

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

Leung Chun Ning, Peter
Engineer

 Digitally signed by
Herbert Wong
Location: Intertek
Testing Services
Hong Kong Limited

Wong Cheuk Ho, Herbert
Assistant Manager
Date: May 20, 2025

Intertek's standard Terms and Conditions can be obtained at our website <http://www.intertek.com/terms/>.

The test report only allows to be revised within the retention period unless further standard or the requirement was noticed.

This report is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Client is authorized to permit copying or distribution of this report and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. The observations and test results in this report are relevant only to the sample tested. This report by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program.

© 2017 Intertek

TEST REPORT

GENERAL INFORMATION

Grantee:	Nacon (HK) Limited
Grantee Address:	17/F., 148 Electric Road, 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 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 Relative Humidity: 10 to 90%
Conclusion:	Test was conducted by client submitted sample. The submitted sample as received complied with the 47 CFR Part 15 / RSS-247 Issue 3 Certification. 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

TABLE OF CONTENTS

EXHIBIT 1	GENERAL DESCRIPTION	5
1.1	Product Description	5
1.2	Test Methodology	5
1.3	Test Facility.....	5
1.4	Related Submittal(s) Grants	5
EXHIBIT 2	SYSTEM TEST CONFIGURATION	6
2.1	Justification	6
2.2	EUT Exercising Software.....	7
2.3	Support Equipment List and Description	8
2.4	Measurement Uncertainty.....	8
EXHIBIT 3	TEST RESULTS.....	9
3.1	Maximum Conducted (Peak) Output Power at Antenna Terminals.....	9
3.2	Minimum 6dB RF Bandwidth and Occupied Bandwidth	12
3.3	Minimum Power Spectral Density	14
3.4	Out of Band Conducted Emissions.....	17
3.5	Field Strength Calculation	24
3.6	Transmitter Radiated Emissions in Restricted Bands and Spurious Emissions	25
3.7	Transmitter Duty Cycle Calculation	31
3.8	AC Power Line Conducted Emission	31
EXHIBIT 4	EQUIPMENT LIST	34

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.

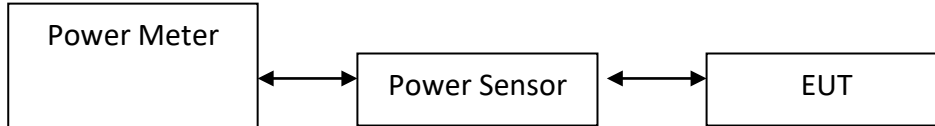
TEST REPORT

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 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:

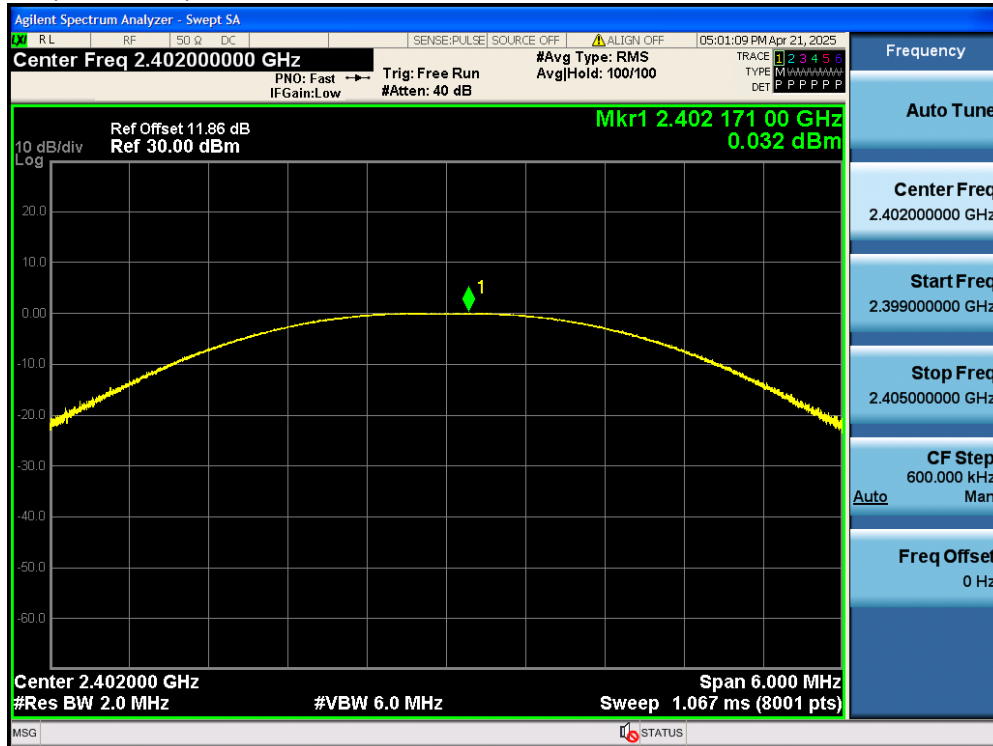
1W (30dBm) for antennas with gains of 6dBi or less.

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

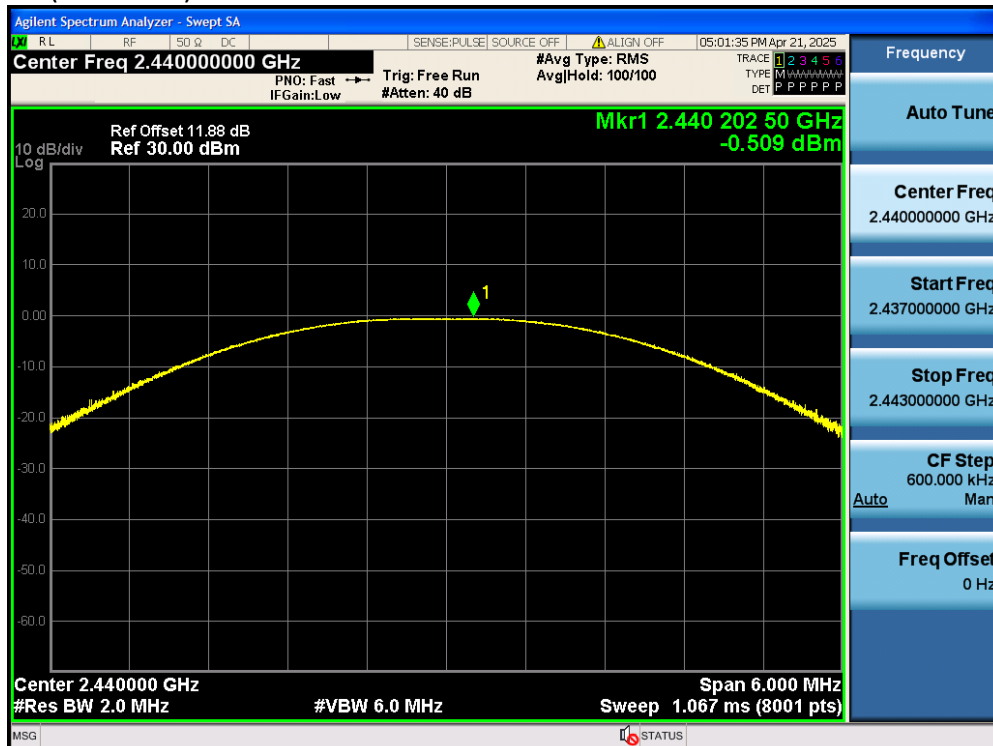
TEST REPORT

PLOTS OF CONDUCTED (PEAK) OUTPUT POWER

Lowest Channel (2402MHz)



