pm 2 \%$           |
| Uncertainty of Occupied Channel Bandwidth     | $U_c = \pm 2 \%$           |
| Uncertainty of Dwell Time                     | $U_c = \pm 2 \%$           |

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### 3.5 List of Equipment Use

| ● RF Conducted Test System          |               |                      |               |               |            |                           |                           |
|-------------------------------------|---------------|----------------------|---------------|---------------|------------|---------------------------|---------------------------|
| Used                                | Equipment No. | Test Equipment       | Manufacturer  | Model No.     | Serial No. | Last Cal. Date (YY-MM-DD) | Next Cal. Date (YY-MM-DD) |
| <input checked="" type="checkbox"/> | AGC-ER-E036   | Spectrum Analyzer    | Agilent       | N9020A        | MY49100060 | 2025-05-08                | 2026-05-07                |
| <input checked="" type="checkbox"/> | AGC-ER-A007   | 6dB Fixed Attenuator | Mini circuits | BW-S6-2W263A+ | N/A        | 2025-01-14                | 2026-01-13                |
| <input checked="" type="checkbox"/> | N/A           | RF Connection Cable  | N/A           | 1#            | N/A        | Each time                 | N/A                       |
| <input checked="" type="checkbox"/> | N/A           | RF Connection Cable  | N/A           | 2#            | N/A        | Each time                 | N/A                       |

| ● Radiated Spurious Emission        |               |                               |              |            |            |                           |                           |
|-------------------------------------|---------------|-------------------------------|--------------|------------|------------|---------------------------|---------------------------|
| Used                                | Equipment No. | Test Equipment                | Manufacturer | Model No.  | Serial No. | Last Cal. Date (YY-MM-DD) | Next Cal. Date (YY-MM-DD) |
| <input checked="" type="checkbox"/> | AGC-EM-E046   | EMI Test Receiver             | R&S          | ESCI       | 10096      | 2025-01-14                | 2026-01-13                |
| <input checked="" type="checkbox"/> | AGC-EM-E116   | EMI Test Receiver             | R&S          | ESCI       | 100034     | 2025-05-08                | 2026-05-07                |
| <input checked="" type="checkbox"/> | AGC-EM-E061   | Spectrum Analyzer             | Agilent      | N9010A     | MY53470504 | 2025-05-08                | 2026-05-07                |
| <input checked="" type="checkbox"/> | AGC-EM-E086   | Loop Antenna                  | ZHINAN       | ZN30900C   | 18051      | 2024-03-05                | 2026-03-04                |
| <input checked="" type="checkbox"/> | AGC-EM-E001   | Wideband Antenna              | SCHWARZBECK  | VULB9168   | D69250     | 2025-03-14                | 2027-03-13                |
| <input checked="" type="checkbox"/> | AGC-EM-E029   | Broadband Ridged Horn Antenna | ETS          | 3117       | 00034609   | 2025-03-27                | 2026-03-26                |
| <input checked="" type="checkbox"/> | AGC-EM-E082   | Horn Antenna                  | SCHWARZBECK  | BBHA 9170  | #768       | 2023-09-24                | 2025-09-23                |
| <input checked="" type="checkbox"/> | AGC-EM-E082   | Horn Antenna                  | SCHWARZBECK  | BBHA 9170  | #768       | 2025-09-10                | 2027-09-09                |
| <input checked="" type="checkbox"/> | AGC-EM-E146   | Pre-amplifier                 | ETS          | 3117-PA    | 00246148   | 2024-07-24                | 2026-07-23                |
| <input checked="" type="checkbox"/> | AGC-EM-A119   | 2.4G Filter                   | SongYi       | N/A        | N/A        | 2025-05-16                | 2026-05-15                |
| <input checked="" type="checkbox"/> | AGC-EM-A138   | 6dB Attenuator                | Eatsheep     | LM-XX-6-5W | N/A        | 2025-05-16                | 2027-05-15                |
| <input type="checkbox"/>            | AGC-EM-A139   | 6dB Attenuator                | Eatsheep     | LM-XX-6-5W | N/A        | 2025-05-16                | 2027-05-15                |

| ● AC Power Line Conducted Emission  |               |                          |               |           |            |                           |                           |
|-------------------------------------|---------------|--------------------------|---------------|-----------|------------|---------------------------|---------------------------|
| Used                                | Equipment No. | Test Equipment           | Manufacturer  | Model No. | Serial No. | Last Cal. Date (YY-MM-DD) | Next Cal. Date (YY-MM-DD) |
| <input checked="" type="checkbox"/> | AGC-EM-A171   | Attenuator               | Mini-Circuits | UNAT-10A+ | N/A        | 2024-02-01                | 2026-01-31                |
| <input checked="" type="checkbox"/> | AGC-EM-E023   | Artificial Mains Network | R&S           | ESH2-Z5   | 100086     | 2025-05-08                | 2026-05-07                |
| <input checked="" type="checkbox"/> | AGC-EM-E116   | Test Receiver            | R&S           | ESCI      | 100034     | 2025-05-08                | 2026-05-07                |

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| <b>● Test Software</b>              |               |                     |              |                      |                     |
|-------------------------------------|---------------|---------------------|--------------|----------------------|---------------------|
| Used                                | Equipment No. | Test Equipment      | Manufacturer | Model No.            | Version Information |
| <input checked="" type="checkbox"/> | AGC-EM-S001   | CE Test System      | R&S          | ES-K1                | V1.71               |
| <input checked="" type="checkbox"/> | AGC-EM-S003   | RE Test System      | FARA         | EZ-EMC               | VRA-03A             |
| <input checked="" type="checkbox"/> | AGC-ER-S012   | BT/WIFI Test System | Tonscend     | JS1120-2             | 2.6                 |
| <input checked="" type="checkbox"/> | AGC-EM-S011   | RSE Test System     | Tonscend     | TS+-Ver2.1(JS36-RSE) | 4.0.0.0             |

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## 4. System Test Configuration

### 4.1 EUT Configuration

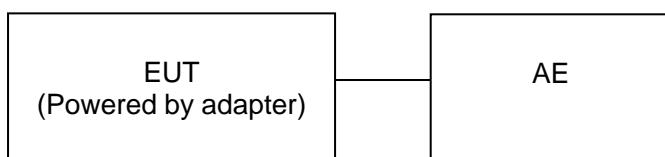
The EUT configuration for testing is installed on RF field strength measurement to meet the Commission's requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

### 4.2 EUT Exercise

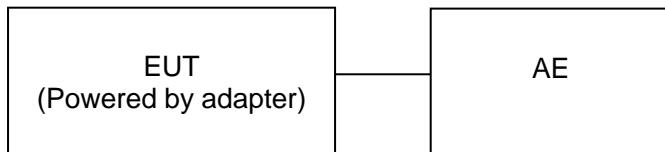
The Transmitter was operated in the normal operating mode. The TX frequency was fixed which was for the purpose of the measurements.

### 4.3 Configuration of Tested System

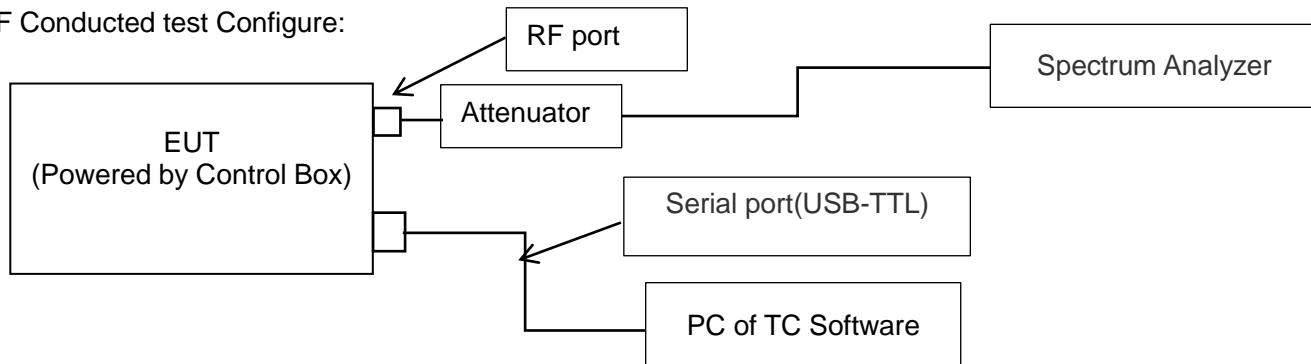
Radiated Emission Configure:



Conducted Emission Configure:



RF Conducted test Configure:



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#### 4.4 Equipment Used in Tested System

The following peripheral devices and interface cables were connected during the measurement:

Test Accessories Come From The Laboratory

| No. | Equipment   | Manufacturer | Model No. | Specification Information | Cable |
|-----|-------------|--------------|-----------|---------------------------|-------|
| 1   | Control Box | RISYM        | USB-TTL   | --                        | --    |
| 2   | Adapter     | Apple        | A2452     | --                        | --    |

Test Accessories Come From The Manufacturer

| No. | Equipment | Manufacturer | Model No. | Specification Information | Cable |
|-----|-----------|--------------|-----------|---------------------------|-------|
| 1   | --        | --           | --        | --                        | --    |

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#### 4.5 Summary of Test Results

| Item | ISED Rules                   | Description of Test                            | Result |
|------|------------------------------|--|--------|
| 1    | RSS-Gen §6.8                 | Antenna Equipment                              | Pass   |
| 2    | RSS-247 §5.4(d)              | RF Conducted Power                             | Pass   |
| 3    | RSS-247 §5.4(d)              | Equivalent Isotropic Radiated Power (E.I.R.P.) | Pass   |
| 4    | RSS-247 §5.2(a)              | 6 dB Bandwidth                                 | Pass   |
| 5    | RSS-Gen §6.7                 | 99% Occupied Bandwidth                         | Pass   |
| 6    | RSS-247 §5.2(b)              | Power Spectral Density                         | Pass   |
| 7    | RSS-247 §5.5                 | Conducted Band Edge and Out-of-Band Emissions  | Pass   |
| 8    | RSS-247 §5.5<br>RSS-Gen §8.9 | Radiated Emission& Band Edge                   | Pass   |
| 9    | RSS-Gen §8.8                 | AC Power Line Conducted Emission               | Pass   |

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## 5. Description of Test Modes

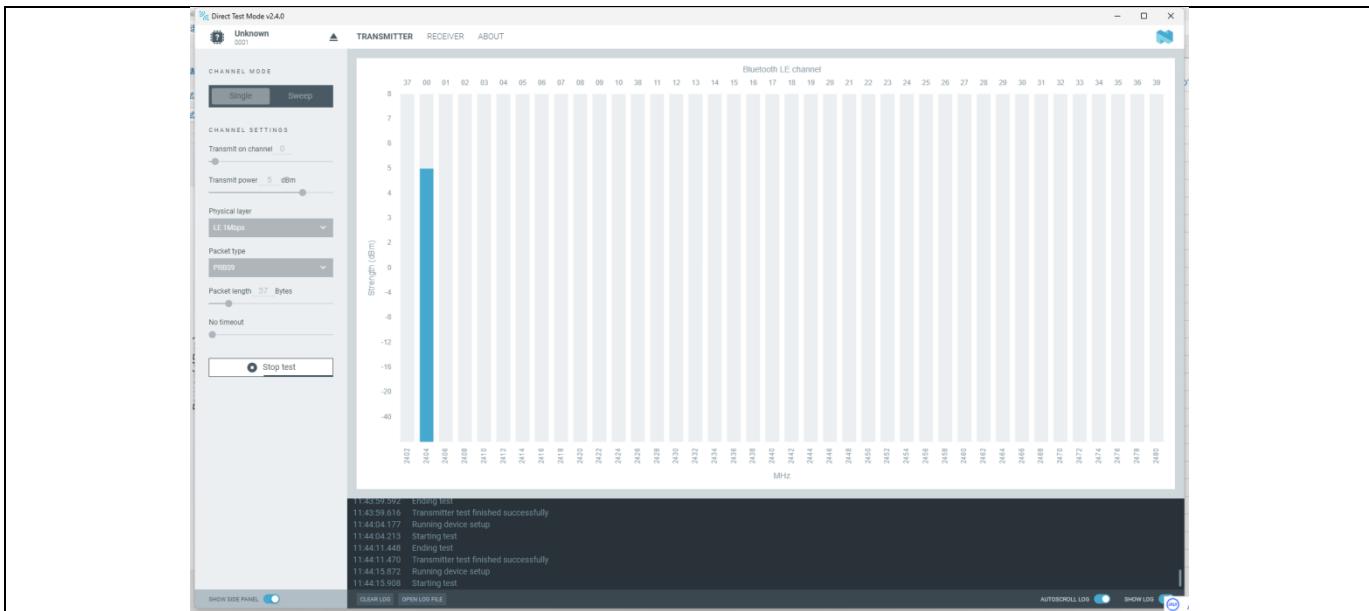
| Summary Table of Test Cases  |  |
|--|--|
| Test Item  | Data Rate / Modulation   |
|  | Bluetooth-LE(125Kbps/1Mbps/2Mbps)/GFSK   |
| Radiated Test Cases  | Mode 1: Bluetooth Tx CH00_2402 MHz_1Mbps(Powered by adapter)<br>Mode 2: Bluetooth Tx CH19_2440 MHz_1Mbps(Powered by adapter)<br>Mode 3: Bluetooth Tx CH39_2480 MHz_1Mbps(Powered by adapter)<br>Mode 4: Bluetooth Tx CH00_2402 MHz_2Mbps(Powered by adapter)<br>Mode 5: Bluetooth Tx CH19_2440 MHz_2Mbps(Powered by adapter)<br>Mode 6: Bluetooth Tx CH39_2480 MHz_2Mbps(Powered by adapter)<br>Mode 7: Bluetooth Tx CH00_2402 MHz_125Kbps(Powered by adapter)<br>Mode 8: Bluetooth Tx CH19_2440 MHz_125Kbps(Powered by adapter)<br>Mode 9: Bluetooth Tx CH39_2480 MHz_125Kbps(Powered by adapter)                                     |
| RF Conducted Test Cases  | Mode 1: Bluetooth Tx CH00_2402 MHz_1Mbps(Powered by Control Box)<br>Mode 2: Bluetooth Tx CH19_2440 MHz_1Mbps(Powered by Control Box)<br>Mode 3: Bluetooth Tx CH39_2480 MHz_1Mbps(Powered by Control Box)<br>Mode 4: Bluetooth Tx CH00_2402 MHz_2Mbps(Powered by Control Box)<br>Mode 5: Bluetooth Tx CH19_2440 MHz_2Mbps(Powered by Control Box)<br>Mode 6: Bluetooth Tx CH39_2480 MHz_2Mbps(Powered by Control Box)<br>Mode 7: Bluetooth Tx CH00_2402 MHz_125Kbps(Powered by Control Box)<br>Mode 8: Bluetooth Tx CH19_2440 MHz_125Kbps(Powered by Control Box)<br>Mode 9: Bluetooth Tx CH39_2480 MHz_125Kbps(Powered by Control Box) |
| AC Conducted Emission  | Mode 1: Bluetooth Link + USB Cable (Powered by adapter)  |
| Note:  |  |
| 1. Only the result of the worst case was recorded in the report, if no other cases.<br>2. The battery is full-charged during the test.<br>3. For Radiated Emission, 3axis were chosen for testing for each applicable mode.<br>4. For Conducted Test method, a temporary antenna connector is provided by the manufacturer.<br>5. The manufacturer of RF external cable claims that the cable loss is 0.5dB, and the cable loss and attenuator have been compensated into the Corrections Configuration of measuring equipment.<br>6. Input correction factor includes external cable loss and attenuator amplitude compensation. The formula is:<br>Input compensation coefficient (dB) = Cable Loss (dB) + Attenuator attenuation value (dB) |  |
| Software Setting Diagram   |  |

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## 6. Duty Cycle Measurement

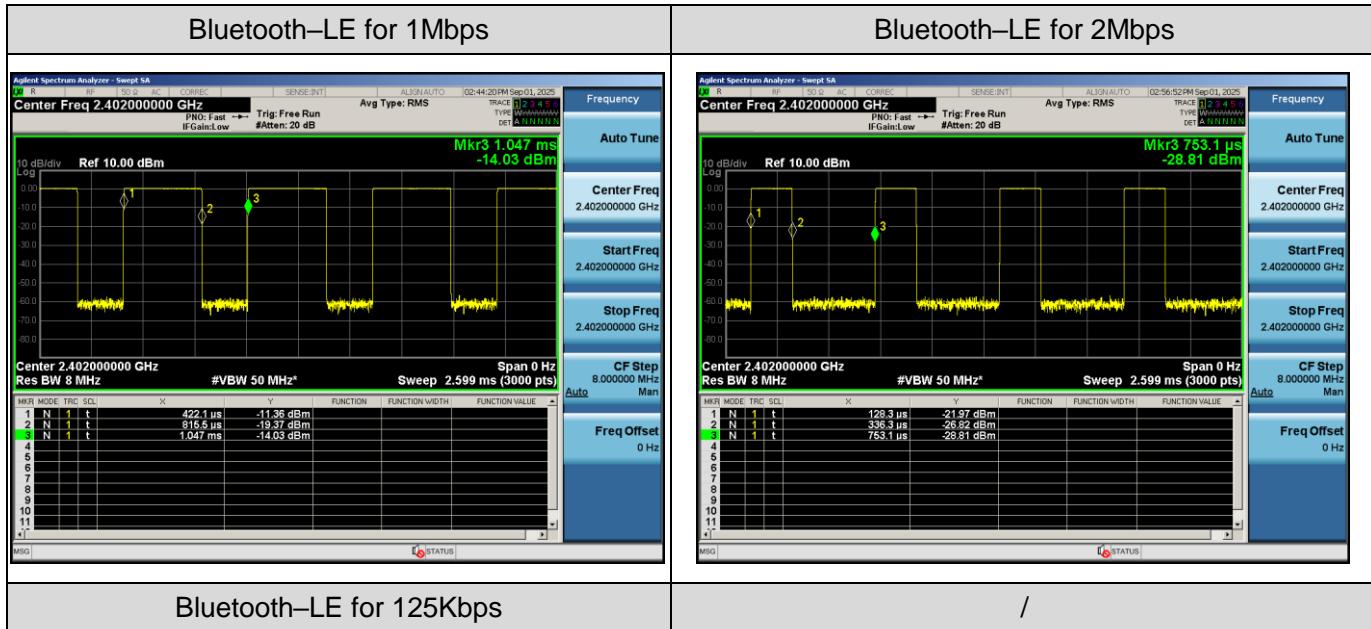
The maximum achievable duty cycles for all modes were determined based on measurements performed on a spectrum analyzer in zero-span mode with RBW = 8MHz, VBW = 50MHz, and detector = Average. The RBW and VBW were both greater than 50/T, where T is the minimum transmission duration, and the number of sweep points across T was greater than 100. The duty cycles are as follows:

| Operating mode | T(μs) | Duty Cycle (%) | Duty Cycle Factor (dB) |
|----------------|-------|----------------|------------------------|
| BLE_1Mbps      | 393.4 | 62.95          | 3.01                   |
| BLE_2Mbps      | 208   | 33.29          | 4.78                   |
| BLE_125Kbps    | 3105  | 82.87          | 0.82                   |

Remark:

1. Duty Cycle factor =  $10 * \log (1 / \text{Duty cycle})$
2. The duty cycle of each frequency band mode reflects the determination requirements of the low channel measurement value

- The test plots as follows:

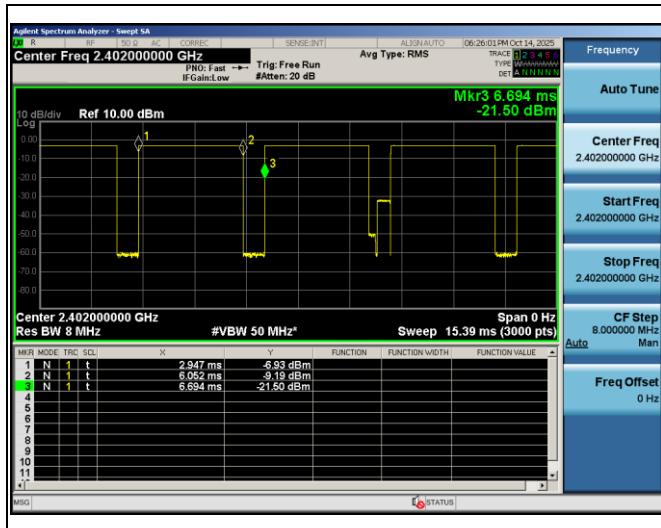


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## 7. RF Conducted Power and Equivalent Isotropic Radiated Power Measurement

### 7.1 Provisions Applicable

For DTSs employing digital modulation techniques operating in the bands 902-928 MHz and 2400-2483.5 MHz, the maximum peak conducted output power shall not exceed 1 W, the E.I.R.P. shall not exceed 4 W.

### 7.2 Measurement Procedure

For Peak Power, the testing follows ANSI C63.10 Section 11.9.1.2 Method Integrated band power:

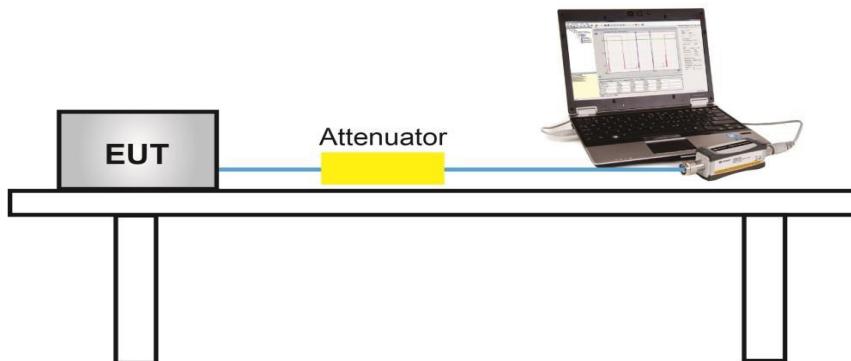
1. Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
2. RBW  $\geq$  DTS bandwidth
3. VBW  $\geq 3 \times$  RBW.
4. SPAN  $\geq$  VBW.
5. Sweep: Auto.
6. Detector Function: Peak.
7. Trace: Max hold.
8. Allow trace to stabilize. Use the marker-to-peak function to set the marker to the peak of the emission. The indicated level is the peak output power, after any corrections for external attenuators and cables.

For Average power, the testing follows ANSI C63.10 Section 11.9.2.3.2 Method AVGPM-G:

1. The RF output of EUT was connected to the power meter by RF cable and attenuator.
2. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Measure the conducted output power and record the results in the test report.

