

# TEST REPORT

of

## FCC CFR Title 47 Part 15 Subpart C

Product: **Infant Oximeter Box**  
Brand: **AULISA**  
Main Model: **GA-OB0004 Plus**  
Series Model: **NA**  
FCC ID: **2A15Q-OB0004PLUS**  
Standard: **§15.247, Cat: DTS**  
Reference: **ANSI C63.10: 2013**  
**KDB 558074 D01 v05r02**  
Applicant: **Taiwan Aulisa Medical Devices Technologies, Inc**  
Address: **6F-2, No. 3-1, YuanQu St., Nangang Dist., 115 Taipei City, Taiwan**

Test Performed by:



**International Standards Laboratory Corp. LT Lab.**

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Report No.: **ISL-25LR0117FCBLE**

Issue Date : **August 25, 2025**



FCC Registration Number: 487532

Test results given in this report apply only to the specific sample(s) tested and are traceable to national or international standard through calibration of the equipment and evaluating measurement uncertainty herein. According to customer agreement, the laboratory issues test reports based on the regulations or standards specifications, the measurement uncertainty is not considered in conformity decision rules.

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## VERIFICATION OF COMPLIANCE

**Applicant:** Taiwan Aulisa Medical Devices Technologies, Inc  
**Equipment Under Test:** Infant Oximeter Box  
**Brand:** AULISA  
**Main Model:** GA-OB0004 Plus  
**Series Model:** N/A  
**Model Difference:** N/A  
**FCC ID:** 2AI5Q-OB0004PLUS  
**Date of Test:** July 21, 2025 ~ August 25, 2025  
**Date of EUT Received:** July 21, 2025

APPLICABLE STANDARDS	
STANDARD	TEST RESULT
FCC Part 15.247	Complied

**We hereby certify that:**

All the tests in this report have been performed and recorded in accordance with the standards described above and performed by an independent electromagnetic compatibility consultant, International Standards Laboratory Corp.

The test results contained in this report accurately represent the measurements of the characteristics and the energy generated by sample equipment under test at the time of the test. The sample equipment tested as described in this report is in compliance with the limits of above standards.

Prepared By: Gigi Yeh

Test By: Barry Lee  
Barry Lee

Approved By: Jerry Liu  
Jerry Liu / Manager

## Version

Version No.	Date	Description
00	August 25, 2025	Initial creation of document

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## 1. Description of Equipment under Test (EUT)

General Information		
Product Name:	Infant Oximeter Box	
Brand Name:	AULISA	
Model Name:	GA-OB0004 Plus	
Model Difference:	N/A	
Temperature Range	N/A	
Power Rating:	3.7VDC	
	Battery:	Model: IP602035P1; Supplier: RPC Corporation
	Adaptor:	Model: SINGOF-10U-050200 Supplier: FORTRON/SOURCE
Bluetooth Information		
Bluetooth Modular:	TI CC2642R1F	
Bluetooth Version:	V5.2	
Frequency Range:	2402– 2480MHz	
Max Output Power:	5.50dBm	
Channel number:	40channels	
Modulation type:	GFSK	
Product HW Version:	GA-OB0004Plus 2025/05/13 Rev: 1.0.0	
Product SW Version:	Android 3.1.6 /iOS 3.1.6	
Product FW Version:	V2.1.5	
Test SW Version:	SmartRF Studio 7 ver.2.17.0	
RFpower setting:	default	
Worst Case:	1M	

	Antenna Type	Brand	Model	Peak Gain	Frequency Range	Connector Type
1	Chip	TDK	ANT016008LCS2 442MA2	2.5dBi	2400-2484MHz	-----

## 2. Description of Test Modes

The EUT has been tested under engineering operating condition.

Test program used to control the EUT for staying in continuous transmitting mode is programmed.

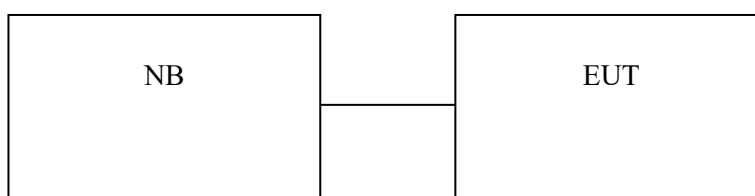
BLE:

Channel low (2402MHz), mid (2442MHz), (2480MHz) with each modulation were chosen for full testing.

