

# RADIO TEST REPORT

## FCC 47 CFR PART 15 SUBPART C

## INDUSTRY CANADA RSS-247

<b>Test Standard</b>	<b>FCC Part 15.247</b> <b>IC RSS-247 issue 3 and IC RSS-GEN issue 5</b>
<b>Product name</b>	<b>Wireless Mouse</b>
<b>Brand Name</b>	<b>hp</b>
<b>Model No.</b>	<b>TPA-P010M</b>
<b>Test Result</b>	<b>Pass</b>
<b>Statements of Conformity</b>	<b>Determination of compliance is based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.</b>

The test Result was tested by Compliance Certification Services Inc. The test data, data evaluation, test procedures, and equipment configurations shown in this report were given in ANSI C63.10-2020+Cor.1-2023 and compliance standards.

The test results of this report relate only to the tested sample (EUT) identified in this report.

The test Report of full or partial shall not copy. Without written approval of Compliance Certification Services Inc. (Wugu Laboratory)

**Approved by:**



---

Sehni Hu  
Supervisor

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.  
除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留90天。本報告未經本公司書面許可，不可部份複製。

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com.tw/Terms-and-Conditions> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com.tw/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instruction, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced, except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

## Revision History

Rev.	Issue Date	Revisions	Effect Page	Revised By
00	July 30, 2025	Initial Issue	ALL	Peggy Tsai
01	August 13, 2025	See the following Note Rev. (01)	P.4, 7, 10	Peggy Tsai

**Rev. (01)**

1. Modify date of test, instrument calibration and the worst mode of measurement.

## Table of contents

1.	GENERAL INFORMATION .....	4
1.1	EUT INFORMATION .....	4
1.2	EUT CHANNEL INFORMATION .....	5
1.3	ANTENNA INFORMATION .....	5
1.4	MEASUREMENT UNCERTAINTY.....	6
1.5	FACILITIES AND TEST LOCATION .....	6
1.6	INSTRUMENT CALIBRATION .....	6
1.7	SUPPORT AND EUT ACCESSORIES EQUIPMENT .....	8
2.	TEST SUMMERY .....	9
3.	DESCRIPTION OF TEST MODES.....	10
3.1	THE WORST MODE OF OPERATING CONDITION .....	10
3.2	THE WORST MODE OF MEASUREMENT .....	10
3.3	EUT DUTY CYCLE.....	11
4.	TEST RESULT .....	12
4.1	AC POWER LINE CONDUCTED EMISSION .....	12
4.2	6dB BANDWIDTH AND OCCUPIED BANDWIDTH(99%).....	13
4.3	OUTPUT POWER MEASUREMENT .....	16
4.4	POWER SPECTRAL DENSITY .....	19
4.5	CONDUCTED BAND EDGE AND SPURIOUS EMISSION .....	22
4.6	RADIATION BANDEDGE AND SPURIOUS EMISSION .....	25
APPENDIX 1 - PHOTOGRAPHS OF EUT		

## 1. GENERAL INFORMATION

### 1.1 EUT INFORMATION

<b>Applicant</b>	Primax Electronics Ltd. No.669,Ruey Kuang Road,Neihu,Taipei,114, Taiwan, R.O.C.
<b>Manufacturer</b>	Primax Electronics Ltd. No.669,Ruey Kuang Road,Neihu,Taipei,114, Taiwan, R.O.C.
<b>Equipment</b>	Wireless Mouse
<b>Model No. / HVIN</b>	TPA-P010M
<b>Model Discrepancy</b>	N/A
<b>Trade Name</b>	hp
<b>Received Date</b>	June 23, 2025
<b>Date of Test</b>	July 5 ~ August 8, 2025
<b>Power Operation</b>	Powered from Battery (AA, DC 1.5V) (Not for sell) DURACELL / LR6
<b>PMN</b>	HP Multi-Device Wireless Mouse
<b>EUT Serial #</b>	9CP521Q0HB
<b>HW Version</b>	V01
<b>FW Version</b>	N/A

**Remark:**

1. For more details, please refer to the User's manual of the EUT.
2. Disclaimer: Antenna information is provided by the applicant, test results of this report are applicable to the sample EUT received.

## 1.2 EUT CHANNEL INFORMATION

<b>Frequency Range</b>	2402MHz-2480MHz
<b>Modulation Type</b>	GFSK for BLE 1 Mbps
<b>Number of channel</b>	40 Channels

**Remark:**

Refer as ANSI C63.10-2020+Cor.1-2023 and RSS-GEN for test channels

Number of frequencies to be tested		
Frequency range in which device operates	Number of frequencies	Location in frequency range of operation
<input type="checkbox"/> 1 MHz or less	1	Middle
<input type="checkbox"/> 1 MHz to 10 MHz	2	1 near top and 1 near bottom
<input checked="" type="checkbox"/> More than 10 MHz	3	1 near top, 1 near middle, and 1 near bottom

## 1.3 ANTENNA INFORMATION

<b>Antenna Type</b>	<input type="checkbox"/> PIFA <input checked="" type="checkbox"/> PCB <input type="checkbox"/> Dipole <input type="checkbox"/> Coils
<b>Antenna Brand / Model Name</b>	Primax / TPA-P010M
<b>Antenna Gain</b>	3.11 dBi

**Notes:**

1. The antenna(s) of the EUT are permanently attached and there are no provisions for connection to an external antenna. So the EUT complies with the requirements of §15.203 and RSS-GEN 6.8.

## 1.4 MEASUREMENT UNCERTAINTY

PARAMETER	UNCERTAINTY
AC Powerline Conducted Emission	+/- 2.21 dB
Channel Bandwidth	+/- 2.79 dB
RF output power (Power Meter + Power sensor)	+/- 0.24 dB
Power Spectral density	+/- 2.74 dB
Conducted Bandedge	+/- 2.74 dB
Conducted Spurious Emission	+/- 2.74 dB
Radiated Emission_9kHz-30MHz	+/- 3.492 dB
Radiated Emission_30MHz-200MHz	+/- 3.62 dB
Radiated Emission_200MHz-1GHz	+/- 3.899 dB
Radiated Emission_1GHz-6GHz	+/- 5.063 dB
Radiated Emission_6GHz-18GHz	+/- 5.122 dB
Radiated Emission_18GHz-26GHz	+/- 3.032 dB
Radiated Emission_26GHz-40GHz	+/- 3.271 dB

**Remark:**

1. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2
2. ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report.

## 1.5 FACILITIES AND TEST LOCATION

All measurement facilities used to collect the measurement data are located at

No.11, Wugong 6th Rd., Wugu Dist., New Taipei City, Taiwan.

CAB identifier: TW1309

Test site	Test Engineer	Remark
AC Conduction Room	-	Not applicable, because EUT not connect to AC Main Source direct.
Radiation	Ben Yang	-
RF Conducted	Marco Chan	-

**Remark:** The lab has been recognized as the FCC accredited lab. under the KDB 974614 D01 and is listed in the FCC public Access Link (PAL) database, FCC Registration No. :444940, the FCC Designation No.:TW1309

## 1.6 INSTRUMENT CALIBRATION

Conducted_FCC/IC/NCC (All)					
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due
PXA Signal Analyzer	Keysight	N9030B	MY62291089	2024-10-04	2025-10-03
Power Sensor	Anritsu	MA2411B	1911387	2024-08-30	2025-08-29
Power Sensor	Anritsu	MA2411B	1911386	2025-07-07	2026-07-06
Power Meter	Anritsu	ML2496A	2136002	2025-07-07	2026-07-06
DC Blocks	Marvelous Microwave	MVE6411	MVE-001	2024-08-08	2025-08-07
<b>Software</b>	Radio Test Software Ver. 21				

966A_Radiated					
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due
Signal Analyzer	KEYSIGHT	N9010A	MY52220817	2025-03-05	2026-03-04
Active Loop Antenna	COM-POWER	AL-130	121051	2025-02-18	2026-02-17
Thermo-Hygro Meter	HTC	HTC-1	HTC-D06	2025-05-26	2026-05-25
Bi-Log Antenna	Sunol Sciences	JB3	A030105&532	2025-06-26	2026-06-25
Preamplifier	EMEC	EM330	060609	2025-02-20	2026-02-19
Cable	Huber+Suhner	104PEA	20995+21000+1 82330	2024-08-07 2025-08-06	2025-08-06 2026-08-05
Horn Antenna	ETC	MCTD 1209	DRH13M02003	2024-12-20	2025-12-19
Preamplifier	HP	8449B	3008A00965	2024-12-18	2025-12-17
Cable	EMCI	EMC101G	221012+230205 +250412	2025-04-24	2026-04-23
Attenuator	Mini-Circuits	BW-S9W5	BWS9W5-09- 966A-01	2025-02-06	2026-02-05
High Pass Filters	Titan Microwave	T04H300018000 70S01	22011402-4	2025-06-03	2026-06-02
Pre-Amplifier	EMCI	EMC184045SE	980860	2024-12-02	2025-12-01
Horn Antenna	SCHWARZBECK	BBHA9170	1047	2024-12-06	2025-12-05
Turn Table	CCS	CC-T-1F	N/A	N.C.R	N.C.R
Controller	CCS	CC-C-1F	N/A	N.C.R	N.C.R
Antenna Tower	CCS	CC-A-1F	N/A	N.C.R	N.C.R
<b>Software</b>	e3 V9-210616c				

**Remark:**

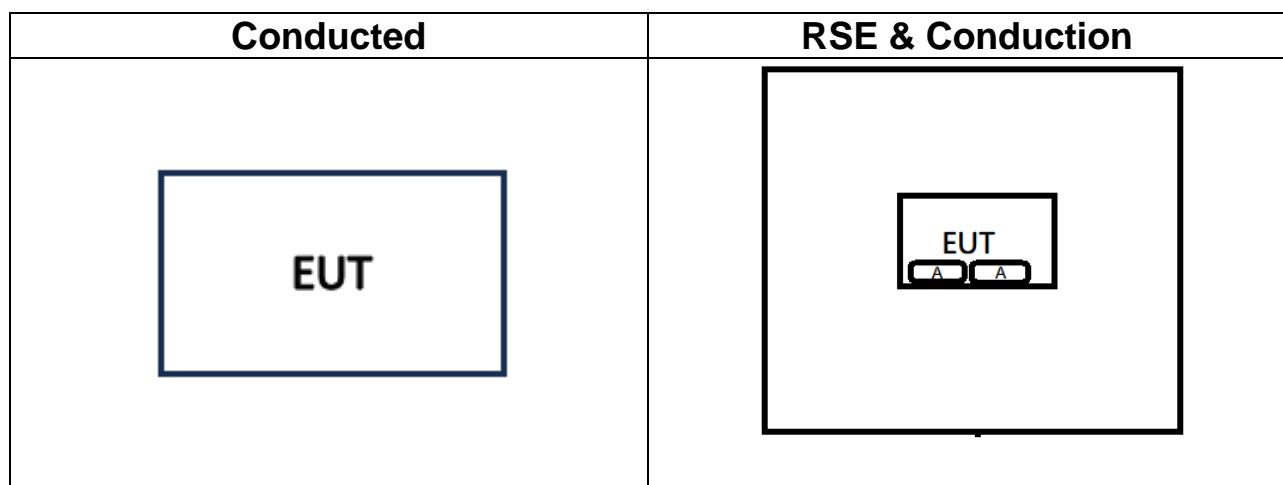
1. Each piece of equipment is scheduled for calibration once a year.
2. N.C.R. = No Calibration Required.