### 7.3 Measurement Setup (Block Diagram of Configuration)

For Average power test setup



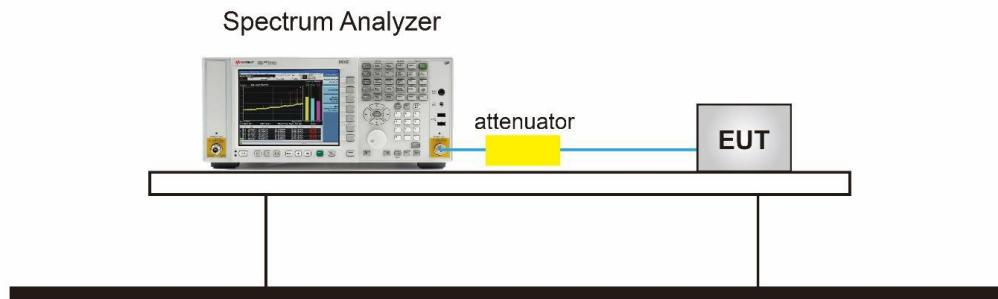
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For peak power test setup



#### 7.4 Measurement Result

| Test Data of Conducted Output Power and E.I.R.P. |                      |                  |              |                |              |        |
|--|----------------------|------------------|--------------|----------------|--------------|--------|
| Test Mode  | Test Frequency (MHz) | Peak Power (dBm) | Limits (dBm) | E.I.R.P. (dBm) | Limits (dBm) | Result |
| GFSK_1Mbps                                       | 2402                 | -0.227           | ≤30          | 2.183          | ≤36          | Pass   |
|  | 2440                 | -0.300           | ≤30          | 2.110          | ≤36          | Pass   |
|  | 2480                 | 0.286            | ≤30          | 2.696          | ≤36          | Pass   |
| GFSK_2Mbps                                       | 2402                 | -0.210           | ≤30          | 2.200          | ≤36          | Pass   |
|  | 2440                 | -0.265           | ≤30          | 2.145          | ≤36          | Pass   |
|  | 2480                 | 0.146            | ≤30          | 2.556          | ≤36          | Pass   |
| GFSK_125Kbps                                     | 2402                 | -3.480           | ≤30          | -1.070         | ≤36          | Pass   |
|  | 2440                 | -3.128           | ≤30          | -0.718         | ≤36          | Pass   |
|  | 2480                 | -2.450           | ≤30          | -0.040         | ≤36          | Pass   |

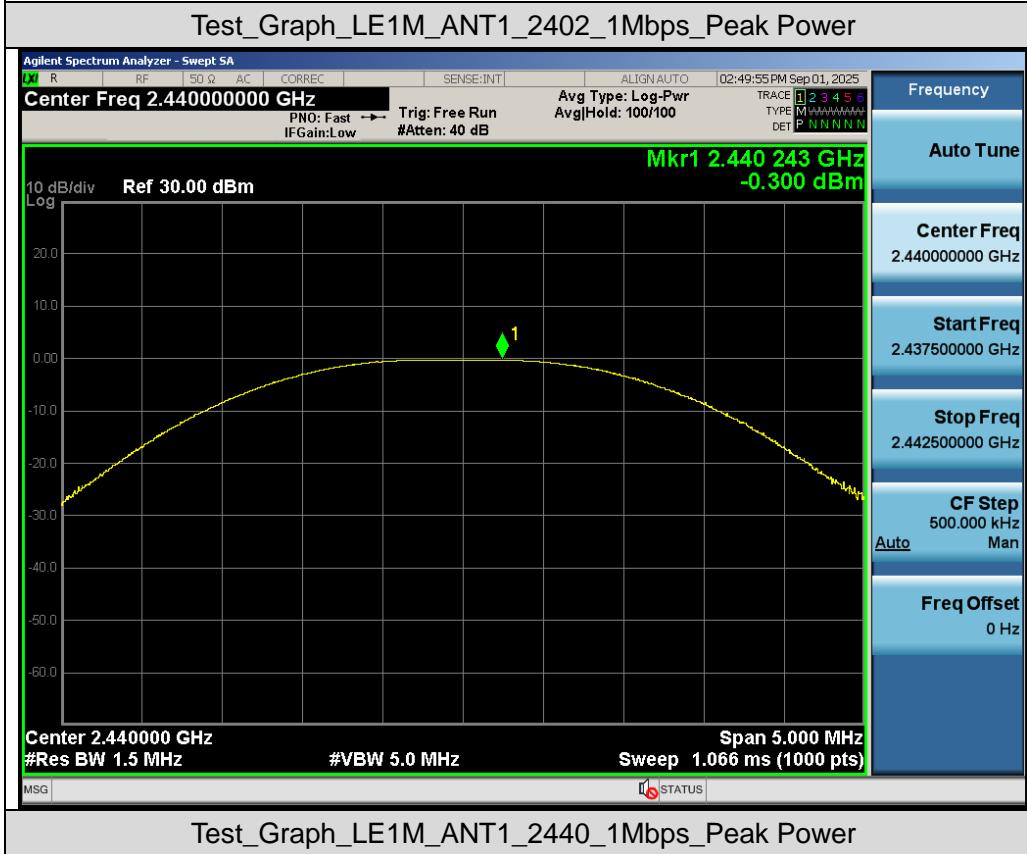
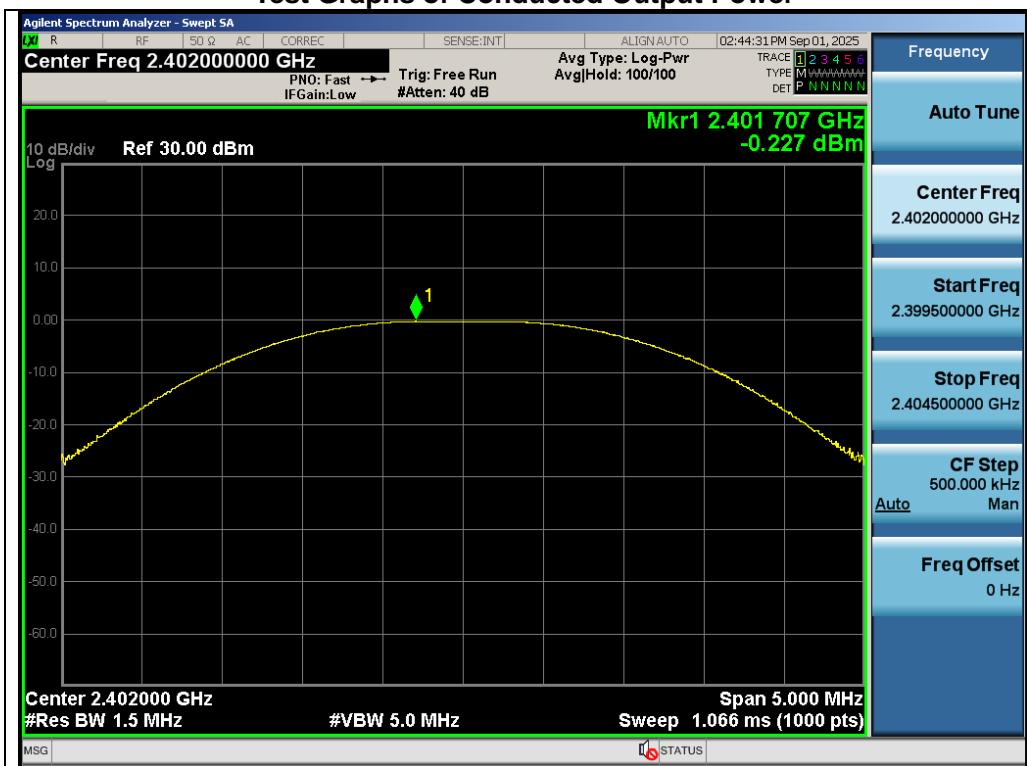
Note: E.I.R.P.=RF Conducted Power(Peak Power) + Ant Gain

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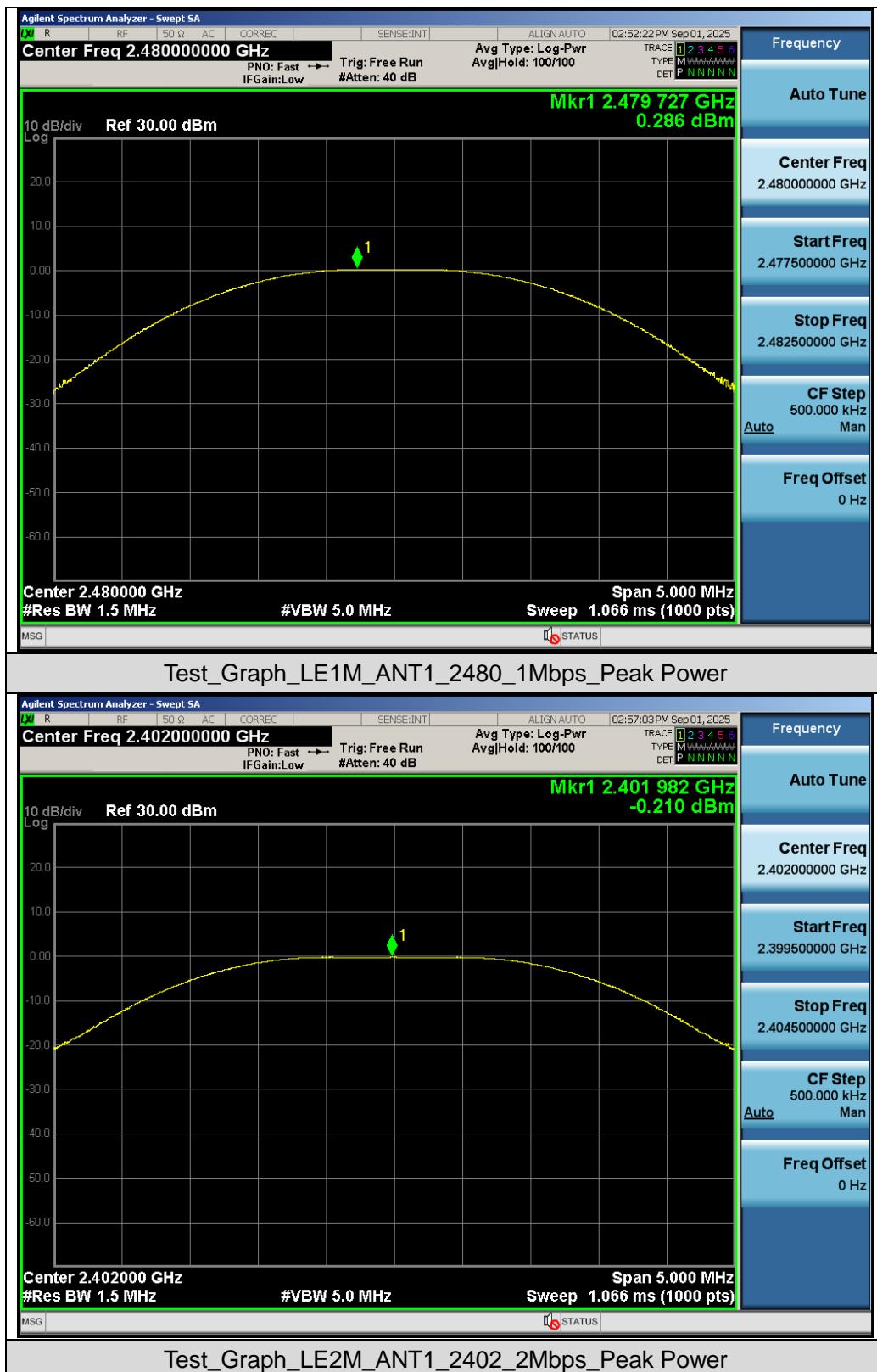
**Test Graphs of Conducted Output Power**


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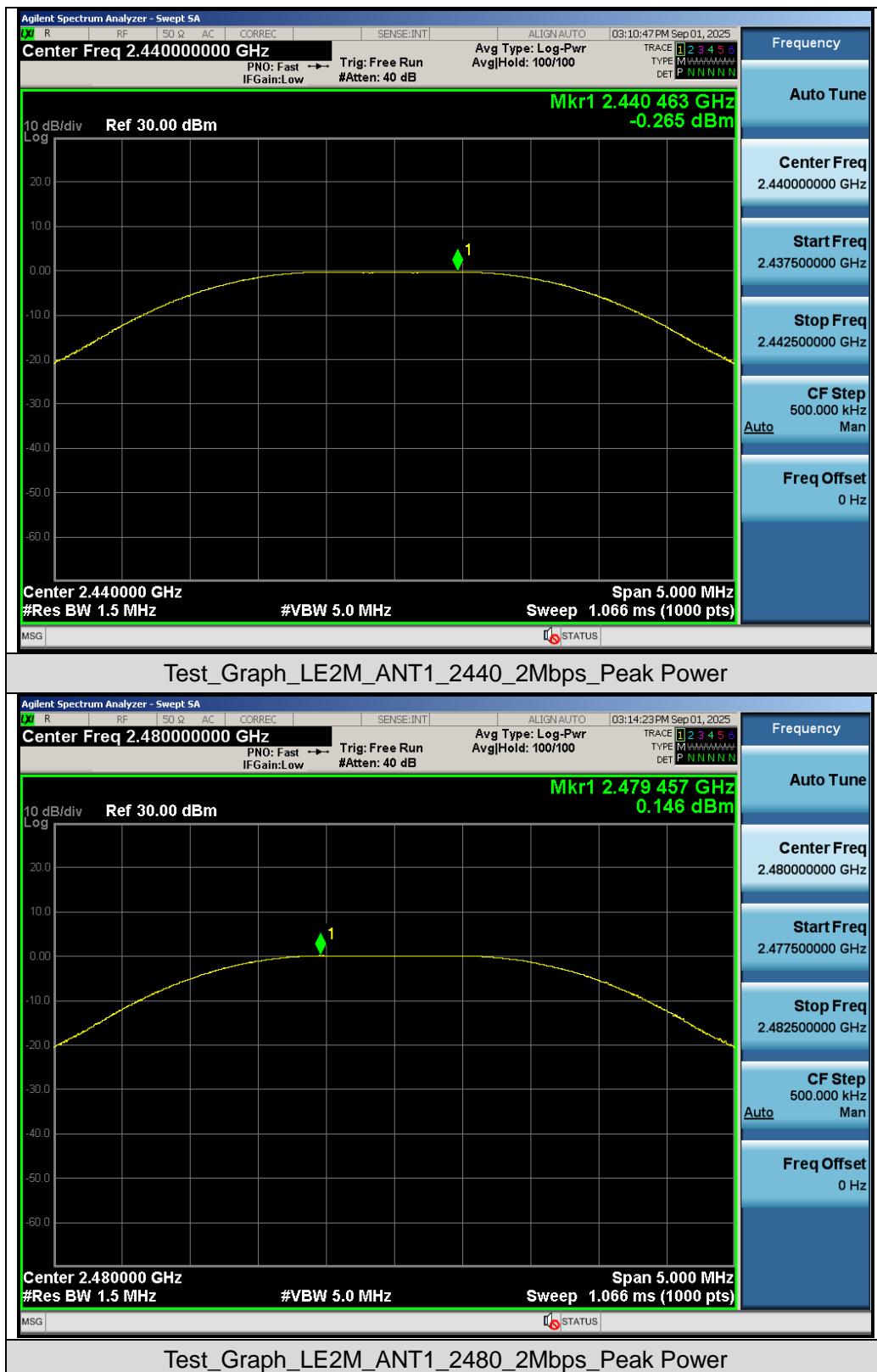


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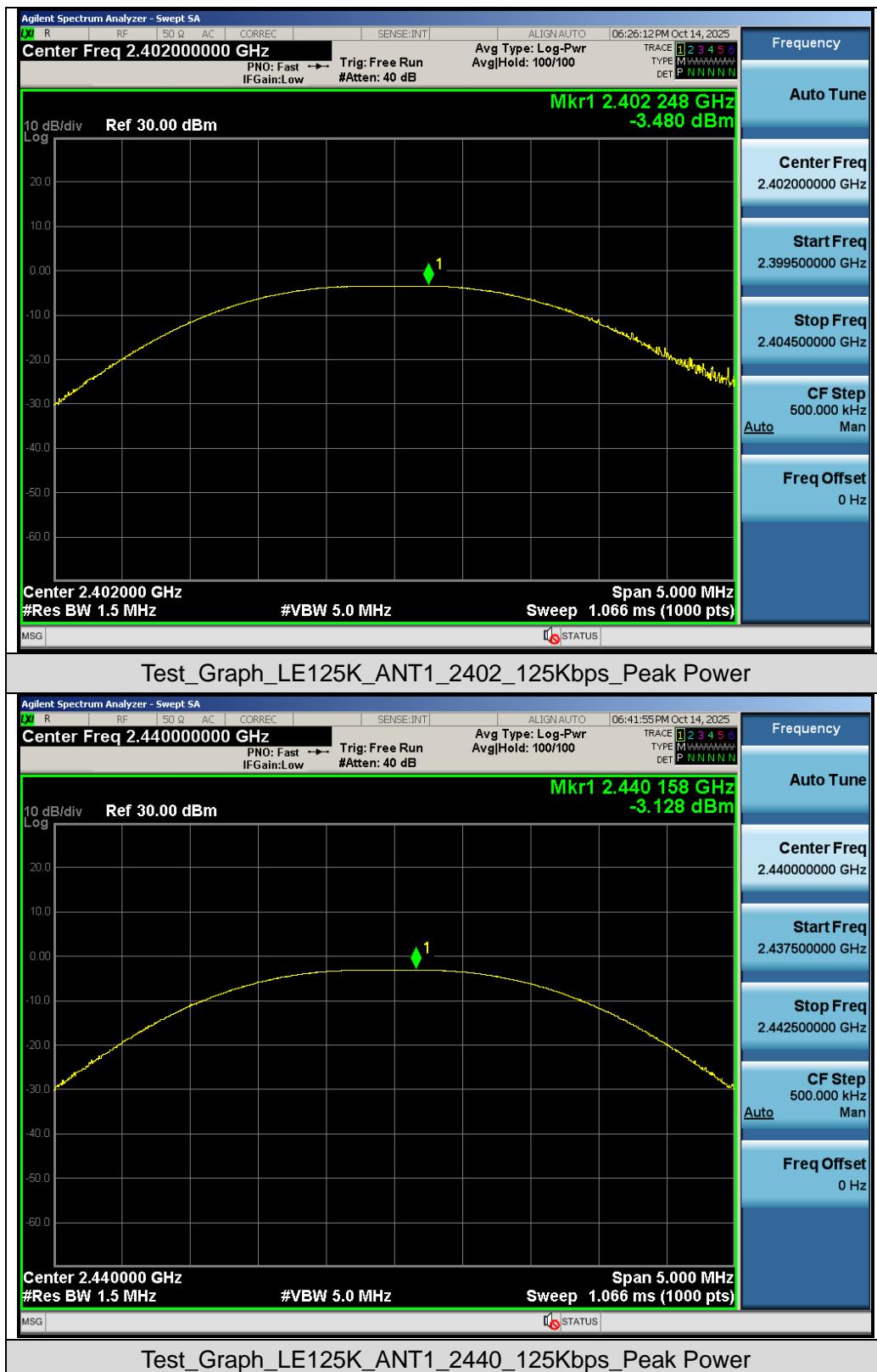


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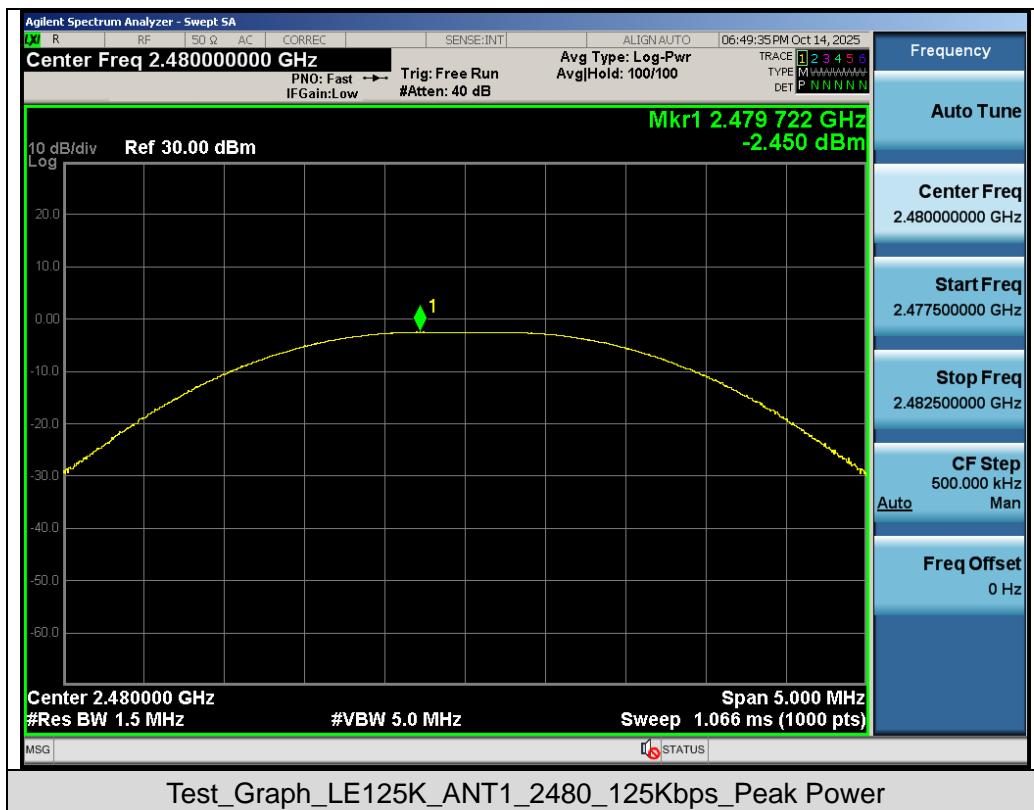


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## 8. 6dB Bandwidth and Occupied Bandwidth Measurement

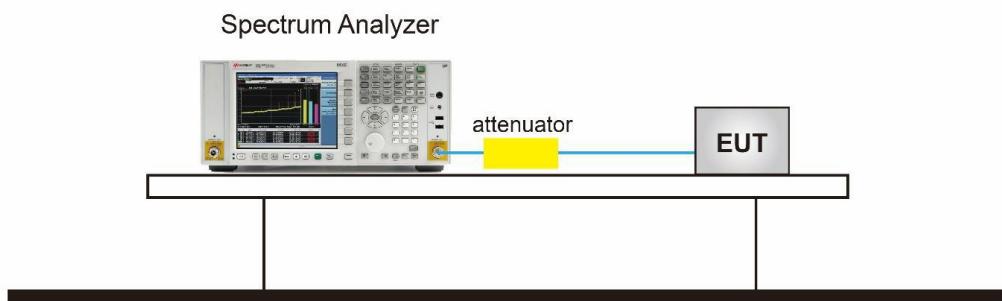
### 8.1 Provisions Applicable

The minimum 6 dB bandwidth shall be 500 kHz.

### 8.2 Measurement Procedure

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

### 8.3 Measurement Setup (Block Diagram of Configuration)



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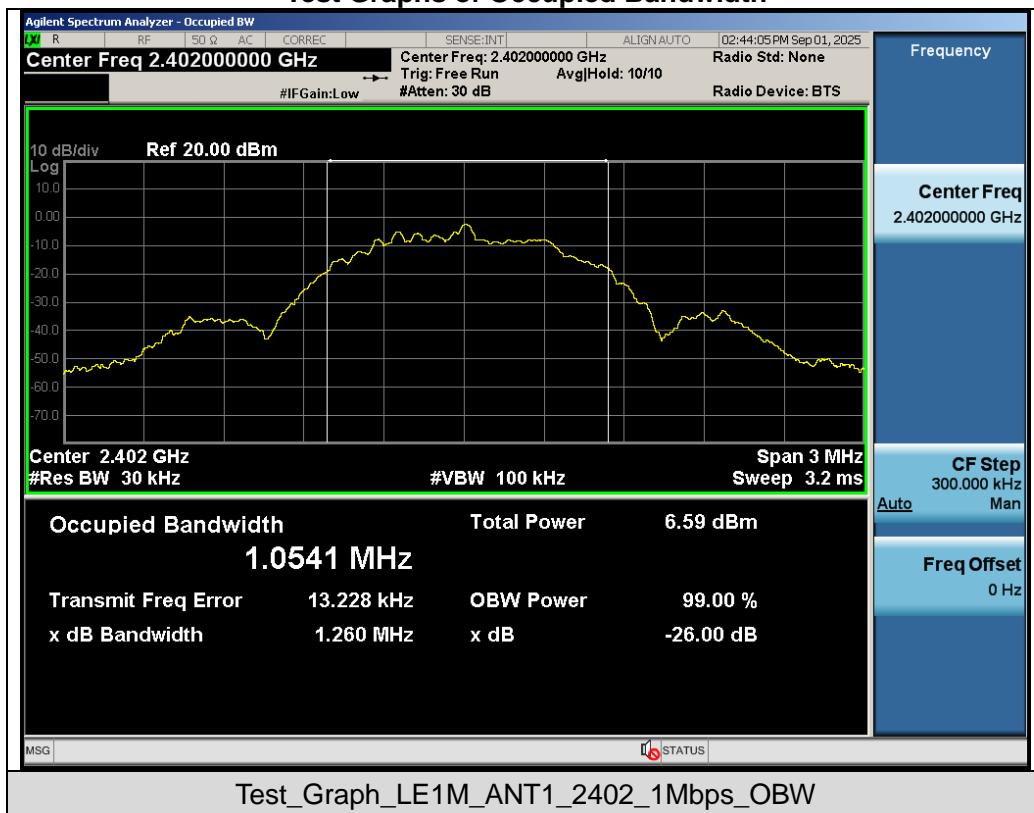
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## 8.4 Measurement Results

| Test Data of Occupied Bandwidth and DTS Bandwidth |                      |                          |              |                    |        |
|---|----------------------|--------------------------|--------------|--------------------|--------|
| Test Mode   | Test Frequency (MHz) | Occupied Bandwidth (MHz) | DTS BW (MHz) | DTS BW Limit (MHz) | Result |
| GFSK_1Mbps  | 2402                 | 1.054                    | 0.691        | ≥0.5               | Pass   |
|   | 2440                 | 1.055                    | 0.697        | ≥0.5               | Pass   |
|   | 2480                 | 1.056                    | 0.693        | ≥0.5               | Pass   |
| GFSK_2Mbps  | 2402                 | 2.044                    | 1.149        | ≥0.5               | Pass   |
|   | 2440                 | 2.049                    | 1.151        | ≥0.5               | Pass   |
|   | 2480                 | 2.048                    | 1.144        | ≥0.5               | Pass   |
| GFSK_125Kbps                                      | 2402                 | 1.070                    | 0.610        | ≥0.5               | Pass   |
|   | 2440                 | 1.072                    | 0.611        | ≥0.5               | Pass   |
|   | 2480                 | 1.076                    | 0.612        | ≥0.5               | Pass   |