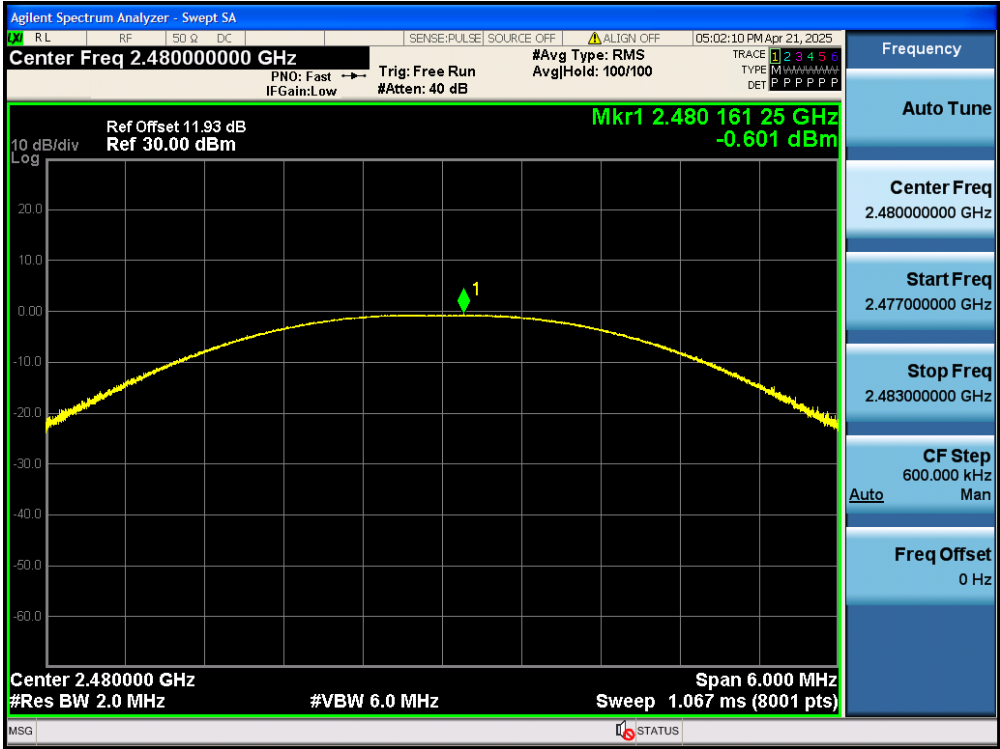
Middle Channel (2440MHz)



TEST REPORT

PLOTS OF CONDUCTED (PEAK) OUTPUT POWER

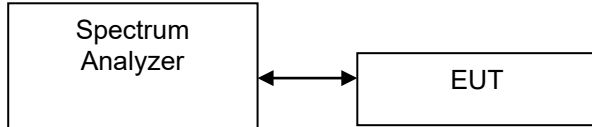
Highest Channel (2480MHz)



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.

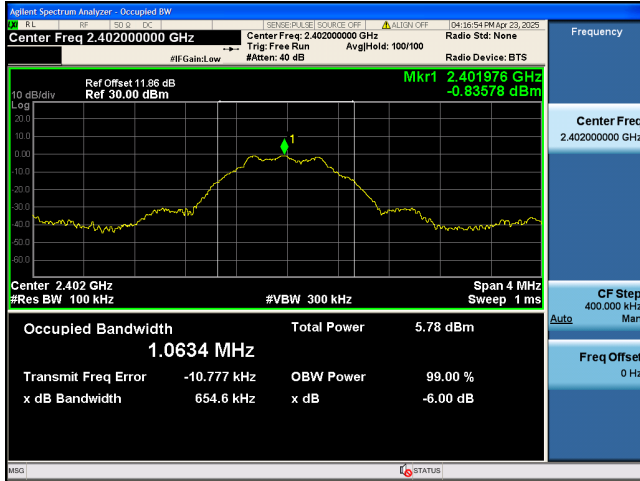
The plots of 6dB RF bandwidth and occupied bandwidth are saved as below.

TEST REPORT

PLOTS OF 6dB RF BANDWIDTH & OCCUPIED BANDWIDTH

Lowest Channel (2402MHz)

6dB BANDWIDTH

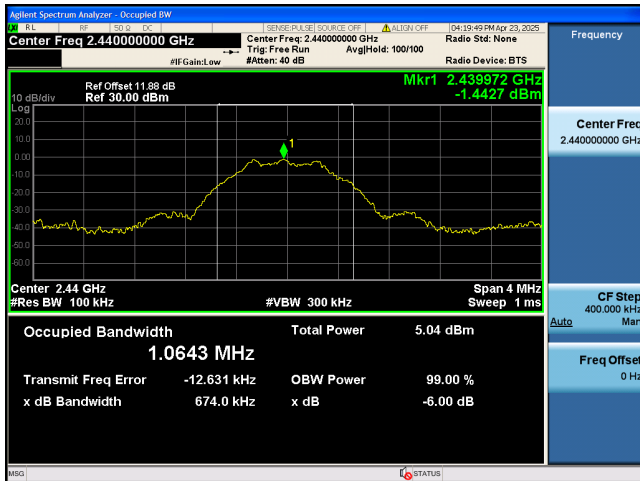


OCCUPIED BANDWIDTH

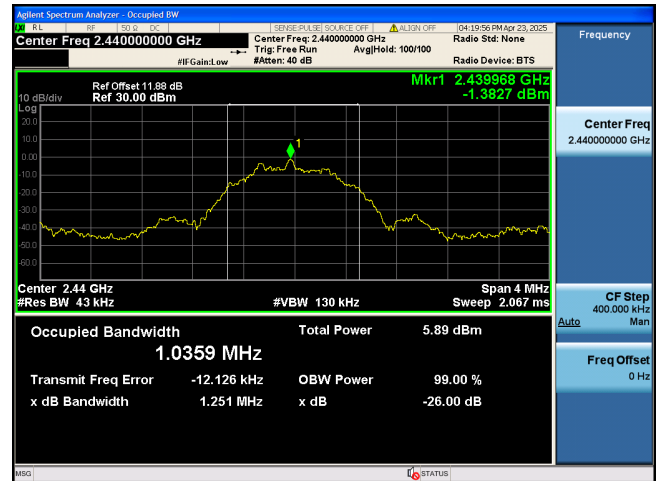


Middle Channel (2440MHz)

