2/F., Garment Centre,
576 Castle Peak Road, Kowloon,
Hong Kong SAR, China.

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www.intertek.com

# TEST REPORT

**Report No.: 25010937HKG-003**

Nacon (HK) Limited

Application For Original Grant of 47 CFR Part 15 Certification

Single New of RSS-247 Issue 3 Certification

Gaming headset with dongle

**FCC ID: 2AVPR-600MAX**

**IC: 25872-600MAX**

This report contains the data of 2.4GHz portion only

| **Prepared and Checked by:** | **Approved by:** |
|---|---|
| Signed on File<br>Leung Chun Ning, Peter<br>Engineer | Digitally signed by Herbert Wong<br>Location: Intertek Testing Services Hong Kong Limited<br>Wong Cheuk Ho, Herbert<br>Assistant Manager<br>Date: May 20, 2025 |

# TEST REPORT

## GENERAL INFORMATION

| | |
|---|---|
| **Grantee:** | Nacon (HK) Limited |
| **Grantee Address:** | 17/F., 148 Electric Road,<br>North Point, Hong Kong. |
| **FCC Specification Standard:** | FCC Part 15, October 1, 2023 Edition |
| **FCC ID:** | 2AVPR-600MAX |
| **FCC Model(s):** | RIG600MAX |
| **IC Specification Standard:** | RSS-247 Issue 3, August 2023<br>RSS-Gen Issue 5 Amendment 2, February 2021 |
| **IC:** | 25872-600MAX |
| **HVIN:** | 600MAX |
| **PMN:** | Gaming headset |
| **Type of EUT:** | Spread Spectrum Transmitter |
| **Description of EUT:** | Gaming headset with dongle |
| **Brand Name:** | RIG |
| **Sample Receipt Date:** | April 14, 2025 |
| **Date of Test:** | April 18, 2025 to April 24, 2025 |
| **Report Date:** | May 20, 2025 |
| **Environmental Conditions:** | Temperature: +10 to 40°C<br>Relative Humidity: 10 to 90% |
| **Conclusion:** | Test was conducted by client submitted sample.<br>The submitted sample as received complied with the 47 CFR Part 15 / RSS-247 Issue 3 Certification.<br><br>This report contains the data of 2.4GHz portion only |

# TEST REPORT

## SUMMARY OF TEST RESULT

| Test Items | FCC Part 15 Section | RSS-247 / RSS-Gen# Section | Test Engineer | Results |
|---|---|---|---|---|
| Antenna Requirement | 15.203 | 7.1.2# | N/A | Complied |
| Max. Conducted Output Power (Peak) | 15.247(b)(3)&(4) | 5.4(4) | David Du | Complied |
| Min. 6dB RF Bandwidth | 15.247(a)(2) | 5.2(1) | David Du | Complied |
| Max. Power Density (Average) | 15.247(e) | 5.2(2) | David Du | Complied |
| Out of Band Antenna Conducted Emission | 15.247(d) | 5.5 | David Du | Complied |
| Radiated Emission in Restricted Bands and Spurious Emissions | 15.247(d), 15.209 & 15.109 | 5.5 | Leo Li | Complied |
| AC Power Line Conducted Emission | 15.207 & 15.107 | 7.2.4# | Linson Xie | Complied |

Note: Pursuant to FCC Part 15 Section 15.215(c), the 20dB bandwidth of the emission was contained within the frequency band designated (mentioned as above) which the EUT operated. The effects, if any, from frequency sweeping, frequency hopping, other modulation techniques and frequency stability over expected variations in temperature and supply voltage were considered.

For all technical data, which can be referred to Annex B – Report cover sheet.
For electronic filing, the Annex B – Report cover sheet is saved with filename: Annex B.pdf.

The equipment under test is found to be complying with the following standards:

FCC Part 15, October 1, 2023 Edition
RSS-247 Issue 3, August 2023
RSS-Gen Issue 5 Amendment 2, February 2021

# TEST REPORT

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# TEST REPORT

## EXHIBIT 1 GENERAL DESCRIPTION

### 1.1 Product Description

The Equipment Under Test (EUT), is a 2.4GHz and Bluetooth 5.3 Transceiver for a Gaming headset. For the Bluetooth 5.3 mode, the sample supplied operated on 79 channels, normally at 2402 - 2480MHz. The channels are separated with 1MHz spacing. For the 2.4GHz mode, the sample supplied operated on 40 channels, normally at 2402 - 2480MHz. The channels are separated with 2MHz spacing. The EUT is powered by 3.8V Li-ion battery or notebook USB port (5VDC).

The antenna(s) used in the EUT is integral, and the test sample is a prototype.
Peak Antenna Gain: 4.0dBi

The circuit description is saved with filename: descri.pdf.

### 1.2 Test Methodology

Both AC power line-conducted and radiated emission measurements were performed according to the procedures in ANSI C63.10 (2013). Preliminary radiated scans and all radiated measurements were performed in radiated emission test sites. All Radiated tests were performed at an antenna to EUT distance of 3 meters, unless stated otherwise in the "**Justification Section**" of this Application.
Antenna port conducted measurements were performed according to ANSI C63.10 (2013) and KDB Publication No. 558074 D01 v05r02 (April 02, 2019) All other measurements were made in accordance with the procedures in 47 CFR Part 2 and RSS-Gen Issue 5 Amendment 2, February 2021.

### 1.3 Test Facility

The radiated emission test site and antenna port conducted measurement facility used to collect the radiated data and conductive data are at Shenzhen UnionTrust Quality and Technology Co., Ltd. at 16/F., Block A, Building 6, Baoneng Science and Technology Park, Qingxiang Road No.1, Longhua New District, Shenzhen, China 518109. This test facility and site measurement data have been fully placed on file with the FCC and Industry Canada No.: 21600, CABID “HKAP01”, “CN0023”.

### 1.4 Related Submittal(s) Grants

This is a single application for certification of a transceiver (2.4GHz portion).

# TEST REPORT

## EXHIBIT 2 SYSTEM TEST CONFIGURATION

### 2.1 Justification

For radiated emissions testing, the equipment under test (EUT) was setup to transmit / receive continuously to simplify the measurement methodology. Care was taken to ensure proper power supply voltages during testing. During testing, all cables (if any) were manipulated to produce worst case emissions.

The EUT was powered by 3.8V Li-ion battery or notebook USB port (5VDC).

For the measurements, the EUT was attached to a plastic stand if necessary and placed on the wooden turntable at 0.8m height from the ground plane for emission testing at or below 1GHz and 1.5m for emission measurements above 1GHz. If the EUT attached to peripherals, they were connected and operational (as typical as possible).

The signal was maximized through rotation and placement in the three orthogonal axes. The antenna height and polarization were varied during the search for maximum signal level. The antenna height was varied from 1 to 4 meters. Radiated emissions were taken at three meters unless the signal level was too low for measurement at that distance. If necessary, a pre-amplifier was used and/or the test was conducted at a closer distance.

For any intentional radiator powered by AC power line, measurements of the radiated signal level of the fundamental frequency component of the emission was performed with the supply voltage varied between 85% and 115% of the nominal rated supply voltage.

Radiated emission measurement for transmitter were performed from the lowest radio frequency signal generated in the device which is greater than 9 kHz to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower.

Emission that are directly caused by digital circuits in the transmit path and transmitter portion were measured, and the limit are according to FCC Part 15 Section 15.209 / RSS-247 2.5. Digital circuitries used to control additional functions other than the operation of the transmitter are subject to FCC Part 15 Section 15.109 / RSS-247 Section 5.5 Limits.

# TEST REPORT

## 2.1 Justification (Cont'd)

Detector function for radiated emissions was in peak mode. Average readings, when required, were taken by measuring the duty cycle of the equipment under test and subtracting the corresponding amount in dB from the measured peak readings. A detailed description for the calculation of the average factor can be found in section 4.8.3.

Determination of pulse desensitization was made according to *Hewlett Packard Application Note 150-2, Spectrum Analysis... Pulsed RF.* The effective period (Teff) was referred to Exhibit 4.8.3. With the resolution bandwidth 1MHz and spectrum analyzer IF bandwidth 3dB, the pulse desensitization factor was 0dB.

For AC power line-conducted emission test, the EUT along with its peripherals were placed on a 1.0m(W)x1.5m(L) and 0.8m in height wooden table and the EUT was adjusted to maintain a 0.4 meter space from a vertical reference plane. The EUT was connected to power mains through a line impedance stabilization network (LISN), which provided 50ohm coupling impedance for measuring instrument. The LISN housing, measuring instrument case, reference ground plane, and vertical ground plane were bounded together. The excess power cable between the EUT and the LISN was bundled.

All connecting cables of EUT and peripherals were manipulated to find the maximum emission.

All relevant operation modes have been tested, and the worst-case data is included in this report.

## 2.2 EUT Exercising Software

The EUT exercise program (AB1565/68 Lab Test Tool-2.11.2) used during radiated and conducted testing was designed to exercise the various system components in a manner similar to a typical use.

# TEST REPORT

## 2.3 Support Equipment List and Description

| Description | Remark |
|---|---|
| HUAWEI KLVF-16 Notebook | Provided by UnionTrust |
| DELL MS111 Mouse | Provided by UnionTrust |
| 0.1m Antenna SMA Cable | Provided by Applicant |
| 0.5m USB Type-C Charging Cable | Provided by Applicant |

## 2.4 Measurement Uncertainty

Decision Rule for compliance: For FCC/IC standard, the measured value must be within the limits of applicable standard without accounting for the measurement uncertainty. For EN/IEC/HKTA/HKTC standard, conformity rules will be used as per standard directly excepted EN/IEC 61000-3-2, EN/IEC 61000-3-3, HKTA1004, HKCA1008, HKTA1019, HKTA1020, HKTA1041 and HKTA1044.

Uncertainty and Compliance - Unless the standard specifically states that measured values are to be extended by the measurement uncertainty in determining compliance, all compliance determinations are based on the actual measured value.

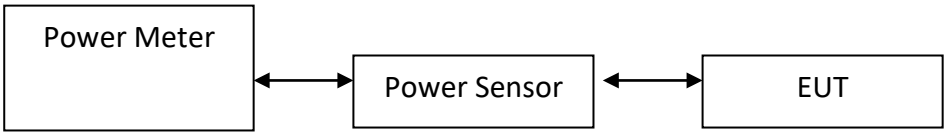
# TEST REPORT

## EXHIBIT 3 TEST RESULTS

3.1 Maximum Conducted (Peak) Output Power at Antenna Terminals

RF Conduct Measurement Test Setup

The figure below shows the test setup, which is utilized to make these measurements.




The antenna port of the EUT was connected to the input of a spectrum analyzer.

☒ The antenna power of the EUT was connected to the input of a power meter. Power was read directly and cable loss correction was added to the reading to the obtain power at the EUT antenna terminals. The measurement procedure 8.3.2.3 was used.

☐ The EUT should be configured to transmit continuously (at a minimum duty cycle of 98%) at full power over the measurement duration. The measurement procedure AVG1 was used.