### Test Graphs of Occupied Bandwidth

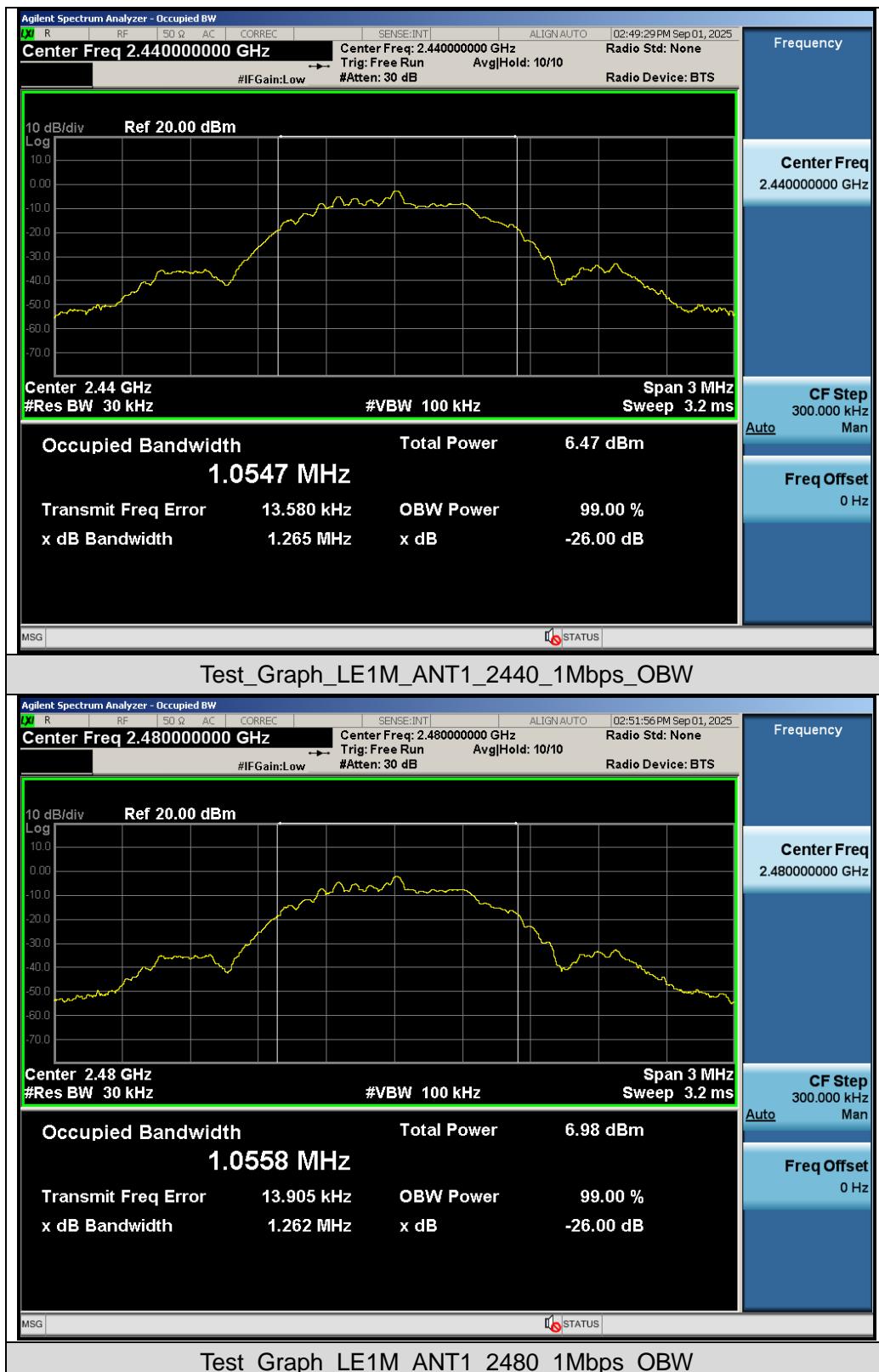


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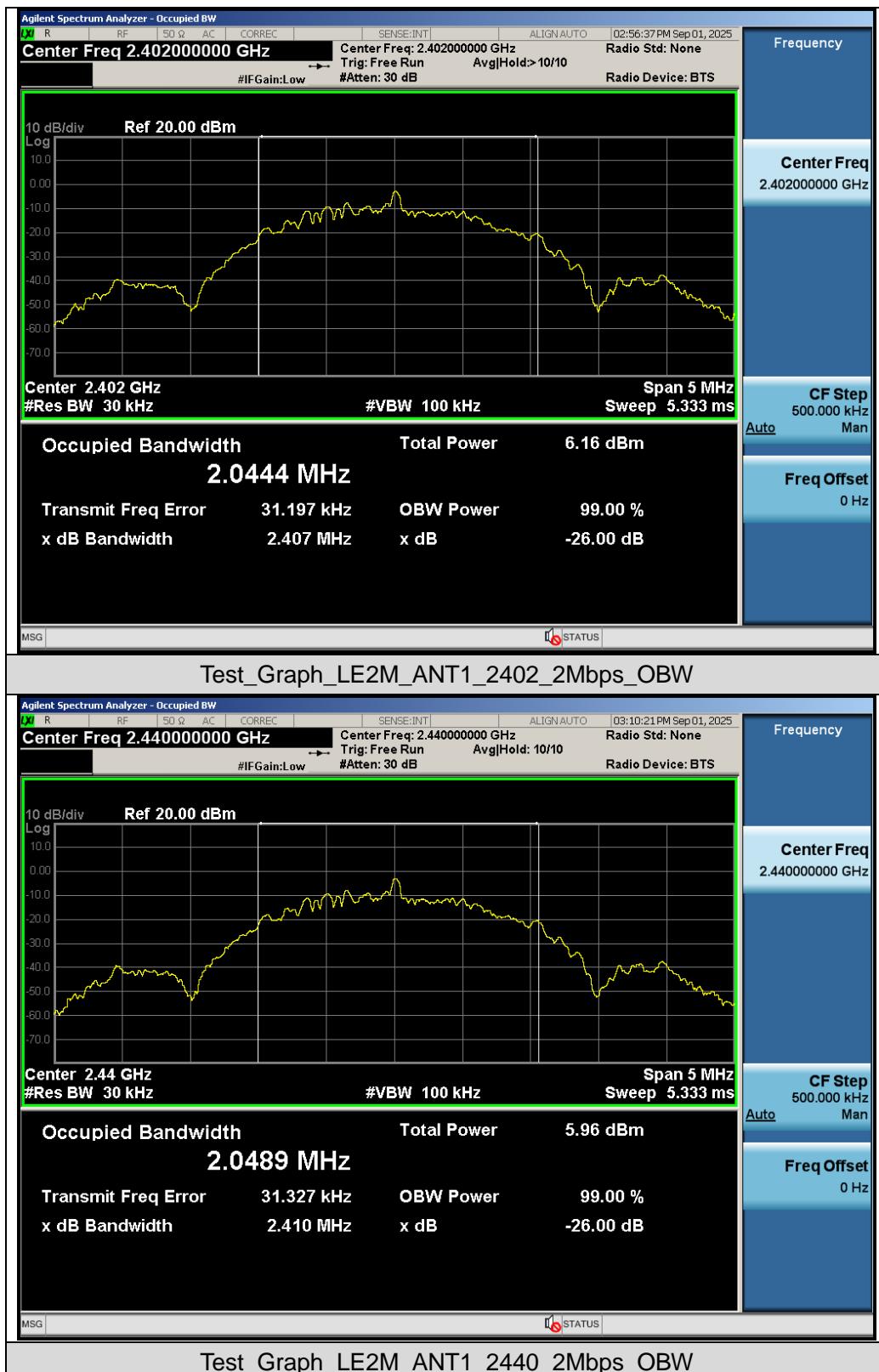


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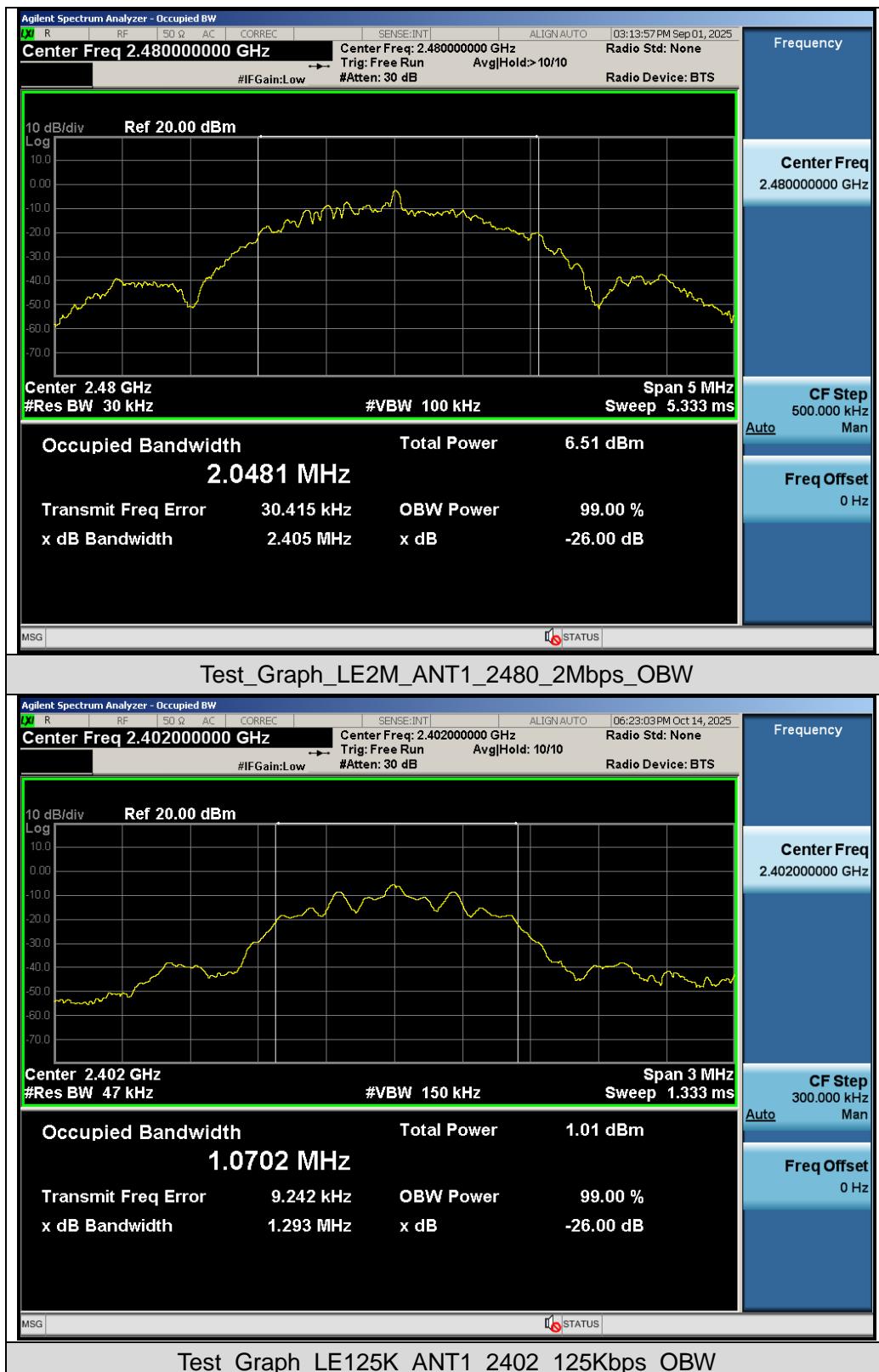


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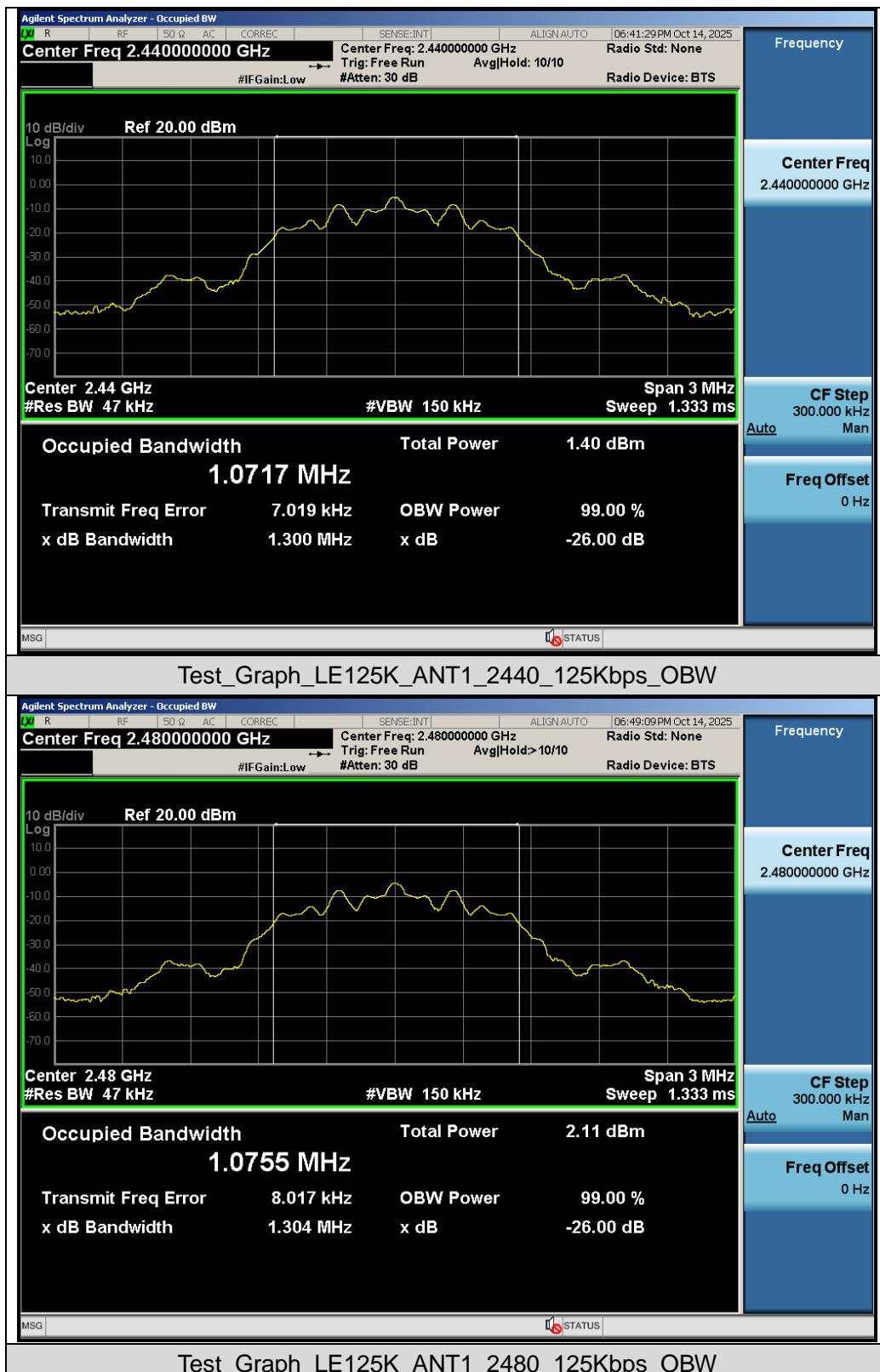


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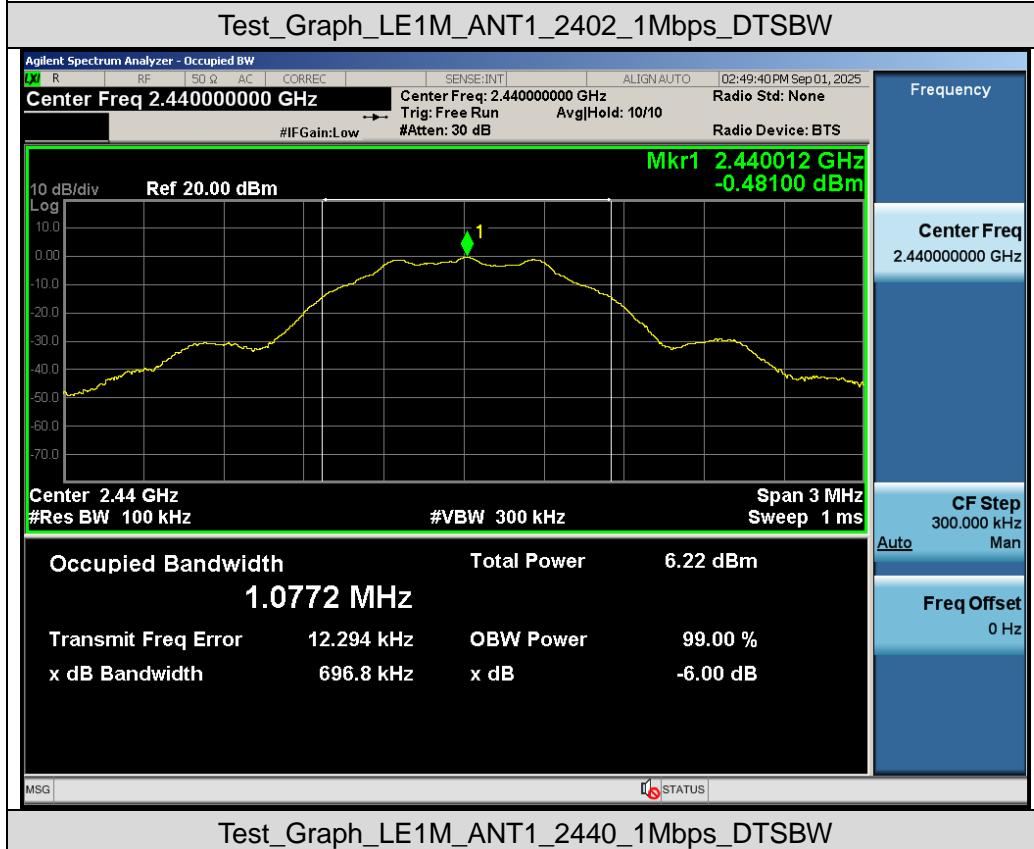
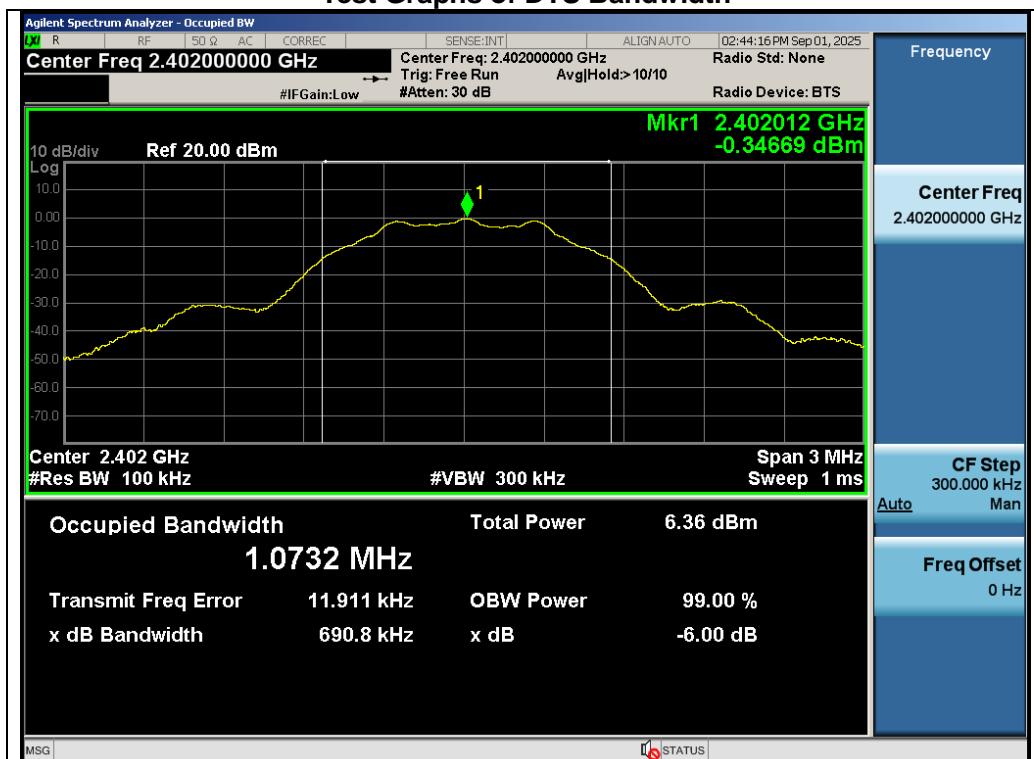


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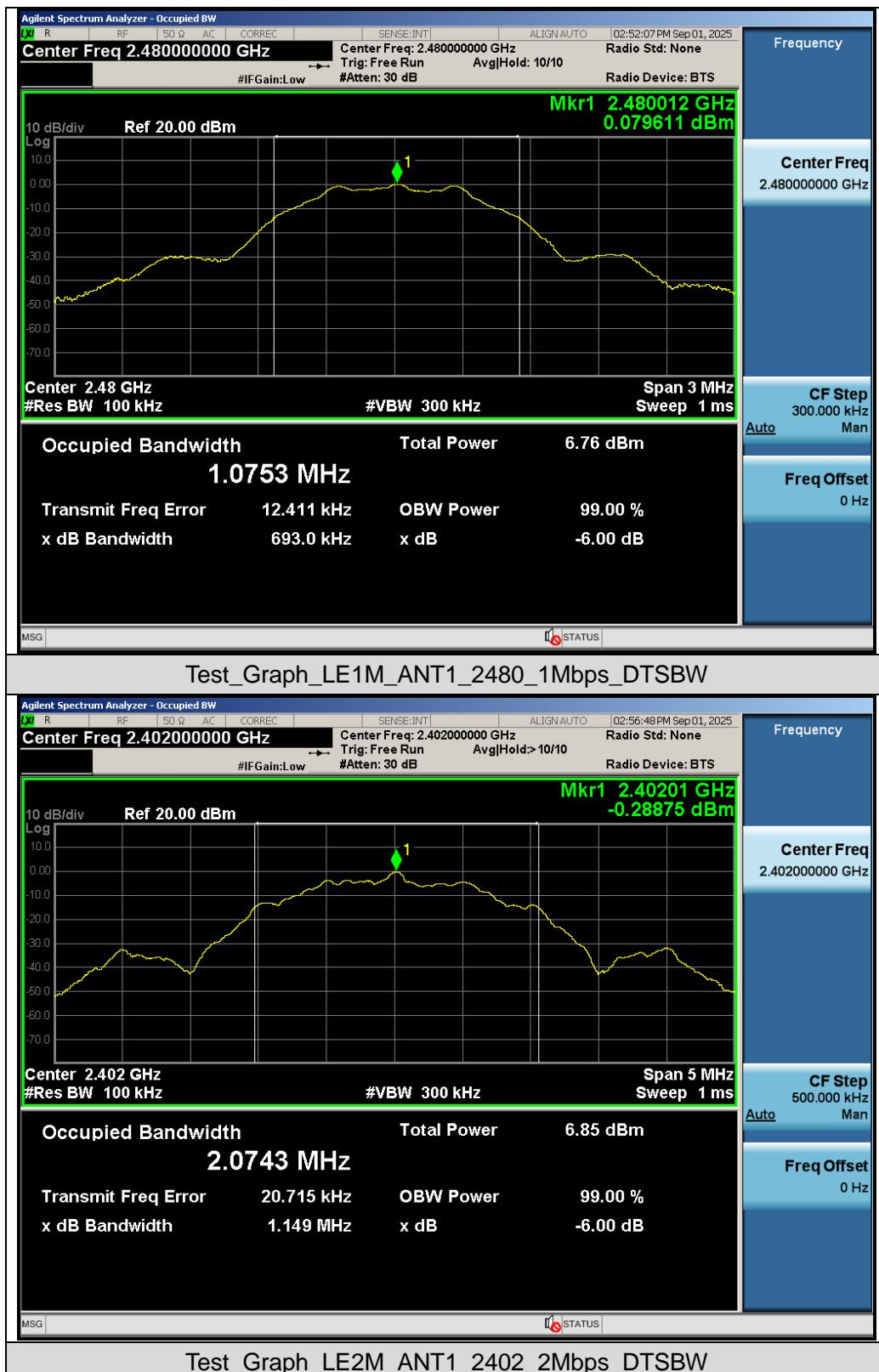
**Test Graphs of DTS Bandwidth**


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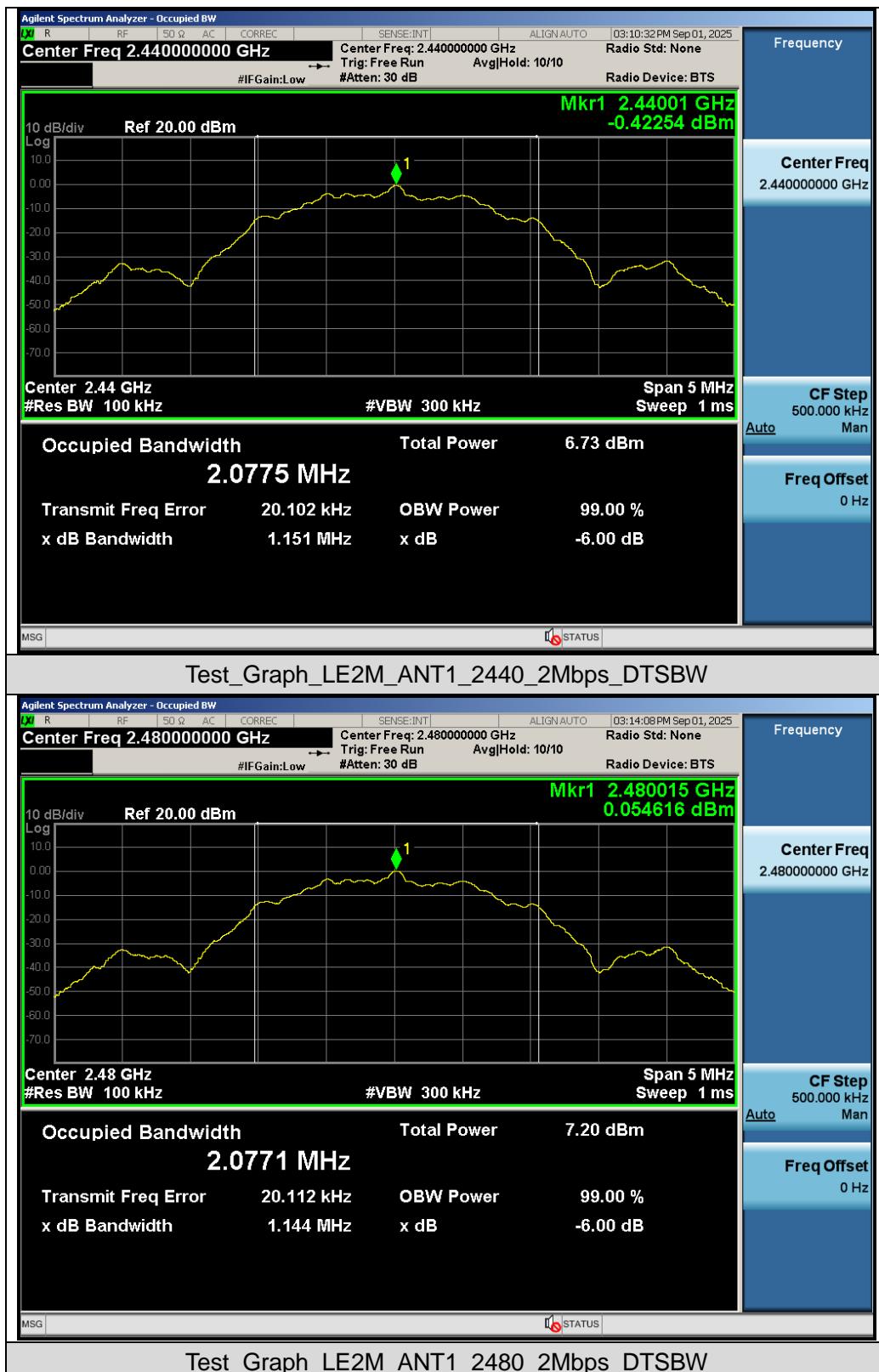