6dB BANDWIDTH

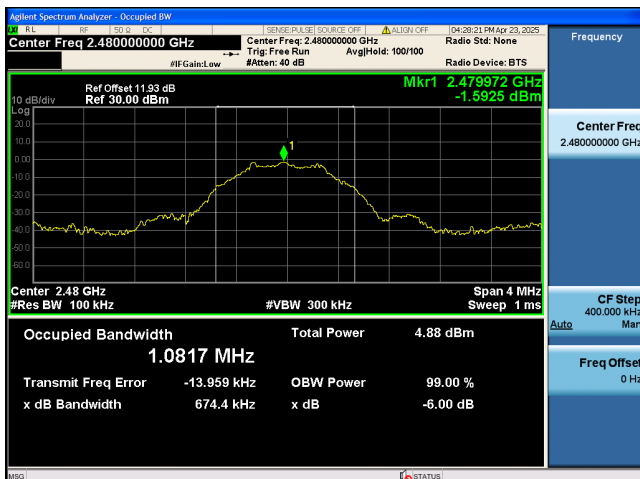


OCCUPIED BANDWIDTH

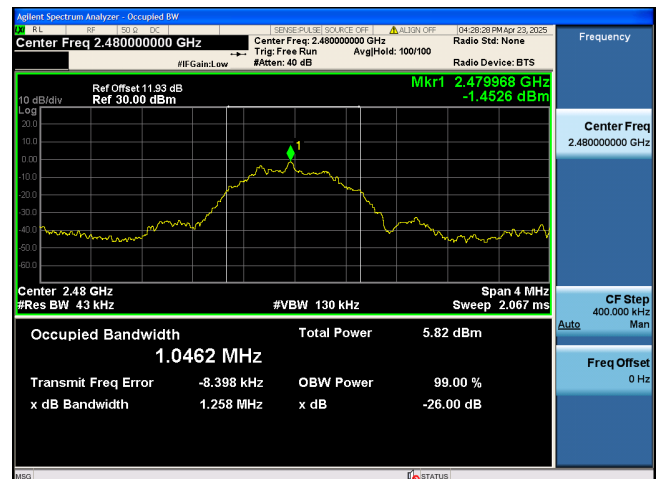


Highest Channel (2480MHz)

6dB BANDWIDTH



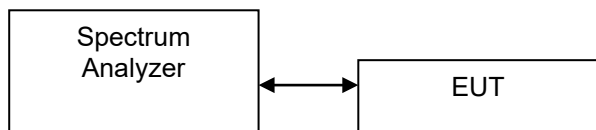
OCCUPIED BANDWIDTH



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

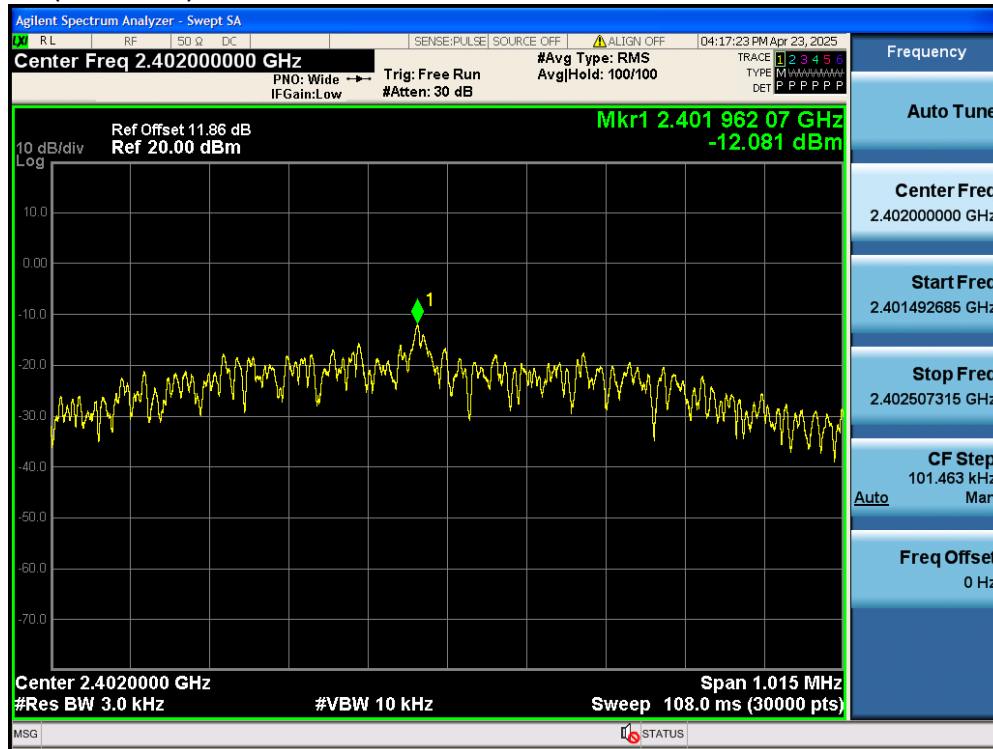
Limit: 8dBm in 3kHz

The plots of power spectral density are as below.

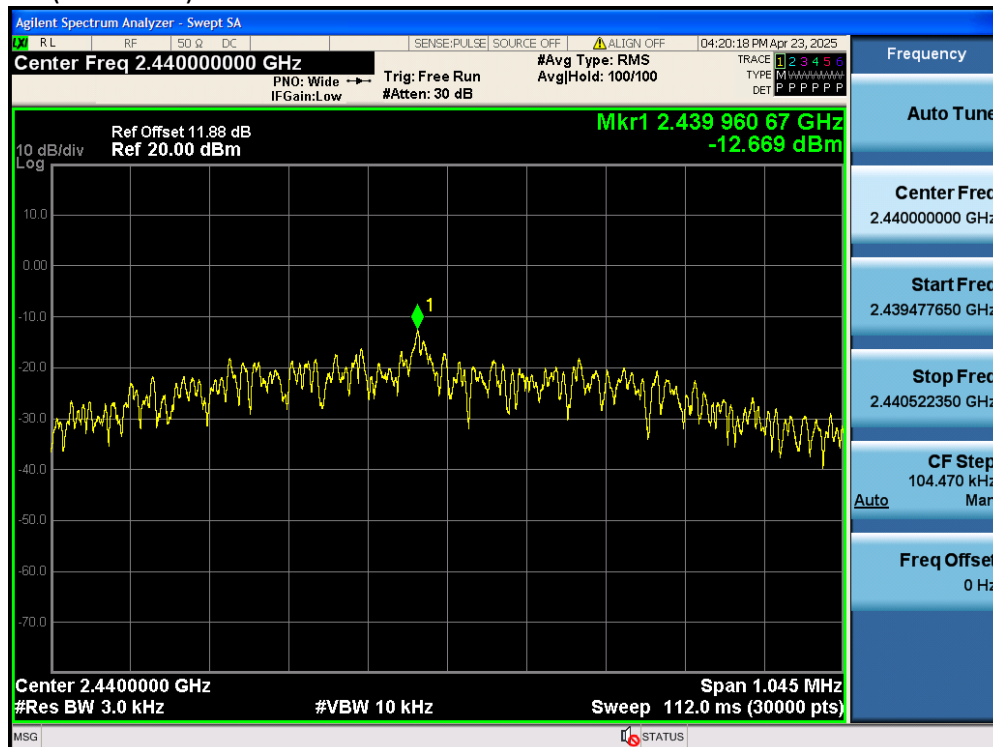
TEST REPORT

PLOTS OF POWER SPECTRAL DENSITY

Lowest Channel (2402MHz)



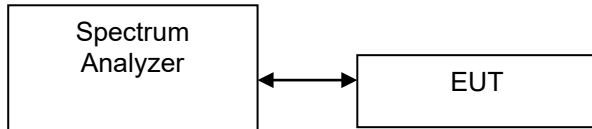
Middle Channel (2440MHz)



TEST REPORT

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.