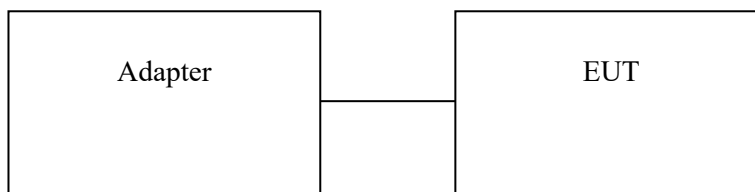
### 2.1 Configuration of Tested System

#### Configuration of Tested System (Fixed channel)

Raditided



Conduction



According to ANSI C63.10 Figure 8:

The radiated emissions testing was performed in three orthogonal axis positions, the worst was found in Y axis, and record in the report.

#### Equipment Used in Tested System

Item	Equipment	Brand	Model	S/N	Data Cable	Power Cord
1	Notebook	ASUS	P2420L	N/A	100cm	N/A
2	Adapter	FORTRON/S OURCE	SINGOF-10U-05 0200	2311-0000733	N/A	120cm

## 2.2 Duty factor

Mode	ON time (ms)	Total time (ms)	Duty Cycle	Duty Factor	1/Ton	VBW (kHz)
BLE (1M)	1	1	100%	0	1	0.01
BLE (2M)	1	1	100%	0	1	0.01

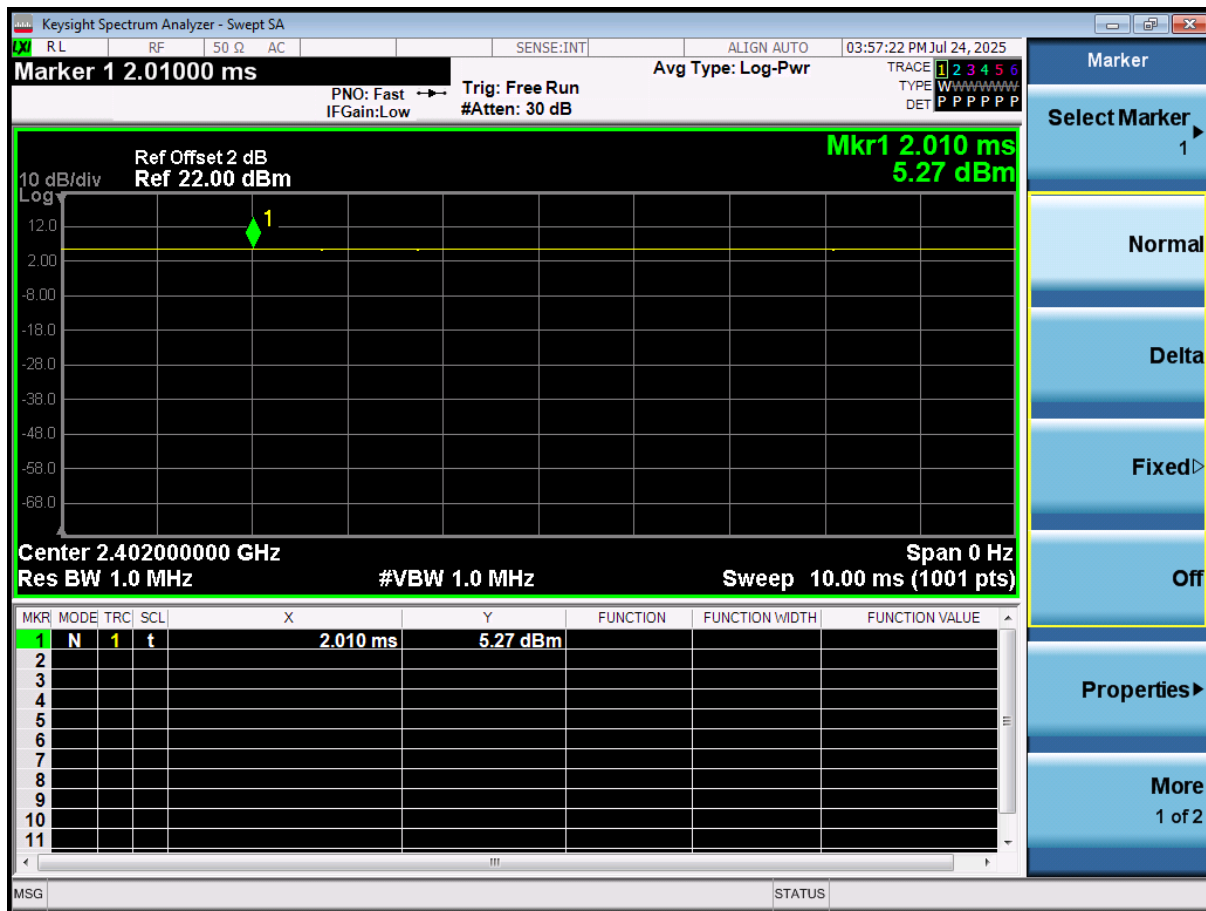
If duty cycle of test signal is  $\geq 98\%$ , duty factor is not required.