## 1.7 SUPPORT AND EUT ACCESSORIES EQUIPMENT

EUT Accessories Equipment						
No.	Equipment	Brand	Model	Series No.	FCC ID	IC
	N/A					

Support Equipment (RSE)					
No.	Equipment	Brand	Model	Series No.	FCC ID
A	Battery	DURACELL	LR6	N/A	N/A

## 1.8 TEST SET UP DIAGRAM



## 1.9 TEST PROGRAM

This EUT uses push-buttons to set the frequency, modulation, and power to allow the sample to continuously transmit.

## 1.10 TEST METHODOLOGY AND APPLIED STANDARDS

The test methodology, setups and results comply with all requirements in accordance with ANSI C63.10-2020+Cor.1-2023, FCC Part 2, FCC Part 15.247, KDB 558074, RSS-247 Issue 3 and RSS-GEN Issue 5.

## 2. TEST SUMMARY

FCC Standard Section	IC Standard Section	Report Section	Test Item	Result
15.203	RSS-Gen 6.8	1.3	Antenna Requirement	Pass
15.207(a)	RSS-GEN 8.8	4.1	AC Conducted Emission	N/A
15.247(a)(2)	RSS-247(5.2)(a)	4.2	6 dB Bandwidth	Pass
-	RSS-GEN 6.7	4.2	Occupied Bandwidth (99%)	Pass
15.247(b)(3)	RSS-247(5.4)(d)	4.3	Output Power Measurement	Pass
15.247(e)	RSS-247(5.2)(b)	4.4	Power Spectral Density	Pass
15.247(d)	RSS-247(5.5)	4.5	Conducted Band Edge	Pass
15.247(d)	RSS-247(5.5)	4.5	Conducted Spurious Emission	Pass
15.247(d) 15.205, 15.209	RSS-GEN 8.9, 8.10	4.6	Radiation Band Edge	Pass
15.247(d) 15.205, 15.209	RSS-GEN 8.9, 8.10	4.6	Radiation Spurious Emission	Pass

### 3. DESCRIPTION OF TEST MODES

#### 3.1 THE WORST MODE OF OPERATING CONDITION

<b>Operation mode</b>	BLE Mode (1Mbps)
<b>Test Channel Frequencies</b>	1.Lowest Channel : 2402MHz 2.Middle Channel : 2442MHz 3.Highest Channel : 2480MHz

**Remark:**

1. EUT pre-scanned data rate of output power for each mode, the worst data rate were recorded in this report.

#### 3.2 THE WORST MODE OF MEASUREMENT

<b>Radiated Emission Measurement Above 1G</b>	
<b>Test Condition</b>	<b>Radiated Emission Above 1G</b>
<b>Power supply Mode</b>	<b>Mode 1: EUT power by Battery(Color: White)</b>
<b>Worst Mode</b>	<input checked="" type="checkbox"/> Mode 1 <input type="checkbox"/> Mode 2 <input type="checkbox"/> Mode 3 <input type="checkbox"/> Mode 4
<b>Worst Position</b>	<input type="checkbox"/> Placed in fixed position. <input checked="" type="checkbox"/> Placed in fixed position at X-Plane (E2-Plane) <input type="checkbox"/> Placed in fixed position at Y-Plane (E1-Plane) <input type="checkbox"/> Placed in fixed position at Z-Plane (H-Plane)

<b>Radiated Emission Measurement Below 1G</b>	
<b>Test Condition</b>	<b>Radiated Emission Below 1G</b>
<b>Power supply Mode</b>	<b>Mode 1: EUT power by Battery(Color: White)</b> <b>Mode 2: EUT power by Battery(Color: Black)</b>
<b>Worst Mode</b>	<input checked="" type="checkbox"/> Mode 1 <input type="checkbox"/> Mode 2 <input type="checkbox"/> Mode 3 <input type="checkbox"/> Mode 4

**Remark:**

1. The worst mode was record in this test report.
2. EUT pre-scanned in three axis ,X,Y, Z and two polarity, for radiated measurement. The worst case(X-Plane) were recorded in this report

### 3.3 EUT DUTY CYCLE

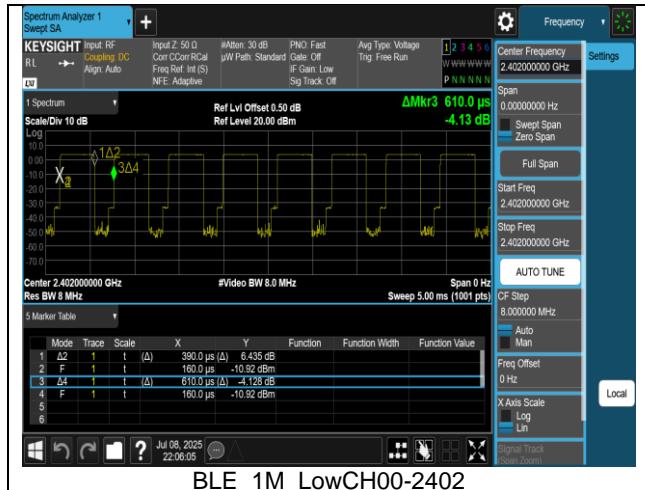
**Temperature:** 23.8°C

**Test date:** July 8, 2025

**Humidity:** 61% RH

**Tested by:** Marco Chan

Mode	Duty Cycle (%) = Ton / (Ton+Toff)	Duty Factor (dB) =10*log ( 1/Duty Cycle )	1/T (kHz)	VBW setting (kHz)
BLE 1M	63.93	1.94	2.56	3.00



## 4. TEST RESULT

### 4.1 AC POWER LINE CONDUCTED EMISSION

#### 4.1.1 Test Limit

According to §15.207(a) and RSS-GEN section 8.8,

Frequency Range (MHz)	Limits(dB $\mu$ V)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56*	56 to 46*
0.50 to 5	56	46
5 to 30	60	50

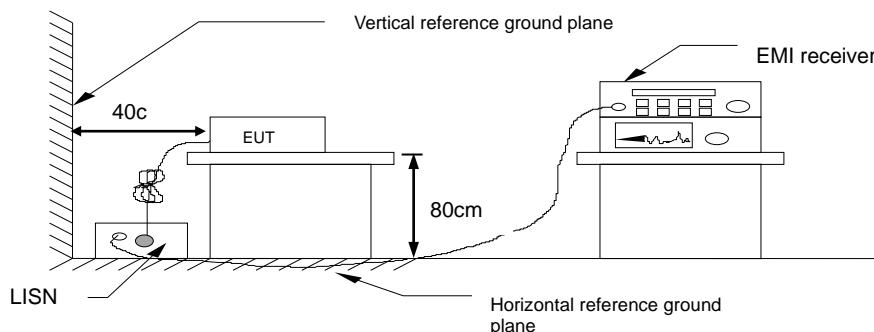
\* Decreases with the logarithm of the frequency.

#### 4.1.2 Test Procedure

Test method Refer as ANSI C63.10-2020+Cor.1-2023,

1. The EUT was placed on a non-conducted table, which is 0.8m above horizontal ground plane and 0.4m above vertical ground plane.
2. EUT connected to the line impedance stabilization network (LISN)
3. Receiver set RBW of 9kHz and Detector Peak, and note as quasi-peak and average.
4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
5. Recorded Line for Neutral and Line.

#### 4.1.3 Test Setup



#### 4.1.4 Test Result

Not applicable, because EUT not connect to AC Main Source direct.

## 4.2 6dB BANDWIDTH AND OCCUPIED BANDWIDTH(99%)

### 4.2.1 Test Limit

According to §15.247(a)(2) and RSS-247 section 5.2(a)

#### 6 dB Bandwidth :

Limit	Shall be at least 500kHz
-------	--------------------------

Occupied Bandwidth(99%) : For reporting purposes only.

### 4.2.2 Test Procedure

Test method Refer as KDB 558074 D01 and ANSI C63.10-2020+Cor.1-2023.

1. The EUT RF output connected to the spectrum analyzer by RF cable.
2. Setting maximum power transmit of EUT
3. SA set RBW = 100kHz, VBW = 300kHz and Detector = Peak, to measurement 6 dB Bandwidth.
4. SA set RBW = 1% ~ 5% OBW, VBW = three times the RBW and Detector = Peak, to measurement 99% Bandwidth
5. Measure and record the result of 6 dB Bandwidth and 99% Bandwidth. in the test report.

### 4.2.3 Test Setup

Refer to section 1.8.