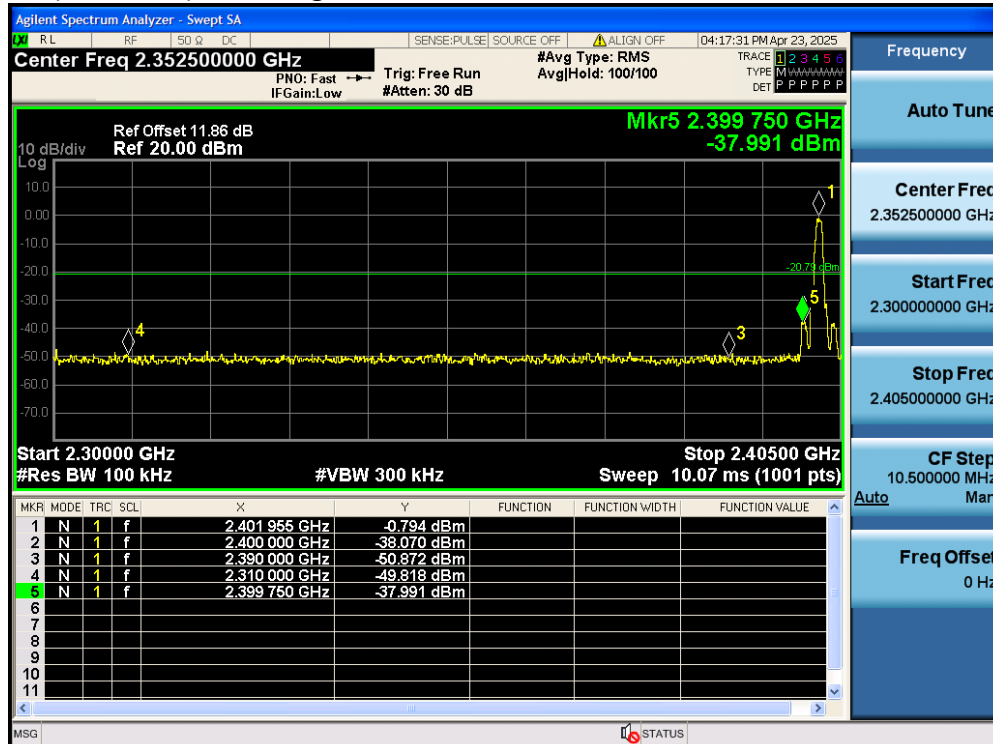
TEST REPORT

PLOTS OF OUT OF BAND CONDUCTED EMISSIONS

Lowest Channel (2402MHz), PSD in 100k



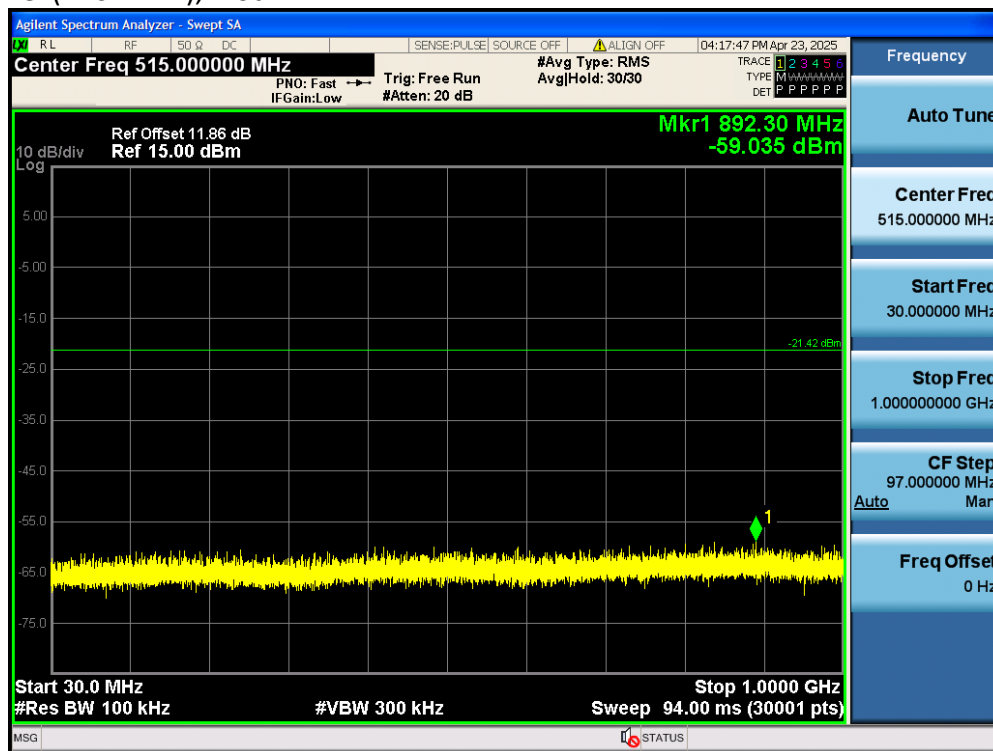
Lowest Channel (2402MHz), Bandedge



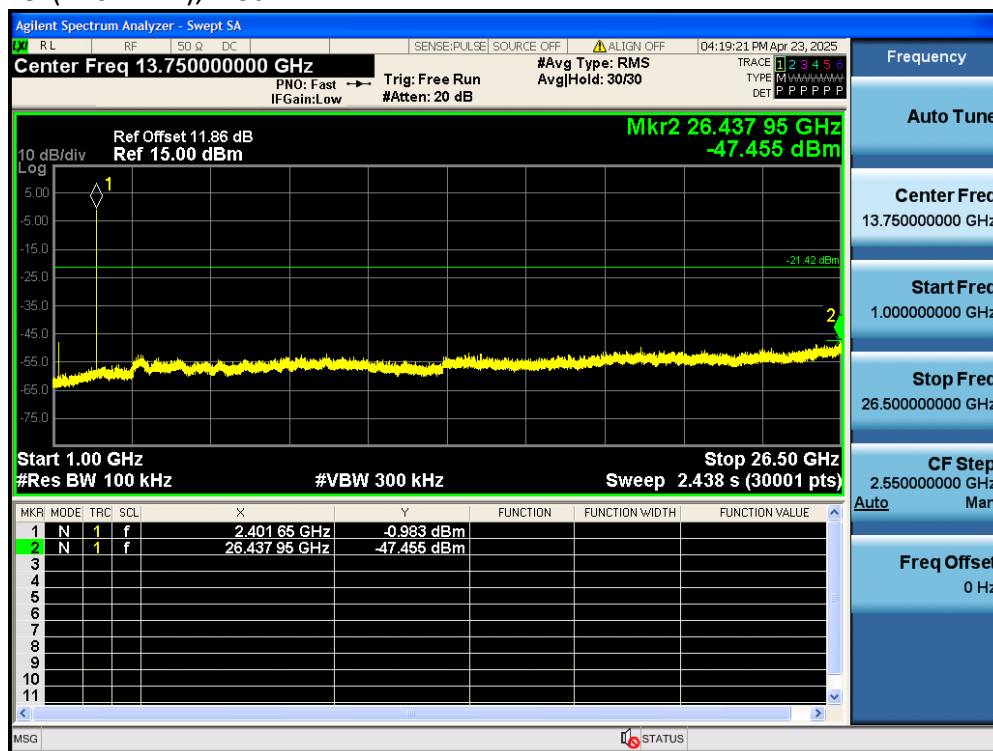
TEST REPORT

PLOTS OF OUT OF BAND CONDUCTED EMISSIONS

Lowest Channel (2402MHz), Plot A



Lowest Channel (2402MHz), Plot B



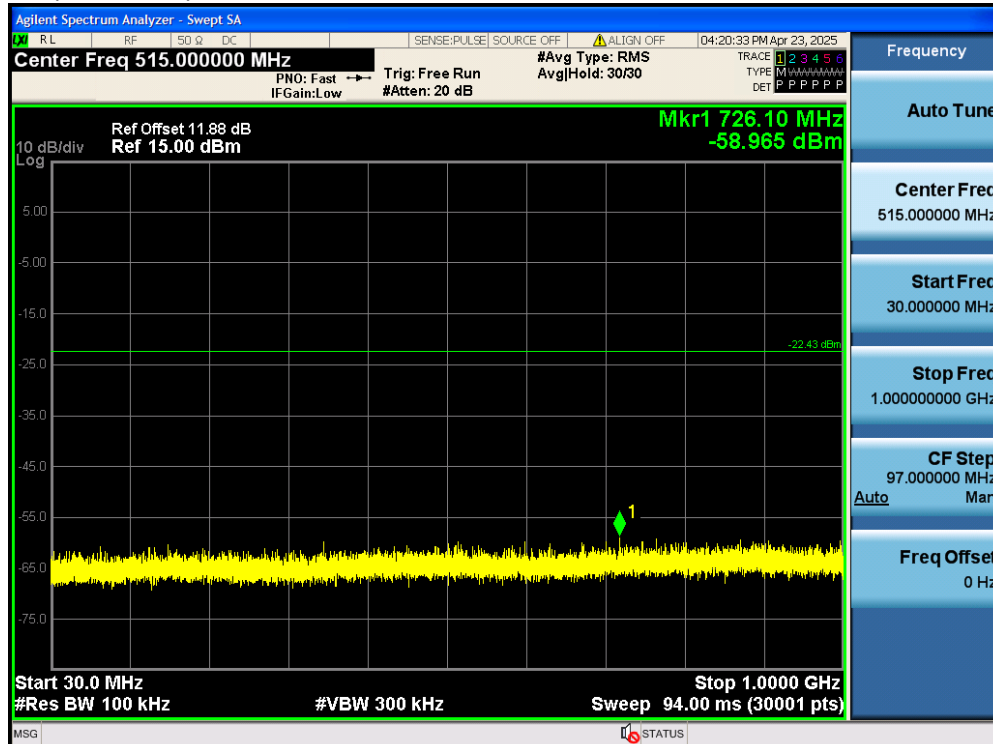
TEST REPORT

PLOTS OF OUT OF BAND CONDUCTED EMISSIONS

Middle Channel (2440MHz), PSD in 100k



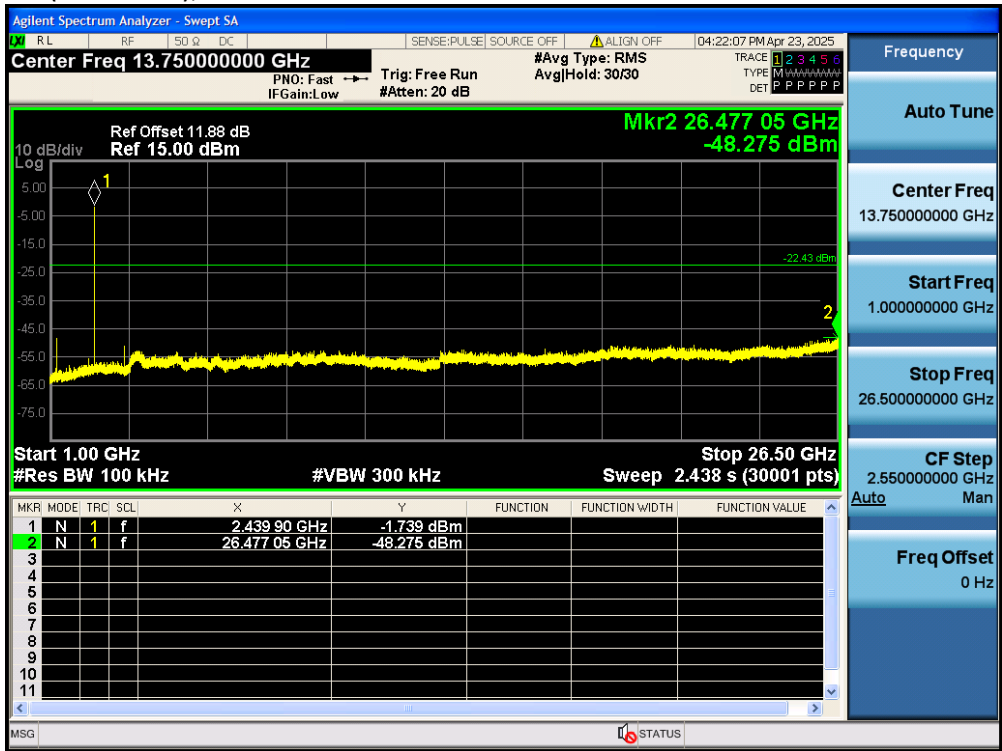