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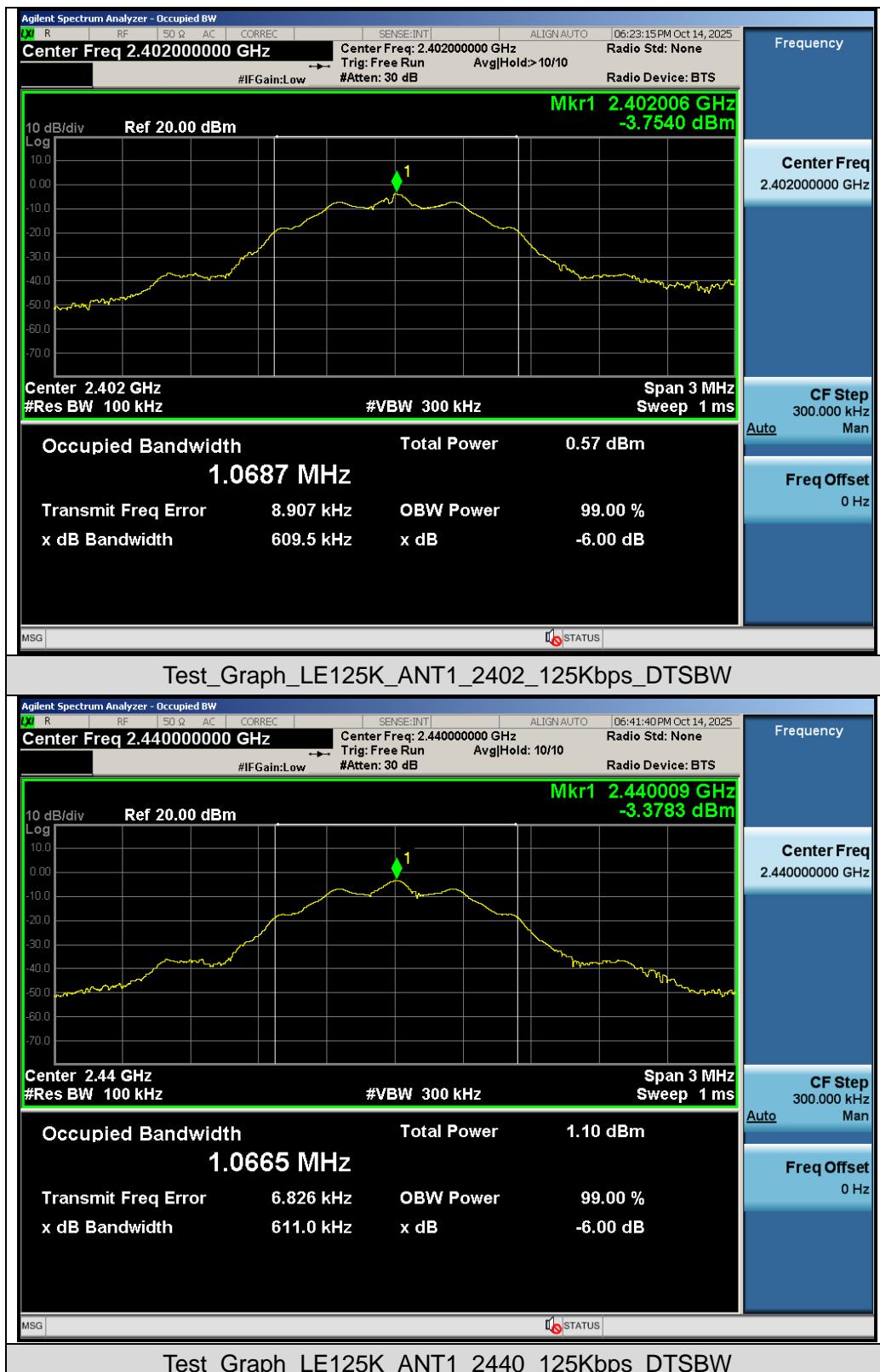


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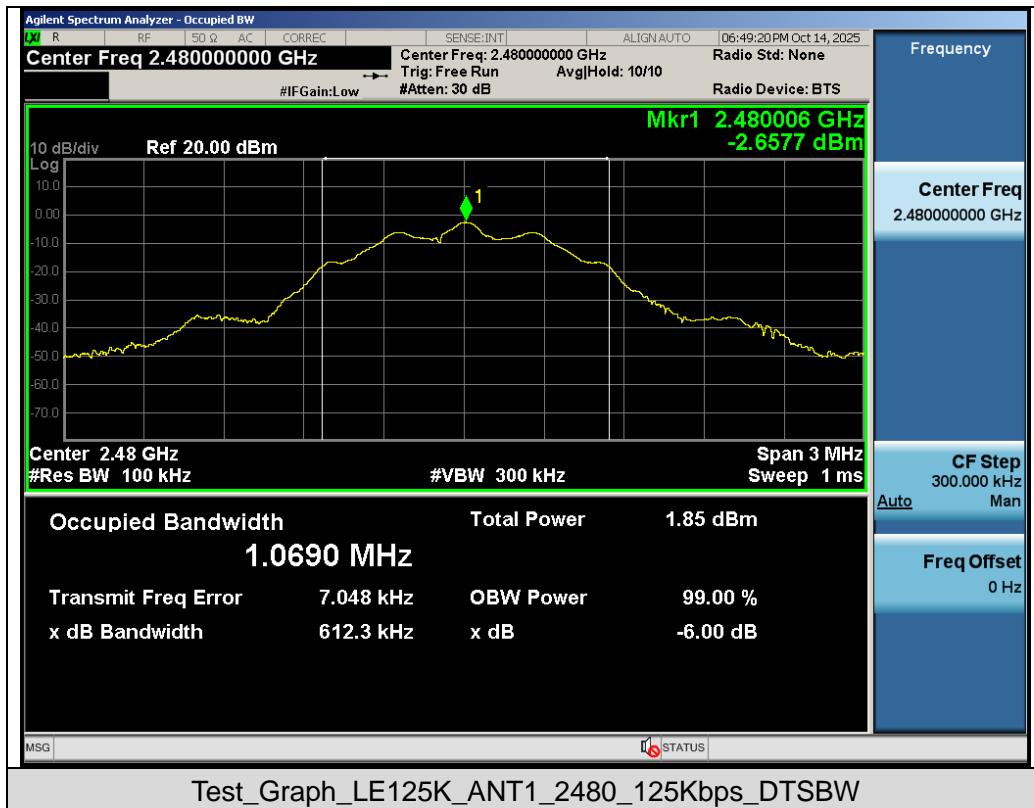


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## 9. Power Spectral Density Measurement

### 9.1 Provisions Applicable

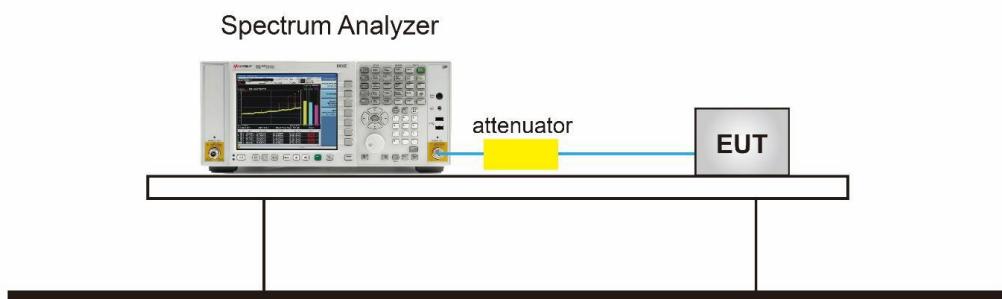
The transmitter power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

### 9.2 Measurement Procedure

The testing follows the ANSI C63.10 Section 11.10.2 Method PKPSD.

1. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
2. Set to the maximum power setting and enable the EUT transmit continuously.
3. 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. (6dB BW)
4. Detector = peak, Sweep time = auto couple, Trace mode = max hold, Allow trace to fully stabilize. Use the peak marker function to determine the maximum power level.
5. Measure and record the results in the test report.
6. The Measured power density (dBm)/ 100kHz is a reference level and used as 20dBc down limit line for Conducted Band Edges and Conducted Spurious Emission.

### 9.3 Measurement Setup (Block Diagram of Configuration)



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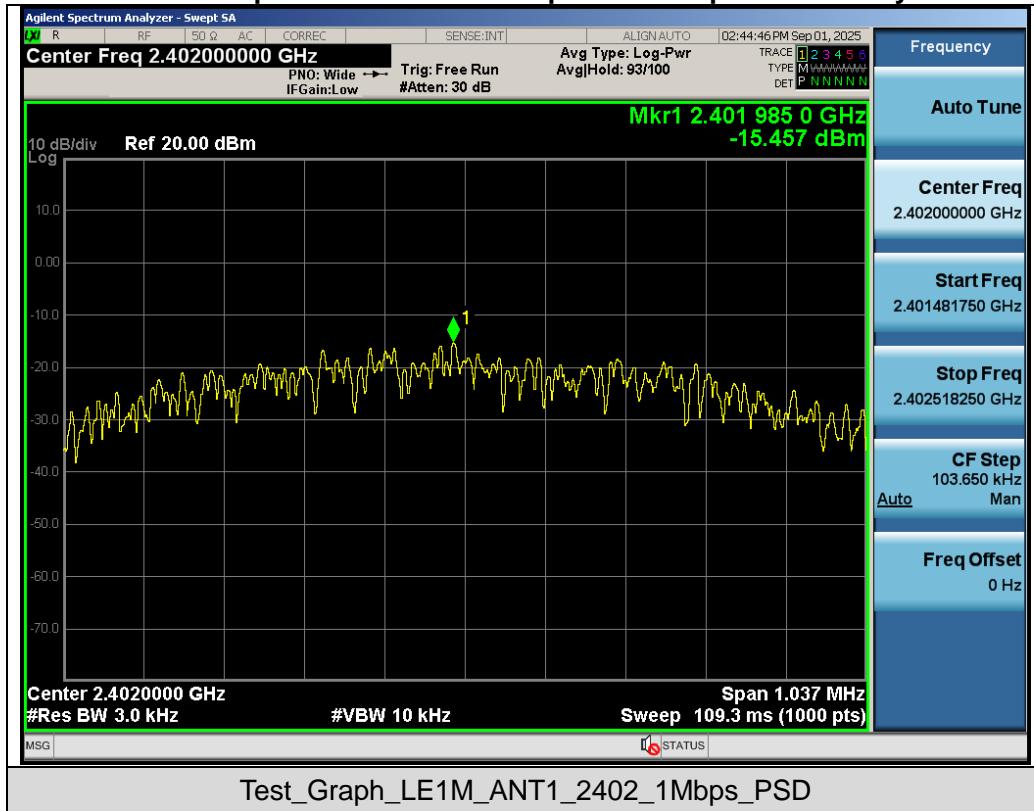
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## 9.4 Measurement Results

| Test Data of Conducted Output Power Spectral Density |                      |                          |                  |              |
|--|----------------------|--------------------------|------------------|--------------|
| Test Mode  | Test Frequency (MHz) | Power density (dBm/3kHz) | Limit (dBm/3kHz) | Pass or Fail |
| GFSK_1Mbps   | 2402                 | -15.457                  | ≤8               | Pass         |
|  | 2440                 | -15.622                  | ≤8               | Pass         |
|  | 2480                 | -15.365                  | ≤8               | Pass         |
| GFSK_2Mbps   | 2402                 | -17.916                  | ≤8               | Pass         |
|  | 2440                 | -18.092                  | ≤8               | Pass         |
|  | 2480                 | -17.872                  | ≤8               | Pass         |
| GFSK_125Kbps   | 2402                 | -9.672                   | ≤8               | Pass         |
|  | 2440                 | -9.350                   | ≤8               | Pass         |
|  | 2480                 | -8.573                   | ≤8               | Pass         |

## Test Graphs of Conducted Output Power Spectral Density

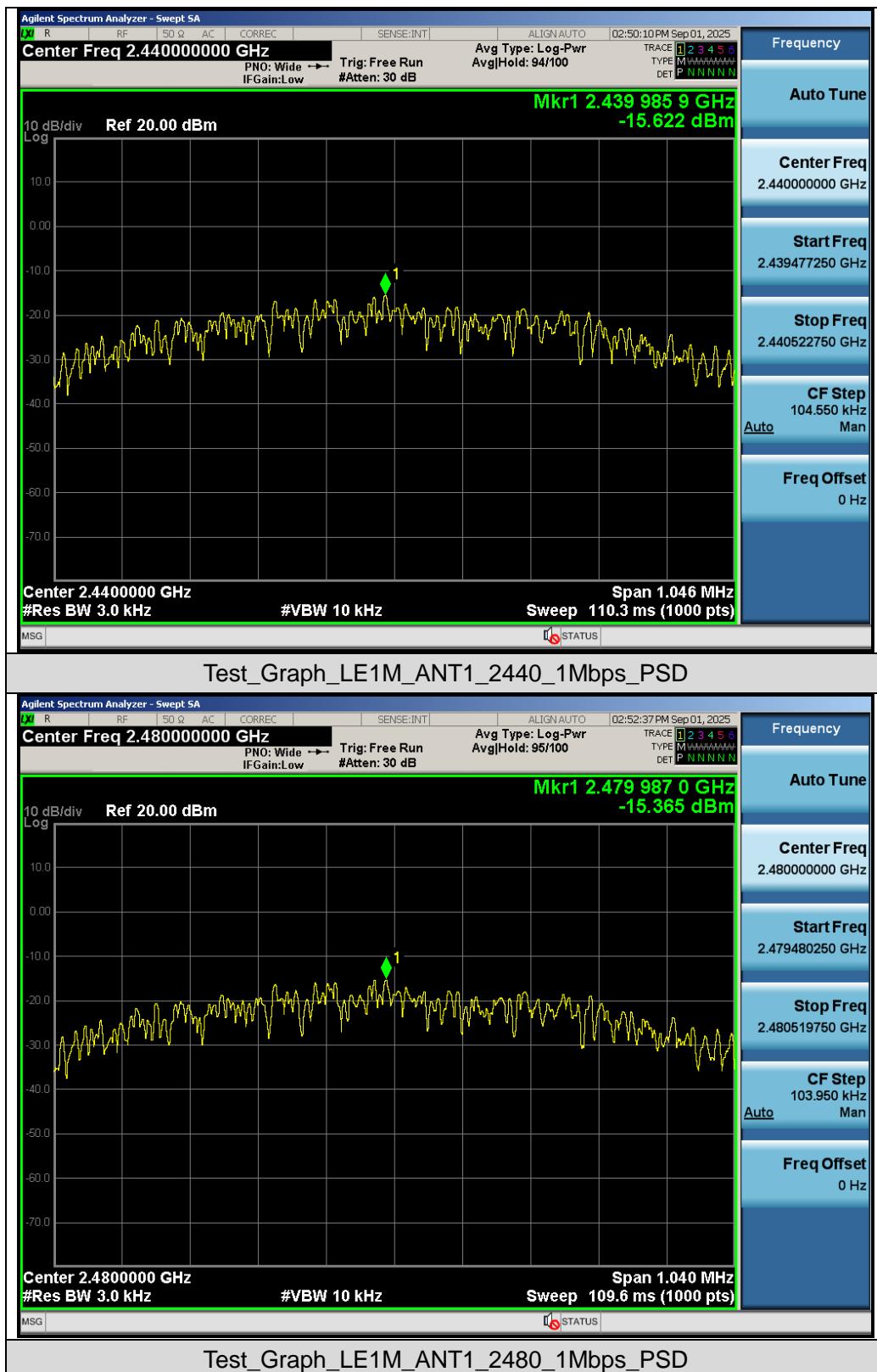


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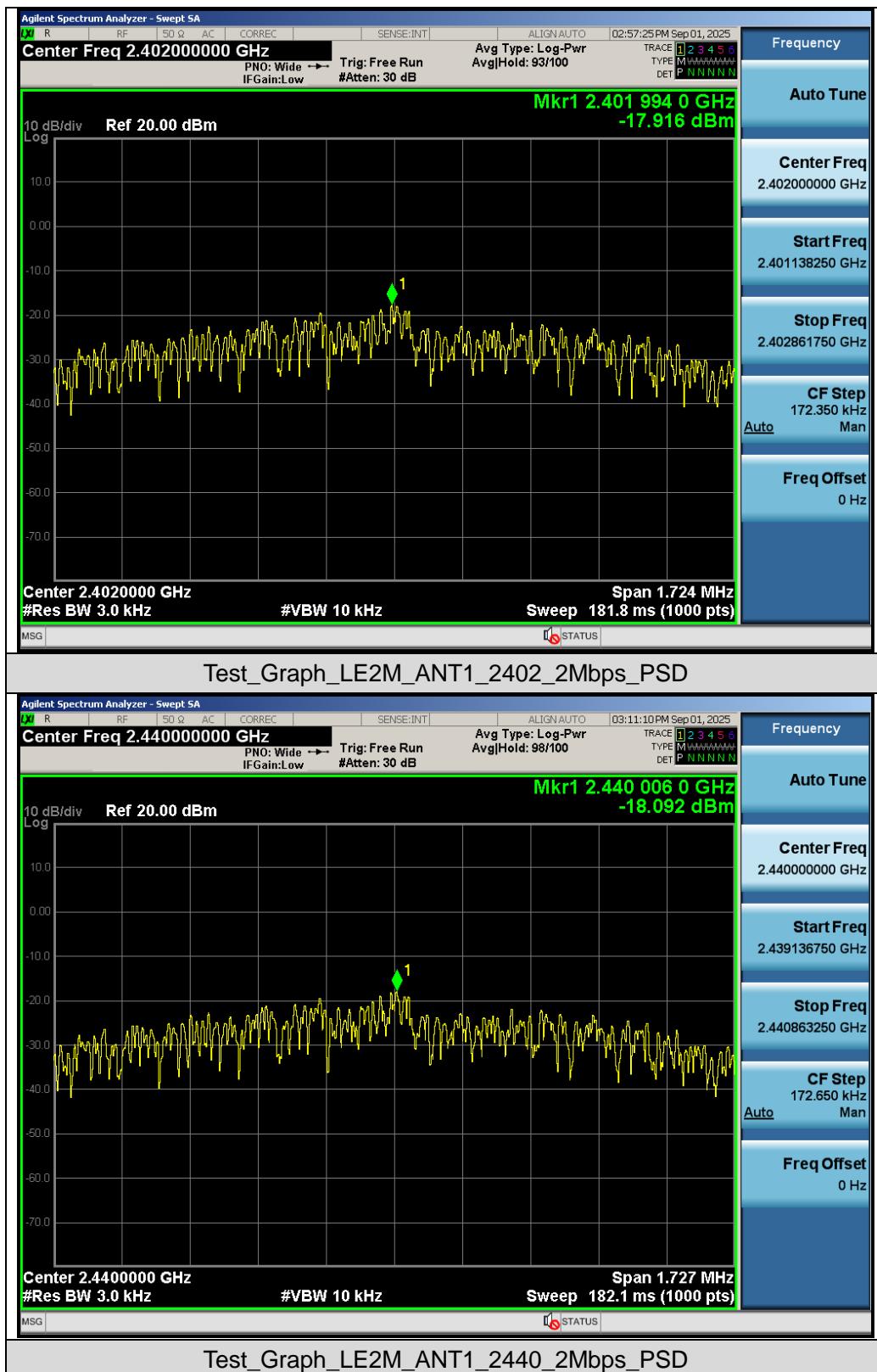


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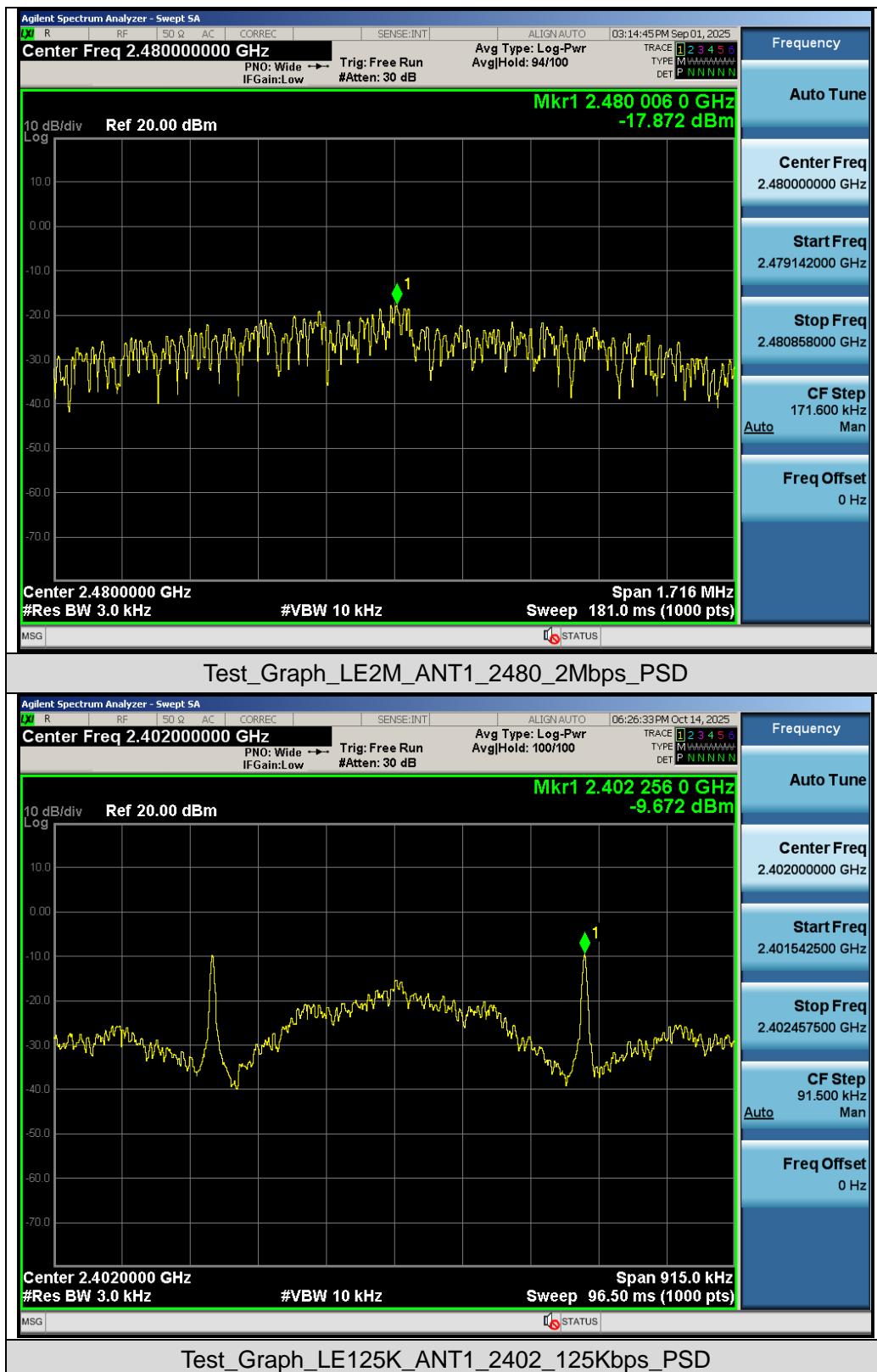


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## 10. Conducted Band Edge and Out-of-Band Emissions

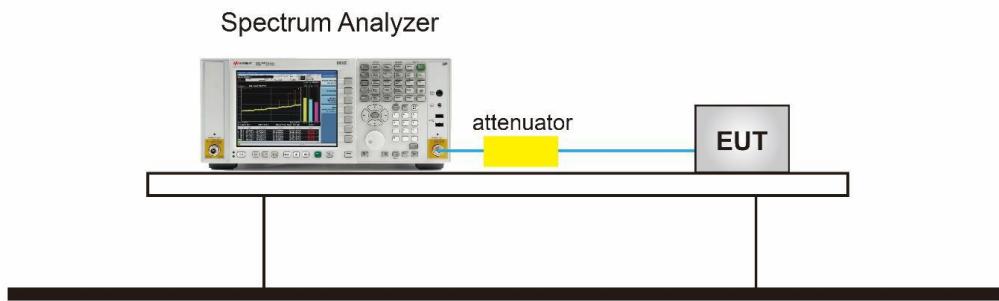
### 10.1 Provisions Applicable

The limit for out-of-band spurious emissions at the band edge is 20dB below the fundamental emission level, as determined from the in-band power measurement of the DTS channel performed in a 100kHz bandwidth per the PSD procedure.