#### 4.2.4 Test Result

Temperature: 23.8°C

Test date: July 8, 2025

Humidity: 61% RH

Tested by: Marco Chan

#### 6dB BANDWIDTH

##### BLE 1M mode

Frequency (MHz)	6dB BW (MHz)	Required BW (MHz)	Result
2402	0.7159	≥ 0.5	PASS
2442	0.7122	≥ 0.5	PASS
2480	0.7057	≥ 0.5	PASS

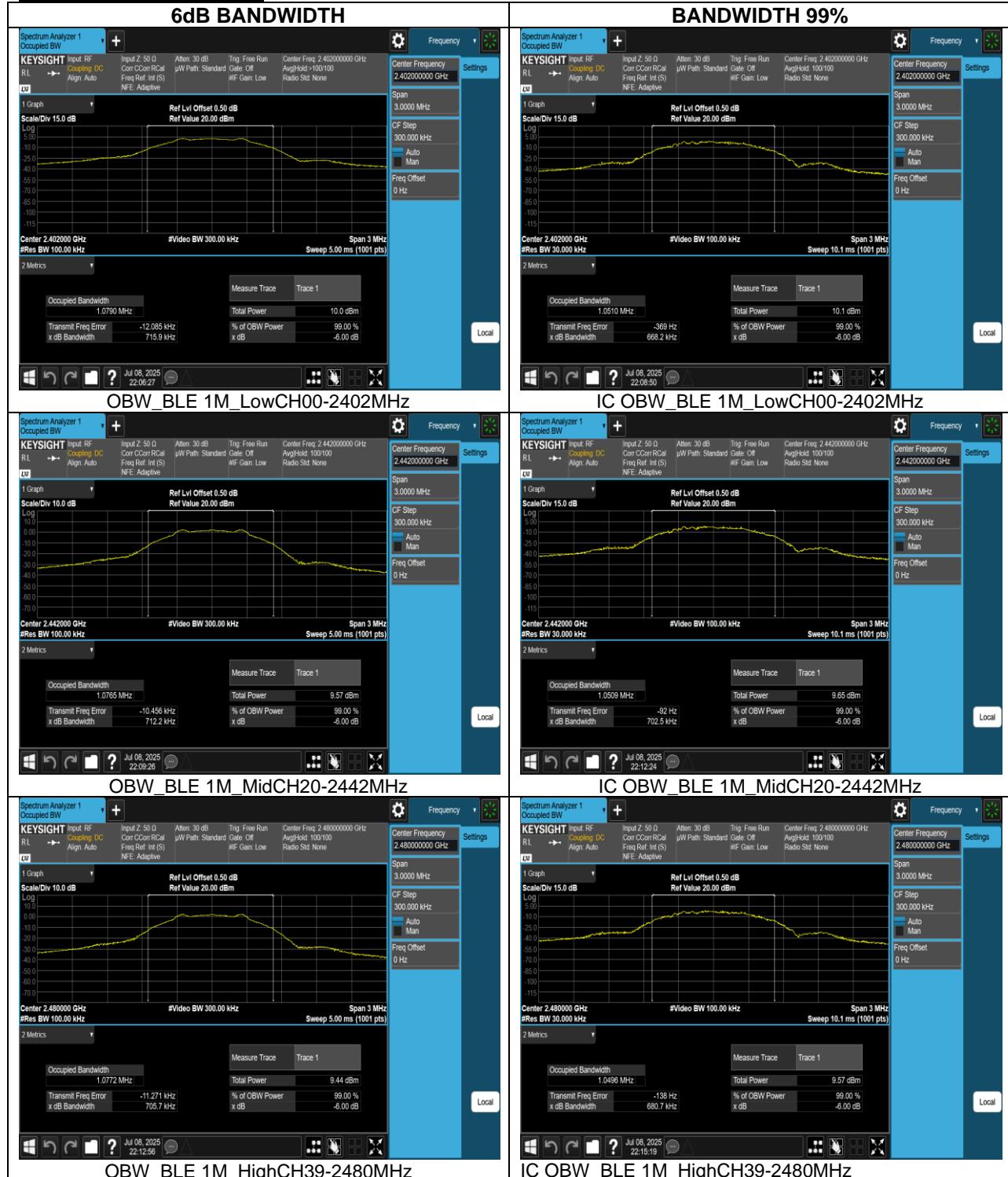
#### BANDWIDTH 99%

##### BLE 1M mode

Frequency (MHz)	99% Bandwidth (MHz)
2402	1.0510
2442	1.0509
2480	1.0496

## Test Data

### 6dB BANDWIDTH



## 4.3 OUTPUT POWER MEASUREMENT

### 4.3.1 Test Limit

According to §15.247(b)(3) and RSS-247 section 5.4(d)

#### Peak output power :

#### FCC

For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt.

#### IC

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, except as provided in section 5.4(e), base on the use of antennas with directional gain not exceed 6 dBi If transmitting antennas of directional gain greater than 6dBi are used the peak output power the conducted output power from the intentional radiator shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. In case of point-to-point operation, the limit has to be reduced by 1dB for every 3 dB that the directional gain of the antenna exceeds 6 dBi.

Limit	<input checked="" type="checkbox"/> Antenna not exceed 6 dBi : 30dBm <input type="checkbox"/> Antenna with DG greater than 6 dBi [ Limit = 30 – (DG – 6) ] <input type="checkbox"/> Point-to-point operation
-------	---

Average output power : For reporting purposes only.

### **4.3.2 Test Procedure**

Test method Refer as KDB 558074 D01

1. The EUT RF output connected to the power meter by RF cable.
2. Setting maximum power transmit of EUT.
3. The path loss was compensated to the results for each measurement.
4. Measure and record the result of Peak output power and Average output power. in the test report.

### **4.3.3 Test Setup**

Refer to section 1.8.

#### 4.3.4 Test Result

Temperature: 23.8°C

Test date: July 8, 2025

Humidity: 61% RH

Tested by: Marco Chan

##### Peak & Average output power :

BLE 1M mode:

CH	Frequency (MHz)	Power Setting	Peak Output Power (dBm)	Required Limit (dBm)
0	2402	default	3.56	30
20	2442	default	3.24	30
39	2480	default	2.96	30

CH	Frequency (MHz)	Power Setting	Avg. Output Power (dBm)	Required Limit (dBm)
0	2402	default	2.91	30
20	2442	default	2.51	30
39	2480	default	2.21	30

\*Note:

1. Measured by power meter, cable loss 0.5 dB + Duty cycle factor has been offseted to the power meter for Avg. power and cable loss has been offseted for Peak power measurement.

##### EIPR :

EIRP BLE 1M mode

CH	Frequency (MHz)	Power Setting	Avg. Output Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	Limit
0	2402	default	2.91	3.11	6.02	4W= 36 dBm
20	2442	default	2.51	3.11	5.62	4W= 36 dBm
39	2480	default	2.21	3.11	5.32	4W= 36 dBm

\* Note: EIRP = Average Power + Gain

## 4.4 POWER SPECTRAL DENSITY

### 4.4.1 Test Limit

According to §15.247(e) and RSS-247 section 5.2(b)

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

Limit	<input checked="" type="checkbox"/> Antenna not exceed 6 dBi : 8dBm <input type="checkbox"/> Antenna with DG greater than 6 dBi [ Limit = 8 – (DG – 6) ] <input type="checkbox"/> Point-to-point operation :
-------	---

### 4.4.2 Test Procedure

Test method Refer as KDB 558074 D01

1. The EUT RF output connected to the spectrum analyzer by RF cable.
2. Setting maximum power transmit of EUT
3. SA set RBW = 3kHz, VBW = 10kHz, Span = 1.5 times DTS Bandwidth (6 dB BW), Detector = Peak, Sweep Time = Auto and Trace = Max hold.
4. The path loss was compensated to the results for each measurement by SA.
5. Mark the maximum level.
6. Measure and record the result of power spectral density. in the test report.

### 4.4.3 Test Setup

Refer to section 1.8.

#### 4.4.4 Test Result

**Temperature:** 23.8°C**Test date:** July 8, 2025**Humidity:** 61% RH**Tested by:** Marco Chan**BLE 1M mode**

Frequency (MHz)	RF Power Density (dBm/3kHz)	Maximum Limit (dBm/3kHz)	Result
2402	-10.98	8	PASS
2442	-11.95	8	PASS
2480	-12.40	8	PASS

**\*Note:****1. cable loss as 0.5dB that offsets in the spectrum**

## Test Data



## 4.5 CONDUCTED BAND EDGE AND SPURIOUS EMISSION

### 4.5.1 Test Limit

According to §15.247(d) and RSS-247 section 5.5,

**FCC:** In any 100 kHz bandwidth outside the authorized frequency band, Non-restricted bands shall be attenuated at least 20 dB/30 dB relative to the maximum PSD level in 100 kHz by RF conducted or a radiated measurement which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a).

**IC:** In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under section 5.4(d), the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general field strength limits specified in RSS-Gen is not required.

### 4.5.2 Test Procedure

Test method Refer as KDB 558074 D01

1. EUT RF output port connected to the SA by RF cable, and the path loss was compensated to result.
2. SA setting, RBW=100kHz, VBW=300kHz, Detector=Peak, Trace mode = max hold, SWT = Auto.
3. In any 100 kHz bandwidth outside the authorized frequency band, shall be attenuated at least 20 dB relative to the maximum in-band peak PSD level in 100 kHz when conducted power procedure is used. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, the attenuation required under this paragraph shall be 30 dB instead of 20 dB.

### 4.5.3 Test Setup

Refer to section 1.8.