(2.4GHz) Peak Antenna Gain = 4.0 dBi

| Frequency (MHz) | Output in dBm | Output in mW |
|---|---|---|
| Low Channel: 2402 | 0.03 | 1.01 |
| Middle Channel: 2440 | -0.51 | 0.89 |
| High Channel: 2480 | -0.60 | 0.87 |

Cable loss: 0.5 dB External Attenuation: 0 dB

Cable loss, external attenuation: ☒ included in OFFSET function
☐ added to SA raw reading

(2.4GHz)
Max. Conducted (Peak) Output Level = 0.03 dBm

Limits:

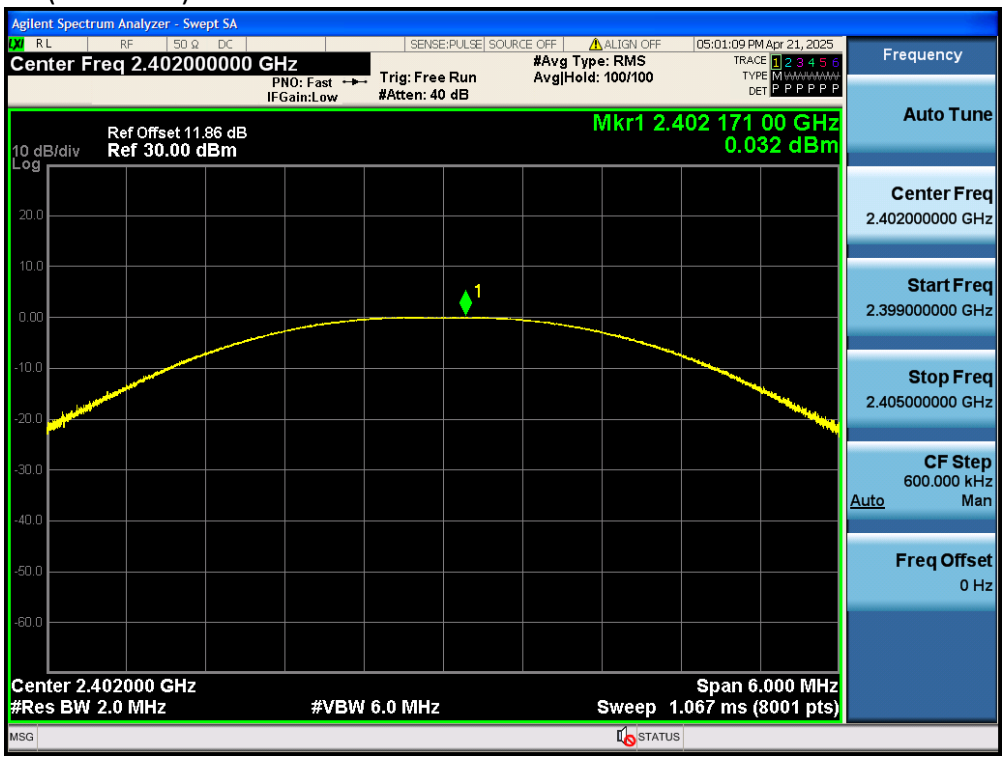
1W (30dBm) for antennas with gains of 6dBi or less.

The plots of Conducted (Peak) Output Power are saved as below.

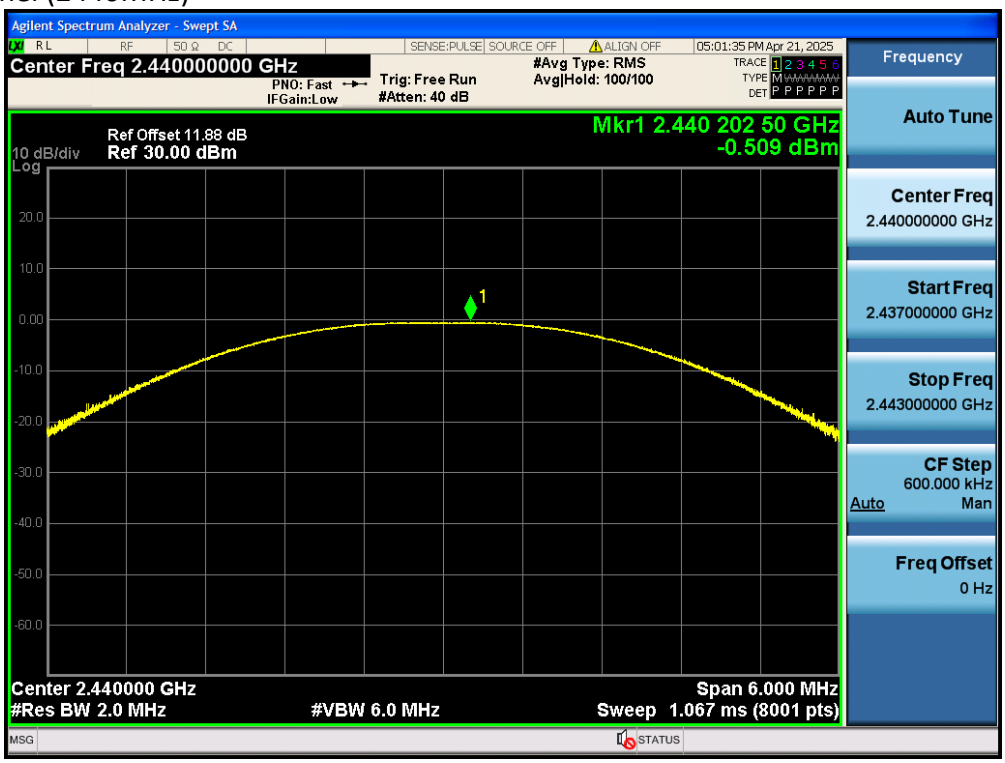
# TEST REPORT

## PLOTS OF CONDUCTED (PEAK) OUTPUT POWER

Lowest Channel (2402MHz)



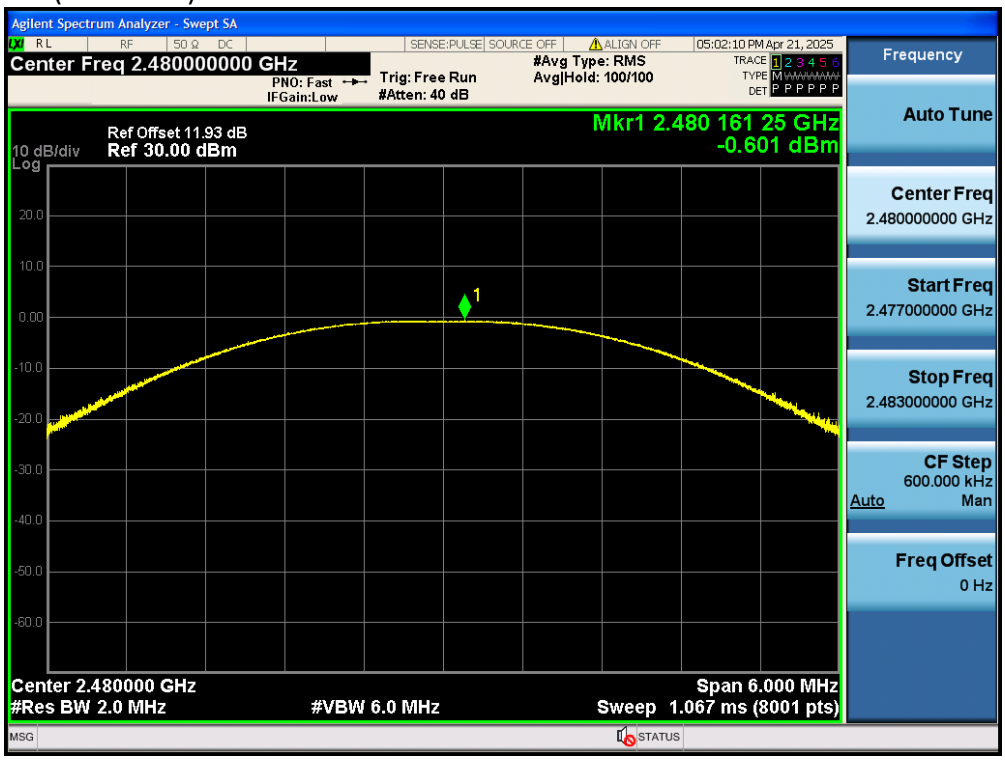

Middle Channel (2440MHz)



# TEST REPORT

## PLOTS OF CONDUCTED (PEAK) OUTPUT POWER

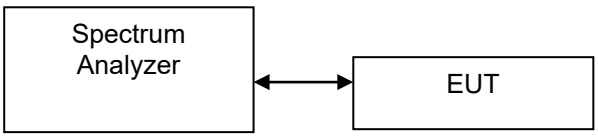
Highest Channel (2480MHz)



## TEST REPORT

### 3.2 Minimum 6dB RF Bandwidth and Occupied Bandwidth

The figure below shows the test setup, which is utilized to make these measurements.




The antenna port of the EUT was connected to the input of a spectrum analyzer. The EBW measurement procedure was used. A PEAK output reading was taken, a DISPLAY line was drawn 6dB lower than PEAK level. The 6dB bandwidth was determined from where the channel output spectrum intersected the display line.

(2.4GHz)

| Frequency (MHz) | 6dB Bandwidth (MHz) | Occupied Bandwidth (MHz) |
|---|---|---|
| Low Channel: 2402 | 0.6546 | 1.0365 |
| Middle Channel: 2440 | 0.6740 | 1.0359 |
| High Channel: 2480 | 0.6744 | 1.0462 |

Limits:

6dB bandwidth shall be at least 500kHz.

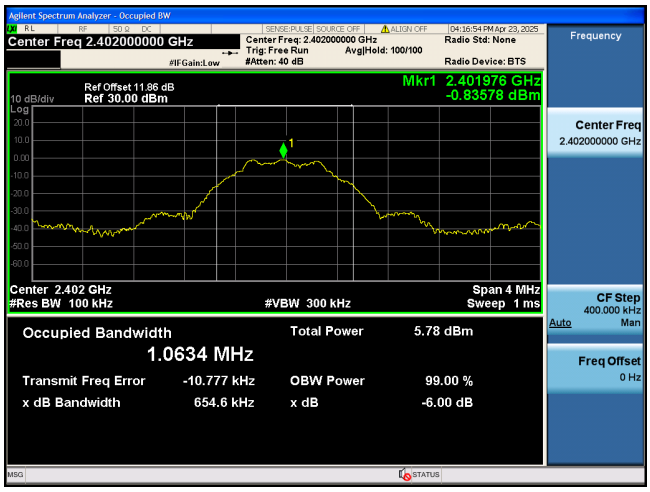
The plots of 6dB RF bandwidth and occupied bandwidth are saved as below.

# TEST REPORT

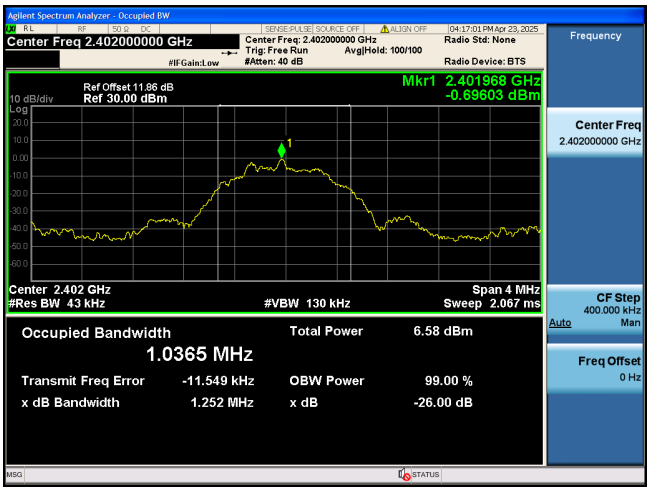
## PLOTS OF 6dB RF BANDWIDTH & OCCUPIED BANDWIDTH

Lowest Channel (2402MHz)

### 6dB BANDWIDTH

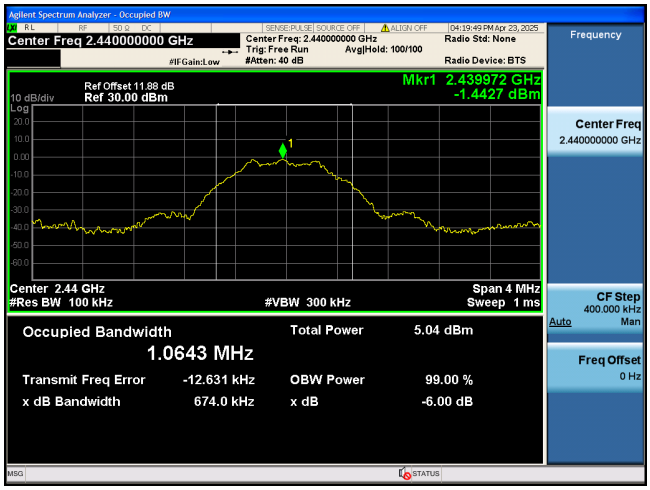



### OCCUPIED BANDWIDTH

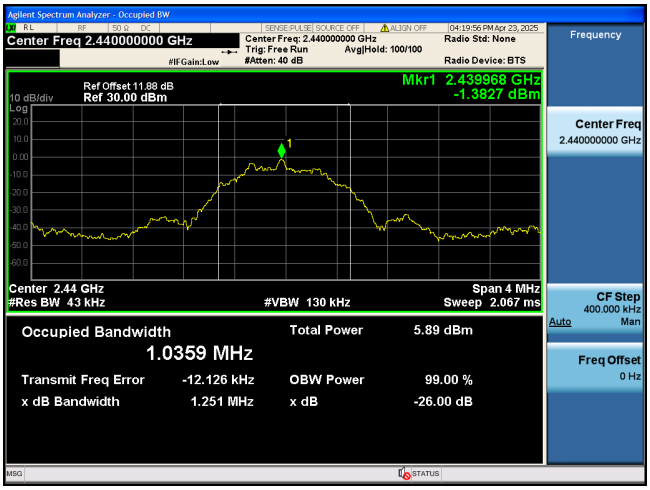



Middle Channel (2440MHz)