### 10.2 Measurement Procedure

- Reference level measurement
  1. Set instrument center frequency to DTS channel center frequency
  2. Set the span to  $\geq 1.5$  times the DTS bandwidth
  3. Set the RBW = 100 kHz
  4. Set the VBW  $\geq 3 \times$  RBW
  5. Detector = peak
  6. Sweep time = auto couple
  7. Trace mode = max hold
  8. Allow trace to fully stabilize
- Emission level measurement
  1. Set the center frequency and span to encompass frequency range to be measured
  2. RBW = 100kHz
  3. VBW = 300kHz
  4. Detector = Peak
  5. Trace mode = max hold
  6. Sweep time = auto couple
  7. The trace was allowed to stabilize
  8. Input compensation coefficient (dB) = Cable Loss (dB) + Attenuator attenuation value (dB)
  9. The manufacturer of RF external cable claims that the cable loss is 0.5dB, and the cable loss and attenuator have been compensated into the Corrections Configuration of measuring equipment.
  10. Input correction factor includes external cable loss and attenuator amplitude compensation. The formula is:  
Input compensation coefficient (dB) = Cable Loss (dB) + Attenuator attenuation value (dB)

### 10.3 Measurement Setup (Block Diagram of Configuration)



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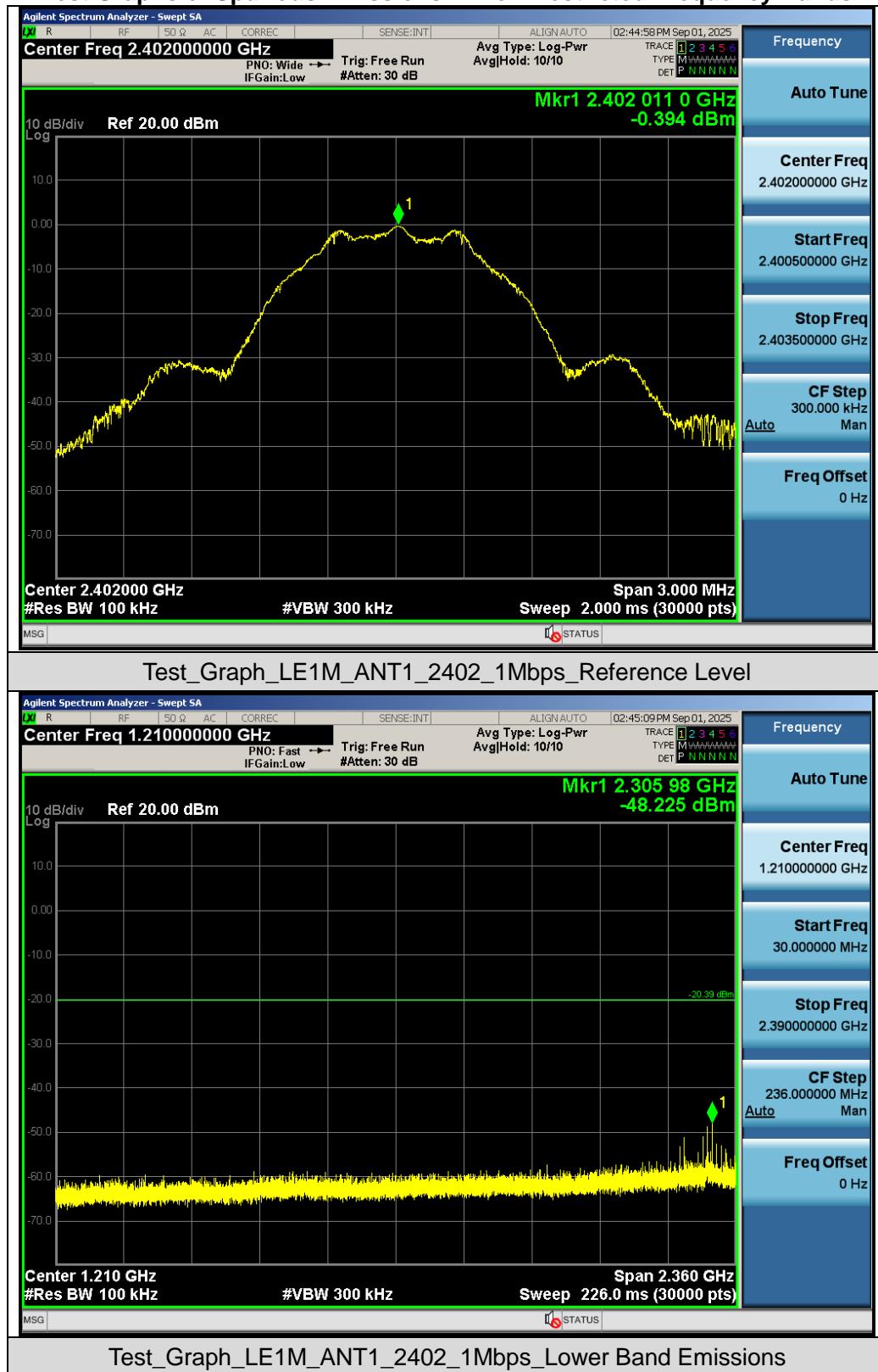
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## 10.4 Measurement Results

### Test Graphs of Spurious Emissions in Non-Restricted Frequency Bands

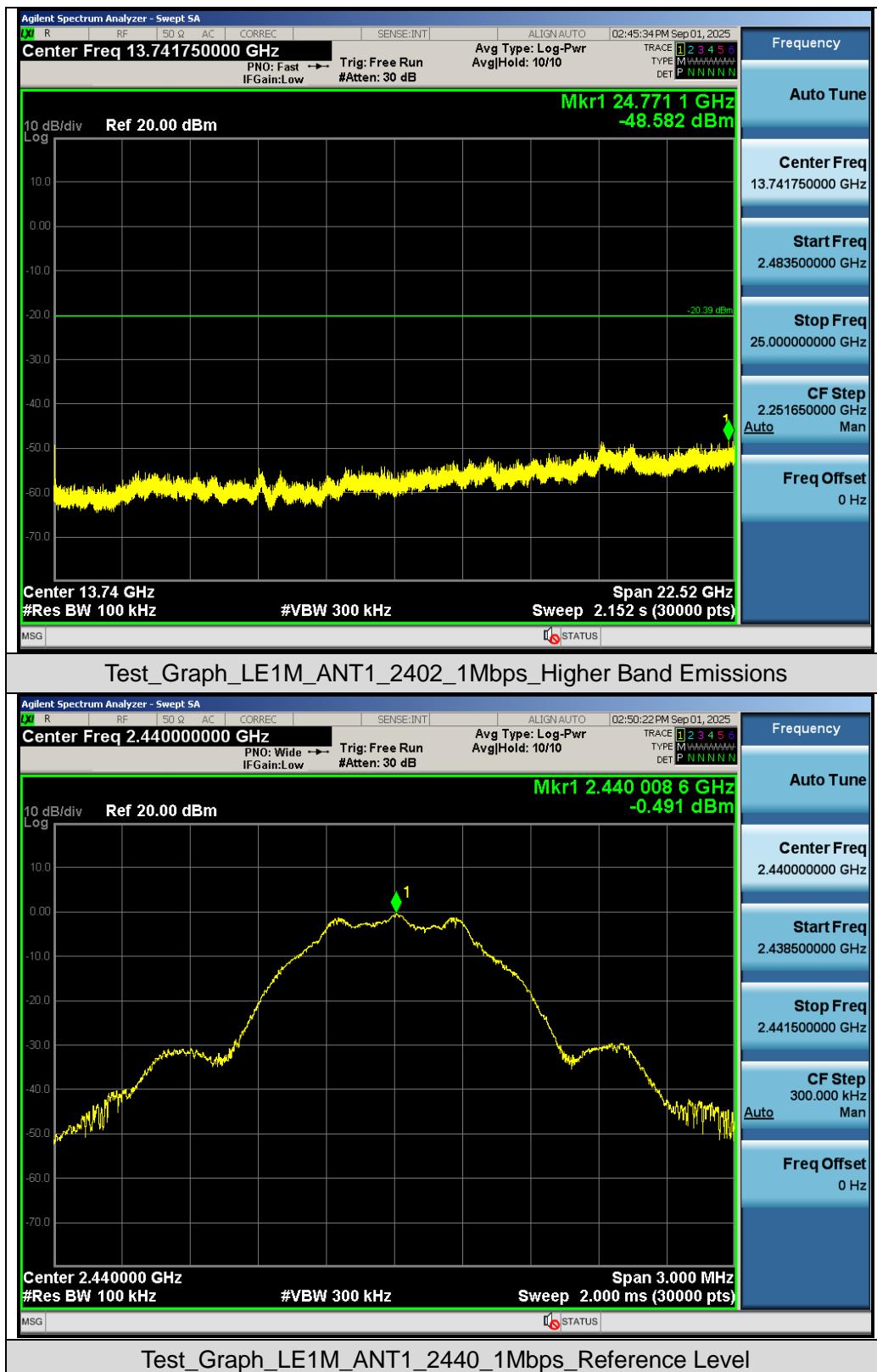


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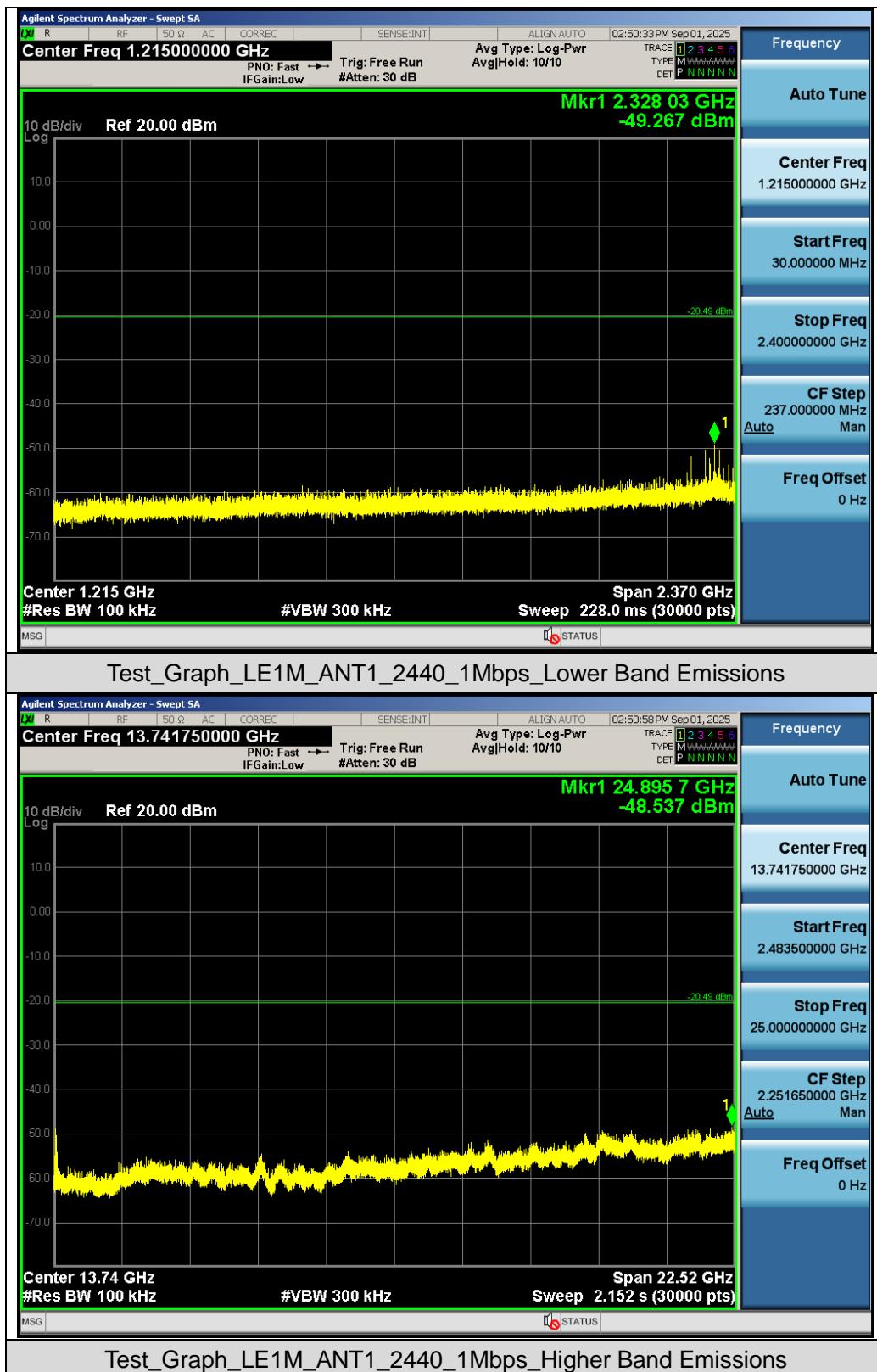


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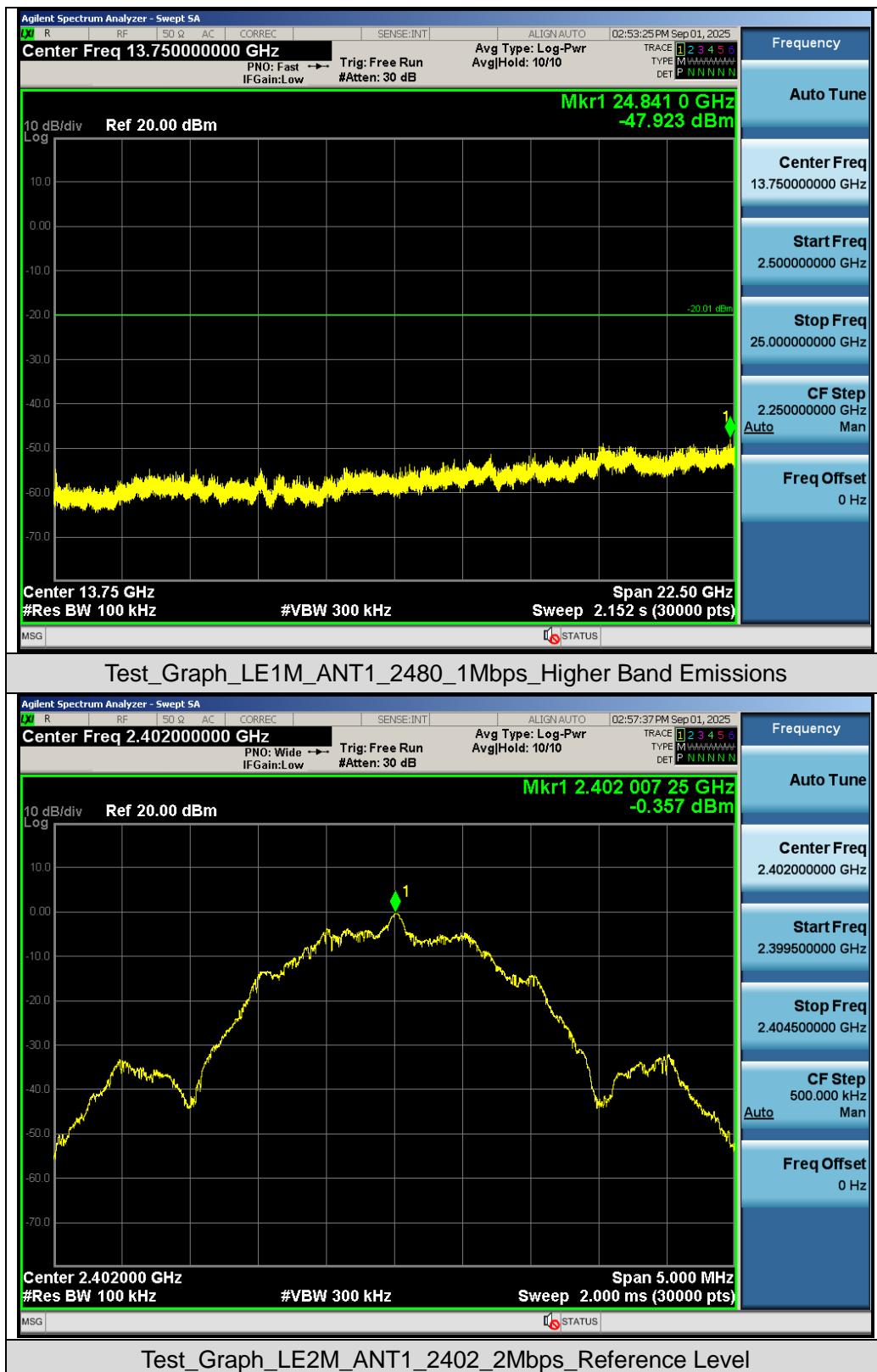


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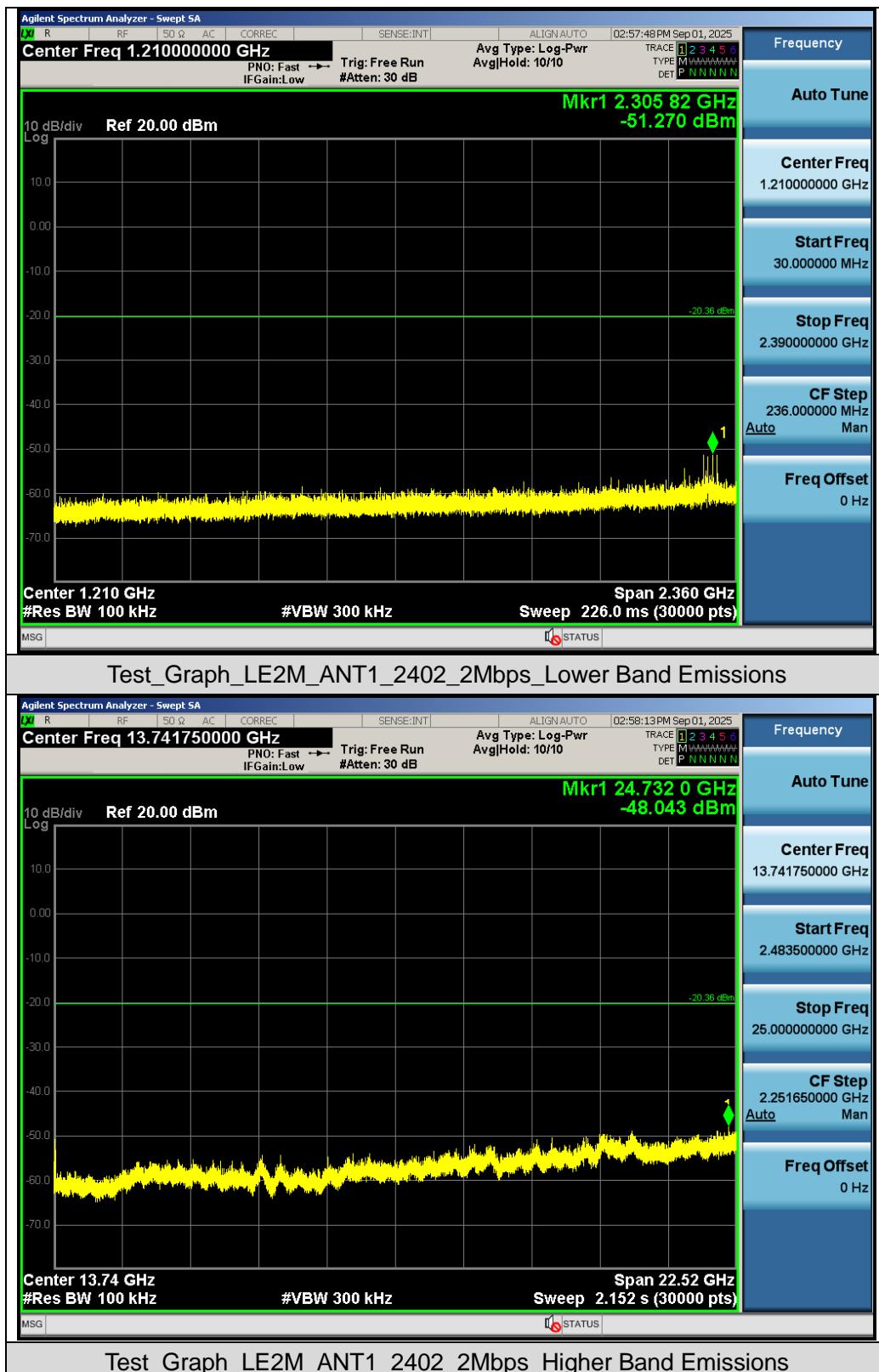


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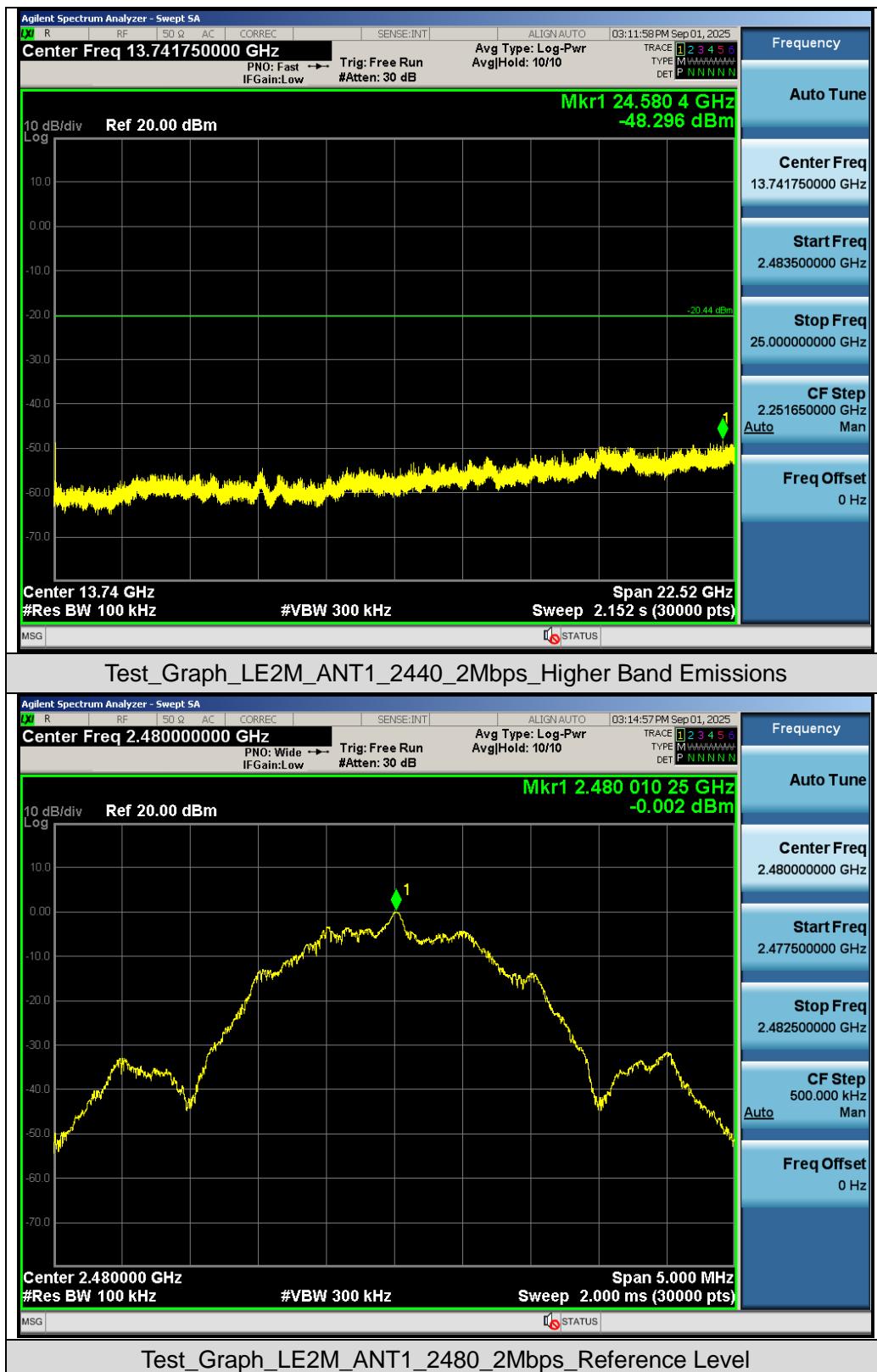


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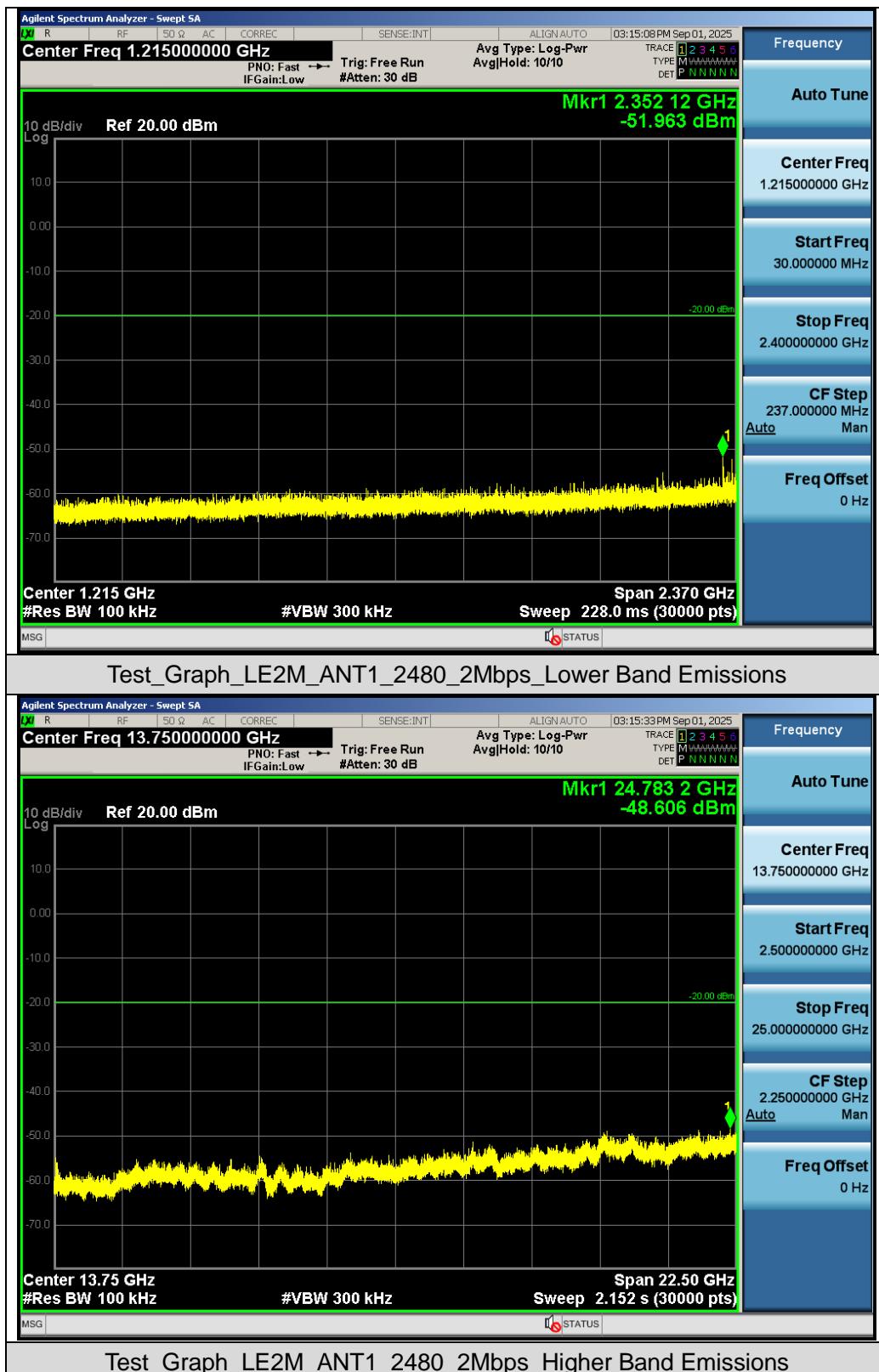