If duty cycle of test signal is  $< 98\%$ , duty factor shall be considered.

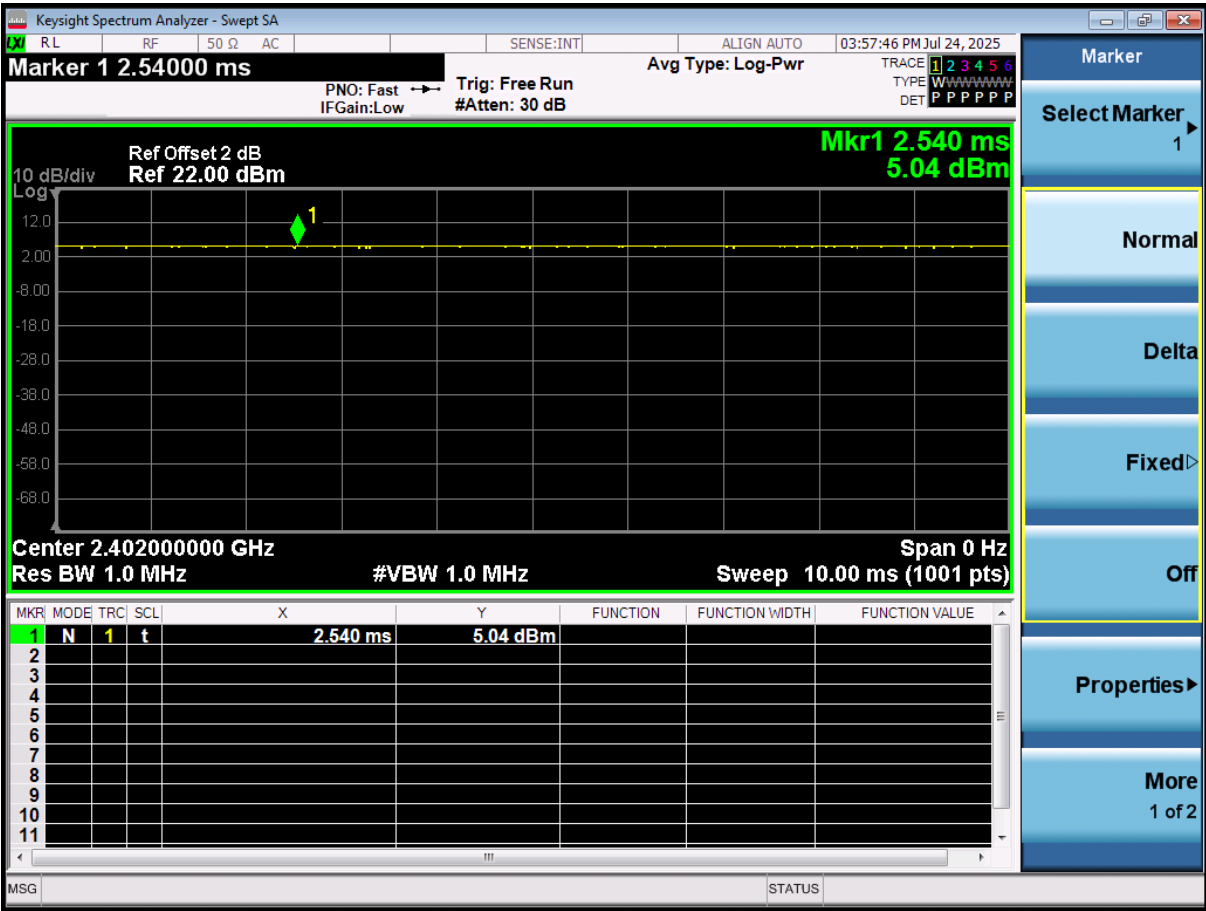
The output power = measured power + duty factor

For frequency above 1GHz, the video bandwidth setting for average detector:  $VBW \geq 1/Ton$

Test Data: BLE Duty 1M



Test Data: BLE Duty 2M





### 3. Standards, reference documents and applicable test methods

The EUT According to the Specifications, it must comply with the requirements of the following standards:

1. FCC Title 47 CFR part 15 - Subpart C – §15.247 Operation within the bands 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz.
2. FCC Title 47 CFR part 15 - Subpart C – §15.207 Conducted limits.
3. FCC Title 47 CFR part 15 - Subpart C – §15.209 Radiated emission limits; general requirements.
4. FCC OET KDB 558074 D01 v05r02 - Guidance for compliance measurements on digital transmission system, frequency hopping spread spectrum system, and hybrid system devices operating under section 15.247 of the FCC rules
5. FCC OET KDB 662911 D01 v02r01 - Emissions Testing of Transmitters with Multiple Outputs in the Same Band
6. ANSI C63.10-2013 - American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices

### 4. Summary of Test Results

FCC Rules	Description Of Test	Result
§15.207(a)	AC Power Line Conducted Emission	Compliant
§15.247(b) (3), (4)	Peak Output Power/ EIRP	Compliant
§15.247(a)(2)	6dB Power Bandwidth	Compliant
§15.247(d)	100 kHz Bandwidth of Frequency Band Edges	Compliant
§15.247(d)	Spurious Emission	Compliant
§15.247(e)	Peak Power Density	Compliant

## 5. AC Line Conducted Emission Test

### 5.1 Standard Applicable

According to §15.207, frequency range within 150kHz to 30MHz shall not exceed the Limit table as below.

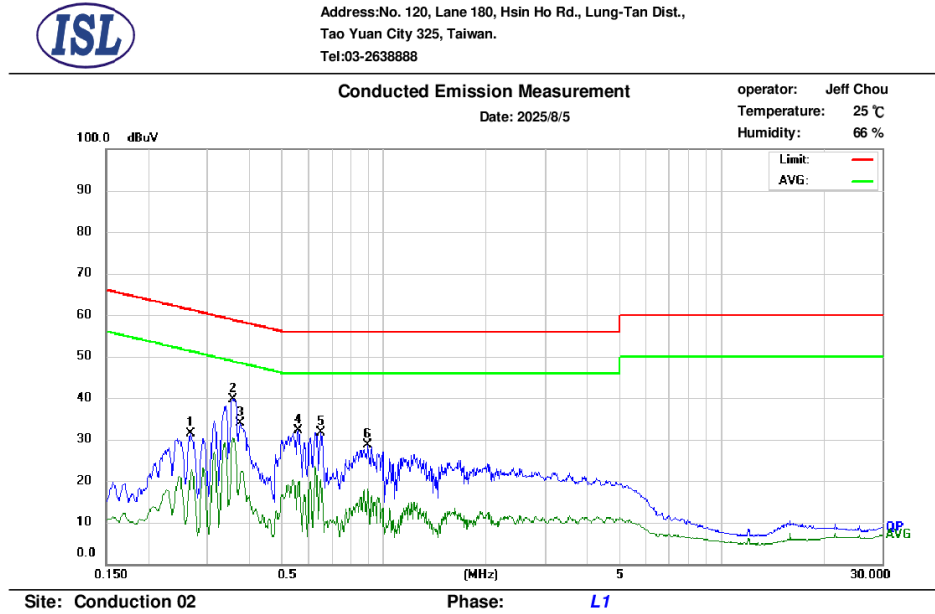
Frequency range MHz	Limits dB(μV)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56	56 to 46
0.50 to 5	56	46
5 to 30	60	50
Note 1.The lower limit shall apply at the transition frequencies 2.The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz.		

### 5.2 Measurement Procedure

1. The EUT was placed on a table which is 0.8m above ground plane.
2. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
3. Repeat above procedures until all frequency measured were complete.
4. Both 120V & 240V have been verified, and 120V/60Hz was defined as the worst-case and record in the report.

### 5.3 Measurement Result

- Line



No.	Frequency (MHz)	QP_R (dBuV)	AVG_R (dBuV)	Correct Factor (dB)	QP Emission (dBuV)	QP Limit (dBuV)	QP Margin (dB)	AVG Emission (dBuV)	AVG Limit (dBuV)	AVG Margin (dB)
1	0.267	21.79	12.27	9.68	31.47	61.21	-29.74	21.95	51.21	-29.26
2*	0.357	30.00	20.71	9.68	39.68	58.80	-19.12	30.39	48.80	-18.41
3	0.375	24.14	11.89	9.68	33.82	58.39	-24.57	21.57	48.39	-26.82
4	0.557	22.42	9.94	9.68	32.10	56.00	-23.90	19.62	46.00	-26.38
5	0.652	21.98	10.65	9.69	31.67	56.00	-24.33	20.34	46.00	-25.66
6	0.897	18.88	8.43	9.71	28.59	56.00	-27.41	18.14	46.00	-27.86