### 6dB BANDWIDTH

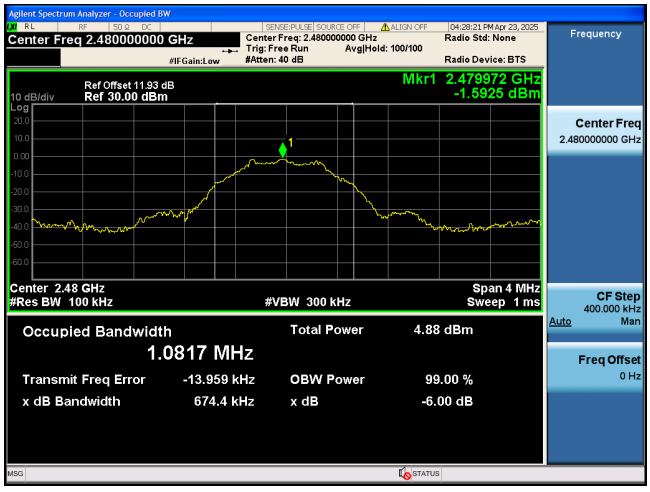



### OCCUPIED BANDWIDTH

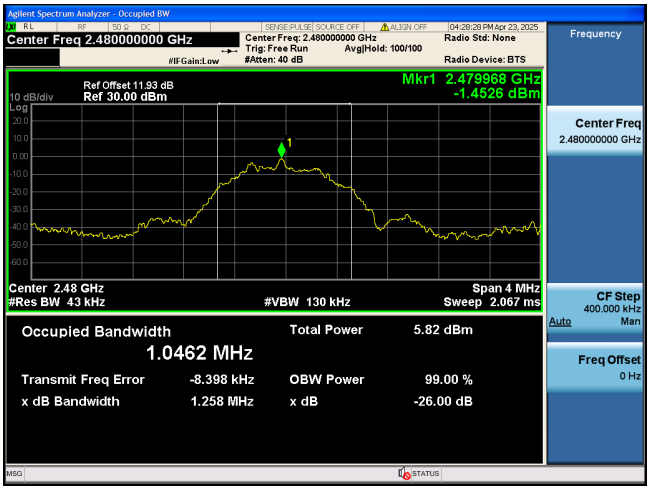



Highest Channel (2480MHz)

### 6dB BANDWIDTH



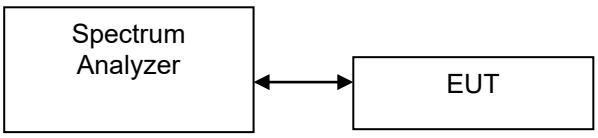

### OCCUPIED BANDWIDTH



# TEST REPORT

## 3.3 Minimum Power Spectral Density

The figure below shows the test setup, which is utilized to make these measurements.




Antenna output of the EUT was coupled directly to spectrum analyzer. The measurement procedure 10.2 PKPSD was used. If an external attenuator and/or cable was used, these losses are compensated for using the OFFSET function of the analyser.

(2.4GHz)

| Frequency (MHz) | PSD in 3kHz (dBm) |
|---|---|
| Low Channel: 2402 | -12.08 |
| Middle Channel: 2440 | -12.67 |
| High Channel: 2480 | -12.71 |

Cable Loss: 0.5dB

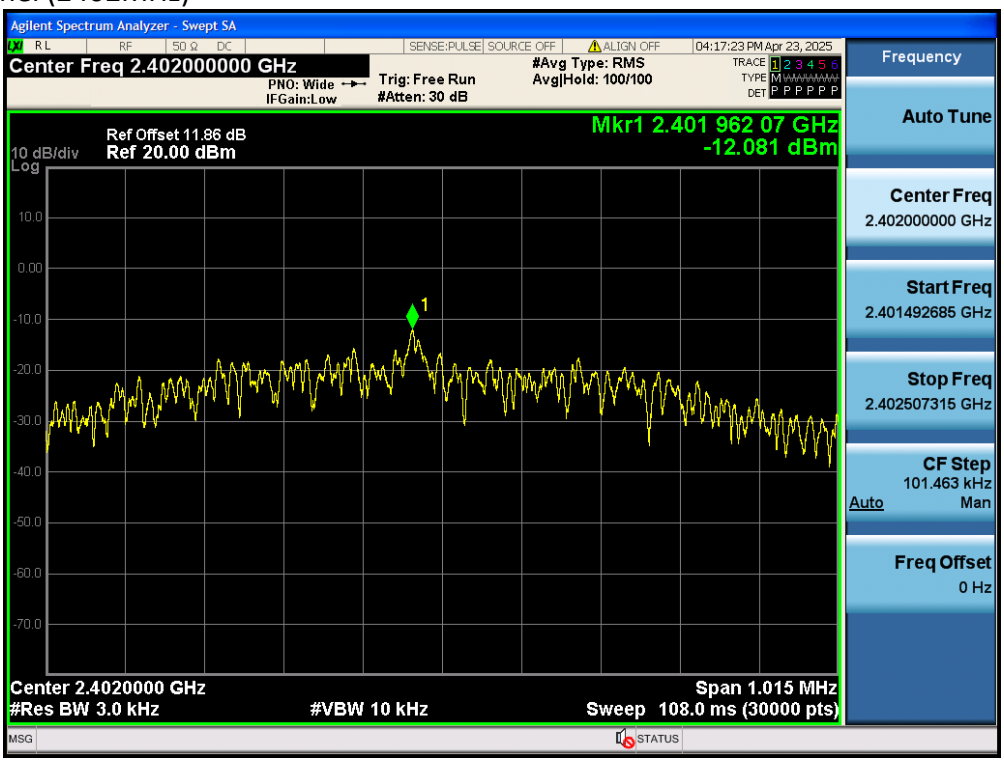
Limit: 8dBm in 3kHz

The plots of power spectral density are as below.

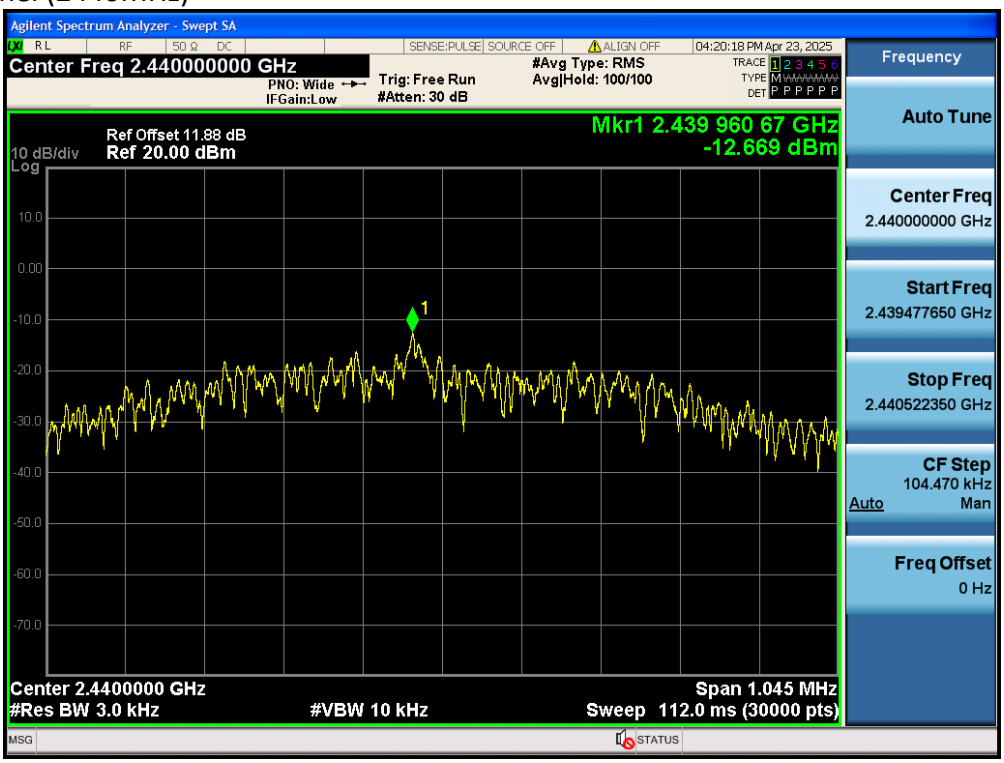
# TEST REPORT

## PLOTS OF POWER SPECTRAL DENSITY

Lowest Channel (2402MHz)



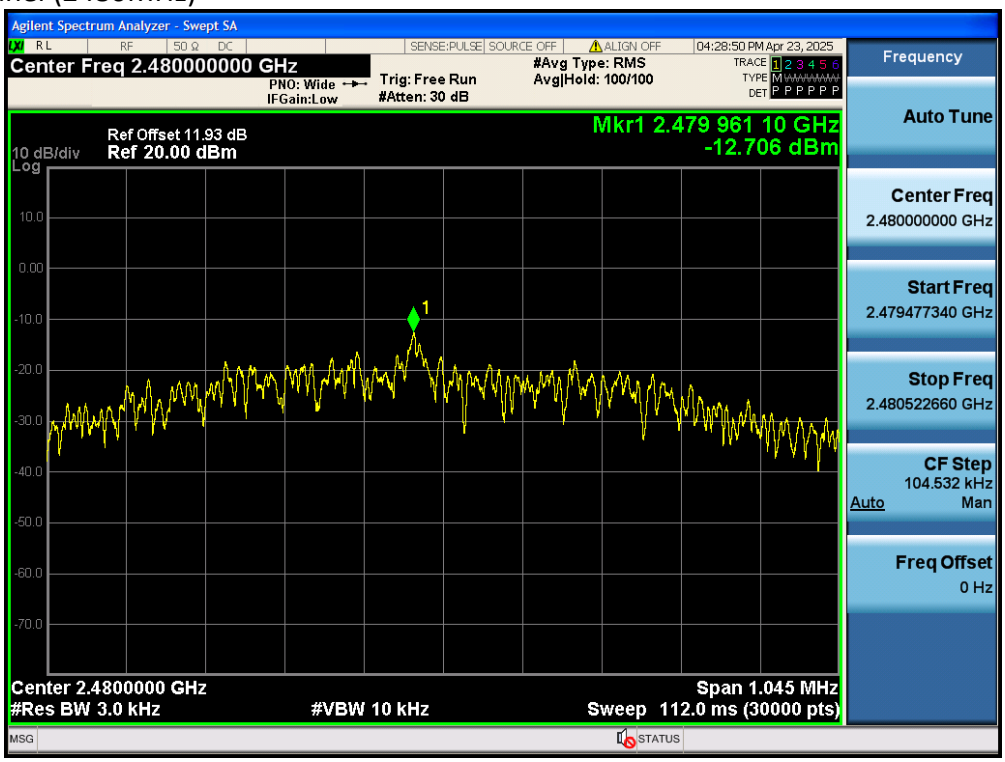

Middle Channel (2440MHz)



# TEST REPORT

## PLOTS OF POWER SPECTRAL DENSITY

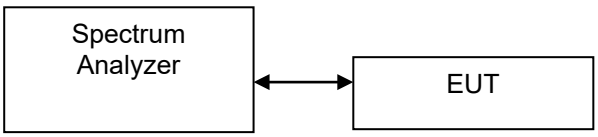
Highest Channel (2480MHz)



## TEST REPORT

### 3.4 Out of Band Conducted Emissions

The figure below shows the test setup, which is utilized to make these measurements.




For 2.4GHz, the maximum conducted (peak) output power was used to demonstrate compliance as described in 9.1. Then the display line (in red) shown in the following plots denotes the limit at 20dB below maximum measured in-band peak PSD level in 100 KHz bandwidth for 2.4GHz.

The measurement procedures under sections 11 of KDB558074 D01 v05r02 (April 2, 2019) were used.

Furthermore, delta measurement technique for measuring bandedge emissions was incorporated in the test of the edge at 2483.5MHz.

Limits:

All spurious emission and up to the tenth harmonic was measured and they were found to be at least 20dB below the maximum measured in-band peak PSD level for 2.4GHz.