Middle Channel (2440MHz), Plot A



TEST REPORT

PLOTS OF OUT OF BAND CONDUCTED EMISSIONS

Middle Channel (2440MHz), Plot B



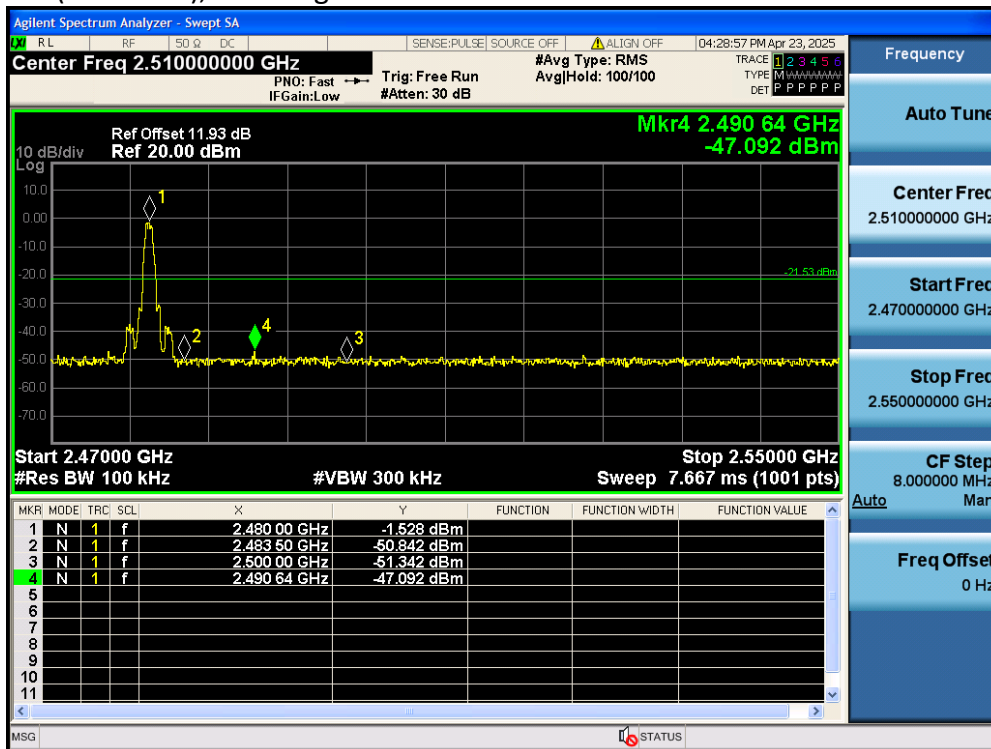
TEST REPORT

PLOTS OF OUT OF BAND CONDUCTED EMISSIONS

Highest Channel (2480MHz), PSD in 100k



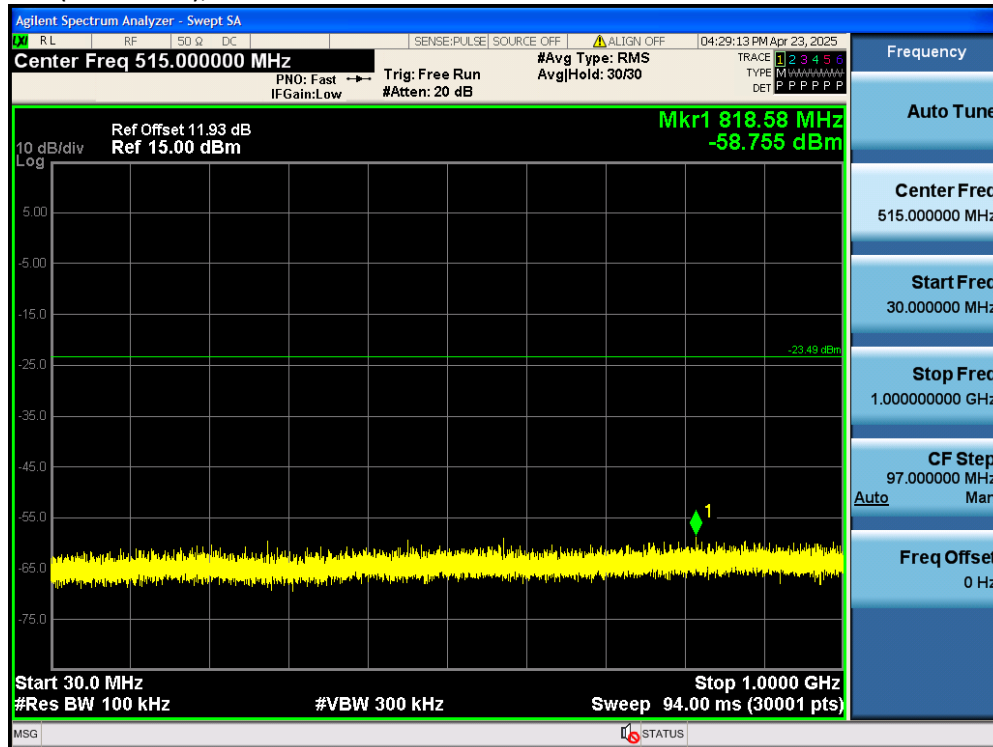
Highest Channel (2480MHz), Bandedge



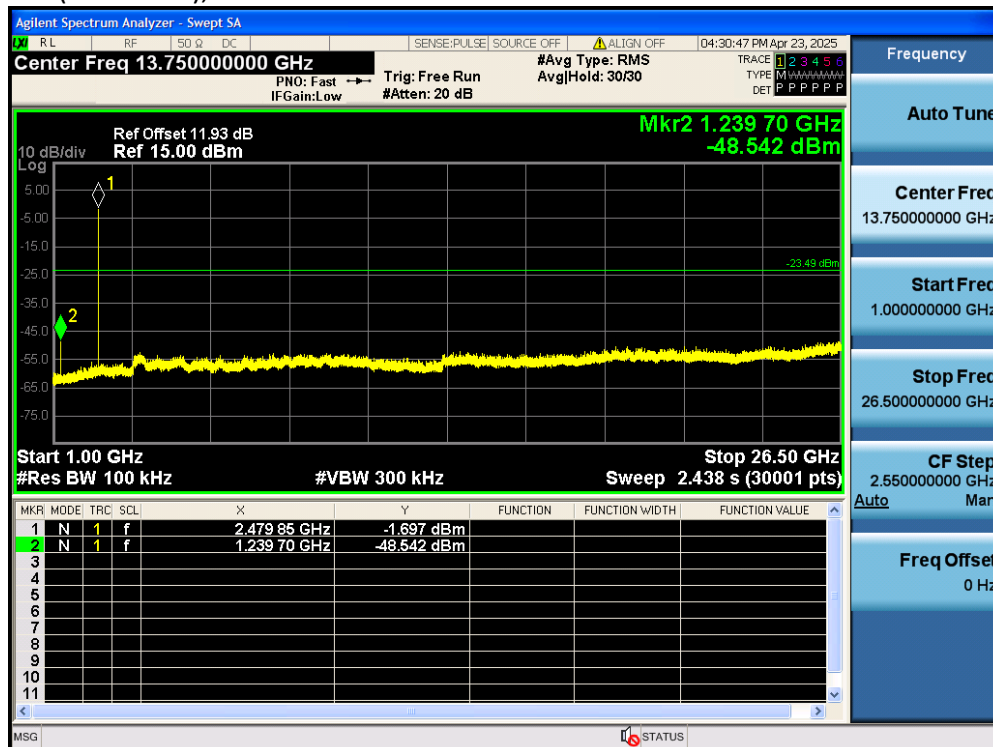
TEST REPORT

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 reflect 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.