### 4.5.4 Test Result

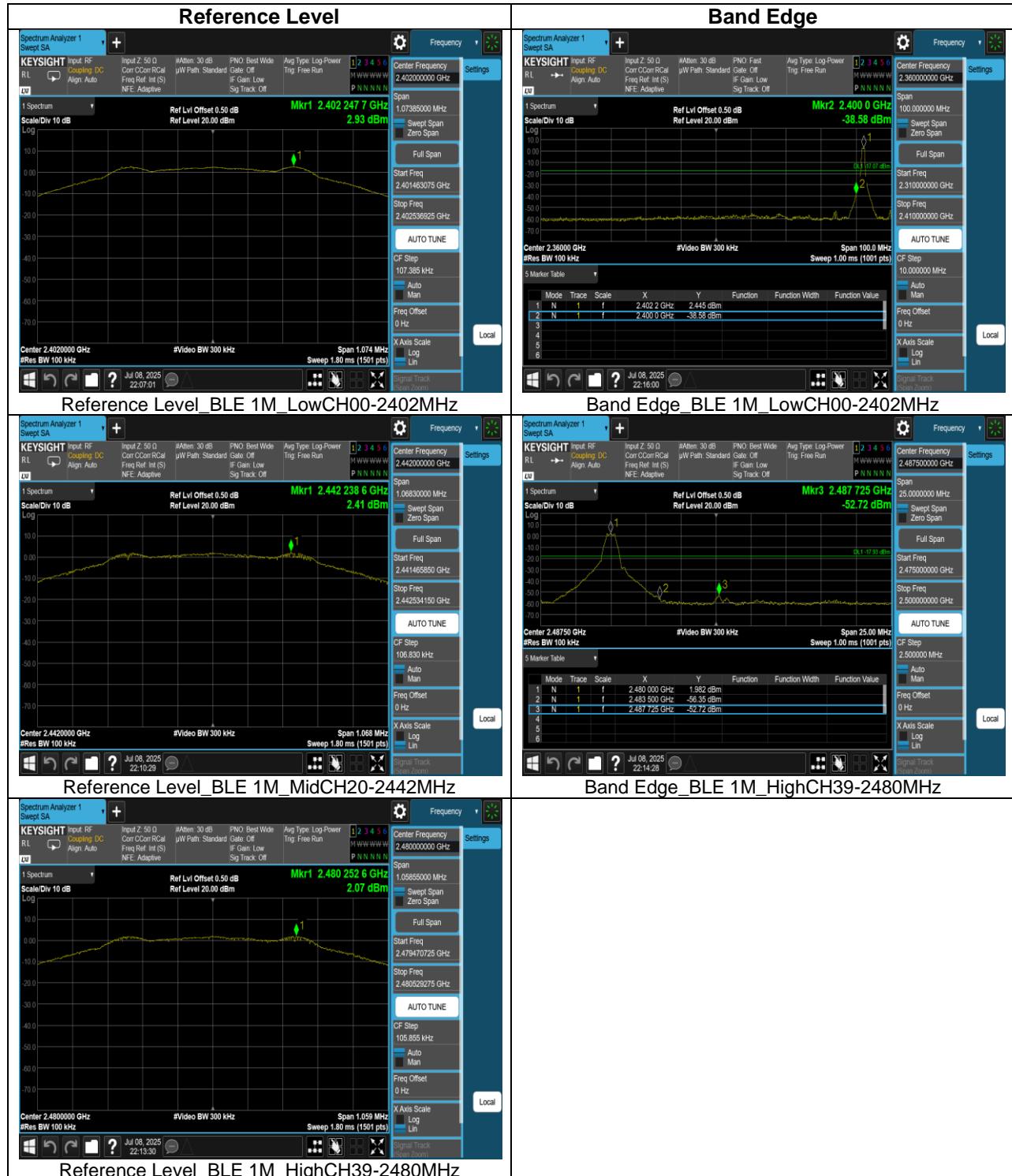
**Temperature:** 23.8°C

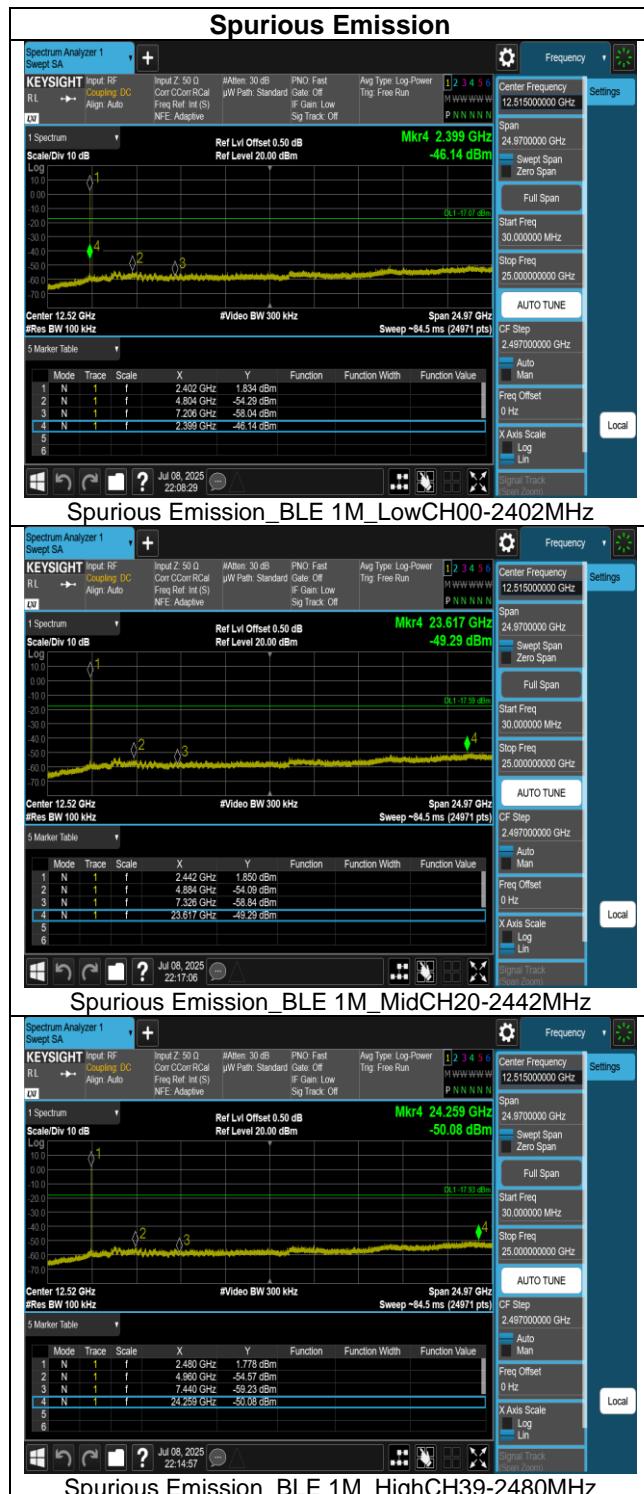
**Test date:** July 8, 2025

**Humidity:** 61% RH

**Tested by:** Marco Chan

## Test Data





## 4.6 RADIATION BANDEDGE AND SPURIOUS EMISSION

### 4.6.1 Test Limit

FCC according to §15.247(d), §15.209 and §15.205,

In any 100 kHz bandwidth outside the authorized frequency band, all harmonic and spurious must be least 20 dB below the highest emission level with the authorized frequency band. Radiation emission which fall in the restricted bands must also follow the FCC section 15.209 as below limit in table.

#### Below 30 MHz

Frequency	Field Strength (microvolts/m)	Magnetic H-Field (microamperes/m)	Measurement Distance (metres)
9-490 kHz	2,400/F (F in kHz)	2,400/F (F in kHz)	300
490-1,705 kHz	24,000/F (F in kHz)	24,000/F (F in kHz)	30
1.705-30 MHz	30	N/A	30

#### Above 30 MHz

Frequency (MHz)	Field Strength microvolts/m at 3 metres (watts, e.i.r.p.)	
	Transmitters	Receivers
30-88	100 (3 nW)	100 (3 nW)
88-216	150 (6.8 nW)	150 (6.8 nW)
216-960	200 (12 nW)	200 (12 nW)
Above 960	500 (75 nW)	500 (75 nW)

Remark:

Although these tests were performed other than open area test site, adequate comparison measurements were confirmed against 30 m open are test site. Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the ones of tests made in an open field based on KDB 414788.

IC according to RSS-247 section 5.5, RSS-Gen, Section 8.9 and 8.10

**RSS-Gen Table 3 and Table 5 – General Field Strength Limits for Transmitters and Receivers at Frequencies Above 30 MHz** (Note)

Frequency (MHz)	Field Strength microvolts/m at 3 metres (watts, e.i.r.p.)	
	Transmitters	Receivers
30-88	100 (3 nW)	100 (3 nW)
88-216	150 (6.8 nW)	150 (6.8 nW)
216-960	200 (12 nW)	200 (12 nW)
Above 960	500 (75 nW)	500 (75 nW)

**Note:** Measurements for compliance with the limits in table 3 may be performed at distances other than 3 metres, in accordance with Section 6.6.

**RSS-Gen Table 6: General Field Strength Limits for Transmitters at Frequencies Below 30 MHz (Transmit)**

Frequency	Magnetic field strength (H-Field) ( $\mu$ A/m)	Measurement Distance (m)
9-490 kHz <small>Note</small>	6.37/F (F in kHz)	300
490-1,705 kHz	63.7/F (F in kHz)	30
1.705-30 MHz	0.08	30

**Note:** The emission limits for the ranges 9-90 kHz and 110-490 kHz are based on measurements employing a linear average detector.

## 4.6.2 Test Procedure

1. The EUT is placed on a turntable, Above 1 GHz is 1.5m and below 1 GHz is 0.8m above ground plane. The EUT Configured un accordance with ANSI C63.10-2020+Cor.1-2023, and the EUT set in a continuous mode.
2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level. And EUT is set 3m away from the receiving antenna, which is scanned from 1m to 4m above the ground plane to find out the highest emissions. Measurement are made polarized in both the vertical and the horizontal positions with antenna.
3. Span shall wide enough to full capture the emission measured. The SA from 9KHz to 26.5GHz set to the low, Mid and High channels with the EUT transmit.
4. No emission found between lowest internal used/generated frequency to 30MHz (9KHz~30MHz).

Radiated emission below 30MHz is measured in a 9m\*6m\*6m semi-ane choic chamber, the measurements correspond to those obtained at an open-field test site. There is a comparison data of both open-field test site and semi-Anechoic chamber, and the result came out very similar.

### 5. The SA setting following :

#### (1) Below 30MHz :

- (1.1) 9KHz-490KHz : RBW=200Hz / VBW=1kHz / Sweep=AUTO
- (1.2) 490KHz-30MHz : RBW=10kHz / VBW=30kHz / Sweep=AUTO

#### (2) 30MHz to 1GHz : RBW = 100kHz, VBW $\geq$ 3\*RBW, Sweep = Auto,

Detector = Peak, Trace = Max hold.