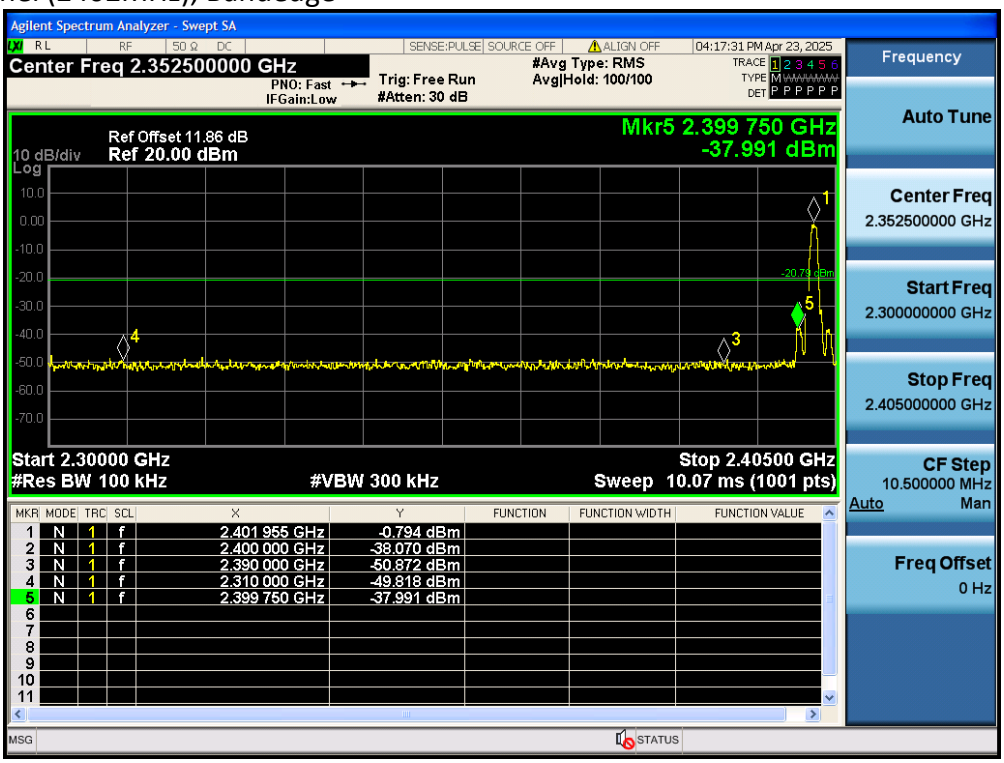
The plots of out of band conducted emissions are as below.