$$\begin{aligned} RA &= 62.0 \text{ dB}\mu\text{V} \\ AF &= 7.4 \text{ dB} \\ CF &= 1.6 \text{ dB} \\ AG &= 29.0 \text{ dB} \\ PD &= 0.0 \text{ dB} \\ AV &= -10.0 \text{ dB} \\ FS &= 62.0 + 7.4 + 1.6 - 29.0 + 0.0 + (-10.0) = 32.0 \text{ dB}\mu\text{V/m} \end{aligned}$$

$$\text{Level in } \mu\text{V/m} = \text{Common Antilogarithm } [(32.0 \text{ dB}\mu\text{V/m})/20] = 39.8 \text{ } \mu\text{V/m}$$

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

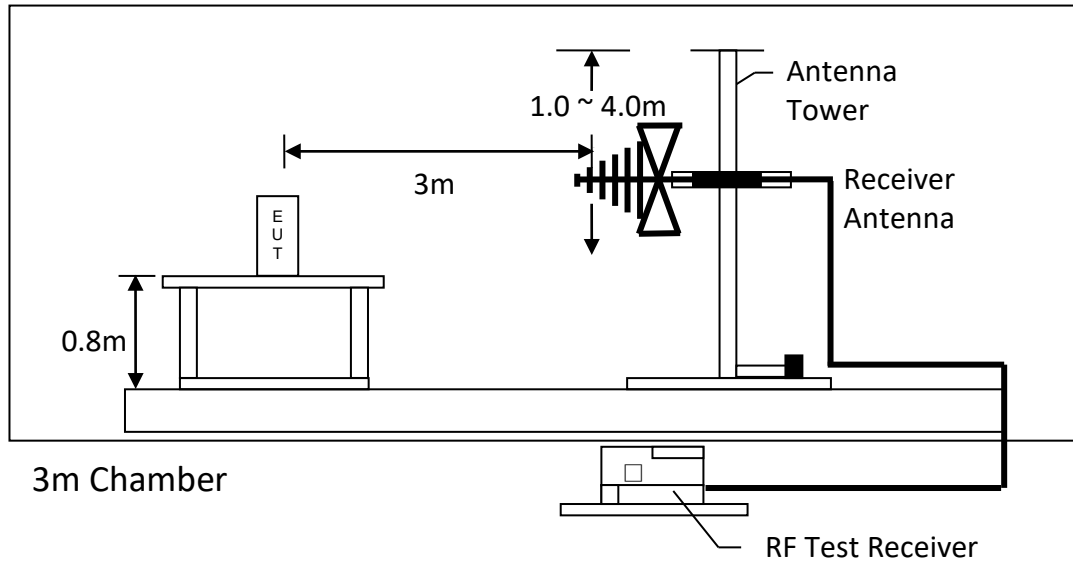
The data in tables 1-4 list the significant emission frequencies, the limit and the margin of compliance.