#### (3) Above 1GHz :

- (3.1) For Peak measurement : RBW = 1MHz, VBW  $\geq$  3 RBW, Sweep = Auto,  
Detector = Peak, Trace = Max hold.

- (3.2) For Average measurement : RBW = 1MHz, VBW

·If Duty Cycle  $\geq$  98%, VBW=10Hz.

·If Duty Cycle < 98%, VBW=1/T.

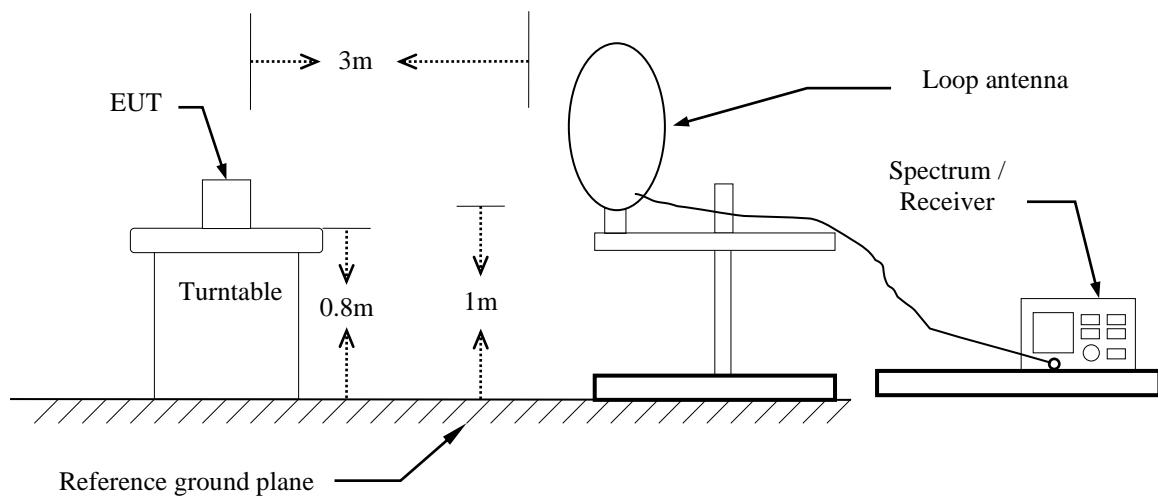
### 6. Data result :

Actual FS=Spectrum Reading Level + Factor

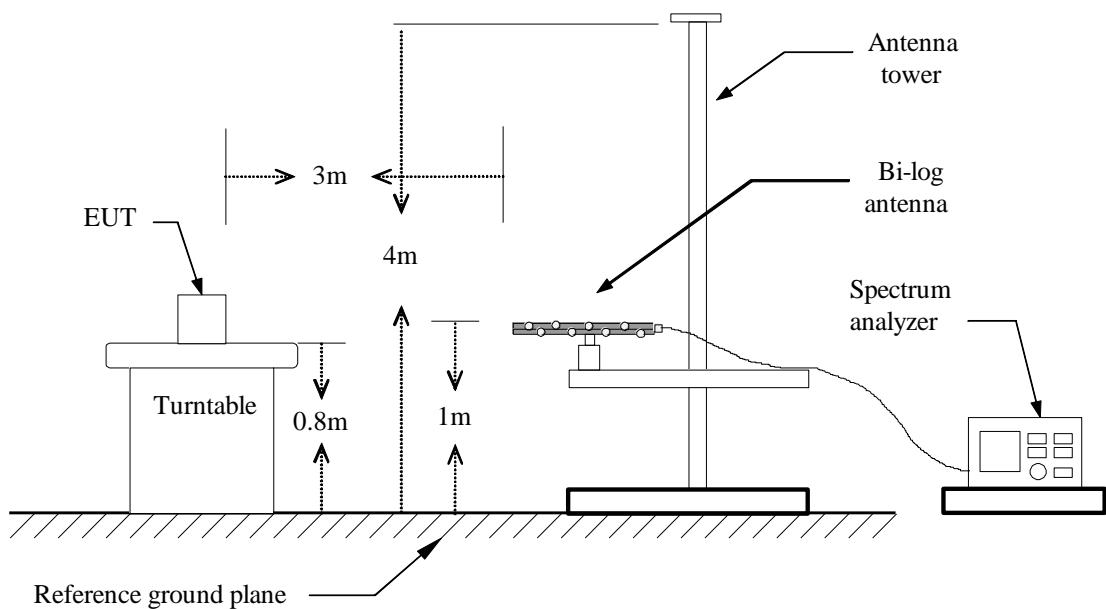
Margin=Actual FS- Limit

### 4.6.3 Test Setup

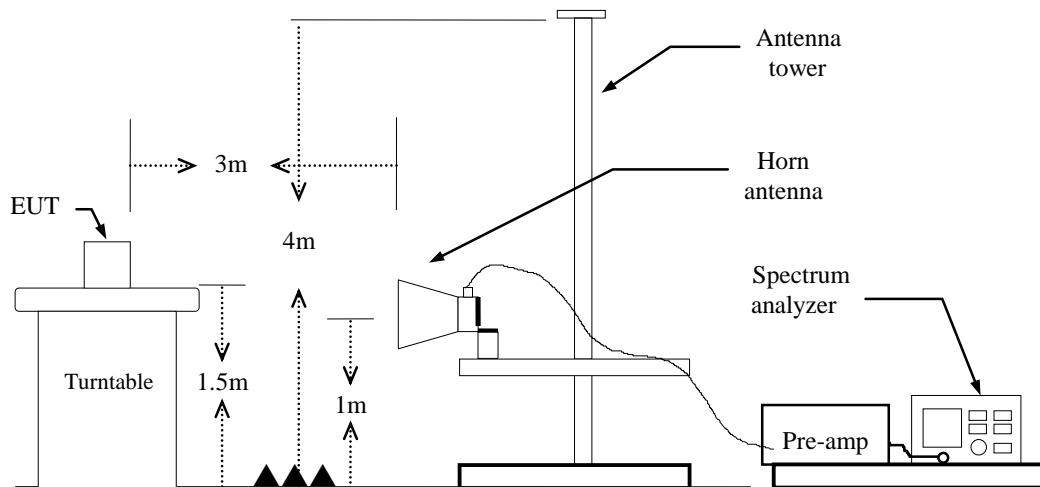
#### 9kHz ~ 30MHz



#### 30MHz ~ 1GHz



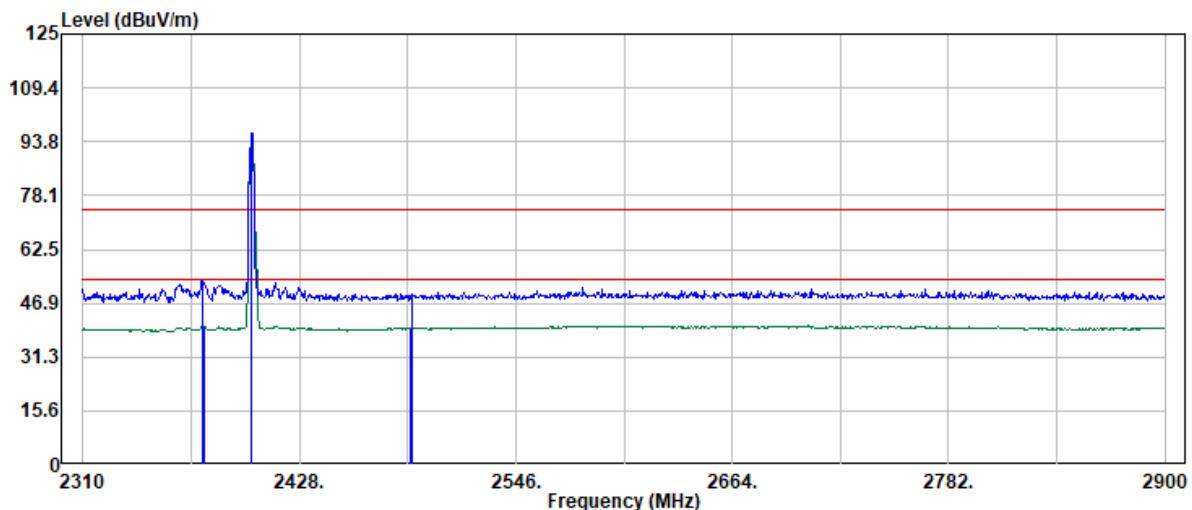
## Above 1 GHz



## 4.6.4 Test Result

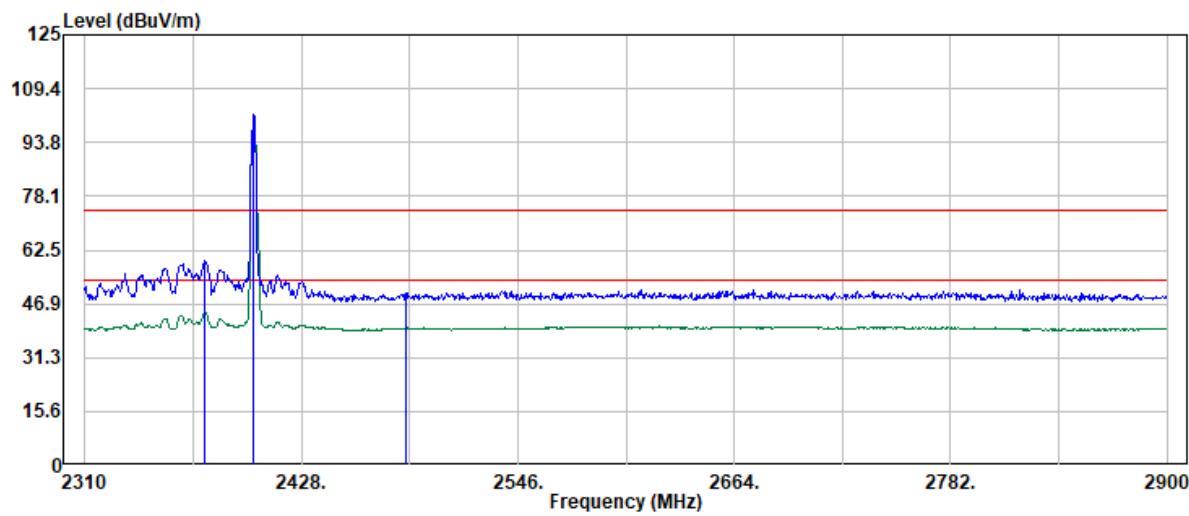
### Band Edge Test Data

Project No	:	TM-2506000256P	Test Date	:	2025-07-05
Operation Band	:	BLE_1M	Temp./Humi.	:	25.2/54
Frequency	:	2402 MHz	Antenna Pol.	:	VERTICAL
Operation Mode	:	Bandedge	Engineer	:	Ben.Yang
EUT Pol	:	E2	Test Chamber	:	966A
Setting	:				