# TEST REPORT

## PLOTS OF OUT OF BAND CONDUCTED EMISSIONS

Lowest Channel (2402MHz), PSD in 100k

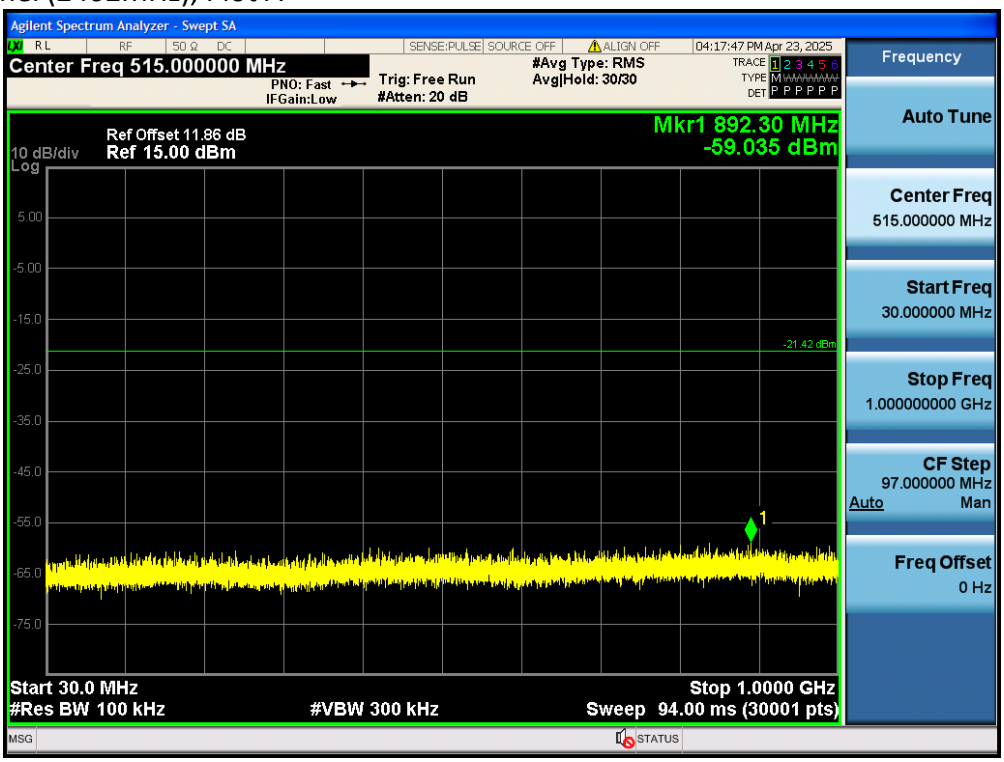

Lowest Channel (2402MHz), Bandedge



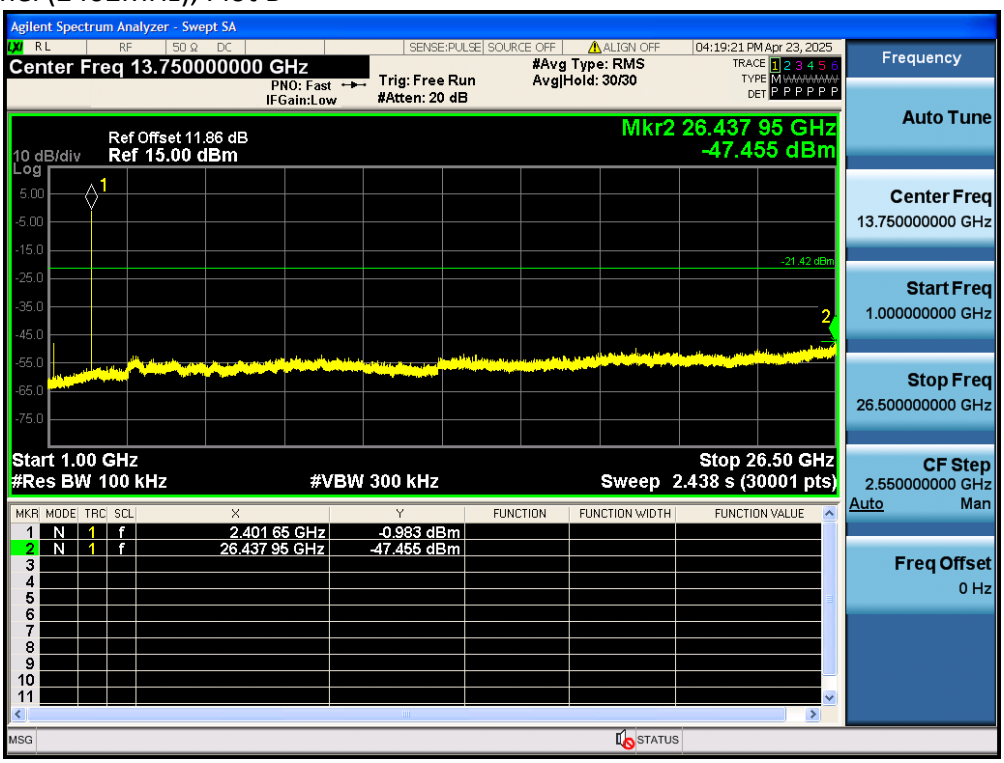
# TEST REPORT

## PLOTS OF OUT OF BAND CONDUCTED EMISSIONS

Lowest Channel (2402MHz), Plot A




Lowest Channel (2402MHz), Plot B

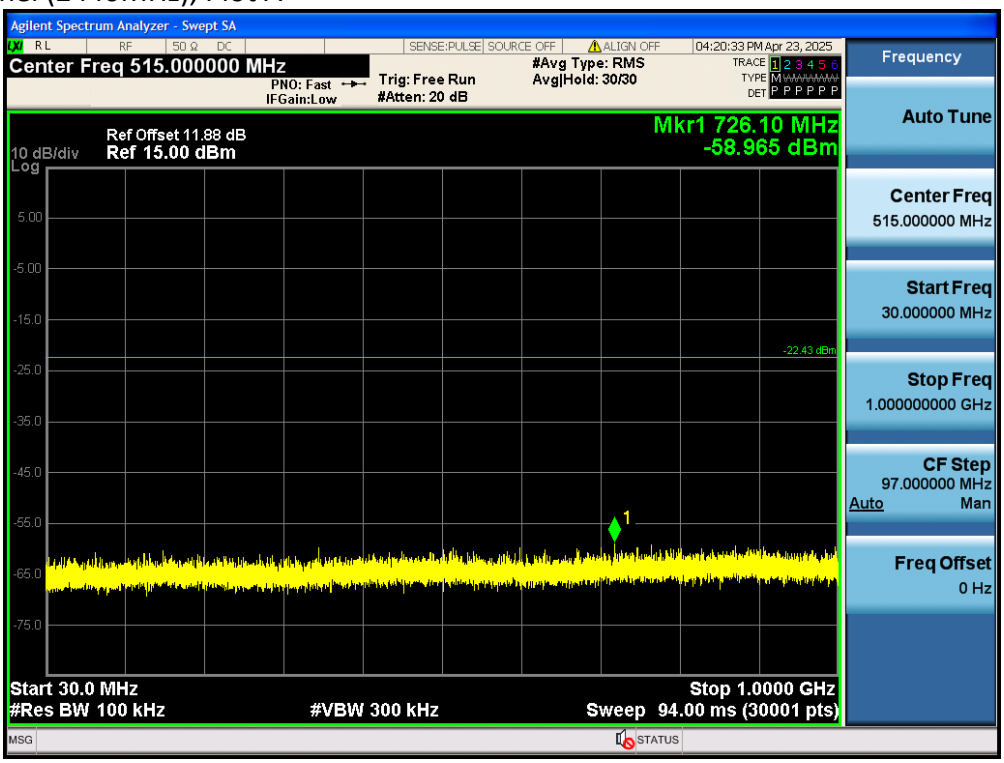


# TEST REPORT

## PLOTS OF OUT OF BAND CONDUCTED EMISSIONS

Middle Channel (2440MHz), PSD in 100k

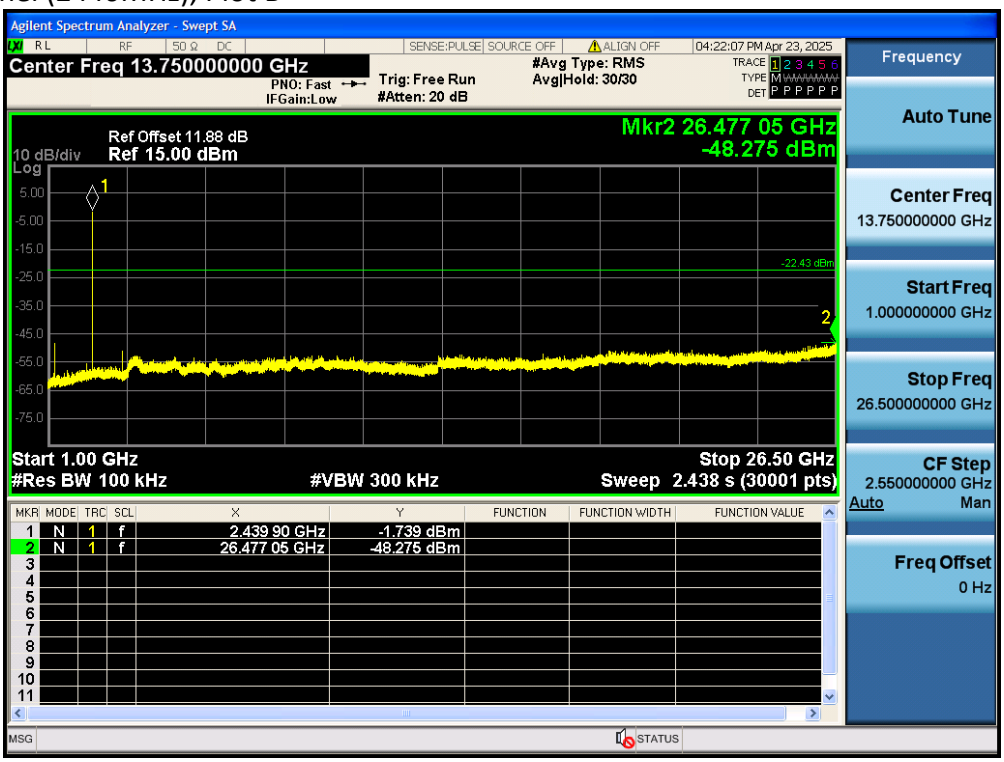

Middle Channel (2440MHz), Plot A



# TEST REPORT

## PLOTS OF OUT OF BAND CONDUCTED EMISSIONS

Middle Channel (2440MHz), Plot B

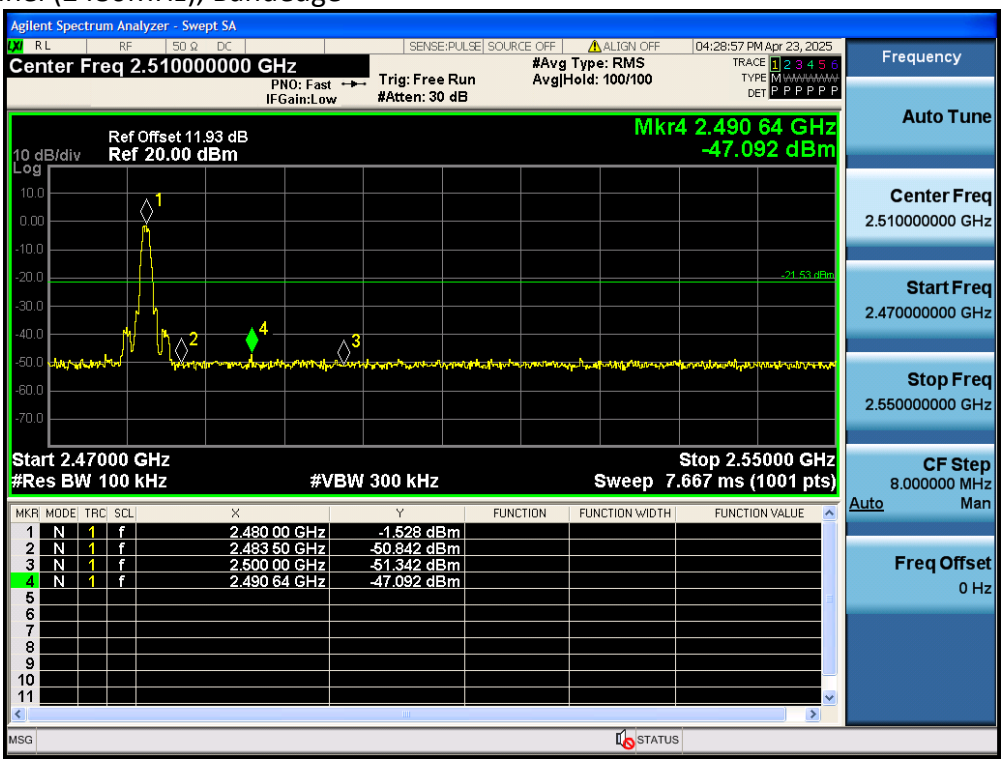


# TEST REPORT

## PLOTS OF OUT OF BAND CONDUCTED EMISSIONS

Highest Channel (2480MHz), PSD in 100k

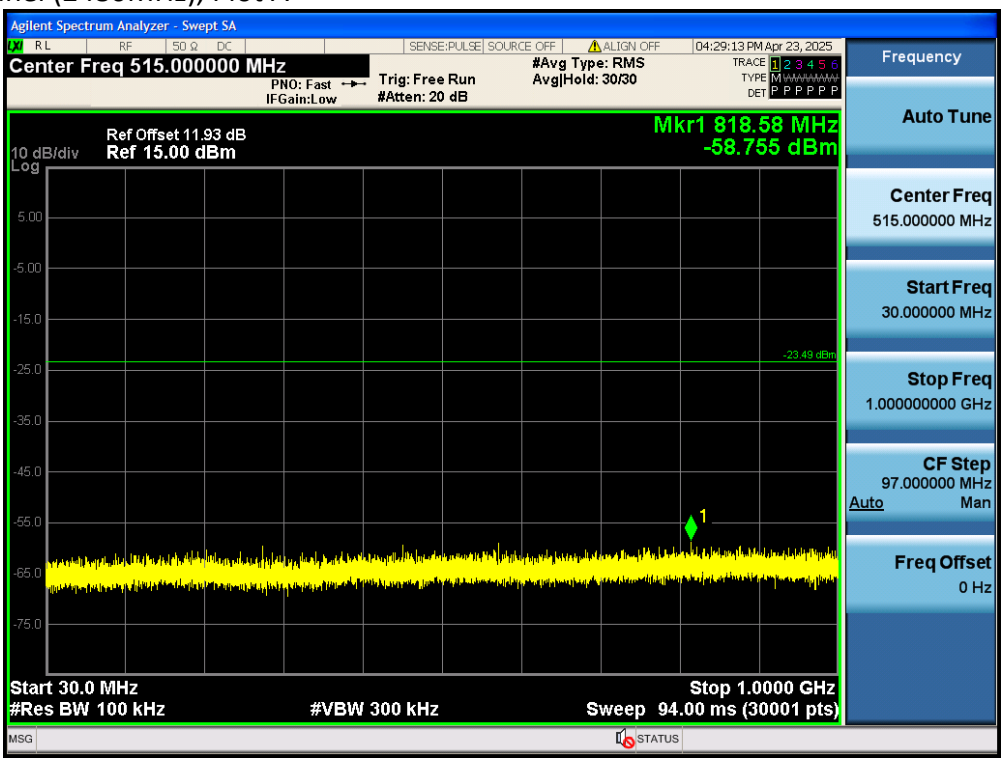

Highest Channel (2480MHz), Bandedge



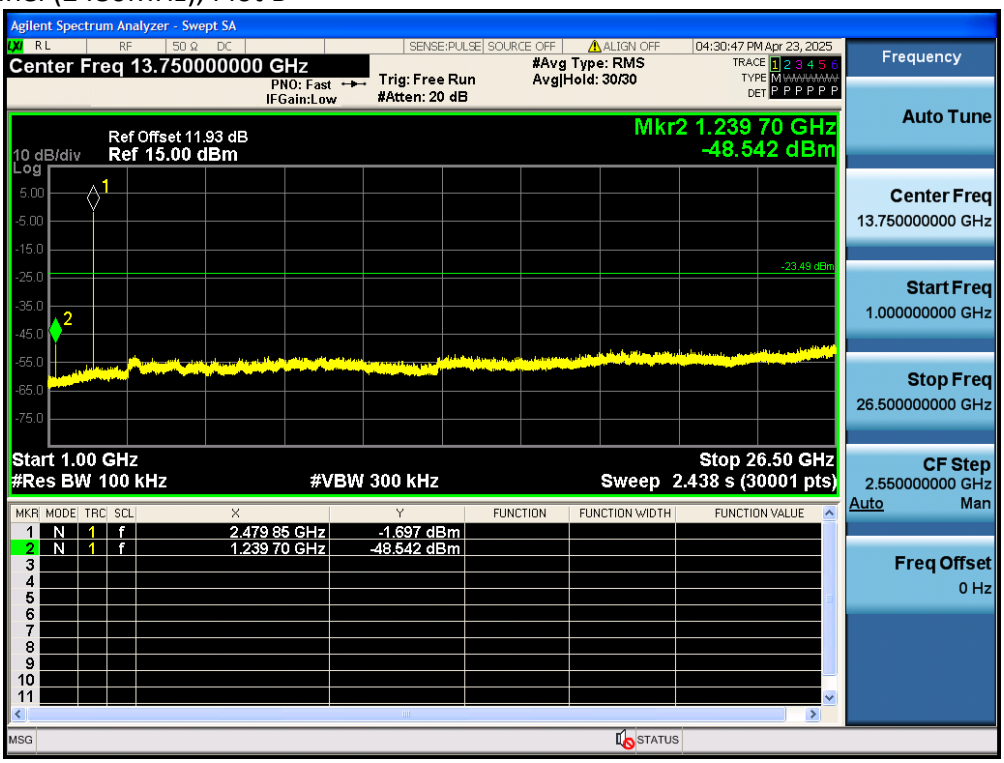
# TEST REPORT

## PLOTS OF OUT OF BAND CONDUCTED EMISSIONS

Highest Channel (2480MHz), Plot A




Highest Channel (2480MHz), Plot B



# TEST REPORT

## 3.5 Field Strength Calculation

The field strength is calculated by adding the reading on the Spectrum Analyzer to the factors associated with preamplifiers (if any), antennas, cables, pulse desensitization and average factors (when specified limit is in average and measurements are made with peak detectors). A sample calculation is included below.

FS = RA + AF + CF - AG + PD + AV

Where
- FS = Field Strength in dBμV/m
- RA = Receiver Amplitude (including preamplifier) in dBμV
- CF = Cable Attenuation Factor in dB
- AF = Antenna Factor in dB
- AG = Amplifier Gain in dB
- PD = Pulse Desensitization in dB
- AV = Average Factor in -dB

In the radiated emission table which follows, the reading shown on the data table may reflects the preamplifier gain. An example of the calculations, where the reading does not reflect the preamplifier gain, follows:

FS = RA + AF + CF - AG + PD + AV

Example:

Assume a receiver reading of 62.0 dBμV is obtained. The antenna factor of 7.4 dB and cable factor of 1.6 dB is added. The amplifier gain of 29.0 dB is subtracted. The pulse desensitization factor of the spectrum analyzer is 0.0 dB, and the resultant average factor is -10.0 dB. The net field strength for comparison to the appropriate emission limit is 32.0 dBμV/m. This value in dBμV/m is converted to its corresponding level in μV/m.

RA = 62.0 dBμV
AF = 7.4 dB
CF = 1.6 dB
AG = 29.0 dB
PD = 0.0 dB
AV = -10.0 dB
FS = 62.0 + 7.4 + 1.6 – 29.0 + 0.0 + -10.0) = 32.0 dBμV/m

Level in μV/m = Common Antilogarithm [(32.0 dBμV/m)/20] = 39.8 μV/m

# TEST REPORT

## 3.6 Transmitter Radiated Emissions in Restricted Bands and Spurious Emissions

Data is included of the worst-case configuration (the configuration which resulted in the highest emission levels). A sample calculation, configuration photographs and data tables of the emissions are included.

The data on the following pages list the significant emission frequencies, the limit and the margin of compliance.

### 3.6.1 Radiated Emission Configuration Photograph

Worst Case Restricted Band Radiated Emission at 44.154 MHz.

The worst case radiated emission configuration photographs are saved with filename:
Setup Photos.pdf

### 3.6.2 Radiated Emission Data

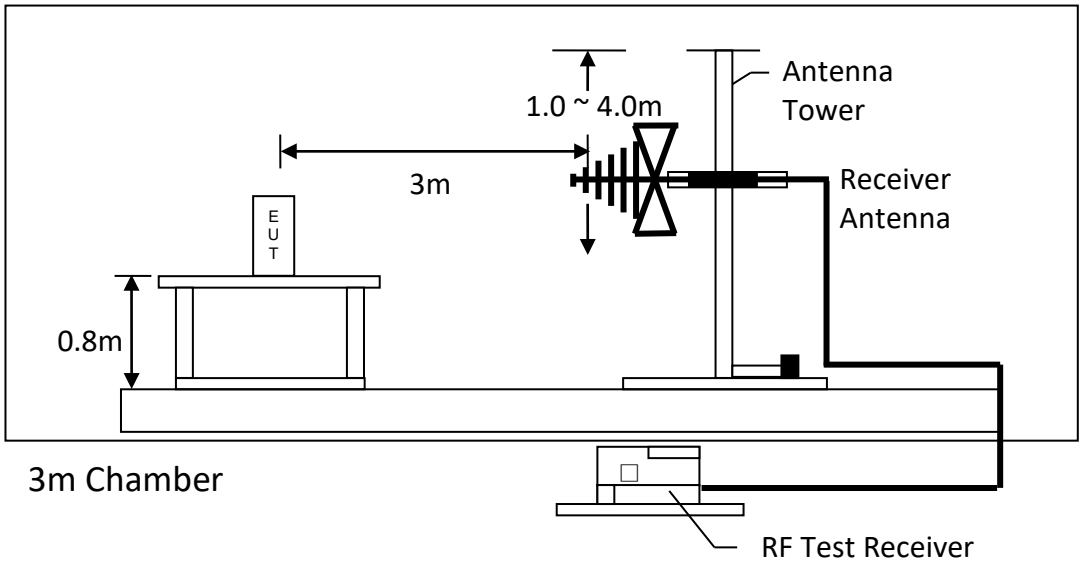
The data in tables 1-4 list the significant emission frequencies, the limit and the margin of compliance.