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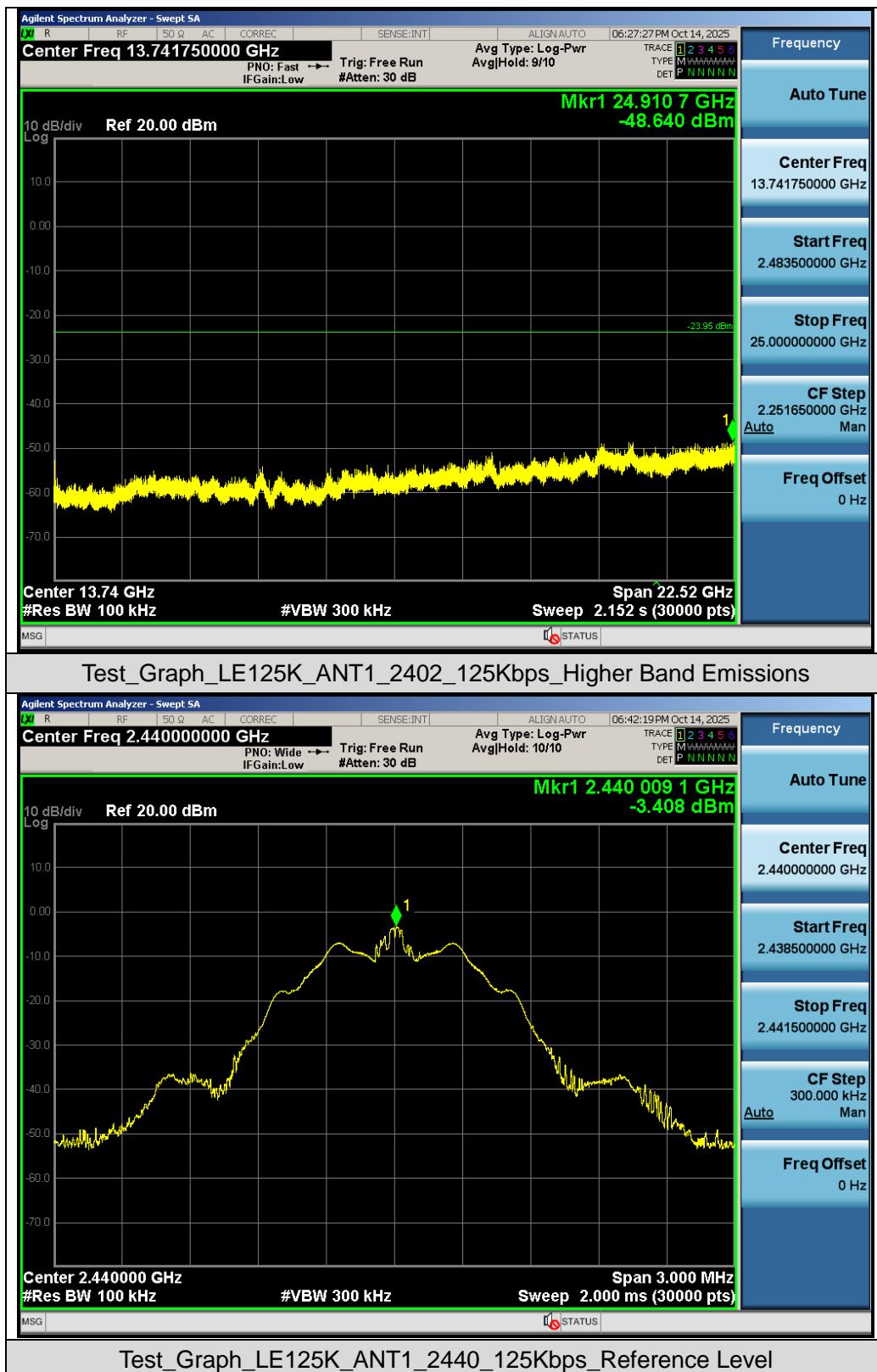


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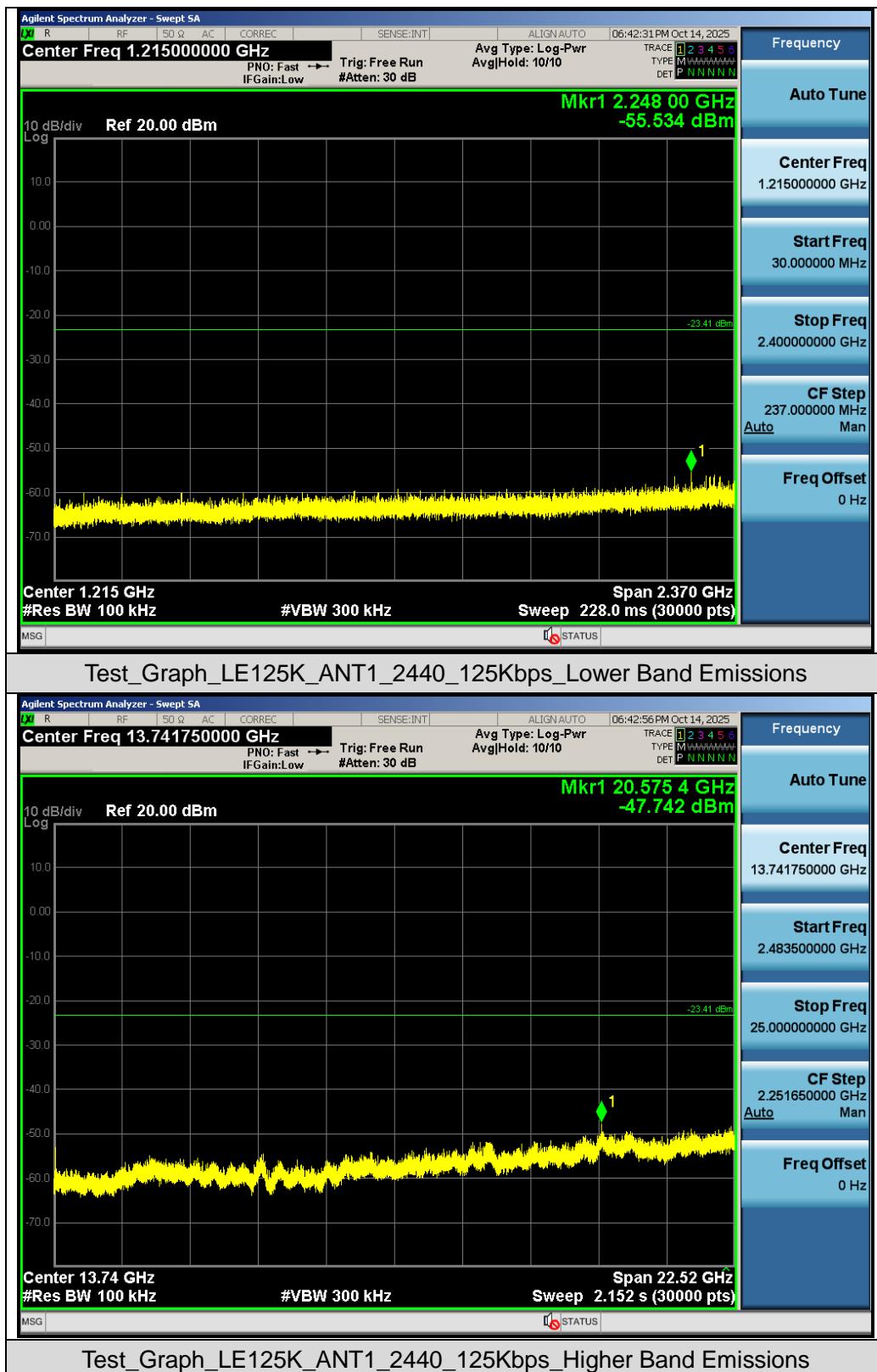


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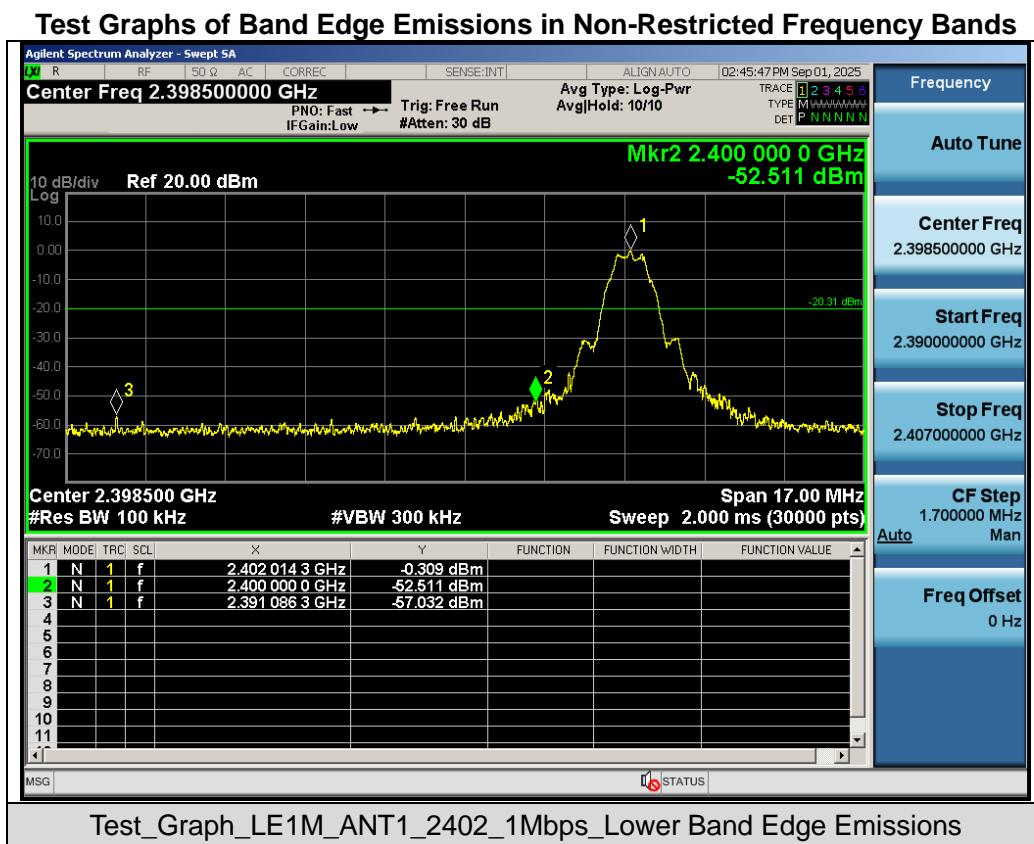
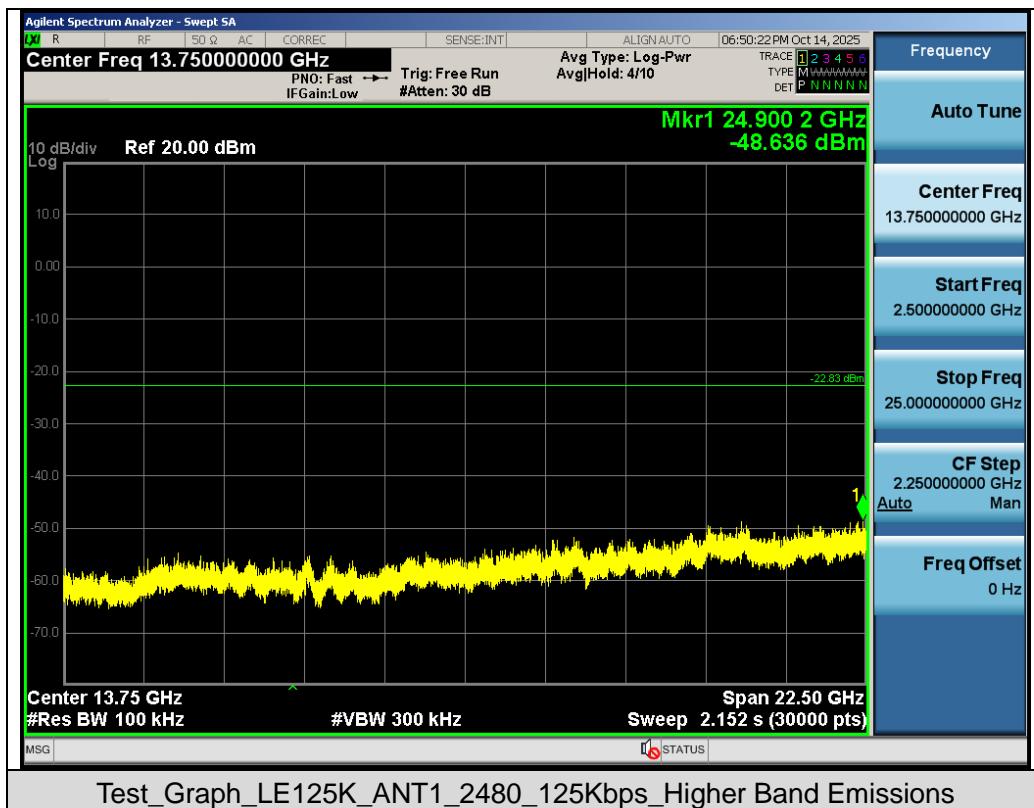


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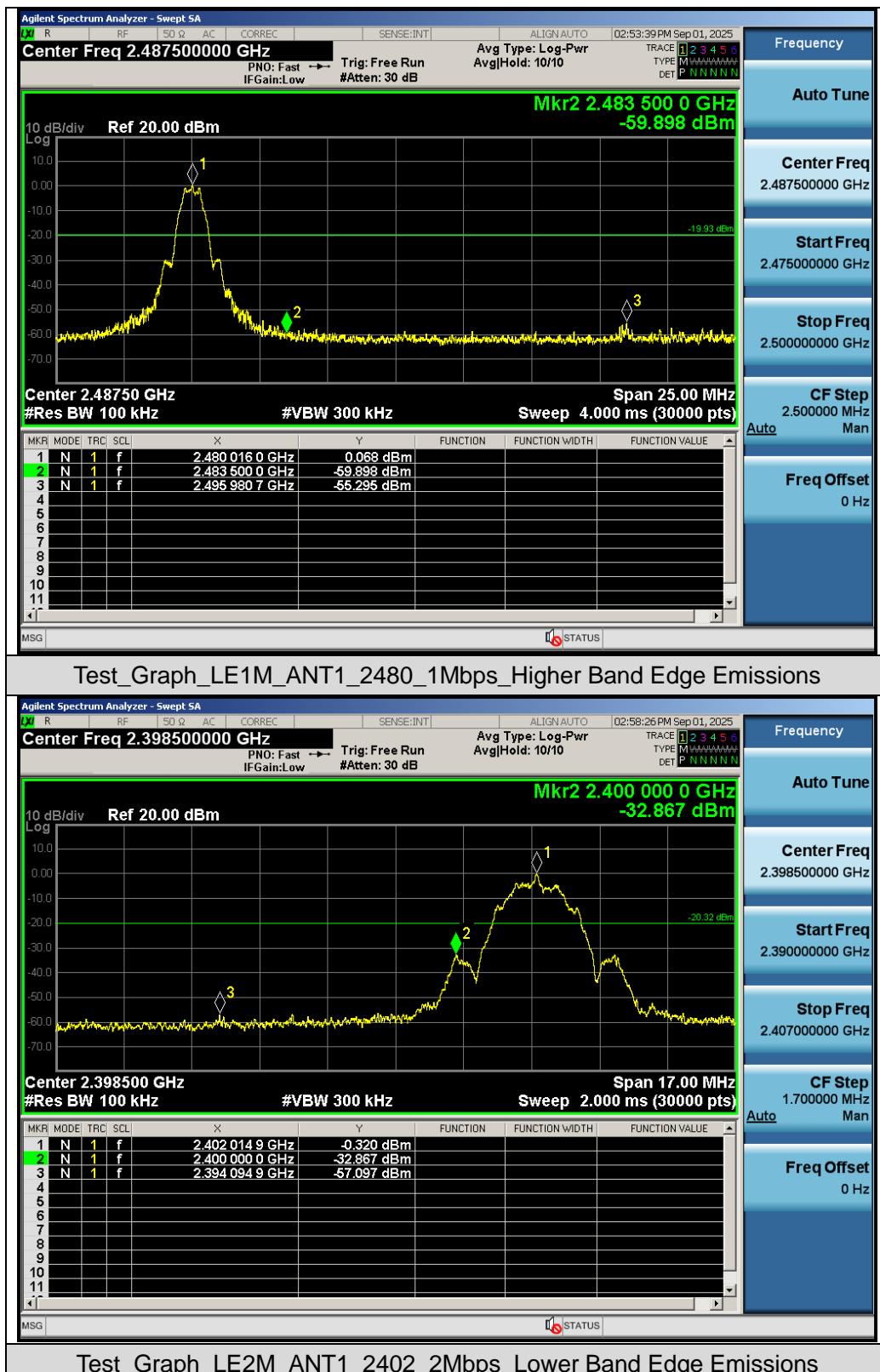


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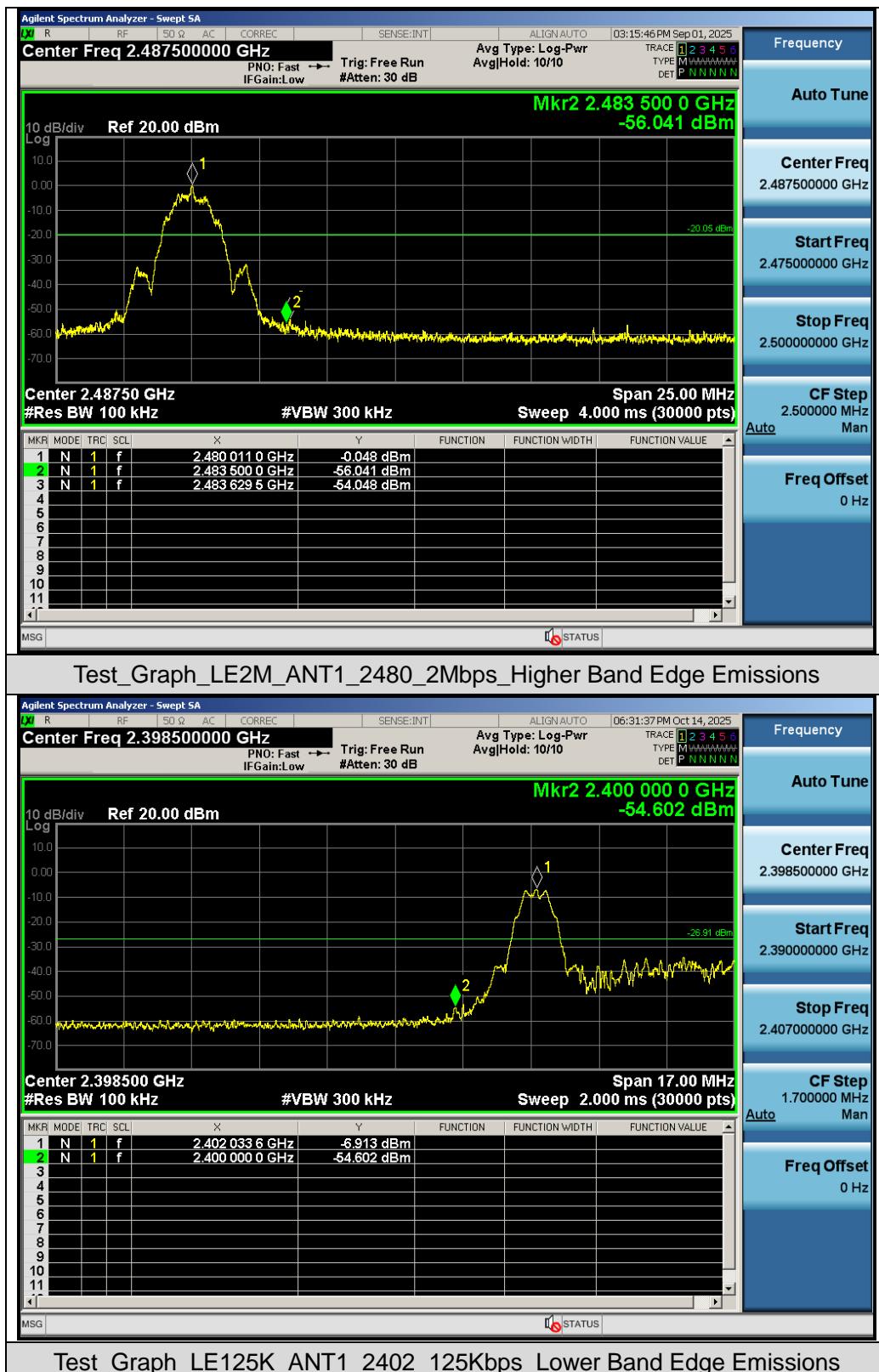


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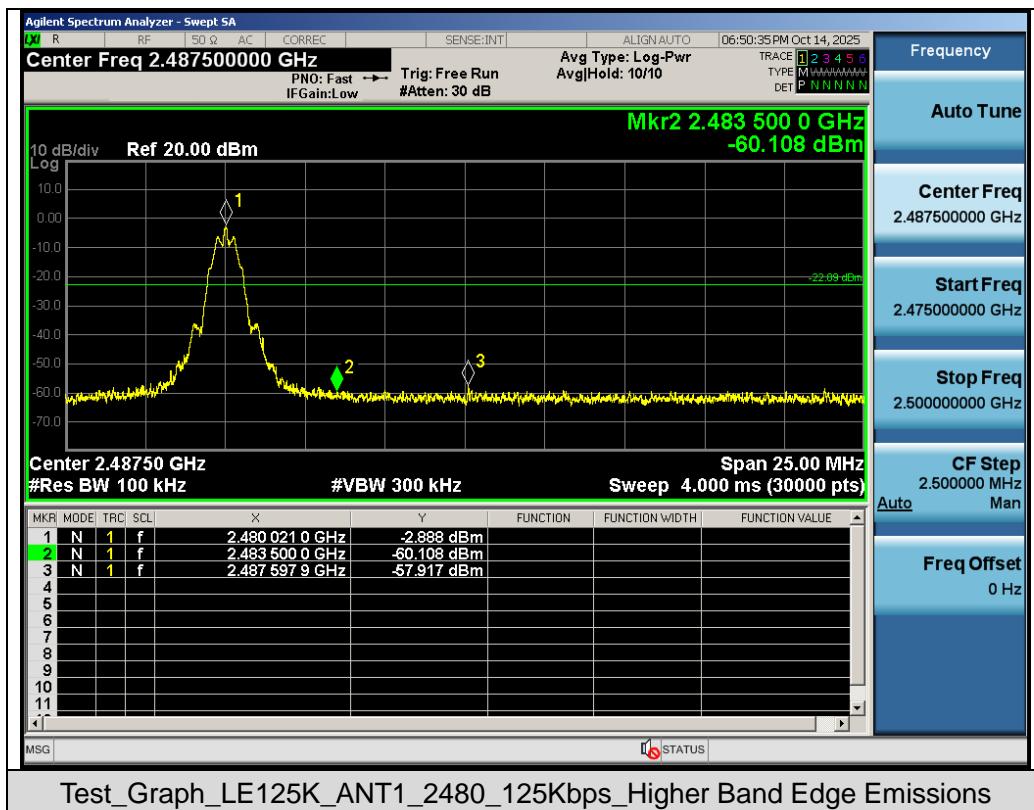


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## 11. Radiated Spurious Emission

### 11.1 Measurement Limits

RSS-Gen Section 8.9 Limit in the below table has to be followed:

Table 5 – General field strength limits at frequencies above 30 MHz

| Frequency (MHz) | Field strength ( $\mu$ V/m at 3m) |
|-----------------|-----------------------------------|
| 30 – 88         | 100                               |
| 88 – 216        | 150                               |
| 216 – 960       | 200                               |
| Above 960       | 500                               |

Table 6 – General field strength limits at frequencies below 30 MHz

| Frequency (MHz)    | Magnetic field strength(H-Field) ( $\mu$ A/m) | Measurement distance (m) |
|--------------------|---|--------------------------|
| 9-490 kHz (Note 1) | 6.37/F (F in kHz)                             | 300                      |
| 490-1705 kHz       | 63.7/F (F in kHz)                             | 30                       |
| 1.705 – 30 MHz     | 0.08  | 30                       |

Note:

1. The emission limits for the ranges 9-90kHz and 110-490kHz are based on measurements employing a linear average detector.
2. Emission level ( $\text{dB}\mu\text{V}/\text{m}$ ) = 20 log Emission level ( $\mu\text{V}/\text{m}$ ).
3. For frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation

### 11.2 Measurement Procedure

1. The EUT was placed on the top of the turntable 0.8 or 1.5 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
2. Power on the EUT and all the supporting units. The turntable was rotated by 360 degrees to determine the position of the highest radiation.
3. The height of the broadband receiving antenna was varied between one meter and four meters above ground to find the maximum emissions field strength of both horizontal and vertical polarization.
4. For each suspected emission, the antenna tower was scan (from 1 M to 4 M) and then the turntable was rotated (from 0 degree to 360 degrees) to find the maximum reading.
5. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function with specified bandwidth under Maximum Hold Mode.
6. For emissions above 1GHz, use 1MHz RBW and 3MHz VBW for peak reading. Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or

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reference ground plane.

7. When the radiated emissions limits are expressed in terms of the average value of the emissions, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum values.
8. If the emissions level of the EUT in peak mode was 3 dB lower than the average limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method for below 1GHz.
9. For testing above 1GHz, the emissions level of the EUT in peak mode was lower than average limit (that means the emissions level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
10. In case the emission is lower than 30MHz, loop antenna has to be used for measurement and the recorded data should be QP measured by receiver. High - Low scan is not required in this case.

The following table is the setting of spectrum analyzer and receiver.

| Spectrum Parameter    | Setting   |
|-----------------------|---|
| Start ~Stop Frequency | 9kHz~150kHz/RB 200Hz for QP                               |
| Start ~Stop Frequency | 150kHz~30MHz/RB 9kHz for QP                               |
| Start ~Stop Frequency | 30MHz~1000MHz/RB 120kHz for QP                            |
| Start ~Stop Frequency | 1GHz~26.5GHz<br>1MHz/3MHz for Peak, 1MHz/3MHz for Average |

| Receiver Parameter    | Setting                        |
|-----------------------|--------------------------------|
| Start ~Stop Frequency | 9kHz~150kHz/RB 200Hz for QP    |
| Start ~Stop Frequency | 150kHz~30MHz/RB 9kHz for QP    |
| Start ~Stop Frequency | 30MHz~1000MHz/RB 120kHz for QP |

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- **Quasi-Peak Measurements below 1GHz**

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. Span was set greater than 1MHz
3. RBW = as shown in the table above
4. Detector = CISPR quasi-peak
5. Sweep time = auto couple
6. Trace was allowed to stabilize

- **Peak Measurements above 1GHz**

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

- **Average Measurements above 1GHz**

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW  $\geq [3 \times \text{RBW}]$
4. Detector = Power averaging (rms)
5. Averaging type = power (i.e., rms)
6. Sweep time = auto
7. Perform a trace average of at least 100 traces.
8. The applicable correction factor is  $[10 \log (1 / D)]$ , where D is the duty cycle. The factor had been edited in the “Input Correction” of the Spectrum Analyzer.