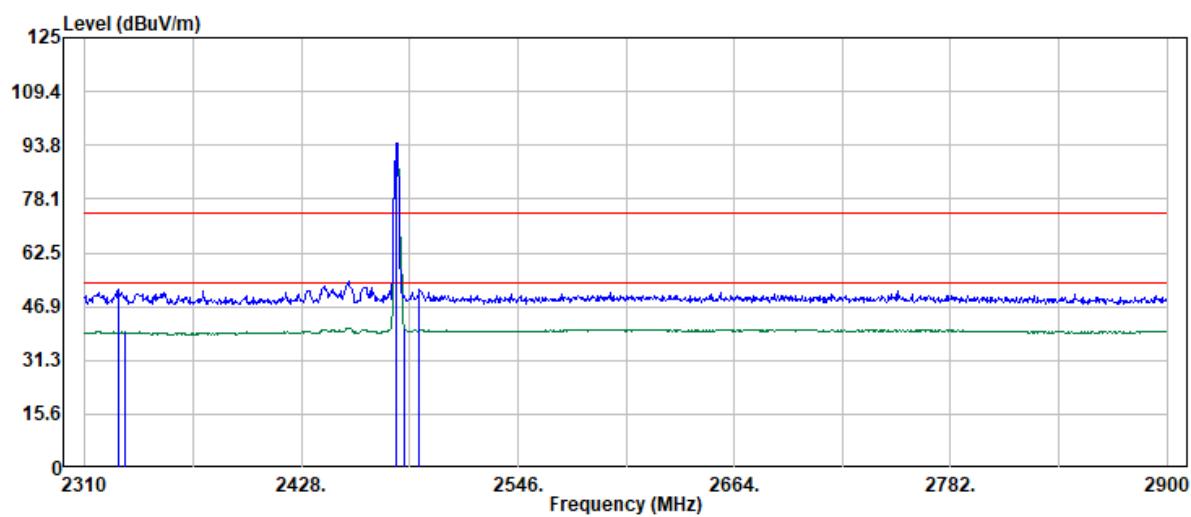


Project No : TM-2506000256P  
Operation Band : BLE\_1M  
Frequency : 2402 MHz  
Operation Mode : Bandedge  
EUT Pol : E2  
Setting :

Test Date : 2025-07-05  
Temp./Humi. : 25.2/54  
Antenna Pol. : HORIZONTAL  
Engineer : Ben.Yang  
Test Chamber : 966A



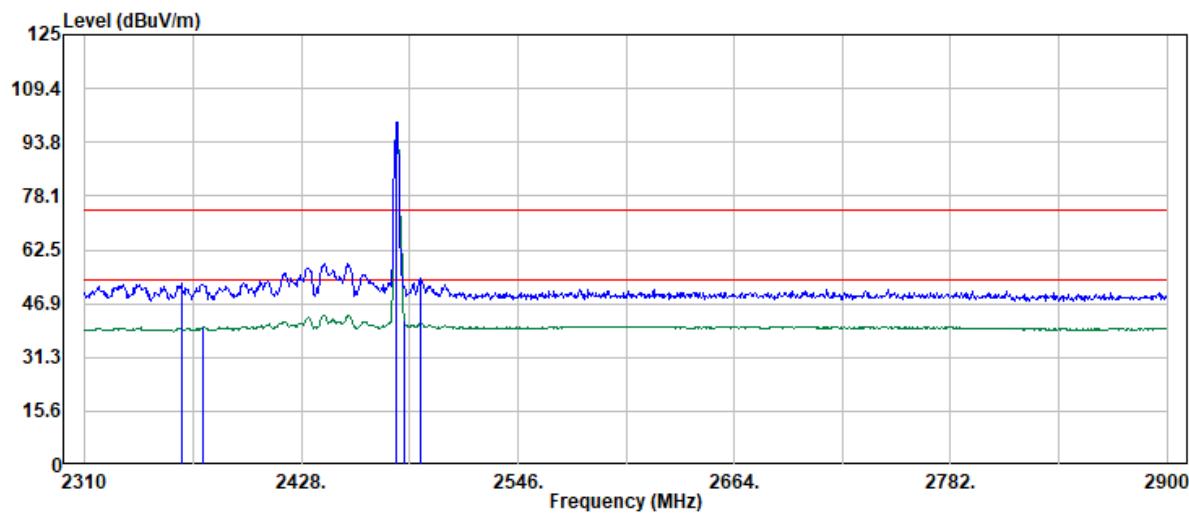
Project No : TM-2506000256P      Test Date : 2025-07-05  
Operation Band : BLE\_1M      Temp./Humi. : 25.2/54  
Frequency : 2480 MHz      Antenna Pol. : VERTICAL  
Operation Mode : Bandedge      Engineer : Ben.Yang  
EUT Pol : E2      Test Chamber : 966A  
Setting :



Trace: 1						
Freq	Read Level	Actual Factor	Limit FS	Limit @3m	Margin	Detector Mode
MHz	dBuV	dB	dBuV/m	dBuV/m	dB	PK/QP/AV
2327.99	45.42	6.24	51.66	74.00	-22.34	Peak
2331.48	33.25	6.23	39.48	54.00	-14.52	Average
2480.00	87.72	6.73	94.45	--	--	Peak
2480.00	86.83	6.73	93.56	--	--	Average
2483.85	33.65	6.77	40.42	54.00	-13.58	Average
2492.35	45.06	6.82	51.88	74.00	-22.12	Peak

Project No : TM-2506000256P  
Operation Band : BLE\_1M  
Frequency : 2480 MHz  
Operation Mode : Bandedge  
EUT Pol : E2  
Setting :

Test Date : 2025-07-05  
Temp./Humi. : 25.2/54  
Antenna Pol. : HORIZONTAL  
Engineer : Ben.Yang  
Test Chamber : 966A



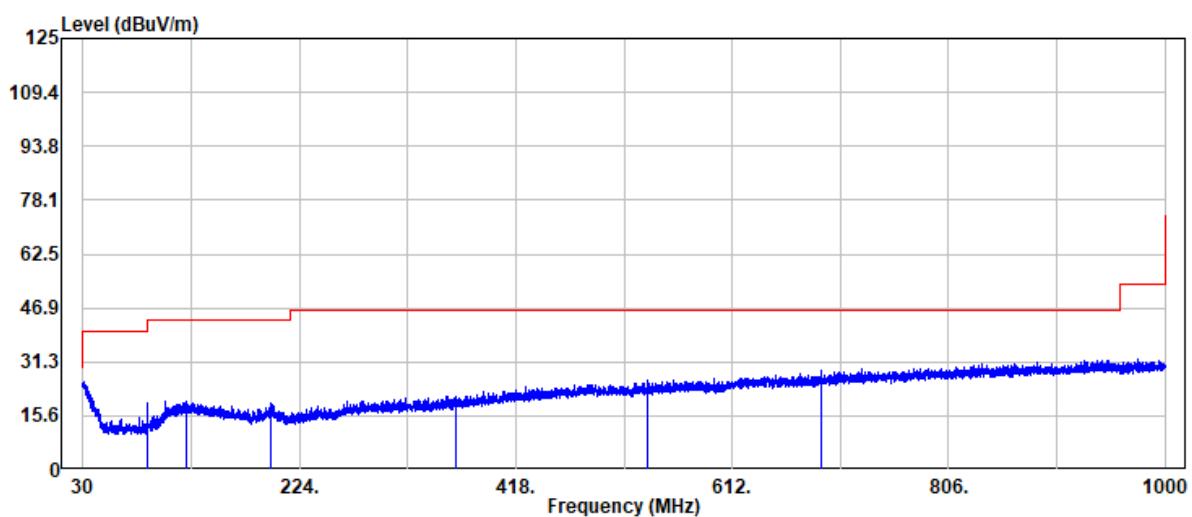
Trace: 1

Freq	Read Level	Actual Factor	Limit FS	Limit @3m	Margin	Detector
MHz	dBuV	dB	dBuV/m	dBuV/m	dB	PK/QP/AV
2362.46	46.52	6.14	52.66	74.00	-21.34	Peak
2374.45	33.78	6.22	40.00	54.00	-14.00	Average
2480.00	92.74	6.73	99.47	--	--	Peak
2480.00	91.85	6.73	98.58	--	--	Average
2483.85	35.21	6.77	41.98	54.00	-12.02	Average
2493.35	47.44	6.81	54.25	74.00	-19.75	Peak

**TX Test Data**

Project No : TM-2506000256P  
Operation Band : BLE\_1M  
Frequency : 2402 MHz  
Operation Mode : TX  
EUT Pol : E2  
Setting :