Judgement – Passed by 8.6 dB margin

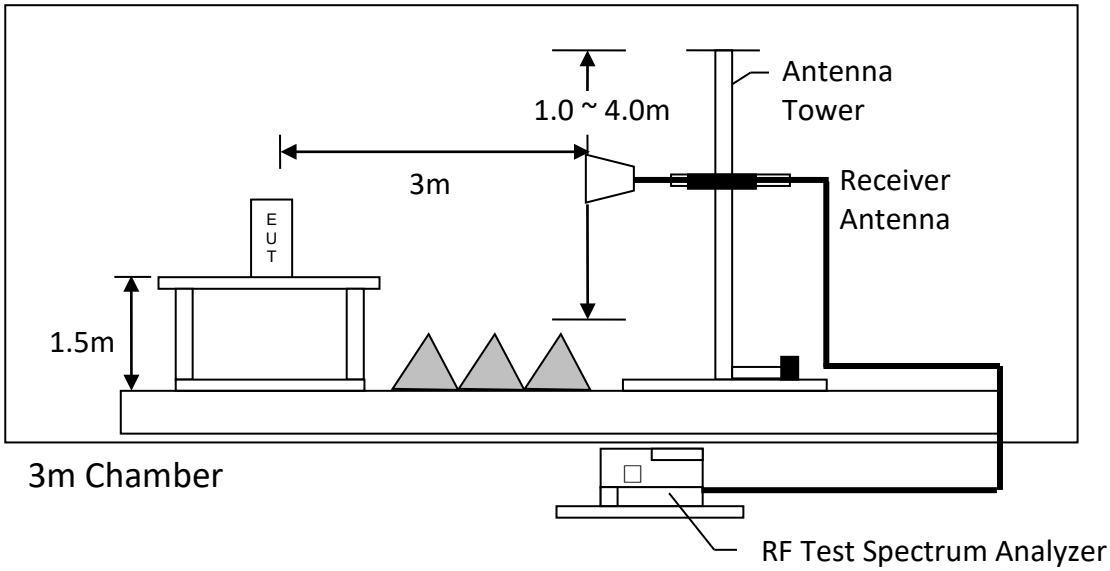
## TEST REPORT

### 3.6.3 Radiated Emission Test Setup

The figure below shows the test setup, which is utilized to make these measurements.




Test setup of radiated emissions up to 1GHz




Test setup of radiated emissions above 1GHz

## TEST REPORT

## RADIATED EMISSION DATA

| Table 1: | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| No. | Frequency (MHz) | Reading (dBµV) | Correction factor (dB/m) | Result (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Detector | Antenna Polaxis |
| 2.4GHz_2402 MHz | | | | | | | | |
| 1 | 4804 | 41.43 | -2.08 | 39.35 | 54.00 | -14.65 | Average | Horizontal |
| 2 | 4804 | 46.31 | -2.08 | 44.23 | 74.00 | -29.77 | Peak | Horizontal |
| 3 | 7206 | 42.30 | 1.30 | 43.60 | 54.00 | -10.40 | Average | Horizontal |
| 4 | 7206 | 46.45 | 1.30 | 47.75 | 74.00 | -26.25 | Peak | Horizontal |
| 5 | 4804 | 42.01 | -2.08 | 39.93 | 54.00 | -14.07 | Average | Vertical |
| 6 | 4804 | 46.99 | -2.08 | 44.91 | 74.00 | -29.09 | Peak | Vertical |
| 7 | 7206 | 41.50 | 1.30 | 42.80 | 54.00 | -11.20 | Average | Vertical |
| 8 | 7206 | 48.32 | 1.30 | 49.62 | 74.00 | -24.38 | Peak | Vertical |
| 2.4GHz_2440 MHz | | | | | | | | |
| 1 | 4880 | 41.88 | -2.05 | 39.83 | 54.00 | -14.17 | Average | Horizontal |
| 2 | 4880 | 46.56 | -2.05 | 44.51 | 74.00 | -29.49 | Peak | Horizontal |
| 3 | 7320 | 40.99 | 1.31 | 42.30 | 54.00 | -11.70 | Average | Horizontal |
| 4 | 7320 | 46.51 | 1.31 | 47.82 | 74.00 | -26.18 | Peak | Horizontal |
| 5 | 4880 | 40.27 | -2.05 | 38.22 | 54.00 | -15.78 | Average | Vertical |
| 6 | 4880 | 45.68 | -2.05 | 43.63 | 74.00 | -30.37 | Peak | Vertical |
| 7 | 7320 | 40.38 | 1.31 | 41.69 | 54.00 | -12.31 | Average | Vertical |
| 8 | 7320 | 45.90 | 1.31 | 47.21 | 74.00 | -26.79 | Peak | Vertical |
| 2.4GHz_2480 MHz | | | | | | | | |
| 1 | 4960 | 41.40 | -2.02 | 39.38 | 54.00 | -14.62 | Average | Horizontal |
| 2 | 4960 | 46.59 | -2.02 | 44.57 | 74.00 | -29.43 | Peak | Horizontal |
| 3 | 7440 | 41.47 | 1.32 | 42.79 | 54.00 | -11.21 | Average | Horizontal |
| 4 | 7440 | 46.49 | 1.32 | 47.81 | 74.00 | -26.19 | Peak | Horizontal |
| 5 | 4960 | 40.74 | -2.02 | 38.72 | 54.00 | -15.28 | Average | Vertical |
| 6 | 4960 | 44.84 | -2.02 | 42.82 | 74.00 | -31.18 | Peak | Vertical |
| 7 | 7440 | 40.33 | 1.32 | 41.65 | 54.00 | -12.35 | Average | Vertical |
| 8 | 7440 | 45.89 | 1.32 | 47.21 | 74.00 | -26.79 | Peak | Vertical |

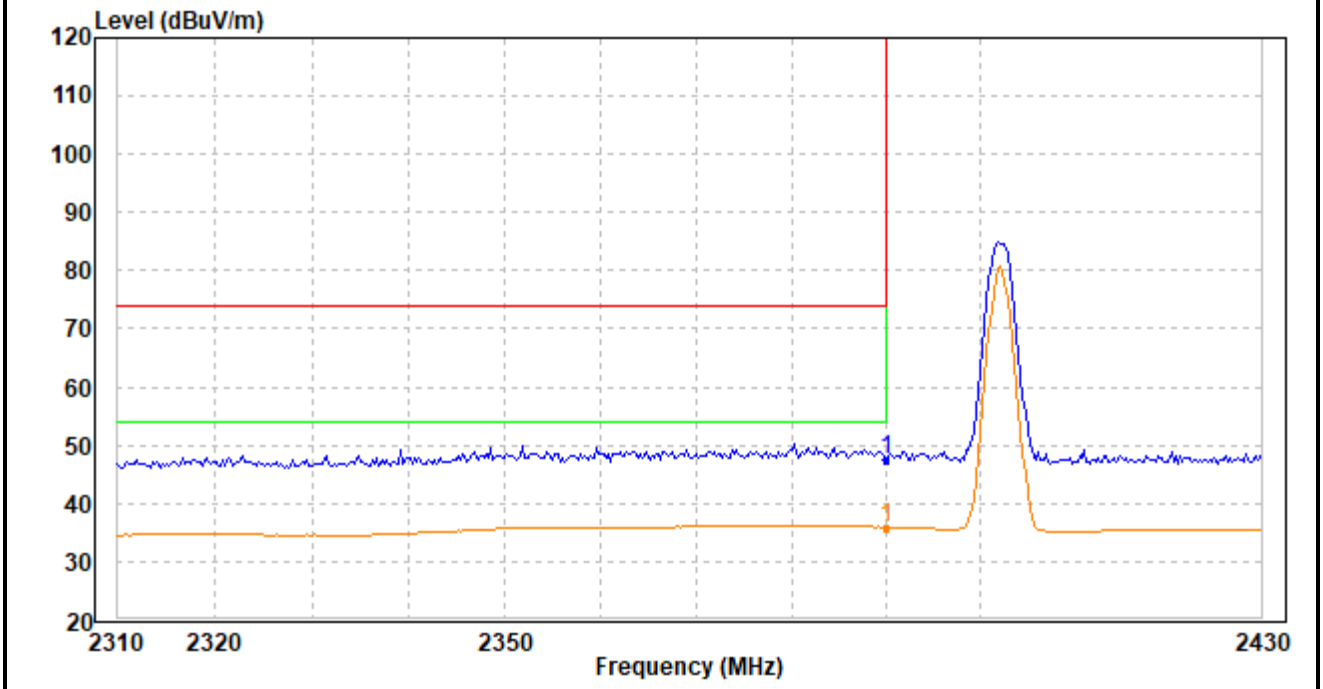
Notes:
1. Peak detector is used for the emission measurement.
2. Average detector is used for the average data of emission measurement.
3. All measurements were made at 3 meters.
4. Negative value in the margin column shows emission below limit.
5. Horn antenna is used for the emission over 1000MHz.
6. Emissions within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-Gen Section 8.10.
7. Correct Factor = Antenna Factor + Cable Loss - Amplifier Gain, the value was added to Original Receiver Reading by the software automatically.

# TEST REPORT

## RADIATED EMISSION DATA (BAND EDGE MEASUREMENTS)

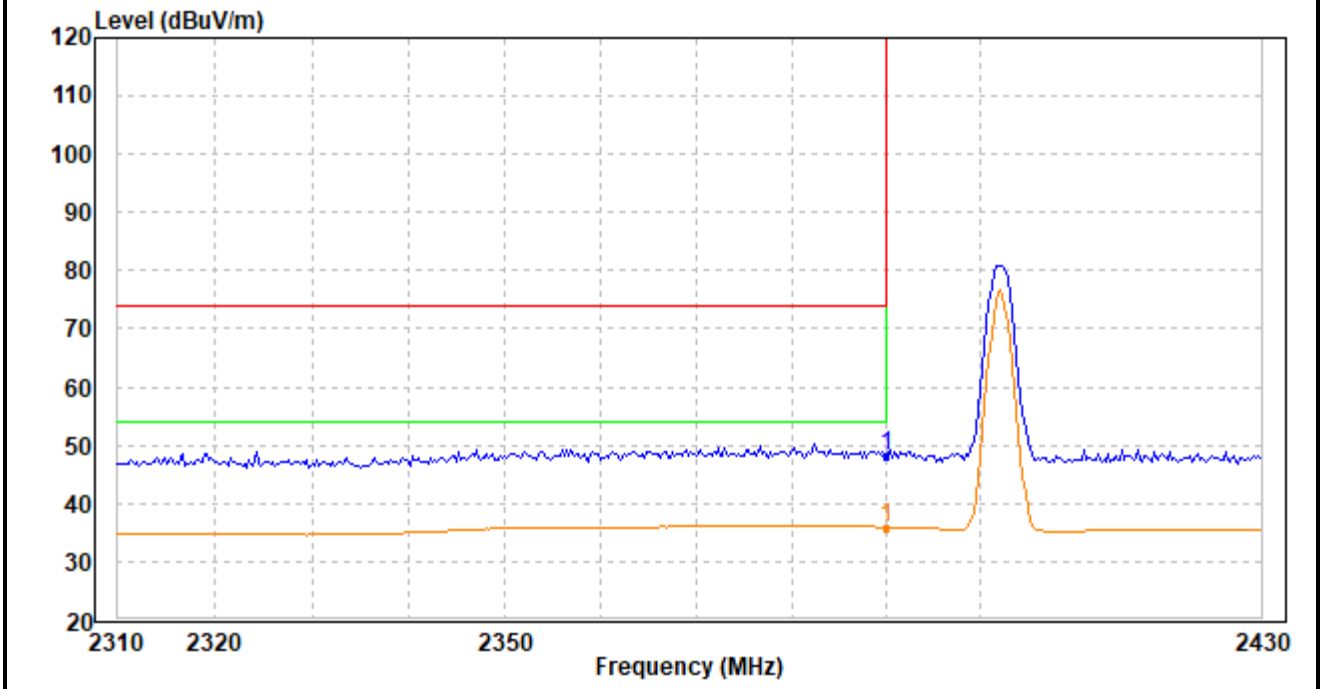
### Table 2, 2.4GHz_2402MHz

| Test Channel: | 2.4GHz_2402 | Ant. Polar. : | Horizontal |
|---|---|---|---|




| Frequency (MHz) | Peak level (dBuv/m) | Peak Limit (dBuv/m) | AV level (dBuv/m) | AV Limit (dBuv/m) | Conclusion |
|---|---|---|---|---|---|
| 2390.000 | 47.52 | 74.00 | 35.92 | 54.00 | PASS |