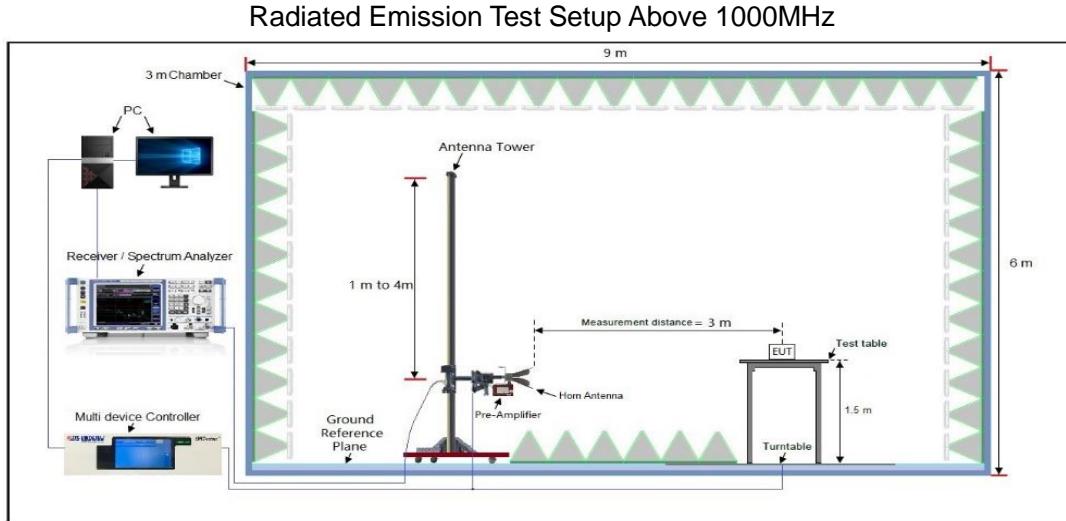
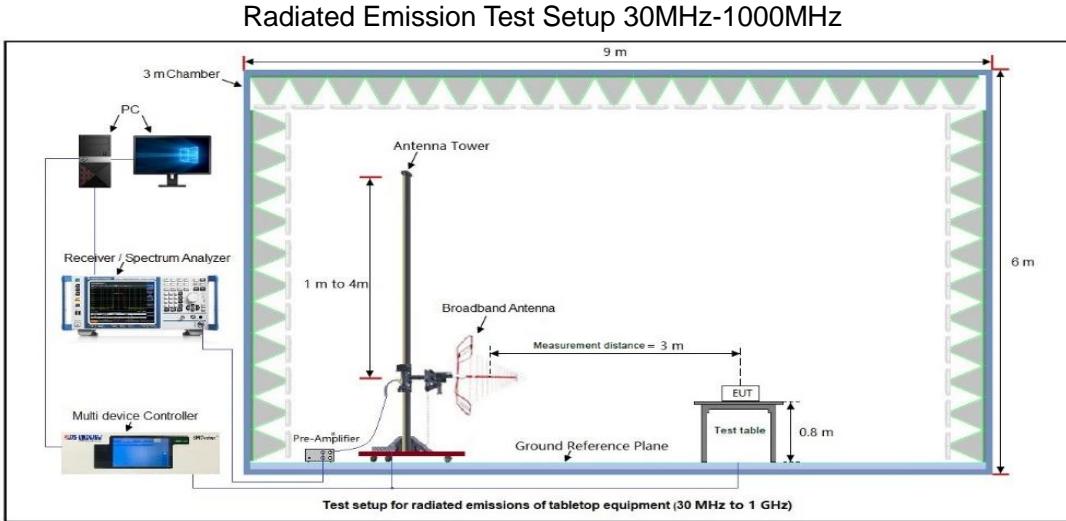
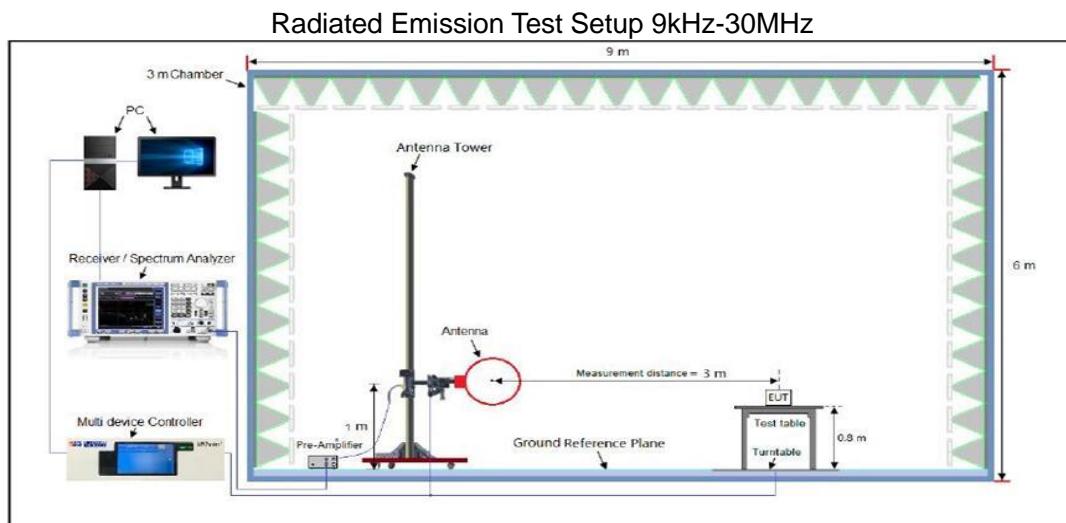
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### 11.3 Measurement Setup (Block Diagram of Configuration)



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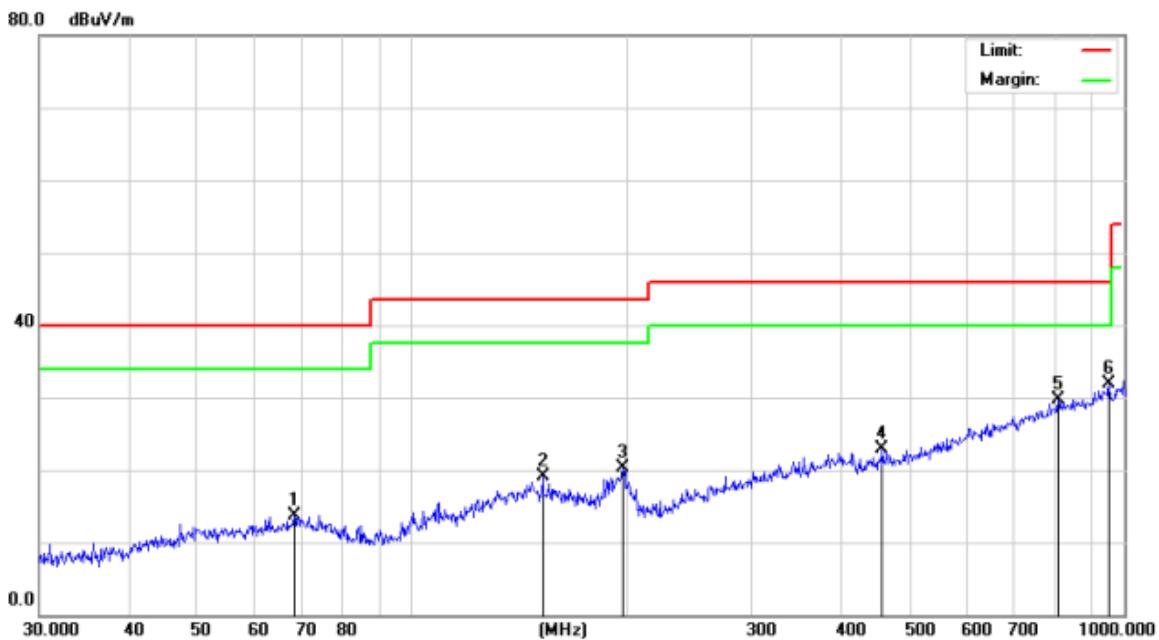
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## 11.4 Measurement Result

### Radiated Emission at 9kHz-30MHz

The amplitude of spurious emissions from 9kHz to 30MHz which are attenuated more than 20 dB below the permissible value need not be reported.

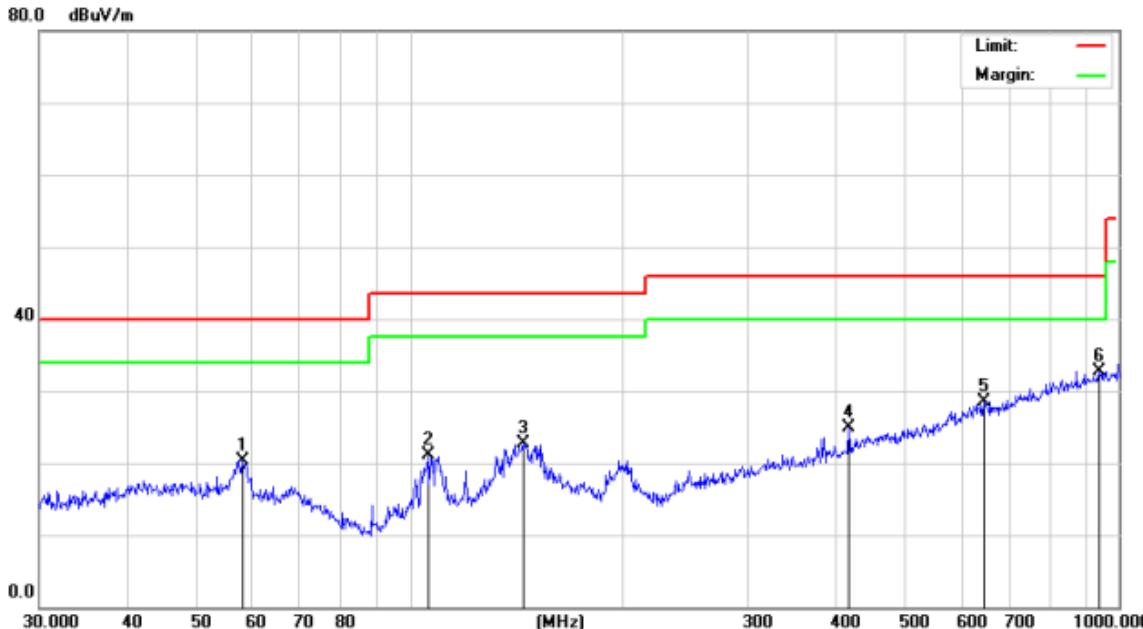
| Radiated Emission Test Results at 30MHz-1GHz  |           |          |                   |                |              |        |             |
|---|-----------|----------|-------------------|----------------|--------------|--------|-------------|
| EUT Name  | Ruuvi Air |          | Model Name        | Ruuvi Air      |              |        |             |
| Temperature   | 22.1 °C   |          | Relative Humidity | 55.5 %         |              |        |             |
| Pressure  | 960hPa    |          | Test Voltage      | DC 5V          |              |        |             |
| Test Mode   | Mode 3    |          | Antenna Polarity  | Horizontal     |              |        |             |
|  |           |          |                   |                |              |        |             |
| No.   | Mk.       | Freq.    | Reading Level     | Correct Factor | Measure-ment | Limit  | Over        |
|   |           | MHz      | dBuV              | dB             | dBuV/m       | dBuV/m | Detector    |
| 1   |           | 68.3908  | 39.01             | -25.23         | 13.78        | 40.00  | -26.22 peak |
| 2   |           | 152.6641 | 39.83             | -20.68         | 19.15        | 43.50  | -24.35 peak |
| 3   |           | 197.8928 | 43.43             | -23.22         | 20.21        | 43.50  | -23.29 peak |
| 4   |           | 457.5073 | 40.32             | -17.48         | 22.84        | 46.00  | -23.16 peak |
| 5   |           | 807.4291 | 39.50             | -9.71          | 29.79        | 46.00  | -16.21 peak |
| 6   | *         | 952.0937 | 40.24             | -8.36          | 31.88        | 46.00  | -14.12 peak |

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| Radiated Emission Test Results at 30MHz-1GHz  |           |       |               |                   |              |        |      |
|---|-----------|-------|---------------|-------------------|--------------|--------|------|
| EUT Name  | Ruuvi Air |       |               | Model Name        | Ruuvi Air    |        |      |
| Temperature   | 22.1 °C   |       |               | Relative Humidity | 55.5 %       |        |      |
| Pressure  | 960hPa    |       |               | Test Voltage      | DC 5V        |        |      |
| Test Mode   | Mode 3    |       |               | Antenna Polarity  | Vertical     |        |      |
|  |           |       |               |                   |              |        |      |
| No.   | Mk.       | Freq. | Reading Level | Correct Factor    | Measure-ment | Limit  | Over |
|   |           | MHz   | dBuV          | dB                | dBuV/m       | dBuV/m | dB   |
| 1   | 58.2030   | 41.75 | -21.35        | 20.40             | 40.00        | -19.60 | peak |
| 2   | 106.0126  | 45.21 | -24.08        | 21.13             | 43.50        | -22.37 | peak |
| 3   | 144.3348  | 42.69 | -19.90        | 22.79             | 43.50        | -20.71 | peak |
| 4   | 416.1791  | 41.13 | -16.30        | 24.83             | 46.00        | -21.17 | peak |
| 5   | 645.1195  | 39.15 | -10.58        | 28.57             | 46.00        | -17.43 | peak |
| 6 *   | 938.8325  | 39.07 | -6.31         | 32.76             | 46.00        | -13.24 | peak |

### RESULT: PASS

Note: 1. Factor=Antenna Factor + Cable loss - Pre-amplifier, Over=Measurement-Limit.

2. All test modes had been pre-tested. The mode 3 is the worst case and recorded in the report.

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### Radiated Emissions Test Results for Above 1 GHz

|             |           |                   |            |
|-------------|-----------|-------------------|------------|
| EUT Name    | Ruuvi Air | Model Name        | Ruuvi Air  |
| Temperature | 22.1 °C   | Relative Humidity | 55.5 %     |
| Pressure    | 960hPa    | Test Voltage      | DC 5V      |
| Test Mode   | Mode 1    | Antenna Polarity  | Horizontal |

| Frequency<br>(MHz) | Meter Reading<br>(dB $\mu$ V) | Factor<br>(dB) | Emission Level<br>(dB $\mu$ V/m) | Limits<br>(dB $\mu$ V/m) | Margin<br>(dB) | Value Type |
|--------------------|-------------------------------|----------------|----------------------------------|--------------------------|----------------|------------|
| 4804.000           | 46.94                         | 0.08           | 47.02                            | 74                       | -26.98         | peak       |
| 4804.000           | 37.13                         | 0.08           | 37.21                            | 54                       | -16.79         | AVG        |
| 7206.000           | 41.94                         | 2.21           | 44.15                            | 74                       | -29.85         | peak       |
| 7206.000           | 32.74                         | 2.21           | 34.95                            | 54                       | -19.05         | AVG        |
|                    |                               |                |                                  |                          |                |            |
|                    |                               |                |                                  |                          |                |            |
|                    |                               |                |                                  |                          |                |            |

Remark:

Factor = Antenna Factor + Cable Loss – Pre-amplifier.

|             |           |                   |           |
|-------------|-----------|-------------------|-----------|
| EUT Name    | Ruuvi Air | Model Name        | Ruuvi Air |
| Temperature | 22.1 °C   | Relative Humidity | 55.5 %    |
| Pressure    | 960hPa    | Test Voltage      | DC 5V     |
| Test Mode   | Mode 1    | Antenna Polarity  | Vertical  |

| Frequency<br>(MHz) | Meter Reading<br>(dB $\mu$ V) | Factor<br>(dB) | Emission Level<br>(dB $\mu$ V/m) | Limits<br>(dB $\mu$ V/m) | Margin<br>(dB) | Value Type |
|--------------------|-------------------------------|----------------|----------------------------------|--------------------------|----------------|------------|
| 4804.000           | 46.59                         | 0.08           | 46.67                            | 74                       | -27.33         | peak       |
| 4804.000           | 37.32                         | 0.08           | 37.40                            | 54                       | -16.60         | AVG        |
| 7206.000           | 41.72                         | 2.21           | 43.93                            | 74                       | -30.07         | peak       |
| 7206.000           | 32.83                         | 2.21           | 35.04                            | 54                       | -18.96         | AVG        |
|                    |                               |                |                                  |                          |                |            |
|                    |                               |                |                                  |                          |                |            |
|                    |                               |                |                                  |                          |                |            |

Remark:

Factor = Antenna Factor + Cable Loss – Pre-amplifier.

### RESULT: PASS

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### Radiated Emissions Test Results for Above 1GHz

|             |           |                   |            |
|-------------|-----------|-------------------|------------|
| EUT Name    | Ruuvi Air | Model Name        | Ruuvi Air  |
| Temperature | 22.1 °C   | Relative Humidity | 55.5 %     |
| Pressure    | 960hPa    | Test Voltage      | DC 5V      |
| Test Mode   | Mode 2    | Antenna Polarity  | Horizontal |

| Frequency<br>(MHz) | Meter Reading<br>(dB $\mu$ V) | Factor<br>(dB) | Emission Level<br>(dB $\mu$ V/m) | Limits<br>(dB $\mu$ V/m) | Margin<br>(dB) | Value Type |
|--------------------|-------------------------------|----------------|----------------------------------|--------------------------|----------------|------------|
| 4880.000           | 46.08                         | 0.08           | 46.16                            | 74                       | -27.84         | peak       |
| 4880.000           | 37.15                         | 0.08           | 37.23                            | 54                       | -16.77         | AVG        |
| 7320.000           | 41.53                         | 2.21           | 43.74                            | 74                       | -30.26         | peak       |
| 7320.000           | 33.00                         | 2.21           | 35.21                            | 54                       | -18.79         | AVG        |
|                    |                               |                |                                  |                          |                |            |
|                    |                               |                |                                  |                          |                |            |
|                    |                               |                |                                  |                          |                |            |

Remark:

Factor = Antenna Factor + Cable Loss – Pre-amplifier.

|             |           |                   |           |
|-------------|-----------|-------------------|-----------|
| EUT Name    | Ruuvi Air | Model Name        | Ruuvi Air |
| Temperature | 22.1 °C   | Relative Humidity | 55.5 %    |
| Pressure    | 960hPa    | Test Voltage      | DC 5V     |
| Test Mode   | Mode 2    | Antenna Polarity  | Vertical  |

| Frequency<br>(MHz) | Meter Reading<br>(dB $\mu$ V) | Factor<br>(dB) | Emission Level<br>(dB $\mu$ V/m) | Limits<br>(dB $\mu$ V/m) | Margin<br>(dB) | Value Type |
|--------------------|-------------------------------|----------------|----------------------------------|--------------------------|----------------|------------|
| 4880.000           | 46.53                         | 0.08           | 46.61                            | 74                       | -27.39         | peak       |
| 4880.000           | 37.65                         | 0.08           | 37.73                            | 54                       | -16.27         | AVG        |
| 7320.000           | 41.50                         | 2.21           | 43.71                            | 74                       | -30.29         | peak       |
| 7320.000           | 32.73                         | 2.21           | 34.94                            | 54                       | -19.06         | AVG        |
|                    |                               |                |                                  |                          |                |            |
|                    |                               |                |                                  |                          |                |            |
|                    |                               |                |                                  |                          |                |            |

Remark:

Factor = Antenna Factor + Cable Loss – Pre-amplifier.

**RESULT: PASS**

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### Radiated Emissions Test Results for Above 1GHz

|             |           |                   |            |
|-------------|-----------|-------------------|------------|
| EUT Name    | Ruuvi Air | Model Name        | Ruuvi Air  |
| Temperature | 22.1 °C   | Relative Humidity | 55.5 %     |
| Pressure    | 960hPa    | Test Voltage      | DC 5V      |
| Test Mode   | Mode 3    | Antenna Polarity  | Horizontal |

| Frequency<br>(MHz) | Meter Reading<br>(dB $\mu$ V) | Factor<br>(dB) | Emission Level<br>(dB $\mu$ V/m) | Limits<br>(dB $\mu$ V/m) | Margin<br>(dB) | Value Type |
|--------------------|-------------------------------|----------------|----------------------------------|--------------------------|----------------|------------|
| 4960.000           | 46.36                         | 0.08           | 46.44                            | 74                       | -27.56         | peak       |
| 4960.000           | 37.06                         | 0.08           | 37.14                            | 54                       | -16.86         | AVG        |
| 7440.000           | 41.89                         | 2.21           | 44.10                            | 74                       | -29.90         | peak       |
| 7440.000           | 32.85                         | 2.21           | 35.06                            | 54                       | -18.94         | AVG        |
|                    |                               |                |                                  |                          |                |            |
|                    |                               |                |                                  |                          |                |            |
|                    |                               |                |                                  |                          |                |            |

Remark:

Factor = Antenna Factor + Cable Loss – Pre-amplifier.

|             |           |                   |           |
|-------------|-----------|-------------------|-----------|
| EUT Name    | Ruuvi Air | Model Name        | Ruuvi Air |
| Temperature | 22.1 °C   | Relative Humidity | 55.5 %    |
| Pressure    | 960hPa    | Test Voltage      | DC 5V     |
| Test Mode   | Mode 3    | Antenna Polarity  | Vertical  |

| Frequency<br>(MHz) | Meter Reading<br>(dB $\mu$ V) | Factor<br>(dB) | Emission Level<br>(dB $\mu$ V/m) | Limits<br>(dB $\mu$ V/m) | Margin<br>(dB) | Value Type |
|--------------------|-------------------------------|----------------|----------------------------------|--------------------------|----------------|------------|
| 4960.000           | 46.11                         | 0.08           | 46.19                            | 74                       | -27.81         | peak       |
| 4960.000           | 37.62                         | 0.08           | 37.70                            | 54                       | -16.30         | AVG        |
| 7440.000           | 41.65                         | 2.21           | 43.86                            | 74                       | -30.14         | peak       |
| 7440.000           | 32.32                         | 2.21           | 34.53                            | 54                       | -19.47         | AVG        |
|                    |                               |                |                                  |                          |                |            |
|                    |                               |                |                                  |                          |                |            |
|                    |                               |                |                                  |                          |                |            |

Remark:

Factor = Antenna Factor + Cable Loss – Pre-amplifier.

## RESULT: PASS

### Note:

- The amplitude of other spurious emissions from 1G to 25 GHz which are attenuated more than 20 dB below the permissible value need not be reported.
- Factor = Antenna Factor + Cable loss – Pre-amplifier gain, Margin =Emission Level-Limit.
- The “Factor” value can be calculated automatically by software of measurement system.
- All test modes had been pre-tested. The BLE GFSK 1MHz is the worst case and recorded in the report.