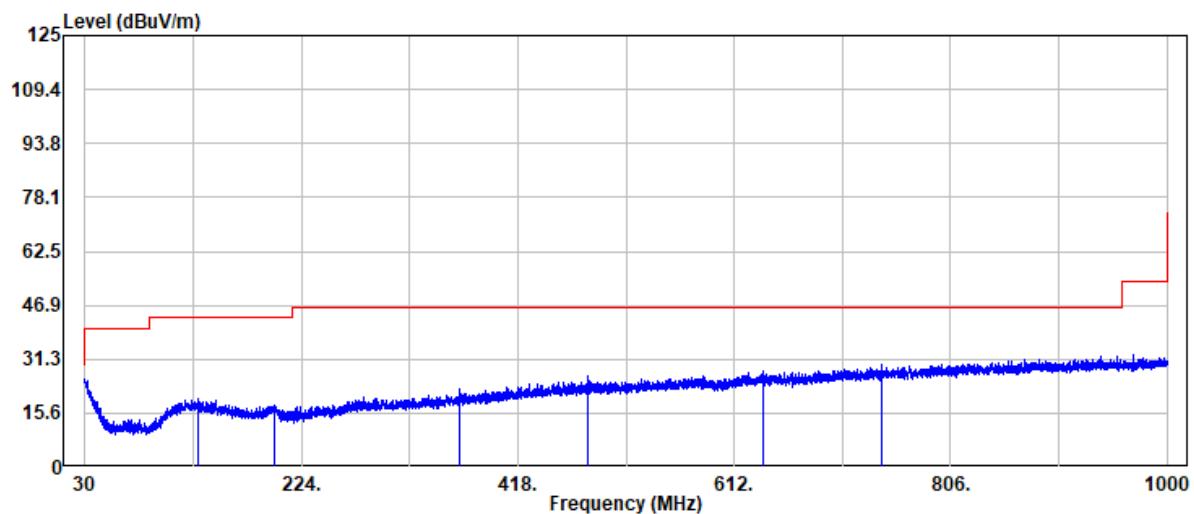
Test Date : 2025-07-06  
Temp./Humi. : 25.2/54  
Antenna Pol. : VERTICAL  
Engineer : Ben.Yang  
Test Chamber : 966A



Freq	Read Level	Actual Factor	Limit FS	Limit @3m	Margin	Detector Mode
MHz	dBuV	dB	dBuV/m	dBuV/m	dB	PK/QP/AV
87.96	35.52	-16.32	19.20	40.00	-20.80	Peak
122.76	29.25	-9.64	19.61	43.50	-23.89	Peak
198.54	29.80	-10.43	19.37	43.50	-24.13	Peak
364.53	29.10	-7.87	21.23	46.00	-24.77	Peak
535.73	29.86	-3.99	25.87	46.00	-20.13	Peak
691.90	30.16	-1.38	28.78	46.00	-17.22	Peak

Project No : TM-2506000256P  
Operation Band : BLE\_1M  
Frequency : 2402 MHz  
Operation Mode : TX  
EUT Pol : E2  
Setting :

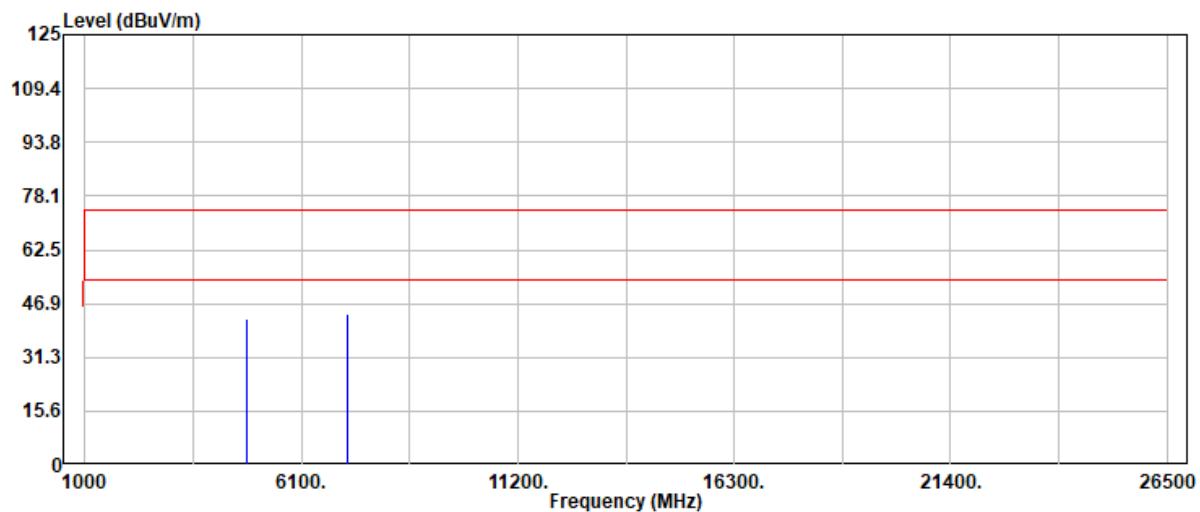
Test Date : 2025-07-06  
Temp./Humi. : 25.2/54  
Antenna Pol. : HORIZONTAL  
Engineer : Ben.Yang  
Test Chamber : 966A



Freq	Read Level	Actual Factor	FS	Limit @3m	Margin	Detector Mode
MHz	dBuV	dB	dBuV/m	dBuV/m	dB	PK/QP/AV
131.61	29.70	-9.86	19.84	43.50	-23.66	Peak
199.63	28.41	-10.27	18.14	43.50	-25.36	Peak
366.47	30.54	-7.82	22.72	46.00	-23.28	Peak
481.29	30.87	-4.47	26.40	46.00	-19.60	Peak
638.07	29.77	-1.76	28.01	46.00	-17.99	Peak
744.65	30.10	-0.40	29.70	46.00	-16.30	Peak

Project No : TM-2506000256P  
Operation Band : BLE\_1M  
Frequency : 2402 MHz  
Operation Mode : TX  
EUT Pol : E2  
Setting :

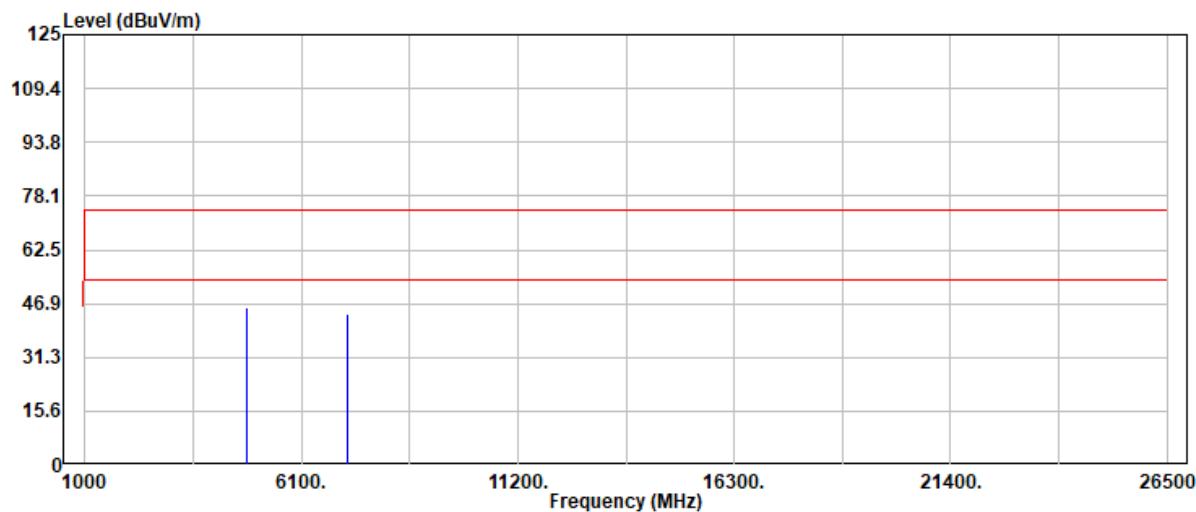
Test Date : 2025-07-05  
Temp./Humi. : 25.2/54  
Antenna Pol. : VERTICAL  
Engineer : Ben.Yang  
Test Chamber : 966A



Freq	Read Level	Actual Factor	Limit FS	Limit @3m	Margin	Detector Mode
MHz	dBuV	dB	dBuV/m	dBuV/m	dB	PK/QP/AV
4804.00	39.86	2.40	42.26	74.00	-31.74	Peak
4804.00	34.40	2.40	36.80	54.00	-17.20	Average
7206.00	34.91	8.96	43.87	74.00	-30.13	Peak
7206.00	25.69	8.96	34.65	54.00	-19.35	Average

Project No : TM-2506000256P  
Operation Band : BLE\_1M  
Frequency : 2402 MHz  
Operation Mode : TX  
EUT Pol : E2  
Setting :

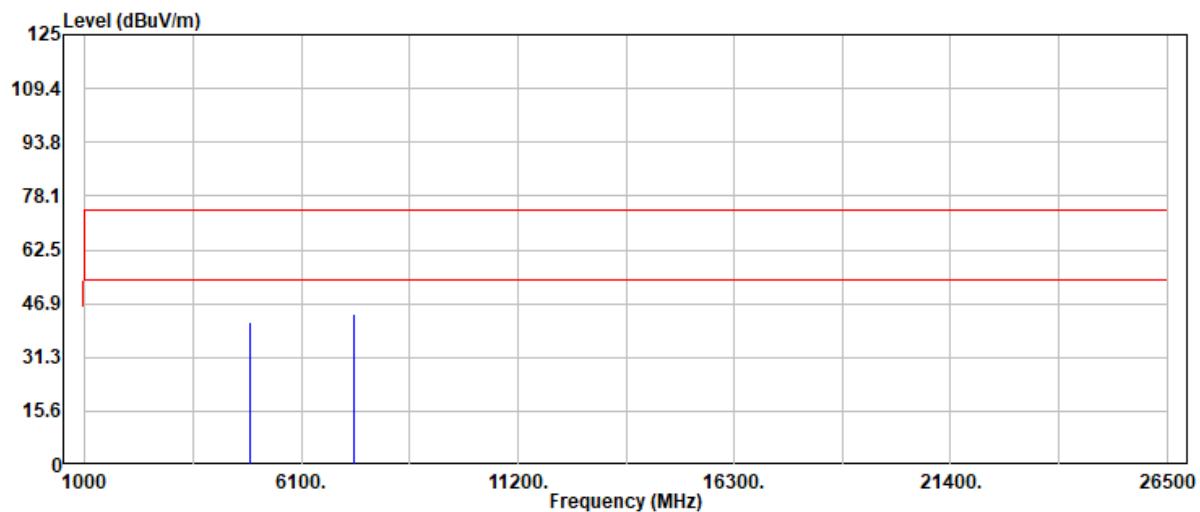
Test Date : 2025-07-05  
Temp./Humi. : 25.2/54  
Antenna Pol. : HORIZONTAL  
Engineer : Ben.Yang  
Test Chamber : 966A