| Test Channel: | 2.4GHz_2402 | Ant. Polar. : | Vertical |
|---|---|---|---|



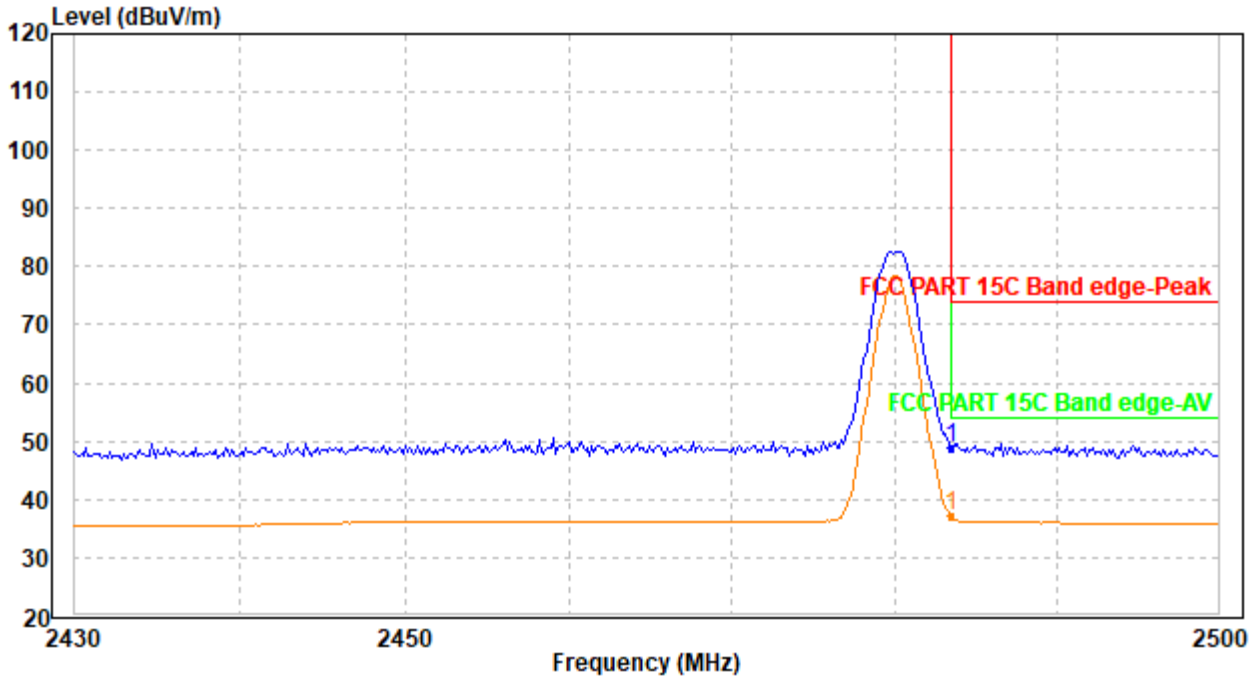

| Frequency (MHz) | Peak level (dBuv/m) | Peak Limit (dBuv/m) | AV level (dBuv/m) | AV Limit (dBuv/m) | Conclusion |
|---|---|---|---|---|---|
| 2390.000 | 48.26 | 74.00 | 35.92 | 54.00 | PASS |

# TEST REPORT

## RADIATED EMISSION DATA (BAND EDGE MEASUREMENTS)

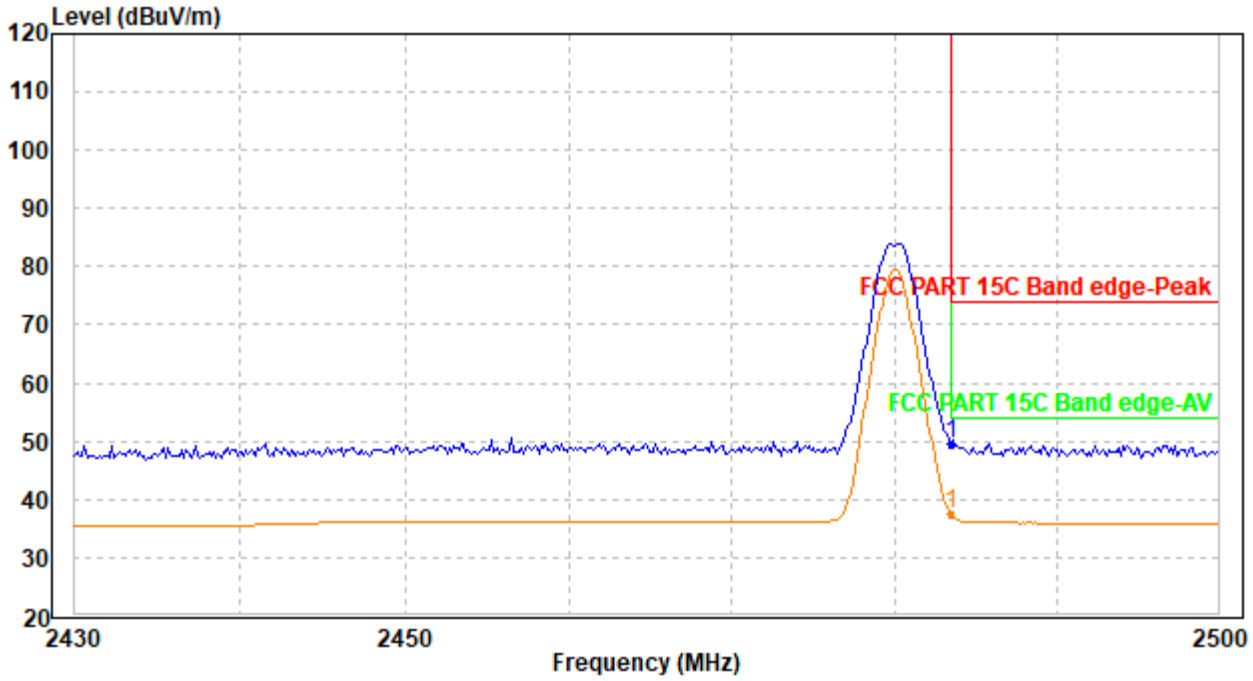
### Table 3, 2.4GHz_2480MHz

| Test Channel: | 2.4GHz_2480 | Ant. Polar. : | Horizontal |
|---|---|---|---|




| Frequency (MHz) | Peak level (dBuv/m) | Peak Limit (dBuv/m) | AV level (dBuv/m) | AV Limit (dBuv/m) | Conclusion |
|---|---|---|---|---|---|
| 2483.500 | 48.78 | 74.00 | 37.21 | 54.00 | PASS |

| Test Channel: | 2.4GHz_2480 | Ant. Polar. : | Vertical |
|---|---|---|---|




| Frequency (MHz) | Peak level (dBuv/m) | Peak Limit (dBuv/m) | AV level (dBuv/m) | AV Limit (dBuv/m) | Conclusion |
|---|---|---|---|---|---|
| 2483.500 | 49.65 | 74.00 | 37.53 | 54.00 | PASS |

## TEST REPORT

## RADIATED EMISSION DATA

Mode: 2.4GHz Link

**Table 4:**

**Horizontal**

| No. | Frequency (MHz) | Reading (dBμV/m) | Correction factor (dB/m ) | Result (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Detector |
|---|---|---|---|---|---|---|---|
| 1 | 50.461 | 35.76 | -13.75 | 22.01 | 40.00 | -17.99 | QP |
| 2 | 118.096 | 32.18 | -15.39 | 16.79 | 43.50 | -26.71 | QP |
| 3 | 204.305 | 33.86 | -11.05 | 22.81 | 43.50 | -20.69 | QP |
| 4 | 320.331 | 34.06 | -8.29 | 25.77 | 46.00 | -20.23 | QP |
| 5 | 389.987 | 32.36 | -5.12 | 27.24 | 46.00 | -18.76 | QP |
| 6 | 875.013 | 25.42 | 4.34 | 29.76 | 46.00 | -16.24 | QP |

**Vertical**

| No. | Frequency (MHz) | Reading (dBμV/m) | Correction factor (dB/m ) | Result (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Detector |
|---|---|---|---|---|---|---|---|
| 1 | 37.830 | 34.54 | -7.23 | 27.31 | 40.00 | -12.69 | QP |
| 2 | 44.154 | 43.80 | -12.43 | 31.37 | 40.00 | -8.63 | QP |
| 3 | 170.189 | 33.21 | -11.99 | 21.22 | 43.50 | -22.28 | QP |
| 4 | 204.305 | 36.92 | -11.05 | 25.87 | 43.50 | -17.63 | QP |
| 5 | 401.105 | 37.95 | -4.73 | 33.22 | 46.00 | -12.78 | QP |
| 6 | 760.287 | 29.49 | 2.04 | 31.53 | 46.00 | -14.47 | QP |

Notes:
1. Quasi-Peak detector are used for the emission measurement.
2. All measurements were made at 3 meters.
3. Negative value in the margin column shows emission below limit.
4. Emissions within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-Gen Section 8.10.
5. Measurement Uncertainty is ±5.3dB at a level of confidence of 95%.

# TEST REPORT

## 3.7 Transmitter Duty Cycle Calculation

Not Applicable – No average factor is required

## 3.8 AC Power Line Conducted Emission

☐ Not Applicable – EUT is only powered by battery for operation.

☒ EUT connects to AC power line. Emission Data is listed in following pages.

☐ Base Unit connects to AC power line and has transmission. Handset connects to AC power line but has no transmission. Emission Data of Base Unit is listed in following pages.

### 3.8.1 AC Power Line Conducted Emission Configuration Photograph

Worst Case Line-Conducted Configuration at 2.3864 MHz.

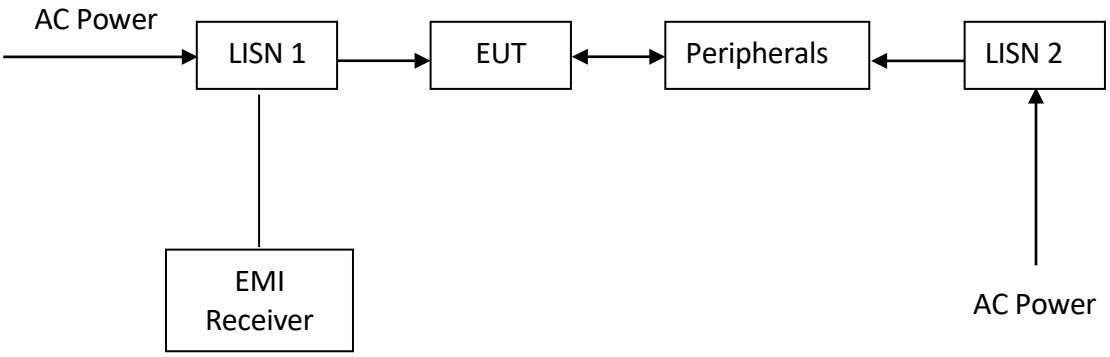
The worst-case line conducted configuration photographs are attached in the Appendix and saved with filename: Setup Photos.pdf.

### 3.8.2 AC Power Line Conducted Emission Data

The plot(s) and data in the following pages list the significant emission frequencies, the limit and the margin of compliance.