Judgement – Passed by 8.6 dB margin

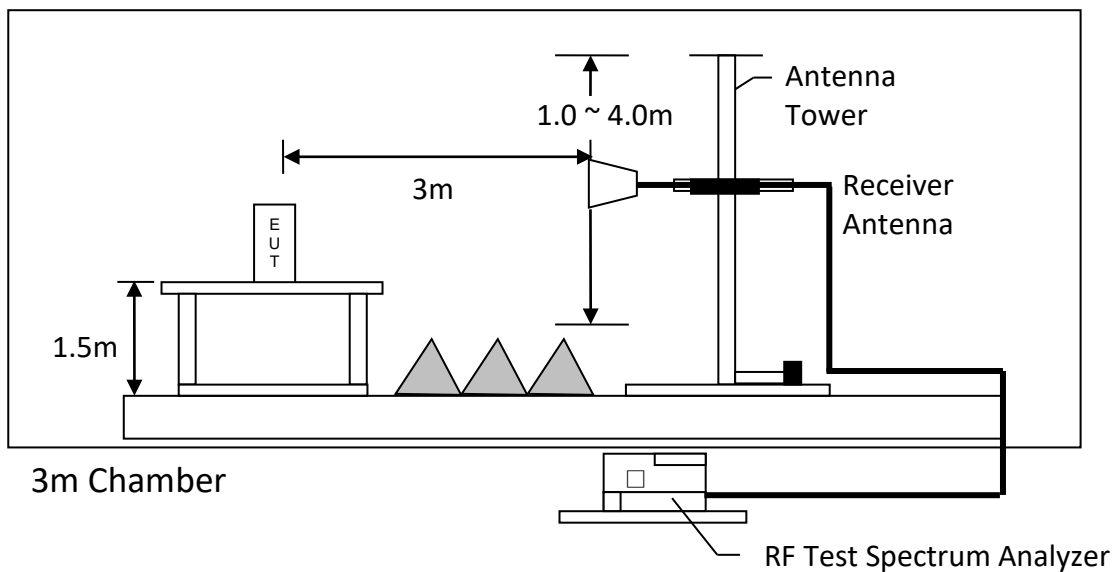
TEST REPORT

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

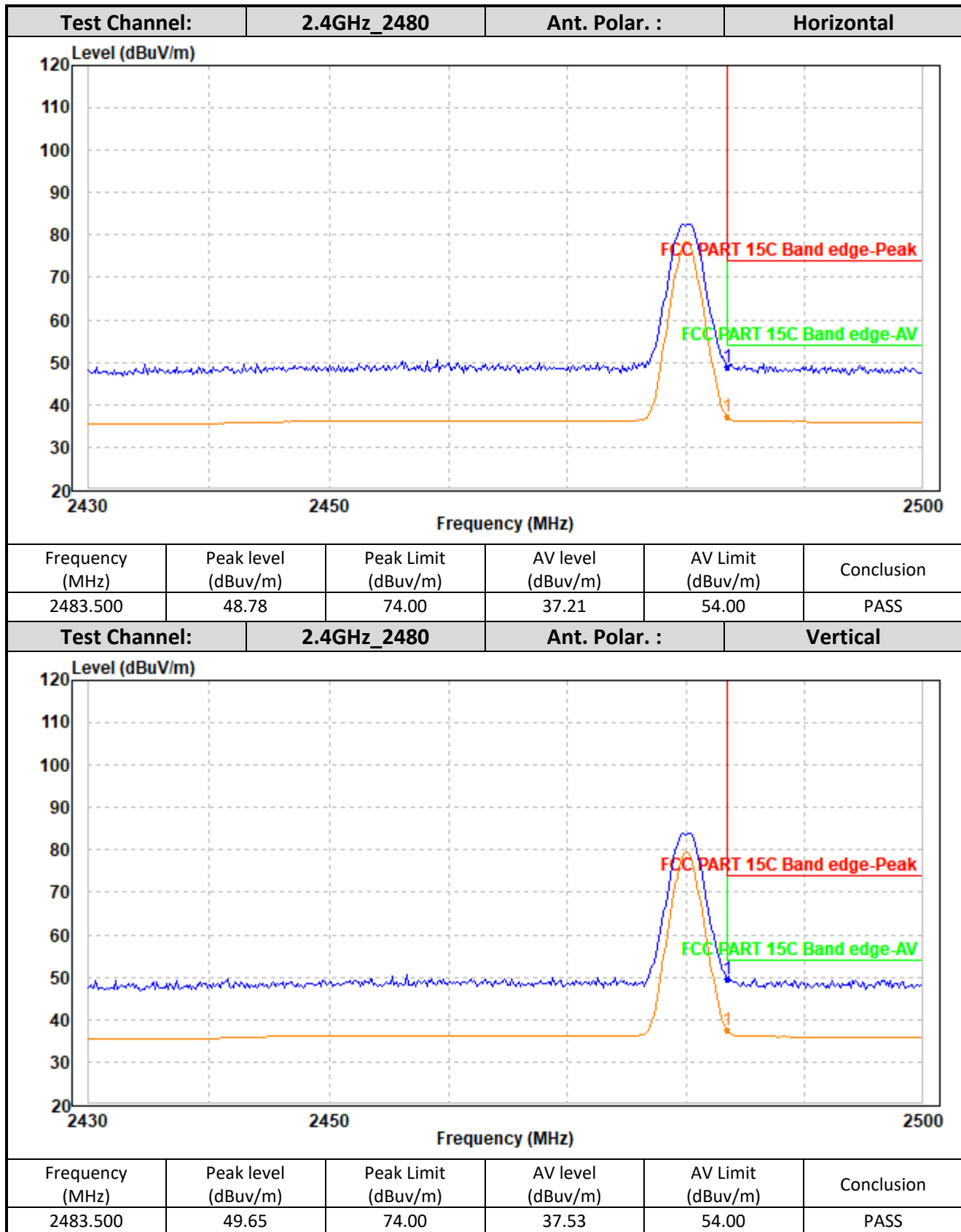
Test Channel:		2.4GHz_2402	Ant. Polar. :		Vertical
---------------	--	-------------	---------------	--	----------

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 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 ± 5.3 dB 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.