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### Band Edge Emission Test Results for Restricted Bands

|                    |           |                          |           |
|--------------------|-----------|--------------------------|-----------|
| <b>EUT Name</b>    | Ruuvi Air | <b>Model Name</b>        | Ruuvi Air |
| <b>Temperature</b> | 22.1 °C   | <b>Relative Humidity</b> | 55.5 %    |
| <b>Pressure</b>    | 960hPa    | <b>Test Voltage</b>      | DC 5V     |

| Bluetooth Tx CH00_2402 MHz_1Mbps |           |                    |                |               |               |                    |                    |           |          |            |
|----------------------------------|-----------|--------------------|----------------|---------------|---------------|--------------------|--------------------|-----------|----------|------------|
| Item (Mark)                      | Freq. MHz | Reading dB $\mu$ V | Ant. Fac. dB/m | PRM Factor dB | Cable Loss dB | Level dB $\mu$ V/m | Limit dB $\mu$ V/m | Margin dB | Detector | Pol.       |
| 1                                | 2390.00   | 36.55              | 29.99          | 30.21         | 8.35          | 44.68              | 74                 | 29.32     | Peak     | Horizontal |
| 2                                | 2390.00   | 26.65              | 29.99          | 30.21         | 8.35          | 34.78              | 54                 | 19.22     | AV       | Horizontal |
| 3                                | 2390.00   | 34.66              | 29.99          | 30.21         | 8.35          | 42.79              | 74                 | 31.21     | Peak     | Vertical   |
| 4                                | 2390.00   | 24.64              | 29.99          | 30.21         | 8.35          | 32.77              | 54                 | 21.23     | AV       | Vertical   |
| Bluetooth Tx CH39_2480 MHz_1Mbps |           |                    |                |               |               |                    |                    |           |          |            |
| Item (Mark)                      | Freq. MHz | Reading dB $\mu$ V | Ant. Fac. dB/m | PRM Factor dB | Cable Loss dB | Level dB $\mu$ V/m | Limit dB $\mu$ V/m | Margin dB | Detector | Pol.       |
| 1                                | 2483.50   | 44.66              | 30.25          | 30.25         | 8.5           | 53.16              | 74                 | 20.84     | Peak     | Horizontal |
| 2                                | 2483.50   | 28.31              | 30.25          | 30.25         | 8.5           | 36.81              | 54                 | 17.19     | AV       | Horizontal |
| 3                                | 2483.50   | 39.93              | 30.25          | 30.25         | 8.5           | 48.43              | 74                 | 25.57     | Peak     | Vertical   |
| 4                                | 2483.50   | 23.94              | 30.25          | 30.25         | 8.5           | 32.44              | 54                 | 21.56     | AV       | Vertical   |
| Bluetooth Tx CH00_2402 MHz_2Mbps |           |                    |                |               |               |                    |                    |           |          |            |
| Item (Mark)                      | Freq. MHz | Reading dB $\mu$ V | Ant. Fac. dB/m | PRM Factor dB | Cable Loss dB | Level dB $\mu$ V/m | Limit dB $\mu$ V/m | Margin dB | Detector | Pol.       |
| 1                                | 2390.00   | 37.54              | 29.99          | 30.21         | 8.35          | 45.67              | 74                 | 28.33     | Peak     | Horizontal |
| 2                                | 2390.00   | 26.79              | 29.99          | 30.21         | 8.35          | 34.92              | 54                 | 19.08     | AV       | Horizontal |
| 3                                | 2390.00   | 31.91              | 29.99          | 30.21         | 8.35          | 40.04              | 74                 | 33.96     | Peak     | Vertical   |
| 4                                | 2390.00   | 23.14              | 29.99          | 30.21         | 8.35          | 31.27              | 54                 | 22.73     | AV       | Vertical   |
| Bluetooth Tx CH39_2480 MHz_2Mbps |           |                    |                |               |               |                    |                    |           |          |            |
| Item (Mark)                      | Freq. MHz | Reading dB $\mu$ V | Ant. Fac. dB/m | PRM Factor dB | Cable Loss dB | Level dB $\mu$ V/m | Limit dB $\mu$ V/m | Margin dB | Detector | Pol.       |
| 1                                | 2483.50   | 42.91              | 30.25          | 30.25         | 8.5           | 51.41              | 74                 | 22.59     | Peak     | Horizontal |
| 2                                | 2483.50   | 30.43              | 30.25          | 30.25         | 8.5           | 38.93              | 54                 | 15.08     | AV       | Horizontal |
| 3                                | 2483.50   | 40.44              | 30.25          | 30.25         | 8.5           | 48.94              | 74                 | 25.06     | Peak     | Vertical   |
| 4                                | 2483.50   | 26.85              | 30.25          | 30.25         | 8.5           | 35.35              | 54                 | 18.66     | AV       | Vertical   |

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| Bluetooth Tx CH00_2402 MHz_125Kbps |           |                    |                |               |               |                    |                    |           |          |            |
|------------------------------------|-----------|--------------------|----------------|---------------|---------------|--------------------|--------------------|-----------|----------|------------|
| Item (Mark)                        | Freq. MHz | Reading dB $\mu$ V | Ant. Fac. dB/m | PRM Factor dB | Cable Loss dB | Level dB $\mu$ V/m | Limit dB $\mu$ V/m | Margin dB | Detector | Pol.       |
| 1                                  | 2390.00   | 35.71              | 29.99          | 30.21         | 8.35          | 43.84              | 74                 | 30.16     | Peak     | Horizontal |
| 2                                  | 2390.00   | 26.84              | 29.99          | 30.21         | 8.35          | 34.97              | 54                 | 19.03     | AV       | Horizontal |
| 3                                  | 2390.00   | 33.56              | 29.99          | 30.21         | 8.35          | 41.69              | 74                 | 32.31     | Peak     | Vertical   |
| 4                                  | 2390.00   | 22.98              | 29.99          | 30.21         | 8.35          | 31.11              | 54                 | 22.89     | AV       | Vertical   |
| Bluetooth Tx CH39_2480 MHz_125Kbps |           |                    |                |               |               |                    |                    |           |          |            |
| Item (Mark)                        | Freq. MHz | Reading dB $\mu$ V | Ant. Fac. dB/m | PRM Factor dB | Cable Loss dB | Level dB $\mu$ V/m | Limit dB $\mu$ V/m | Margin dB | Detector | Pol.       |
| 1                                  | 2483.50   | 41.26              | 30.25          | 30.25         | 8.5           | 49.76              | 74                 | 24.24     | Peak     | Horizontal |
| 2                                  | 2483.50   | 27.42              | 30.25          | 30.25         | 8.5           | 35.92              | 54                 | 18.08     | AV       | Horizontal |
| 3                                  | 2483.50   | 35.72              | 30.25          | 30.25         | 8.5           | 44.22              | 74                 | 29.78     | Peak     | Vertical   |
| 4                                  | 2483.50   | 25.40              | 30.25          | 30.25         | 8.5           | 33.90              | 54                 | 20.10     | AV       | Vertical   |

**Remark:**

1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. The other emission levels were very low against the limit.
3. Margin = Limit - Emission Level.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. Detector AV is setting spectrum/receiver. RBW=1MHz/VBW=3MHz/Sweep time=Auto/Detector=Average.

**RESULT: PASS**

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## 12. AC Power Line Conducted Emission Test

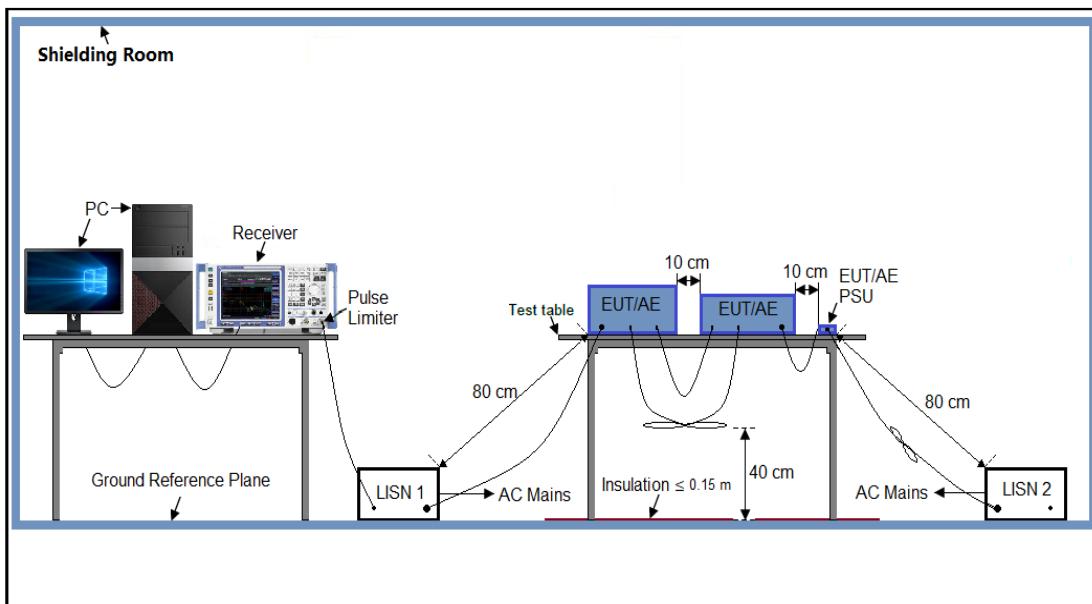
### 12.1 Limits of Line Conducted Emission Test

| Frequency     | Maximum RF Line Voltage |                      |
|---------------|-------------------------|----------------------|
|               | Q.P. (dB $\mu$ V)       | Average (dB $\mu$ V) |
| 150kHz~500kHz | 66-56                   | 56-46                |
| 500kHz~5MHz   | 56                      | 46                   |
| 5MHz~30MHz    | 60                      | 50                   |

Note:

1. The lower limit shall apply at the transition frequency.
2. The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz.

### 12.2 Measurement Setup (Block Diagram of Configuration)



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### 12.3 Preliminary Procedure of Line Conducted Emission Test

1. The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. When the EUT is a tabletop system, a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.10 (see Test Facility for the dimensions of the ground plane used). When the EUT is a floor-standing equipment, it is placed on the ground plane which has a 3-12 mm non-conductive covering to insulate the EUT from the ground plane.
2. Support equipment, if needed, was placed as per ANSI C63.10.
3. All I/O cables were positioned to simulate typical actual usage as per ANSI C63.10.
4. All support equipment received AC120V/60Hz power from a LISN, if any.
5. The EUT received DC 5V power from adapter which received AC120V/60Hz power from a LISN.
6. The test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50 ohm load; the second scan had Line 1 connected to a 50 ohm load and Line 2 connected to the Analyzer / Receiver.
7. Analyzer / Receiver scanned from 150 kHz to 30MHz for emissions in each of the test modes.
8. During the above scans, the emissions were maximized by cable manipulation.
9. The test mode(s) were scanned during the preliminary test.
10. Then, the EUT configuration and cable configuration of the above highest emission level were recorded for reference of final testing.

### 12.4 Final Procedure of Line Conducted Emission Test

1. EUT and support equipment was set up on the test bench as per step 2 of the preliminary test.
2. A scan was taken on both power lines, Line 1 and Line 2, recording at least the six highest emissions. Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit. If EUT emission level was less – 2dB to the A.V. limit in Peak mode, then the emission signal was re-checked using Q.P and Average detector.
3. The test data of the worst case condition(s) was reported on the Summary Data page.
4. A conducted emission is calculated by the following equation:  
Measurement Level (dB $\mu$ V) = Receiver reading (dB $\mu$ V) + Transd (dB)  
Transd (dB)= AMN Factor(dB)+Cable Loss(dB)+Attenuation(dB)  
Margin= Limit-Level

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**12.5 Measurement Results**

| AC Power Line Conducted Emission Test   |                     |              |                     |              |          |      |                  |                     |                     |                     |                     |              |          |          |          |       |     |      |      |    |          |          |       |     |      |      |    |          |          |       |     |      |      |    |          |          |       |     |      |      |    |           |           |      |      |      |      |    |           |           |       |      |      |      |    |    |
|---|---------------------|--------------|---------------------|--------------|----------|------|------------------|---------------------|---------------------|---------------------|---------------------|--------------|----------|----------|----------|-------|-----|------|------|----|----------|----------|-------|-----|------|------|----|----------|----------|-------|-----|------|------|----|----------|----------|-------|-----|------|------|----|-----------|-----------|------|------|------|------|----|-----------|-----------|-------|------|------|------|----|----|
| Test Mode   | Mode 1              |              | LISN Line           | Hot Side     |          |      |                  |                     |                     |                     |                     |              |          |          |          |       |     |      |      |    |          |          |       |     |      |      |    |          |          |       |     |      |      |    |          |          |       |     |      |      |    |           |           |      |      |      |      |    |           |           |       |      |      |      |    |    |
|   |                     |              |                     |              |          |      |                  |                     |                     |                     |                     |              |          |          |          |       |     |      |      |    |          |          |       |     |      |      |    |          |          |       |     |      |      |    |          |          |       |     |      |      |    |           |           |      |      |      |      |    |           |           |       |      |      |      |    |    |
| <b>MEASUREMENT RESULT: "agc_fin"</b>  |                     |              |                     |              |          |      |                  |                     |                     |                     |                     |              |          |          |          |       |     |      |      |    |          |          |       |     |      |      |    |          |          |       |     |      |      |    |          |          |       |     |      |      |    |           |           |      |      |      |      |    |           |           |       |      |      |      |    |    |
| 2025/8/28 17:09   |                     |              |                     |              |          |      |                  |                     |                     |                     |                     |              |          |          |          |       |     |      |      |    |          |          |       |     |      |      |    |          |          |       |     |      |      |    |          |          |       |     |      |      |    |           |           |      |      |      |      |    |           |           |       |      |      |      |    |    |
| <table> <thead> <tr> <th>Frequency<br/>MHz</th><th>Level<br/>dB<math>\mu</math>V</th><th>Transd<br/>dB</th><th>Limit<br/>dB<math>\mu</math>V</th><th>Margin<br/>dB</th><th>Detector</th><th>Line</th></tr> </thead> <tbody> <tr> <td>0.342000</td><td>23.90</td><td>9.9</td><td>59</td><td>35.3</td><td>QP</td><td>L1</td></tr> <tr> <td>0.550000</td><td>22.80</td><td>9.9</td><td>56</td><td>33.2</td><td>QP</td><td>L1</td></tr> <tr> <td>1.122000</td><td>24.20</td><td>9.9</td><td>56</td><td>31.8</td><td>QP</td><td>L1</td></tr> <tr> <td>2.162000</td><td>18.60</td><td>9.9</td><td>56</td><td>37.4</td><td>QP</td><td>L1</td></tr> <tr> <td>12.274000</td><td>21.40</td><td>10.4</td><td>60</td><td>38.6</td><td>QP</td><td>L1</td></tr> <tr> <td>13.586000</td><td>23.30</td><td>10.5</td><td>60</td><td>36.7</td><td>QP</td><td>L1</td></tr> </tbody> </table> |                     |              |                     |              |          |      | Frequency<br>MHz | Level<br>dB $\mu$ V | Transd<br>dB        | Limit<br>dB $\mu$ V | Margin<br>dB        | Detector     | Line     | 0.342000 | 23.90    | 9.9   | 59  | 35.3 | QP   | L1 | 0.550000 | 22.80    | 9.9   | 56  | 33.2 | QP   | L1 | 1.122000 | 24.20    | 9.9   | 56  | 31.8 | QP   | L1 | 2.162000 | 18.60    | 9.9   | 56  | 37.4 | QP   | L1 | 12.274000 | 21.40     | 10.4 | 60   | 38.6 | QP   | L1 | 13.586000 | 23.30     | 10.5  | 60   | 36.7 | QP   | L1 |    |
| Frequency<br>MHz  | Level<br>dB $\mu$ V | Transd<br>dB | Limit<br>dB $\mu$ V | Margin<br>dB | Detector | Line |                  |                     |                     |                     |                     |              |          |          |          |       |     |      |      |    |          |          |       |     |      |      |    |          |          |       |     |      |      |    |          |          |       |     |      |      |    |           |           |      |      |      |      |    |           |           |       |      |      |      |    |    |
| 0.342000  | 23.90               | 9.9          | 59                  | 35.3         | QP       | L1   |                  |                     |                     |                     |                     |              |          |          |          |       |     |      |      |    |          |          |       |     |      |      |    |          |          |       |     |      |      |    |          |          |       |     |      |      |    |           |           |      |      |      |      |    |           |           |       |      |      |      |    |    |
| 0.550000  | 22.80               | 9.9          | 56                  | 33.2         | QP       | L1   |                  |                     |                     |                     |                     |              |          |          |          |       |     |      |      |    |          |          |       |     |      |      |    |          |          |       |     |      |      |    |          |          |       |     |      |      |    |           |           |      |      |      |      |    |           |           |       |      |      |      |    |    |
| 1.122000  | 24.20               | 9.9          | 56                  | 31.8         | QP       | L1   |                  |                     |                     |                     |                     |              |          |          |          |       |     |      |      |    |          |          |       |     |      |      |    |          |          |       |     |      |      |    |          |          |       |     |      |      |    |           |           |      |      |      |      |    |           |           |       |      |      |      |    |    |
| 2.162000  | 18.60               | 9.9          | 56                  | 37.4         | QP       | L1   |                  |                     |                     |                     |                     |              |          |          |          |       |     |      |      |    |          |          |       |     |      |      |    |          |          |       |     |      |      |    |          |          |       |     |      |      |    |           |           |      |      |      |      |    |           |           |       |      |      |      |    |    |
| 12.274000   | 21.40               | 10.4         | 60                  | 38.6         | QP       | L1   |                  |                     |                     |                     |                     |              |          |          |          |       |     |      |      |    |          |          |       |     |      |      |    |          |          |       |     |      |      |    |          |          |       |     |      |      |    |           |           |      |      |      |      |    |           |           |       |      |      |      |    |    |
| 13.586000   | 23.30               | 10.5         | 60                  | 36.7         | QP       | L1   |                  |                     |                     |                     |                     |              |          |          |          |       |     |      |      |    |          |          |       |     |      |      |    |          |          |       |     |      |      |    |          |          |       |     |      |      |    |           |           |      |      |      |      |    |           |           |       |      |      |      |    |    |
| <b>MEASUREMENT RESULT: "agc_fin2"</b>   |                     |              |                     |              |          |      |                  |                     |                     |                     |                     |              |          |          |          |       |     |      |      |    |          |          |       |     |      |      |    |          |          |       |     |      |      |    |          |          |       |     |      |      |    |           |           |      |      |      |      |    |           |           |       |      |      |      |    |    |
| 2025/8/28 17:09   |                     |              |                     |              |          |      |                  |                     |                     |                     |                     |              |          |          |          |       |     |      |      |    |          |          |       |     |      |      |    |          |          |       |     |      |      |    |          |          |       |     |      |      |    |           |           |      |      |      |      |    |           |           |       |      |      |      |    |    |
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| Frequency<br>MHz  | Level<br>dB $\mu$ V | Transd<br>dB | Limit<br>dB $\mu$ V | Margin<br>dB | Detector | Line |                  |                     |                     |                     |                     |              |          |          |          |       |     |      |      |    |          |          |       |     |      |      |    |          |          |       |     |      |      |    |          |          |       |     |      |      |    |           |           |      |      |      |      |    |           |           |       |      |      |      |    |    |
| 0.362000  | 19.80               | 9.9          | 49                  | 28.9         | AV       | L1   |                  |                     |                     |                     |                     |              |          |          |          |       |     |      |      |    |          |          |       |     |      |      |    |          |          |       |     |      |      |    |          |          |       |     |      |      |    |           |           |      |      |      |      |    |           |           |       |      |      |      |    |    |
| 0.778000  | 22.70               | 9.9          | 46                  | 23.3         | AV       | L1   |                  |                     |                     |                     |                     |              |          |          |          |       |     |      |      |    |          |          |       |     |      |      |    |          |          |       |     |      |      |    |          |          |       |     |      |      |    |           |           |      |      |      |      |    |           |           |       |      |      |      |    |    |
| 1.386000  | 18.50               | 9.9          | 46                  | 27.5         | AV       | L1   |                  |                     |                     |                     |                     |              |          |          |          |       |     |      |      |    |          |          |       |     |      |      |    |          |          |       |     |      |      |    |          |          |       |     |      |      |    |           |           |      |      |      |      |    |           |           |       |      |      |      |    |    |
| 2.222000  | 14.00               | 9.9          | 46                  | 32.0         | AV       | L1   |                  |                     |                     |                     |                     |              |          |          |          |       |     |      |      |    |          |          |       |     |      |      |    |          |          |       |     |      |      |    |          |          |       |     |      |      |    |           |           |      |      |      |      |    |           |           |       |      |      |      |    |    |
| 11.330000   | 9.90                | 10.3         | 50                  | 40.1         | AV       | L1   |                  |                     |                     |                     |                     |              |          |          |          |       |     |      |      |    |          |          |       |     |      |      |    |          |          |       |     |      |      |    |          |          |       |     |      |      |    |           |           |      |      |      |      |    |           |           |       |      |      |      |    |    |
| 13.110000   | 11.90               | 10.4         | 50                  | 38.1         | AV       | L1   |                  |                     |                     |                     |                     |              |          |          |          |       |     |      |      |    |          |          |       |     |      |      |    |          |          |       |     |      |      |    |          |          |       |     |      |      |    |           |           |      |      |      |      |    |           |           |       |      |      |      |    |    |

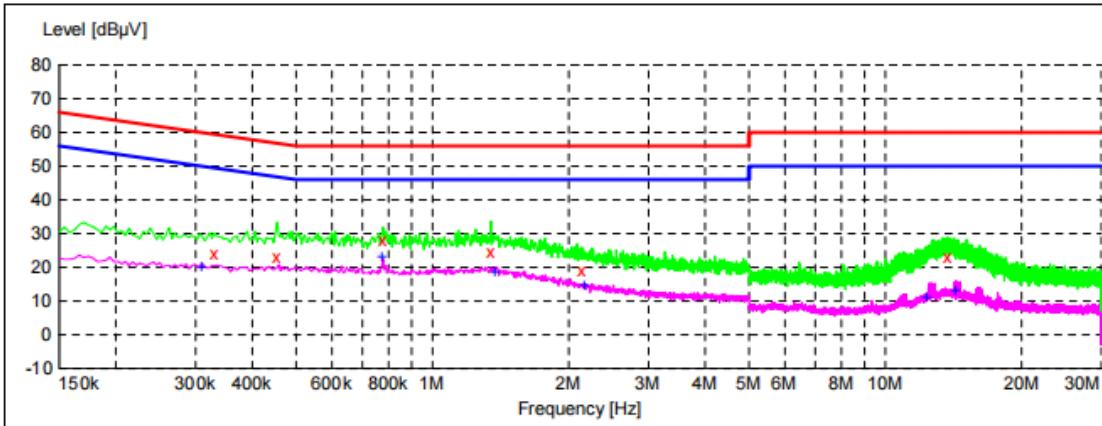
**RESULT: PASS**

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| AC Power Line Conducted Emission Test   |                     |              |                     |              |          |      |  |                  |                     |              |                     |              |          |      |          |       |     |    |      |    |   |          |       |     |    |      |    |   |          |       |     |    |      |    |   |          |       |     |    |      |    |   |           |       |      |    |      |    |   |           |       |      |    |      |    |   |
|---|---------------------|--------------|---------------------|--------------|----------|------|--|------------------|---------------------|--------------|---------------------|--------------|----------|------|----------|-------|-----|----|------|----|---|----------|-------|-----|----|------|----|---|----------|-------|-----|----|------|----|---|----------|-------|-----|----|------|----|---|-----------|-------|------|----|------|----|---|-----------|-------|------|----|------|----|---|
| Test Mode   | Mode 1              |              | LISN Line           | Neutral Side |          |      |  |                  |                     |              |                     |              |          |      |          |       |     |    |      |    |   |          |       |     |    |      |    |   |          |       |     |    |      |    |   |          |       |     |    |      |    |   |           |       |      |    |      |    |   |           |       |      |    |      |    |   |
|   |                     |              |                     |              |          |      |  |                  |                     |              |                     |              |          |      |          |       |     |    |      |    |   |          |       |     |    |      |    |   |          |       |     |    |      |    |   |          |       |     |    |      |    |   |           |       |      |    |      |    |   |           |       |      |    |      |    |   |
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| Frequency<br>MHz  | Level<br>dB $\mu$ V | Transd<br>dB | Limit<br>dB $\mu$ V | Margin<br>dB | Detector | Line |  |                  |                     |              |                     |              |          |      |          |       |     |    |      |    |   |          |       |     |    |      |    |   |          |       |     |    |      |    |   |          |       |     |    |      |    |   |           |       |      |    |      |    |   |           |       |      |    |      |    |   |
| 0.330000  | 24.00               | 9.9          | 60                  | 35.5         | QP       | N    |  |                  |                     |              |                     |              |          |      |          |       |     |    |      |    |   |          |       |     |    |      |    |   |          |       |     |    |      |    |   |          |       |     |    |      |    |   |           |       |      |    |      |    |   |           |       |      |    |      |    |   |
| 0.454000  | 23.00               | 9.9          | 57                  | 33.8         | QP       | N    |  |                  |                     |              |                     |              |          |      |          |       |     |    |      |    |   |          |       |     |    |      |    |   |          |       |     |    |      |    |   |          |       |     |    |      |    |   |           |       |      |    |      |    |   |           |       |      |    |      |    |   |
| 0.778000  | 28.10               | 9.9          | 56                  | 27.9         | QP       | N    |  |                  |                     |              |                     |              |          |      |          |       |     |    |      |    |   |          |       |     |    |      |    |   |          |       |     |    |      |    |   |          |       |     |    |      |    |   |           |       |      |    |      |    |   |           |       |      |    |      |    |   |
| 1.346000  | 24.60               | 9.9          | 56                  | 31.4         | QP       | N    |  |                  |                     |              |                     |              |          |      |          |       |     |    |      |    |   |          |       |     |    |      |    |   |          |       |     |    |      |    |   |          |       |     |    |      |    |   |           |       |      |    |      |    |   |           |       |      |    |      |    |   |
| 2.138000  | 19.10               | 9.9          | 56                  | 36.9         | QP       | N    |  |                  |                     |              |                     |              |          |      |          |       |     |    |      |    |   |          |       |     |    |      |    |   |          |       |     |    |      |    |   |          |       |     |    |      |    |   |           |       |      |    |      |    |   |           |       |      |    |      |    |   |
| 13.730000   | 23.10               | 10.5         | 60                  | 36.9         | QP       | N    |  |                  |                     |              |                     |              |          |      |          |       |     |    |      |    |   |          |       |     |    |      |    |   |          |       |     |    |      |    |   |          |       |     |    |      |    |   |           |       |      |    |      |    |   |           |       |      |    |      |    |   |
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| Frequency<br>MHz  | Level<br>dB $\mu$ V | Transd<br>dB | Limit<br>dB $\mu$ V | Margin<br>dB | Detector | Line |  |                  |                     |              |                     |              |          |      |          |       |     |    |      |    |   |          |       |     |    |      |    |   |          |       |     |    |      |    |   |          |       |     |    |      |    |   |           |       |      |    |      |    |   |           |       |      |    |      |    |   |
| 0.310000  | 20.20               | 9.9          | 50                  | 29.8         | AV       | N    |  |                  |                     |              |                     |              |          |      |          |       |     |    |      |    |   |          |       |     |    |      |    |   |          |       |     |    |      |    |   |          |       |     |    |      |    |   |           |       |      |    |      |    |   |           |       |      |    |      |    |   |
| 0.778000  | 23.00               | 9.9          | 46                  | 23.0         | AV       | N    |  |                  |                     |              |                     |              |          |      |          |       |     |    |      |    |   |          |       |     |    |      |    |   |          |       |     |    |      |    |   |          |       |     |    |      |    |   |           |       |      |    |      |    |   |           |       |      |    |      |    |   |
| 1.382000  | 18.60               | 9.9          | 46                  | 27.4         | AV       | N    |  |                  |                     |              |                     |              |          |      |          |       |     |    |      |    |   |          |       |     |    |      |    |   |          |       |     |    |      |    |   |          |       |     |    |      |    |   |           |       |      |    |      |    |   |           |       |      |    |      |    |   |
| 2.170000  | 14.40               | 9.9          | 46                  | 31.6         | AV       | N    |  |                  |                     |              |                     |              |          |      |          |       |     |    |      |    |   |          |       |     |    |      |    |   |          |       |     |    |      |    |   |          |       |     |    |      |    |   |           |       |      |    |      |    |   |           |       |      |    |      |    |   |
| 12.322000   | 11.00               | 10.4         | 50                  | 39.0         | AV       | N    |  |                  |                     |              |                     |              |          |      |          |       |     |    |      |    |   |          |       |     |    |      |    |   |          |       |     |    |      |    |   |          |       |     |    |      |    |   |           |       |      |    |      |    |   |           |       |      |    |      |    |   |
| 14.350000   | 13.10               | 10.5         | 50                  | 36.9         | AV       | N    |  |                  |                     |              |                     |              |          |      |          |       |     |    |      |    |   |          |       |     |    |      |    |   |          |       |     |    |      |    |   |          |       |     |    |      |    |   |           |       |      |    |      |    |   |           |       |      |    |      |    |   |

**RESULT: PASS**

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**Appendix I: Photographs of Test Setup**

Refer to the Report No.: AGC16823250801AP02

**Appendix II: Photographs of Test EUT**

Refer to the Report No.: AGC16823250801AP03

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-----End of Report-----

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