Freq	Read Level	Actual Factor	Limit FS	Limit @3m	Margin	Detector Mode
MHz	dBuV	dB	dBuV/m	dBuV/m	dB	PK/QP/AV
4804.00	43.28	2.40	45.68	74.00	-28.32	Peak
4804.00	40.89	2.40	43.29	54.00	-10.71	Average
7206.00	34.79	8.96	43.75	74.00	-30.25	Peak
7206.00	26.44	8.96	35.40	54.00	-18.60	Average

Project No : TM-2506000256P  
Operation Band : BLE\_1M  
Frequency : 2442 MHz  
Operation Mode : TX  
EUT Pol : E2  
Setting :

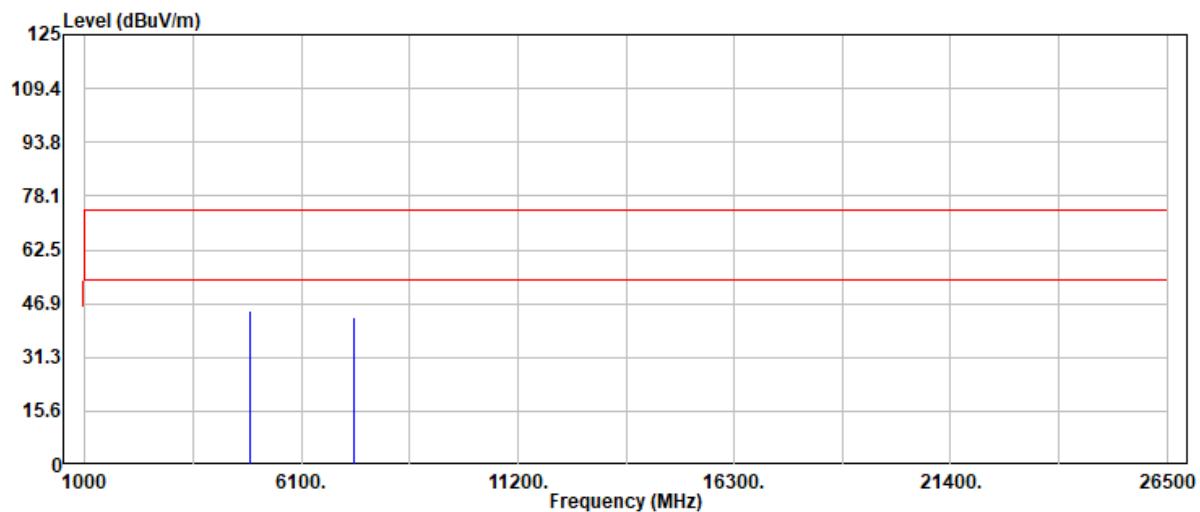
Test Date : 2025-07-05  
Temp./Humi. : 25.2/54  
Antenna Pol. : VERTICAL  
Engineer : Ben.Yang  
Test Chamber : 966A



Freq	Read Level	Actual Factor	Limit FS	Limit @3m	Margin	Detector Mode
MHz	dBuV	dB	dBuV/m	dBuV/m	dB	PK/QP/AV
4884.00	38.59	2.70	41.29	74.00	-32.71	Peak
4884.00	33.82	2.70	36.52	54.00	-17.48	Average
7326.00	34.56	9.39	43.95	74.00	-30.05	Peak
7326.00	26.23	9.39	35.62	54.00	-18.38	Average

Project No : TM-2506000256P  
Operation Band : BLE\_1M  
Frequency : 2442 MHz  
Operation Mode : TX  
EUT Pol : E2  
Setting :

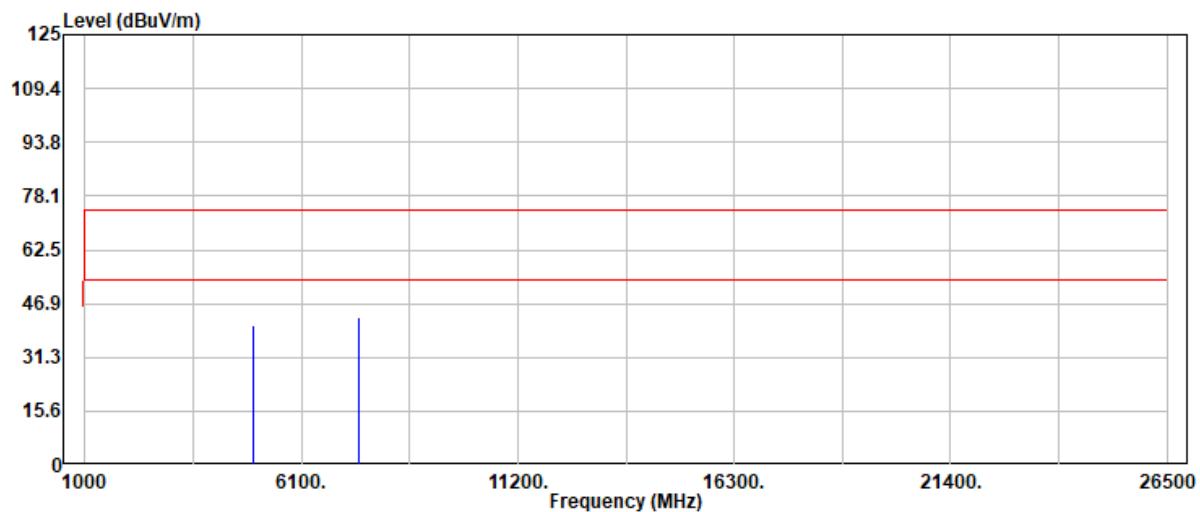
Test Date : 2025-07-05  
Temp./Humi. : 25.2/54  
Antenna Pol. : HORIZONTAL  
Engineer : Ben.Yang  
Test Chamber : 966A



Freq	Read Level	Actual Factor	Limit FS	Limit @3m	Margin	Detector Mode
MHz	dBuV	dB	dBuV/m	dBuV/m	dB	PK/QP/AV
4884.00	42.17	2.70	44.87	74.00	-29.13	Peak
4884.00	40.34	2.70	43.04	54.00	-10.96	Average
7326.00	33.31	9.39	42.70	74.00	-31.30	Peak
7326.00	26.14	9.39	35.53	54.00	-18.47	Average

Project No : TM-2506000256P  
Operation Band : BLE\_1M  
Frequency : 2480 MHz  
Operation Mode : TX  
EUT Pol : E2  
Setting :

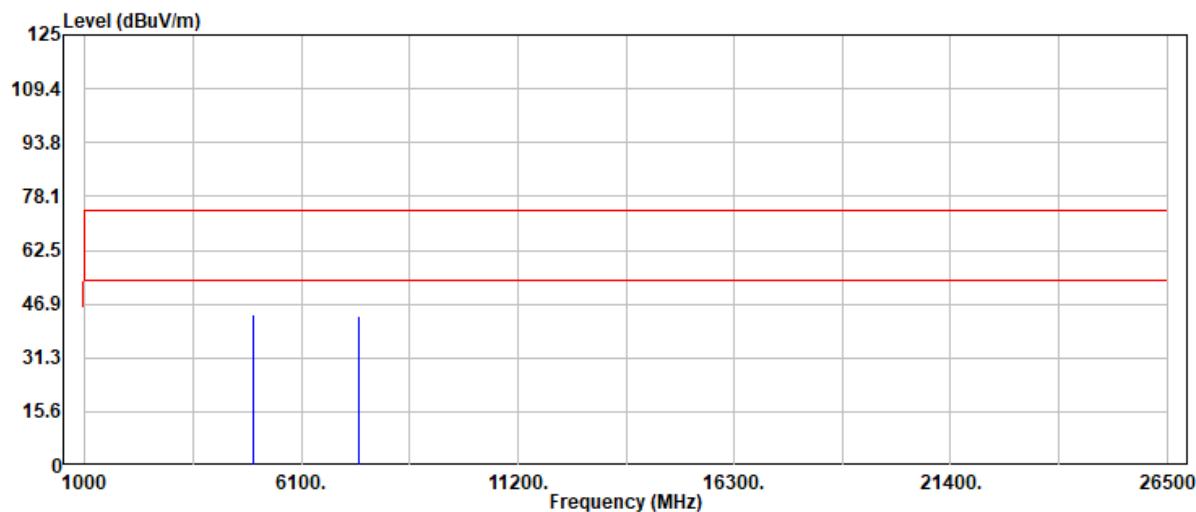
Test Date : 2025-07-05  
Temp./Humi. : 25.2/54  
Antenna Pol. : VERTICAL  
Engineer : Ben.Yang  
Test Chamber : 966A



Freq	Read Level	Actual Factor	Limit FS	Limit @3m	Margin	Detector Mode
MHz	dBuV	dB	dBuV/m	dBuV/m	dB	PK/QP/AV
4960.00	37.07	3.52	40.59	74.00	-33.41	Peak
4960.00	33.00	3.52	36.52	54.00	-17.48	Average
7440.00	33.56	9.46	43.02	74.00	-30.98	Peak
7440.00	26.09	9.46	35.55	54.00	-18.45	Average

Project No : TM-2506000256P  
Operation Band : BLE\_1M  
Frequency : 2480 MHz  
Operation Mode : TX  
EUT Pol : E2  
Setting :

Test Date : 2025-07-05  
Temp./Humi. : 25.2/54  
Antenna Pol. : HORIZONTAL  
Engineer : Ben.Yang  
Test Chamber : 966A



Freq	Read Level	Actual Factor	Limit FS	Limit @3m	Margin	Detector Mode
MHz	dBuV	dB	dBuV/m	dBuV/m	dB	PK/QP/AV
4960.00	40.39	3.52	43.91	74.00	-30.09	Peak
4960.00	37.82	3.52	41.34	54.00	-12.66	Average
7440.00	34.06	9.46	43.52	74.00	-30.48	Peak
7440.00	25.60	9.46	35.06	54.00	-18.94	Average

**- End of Test Report -**