Passed by 11.49 dB margin

### 3.8.3 Conducted Emission Test Setup



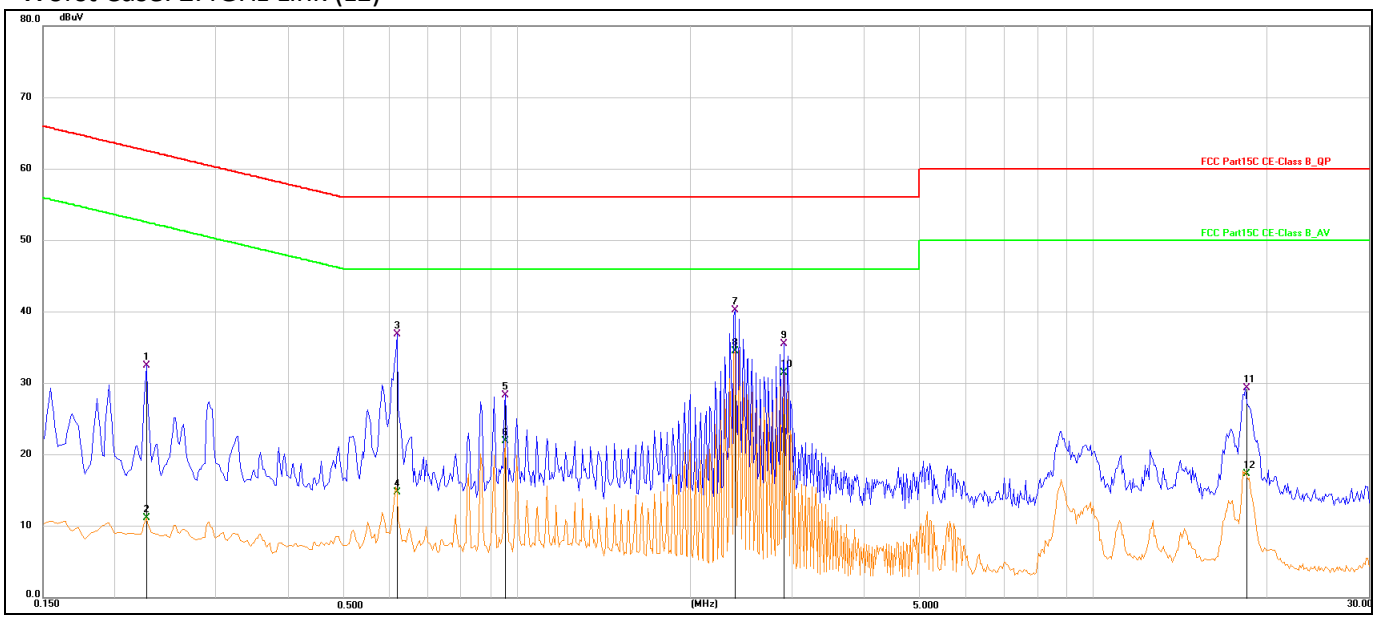

The EUT along with its peripherals were placed on a 1.0m(W)×1.5m(L) and 0.8m in height wooden table and the EUT was adjusted to maintain a 0.4 meter space from a vertical reference plane. The EUT was connected to power mains through a line impedance stabilization network (LISN), which provided 50 ohm coupling impedance for measuring instrument and the chassis ground was bounded to the horizontal ground plane of shielded room. The excess power cable between the EUT and the LISN was bundled.

All connecting cables of EUT and peripherals were moved to find the maximum emission.

# TEST REPORT

## AC POWER LINE CONDUCTED EMISSION

Worst Case: 2.4GHz Link (L1)

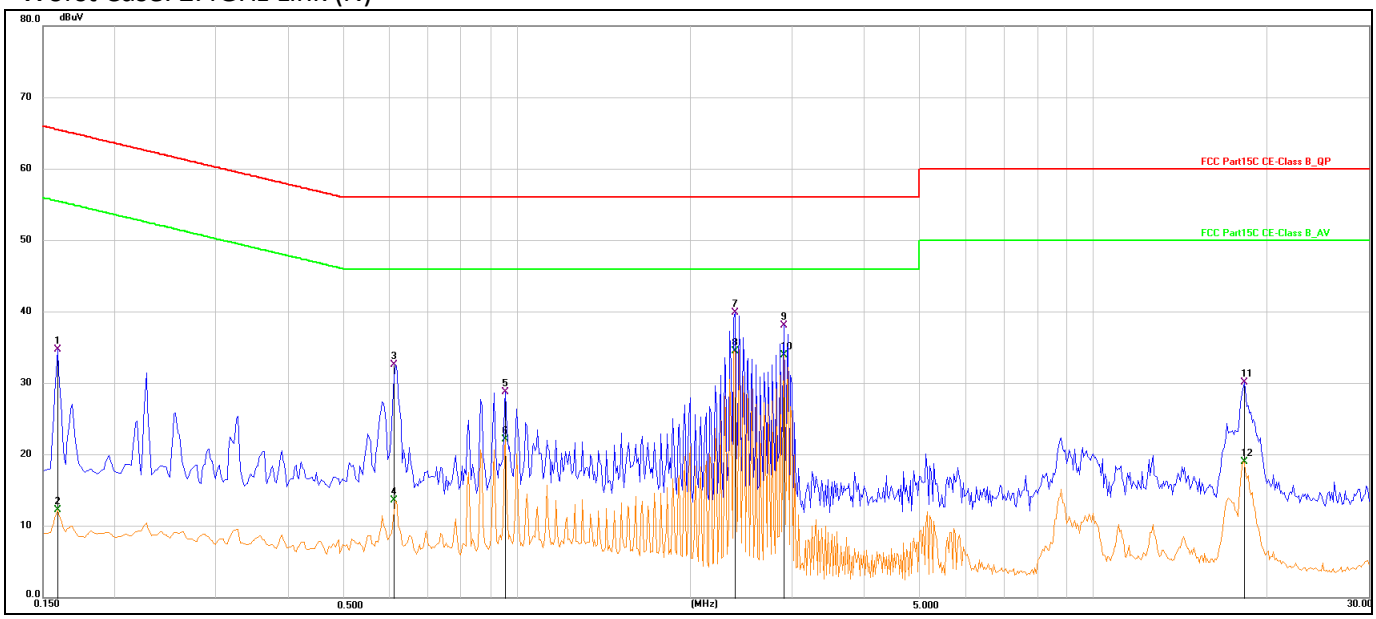



| No. | Frequency | Reading | Correct | Result | Limit | Margin | Remark |
|---|---|---|---|---|---|---|---|
| | (MHz) | (dBuV) | (dB) | (dBuV) | (dBuV) | (dB) | |
| 1 | 0.2265 | 22.67 | 9.78 | 32.45 | 62.58 | -30.13 | QP |
| 2 | 0.2265 | 1.36 | 9.78 | 11.14 | 52.58 | -41.44 | AVG |
| 3 | 0.6180 | 27.04 | 9.79 | 36.83 | 56.00 | -19.17 | QP |
| 4 | 0.6180 | 4.94 | 9.79 | 14.73 | 46.00 | -31.27 | AVG |
| 5 | 0.9555 | 18.62 | 9.71 | 28.33 | 56.00 | -27.67 | QP |
| 6 | 0.9555 | 12.23 | 9.71 | 21.94 | 46.00 | -24.06 | AVG |
| 7 | 2.3864 | 30.51 | 9.72 | 40.23 | 56.00 | -15.77 | QP |
| 8 | 2.3864 | 24.79 | 9.72 | 34.51 | 46.00 | -11.49 | AVG |
| 9 | 2.9040 | 25.78 | 9.73 | 35.51 | 56.00 | -20.49 | QP |
| 10 | 2.9040 | 21.74 | 9.73 | 31.47 | 46.00 | -14.53 | AVG |
| 11 | 18.3389 | 19.43 | 9.88 | 29.31 | 60.00 | -30.69 | QP |
| 12 | 18.3389 | 7.44 | 9.88 | 17.32 | 50.00 | -32.68 | AVG |

# TEST REPORT

## AC POWER LINE CONDUCTED EMISSION

Worst Case: 2.4GHz Link (N)




| No. | Frequency | Reading | Correct | Result | Limit | Margin | Remark |
|---|---|---|---|---|---|---|---|
| | (MHz) | (dBuV) | (dB) | (dBuV) | (dBuV) | (dB) | |
| 1 | 0.1590 | 24.86 | 9.82 | 34.68 | 65.52 | -30.84 | QP |
| 2 | 0.1590 | 2.51 | 9.82 | 12.33 | 55.52 | -43.19 | AVG |
| 3 | 0.6134 | 22.82 | 9.74 | 32.56 | 56.00 | -23.44 | QP |
| 4 | 0.6134 | 3.91 | 9.74 | 13.65 | 46.00 | -32.35 | AVG |
| 5 | 0.9555 | 18.99 | 9.75 | 28.74 | 56.00 | -27.26 | QP |
| 6 | 0.9555 | 12.39 | 9.75 | 22.14 | 46.00 | -23.86 | AVG |
| 7 | 2.3864 | 30.17 | 9.75 | 39.92 | 56.00 | -16.08 | QP |
| 8 | 2.3864 | 24.73 | 9.75 | 34.48 | 46.00 | -11.52 | AVG |
| 9 | 2.9040 | 28.30 | 9.75 | 38.05 | 56.00 | -17.95 | QP |
| 10 | 2.9040 | 24.17 | 9.75 | 33.92 | 46.00 | -12.08 | AVG |
| 11 | 18.2490 | 20.31 | 9.83 | 30.14 | 60.00 | -29.86 | QP |
| 12 | 18.2490 | 9.19 | 9.83 | 19.02 | 50.00 | -30.98 | AVG |

# TEST REPORT

## EXHIBIT 4 EQUIPMENT LIST

| Radiated Emission Test Equipment List | | | | | | |
|---|---|---|---|---|---|---|
| **Used** | **Equipment** | **Manufacturer** | **Model No.** | **Serial Number** | **Cal. date** | **Cal. Due date** |
| ☒ | 3m SAC | ETS-LINDGREN | 3M | Euroshiedpn-CT001270-1317 | 11-Nov-2023 | 10-Nov-2026 |
| ☒ | Receiver | R&S | ESIB26 | 100114 | 25-Oct-2024 | 24-Oct-2025 |
| ☒ | EXA Spectrum Analyzer | KEYSIGHT | N9010A | MY51440197 | 28-Mar-2025 | 27-Mar-2026 |
| ☒ | Loop Antenna | ETS-LINDGREN | 6502 | 00202525 | 28-Oct-2024 | 27-Oct-2025 |
| ☒ | Broadband Antenna | ETS-LINDGREN | 3142E | 00201566 | 29-Oct-2024 | 28-Oct-2025 |
| ☒ | 6dB Attenuator | Talent | RA6A5-N-18 | 18103001 | 29-Oct-2024 | 28-Oct-2025 |
| ☒ | Preamplifier | HP | 8447F | 2805A02960 | 25-Oct-2024 | 24-Oct-2025 |
| ☒ | Double-Ridged Waveguide Horn Antenna (Pre-amplifier) | ETS-LINDGREN | 3117-PA | 00201541 | 29-Mar-2025 | 28-Mar-2026 |
| ☒ | Pre-amplifier | ETS-Lindgren | 00118385 | 00201874 | 28-Mar-2025 | 27-Mar-2026 |
| ☒ | Double-Ridged Waveguide Horn Antenna (Pre-amplifier) | ETS-LINDGREN | 3116C-PA | 00202652 | 28-Oct-2024 | 27-Oct-2025 |
| ☒ | Pre-amplifier | ETS-Lindgren | 00118384 | 00202652 | 28-Oct-2024 | 27-Oct-2025 |
| ☒ | Band Reject Filter (2400MHz~2500MHz) | Micro-Tronics | BRM50702 | G590 | 21-Feb-2025 | 20-Feb-2026 |
| ☒ | Multi device Controller | ETS-LINDGREN | 7006-001 | 00160105 | N/A | N/A |
| ☒ | Test Software | Audix | e3 | Software Version: 9.160323 | | |

| Conducted Emission Test Equipment List | | | | | | |
|---|---|---|---|---|---|---|
| **Used** | **Equipment** | **Manufacturer** | **Model No.** | **Serial Number** | **Cal. date** | **Cal. Due date** |
| ☑ | Receiver | R&S | ESCI3 | 1166.5950.03 | 25-Oct-2024 | 24-Oct-2025 |
| ☑ | Pulse Limiter | R&S | ESH3-Z2 | 0357.8810.54 | 25-Oct-2024 | 24-Oct-2025 |
| ☑ | LISN | R&S | EVN216 | 3560.6550.12 | 26-Sep-2024 | 25-Sep-2025 |
| ☑ | Test Software | EZ-EMC | EZ-CON | Software Version: EMC-CON 3A1.1 | | |

| RF Conducted Test Equipment List | | | | | | |
|---|---|---|---|---|---|---|
| **Used** | **Equipment** | **Manufacturer** | **Model No.** | **Serial Number** | **Cal. date** | **Cal. Due date** |
| ☑ | EXA Spectrum Analyzer | KEYSIGHT | N9020A | MY51286807 | 25-Oct-2024 | 24-Oct-2025 |
| ☑ | USB Wideband Power Sensor | KEYSIGHT | U2021XA | MY55430035 | 25-Oct-2024 | 24-Oct-2025 |
| ☑ | Test Software | Tonscend | JS1120-3 Test System | Software Version: V3.5.39(BT&WIFI) | | |

END OF TEST REPORT