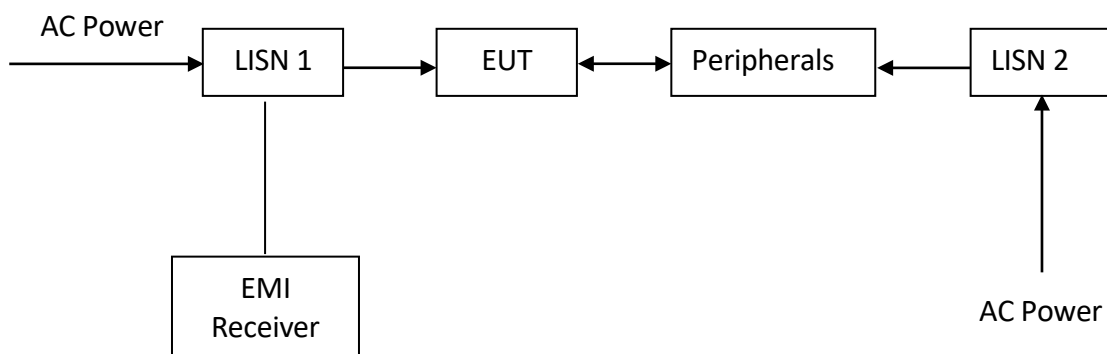
The worst-case line conducted configuration photographs are attached in the Appendix and saved with filename: Setup Photos.pdf.

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



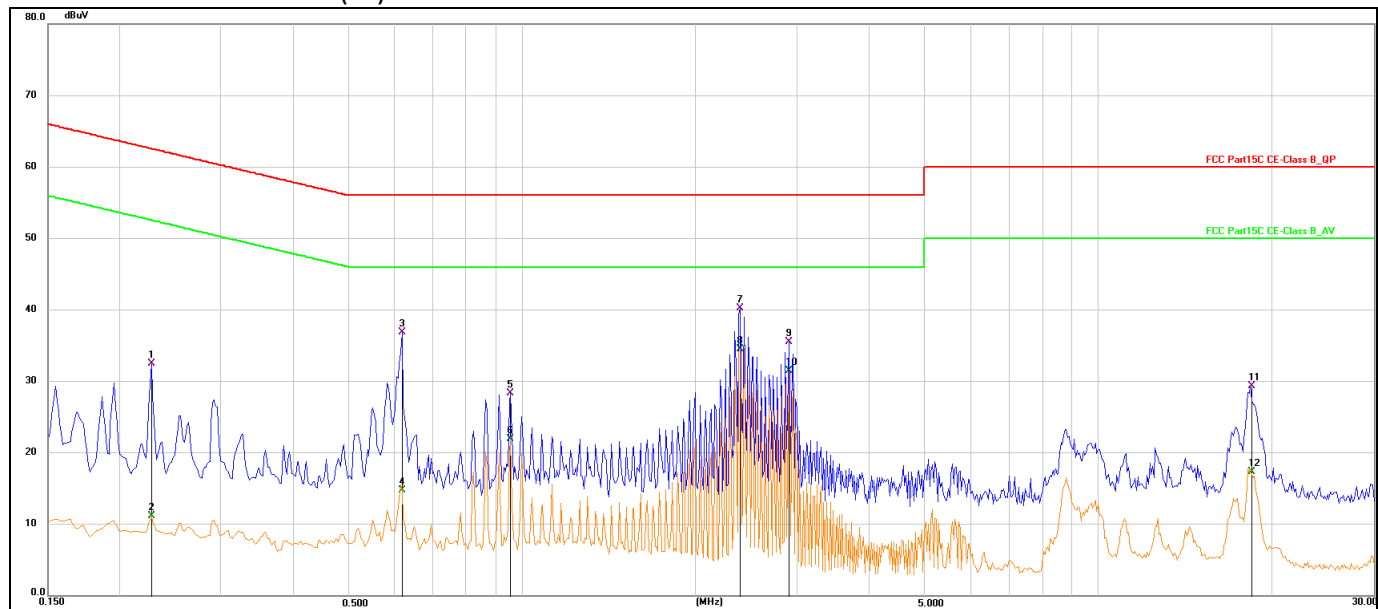
The EUT along with its peripherals were placed on a 1.0m(W)×1.5m(L) and 0.8m in height wooden table and the EUT was adjusted to maintain a 0.4 meter space from a vertical reference plane. The EUT was connected to power mains through a line impedance stabilization network (LISN), which provided 50 ohm 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)

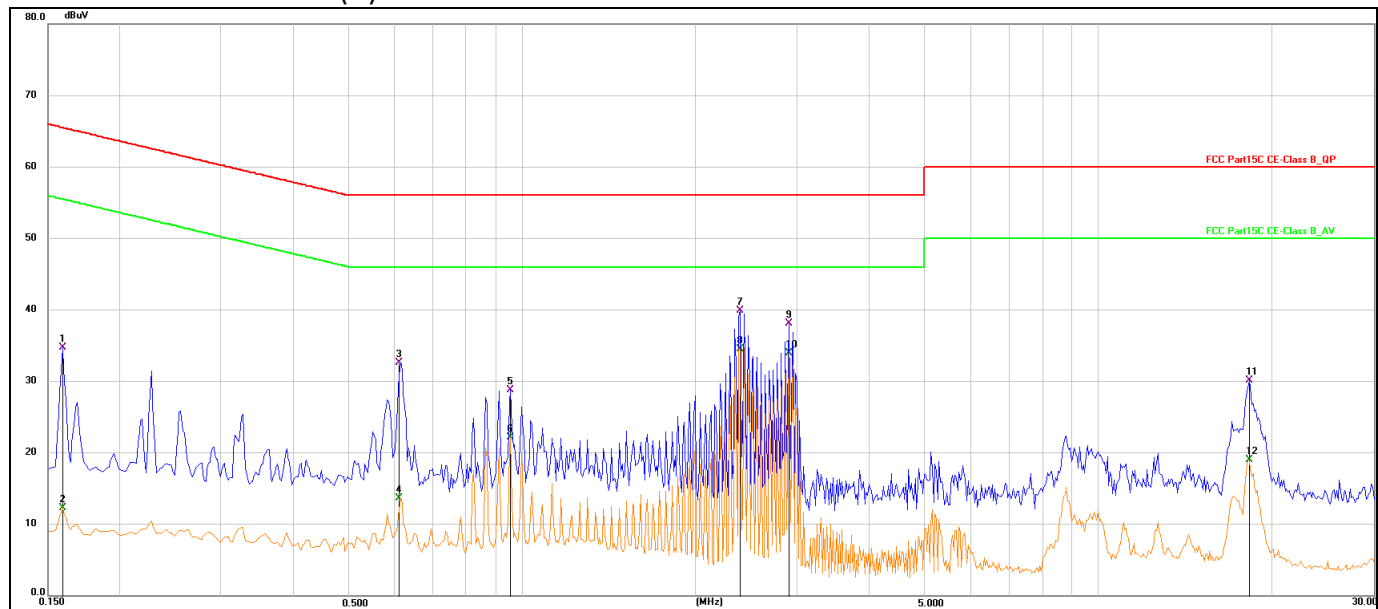


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.2265	22.67	9.78	32.45	62.58	-30.13	QP
2	0.2265	1.36	9.78	11.14	52.58	-41.44	AVG
3	0.6180	27.04	9.79	36.83	56.00	-19.17	QP
4	0.6180	4.94	9.79	14.73	46.00	-31.27	AVG
5	0.9555	18.62	9.71	28.33	56.00	-27.67	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 (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
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	ESC13	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