Note:

Margin = QP/AVG Emission - Limit

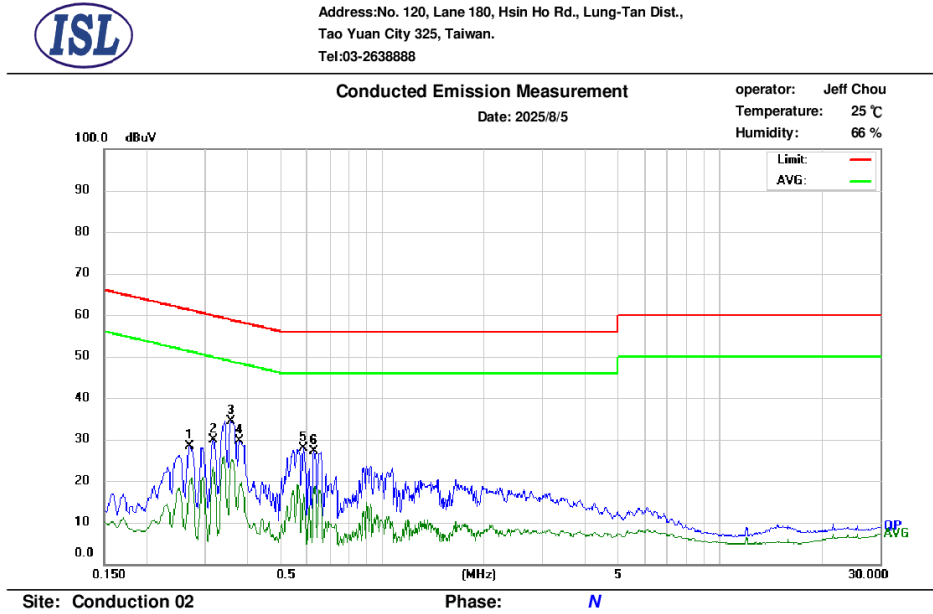
QP/AVG Emission = QP\_R/AVG\_R + Correct Factor

Correct Factor = LISN Loss + Cable Loss

The frequency spectrum graph is for final peak graph, and the attached table is for QP/AVG test result.

If peak data can pass, it will be shown in "QP/AVG Correct" column, if not, QP/AVG data will instead.

- Neutral



No.	Frequency (MHz)	QP_R (dBuV)	AVG_R (dBuV)	Correct Factor (dB)	QP Emission (dBuV)	QP Limit (dBuV)	QP Margin (dB)	AVG Emission (dBuV)	AVG Limit (dBuV)	AVG Margin (dB)
1	0.269	18.73	10.47	9.69	28.42	61.14	-32.72	20.16	51.14	-30.98
2	0.317	20.23	13.62	9.68	29.91	59.80	-29.89	23.30	49.80	-26.50
3*	0.357	24.60	14.35	9.69	34.29	58.80	-24.51	24.04	48.80	-24.76
4	0.377	20.04	8.50	9.69	29.73	58.34	-28.61	18.19	48.34	-30.15
5	0.587	18.24	7.10	9.70	27.94	56.00	-28.06	16.80	46.00	-29.20
6	0.629	17.51	8.31	9.70	27.21	56.00	-28.79	18.01	46.00	-27.99

Note:

Margin = QP/AVG Emission - Limit

QP/AVG Emission = QP\_R/AVG\_R + Correct Factor

Correct Factor = LISN Loss + Cable Loss

The frequency spectrum graph is for final peak graph, and the attached table is for QP/AVG test result.

If peak data can pass, it will be shown in "QP/AVG Correct" column, if not, QP/AVG data will instead.

## 6. Peak Output Power Measurement

### 6.1 Standard Applicable

According to §15.247

(3) For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt. As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power. Maximum Conducted Output Power is defined as the total transmit power delivered to all antennas and antenna elements averaged across all symbols in the signaling alphabet when the transmitter is operating at its maximum power control level. Power must be summed across all antennas and antenna elements. The average must not include any time intervals during which the transmitter is off or is transmitting at a reduced power level. If multiple modes of operation are possible (e.g., alternative modulation methods), the maximum conducted output power is the highest total transmit power occurring in any mode.

(4) The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(c) Operation with directional antenna gains greater than 6 dBi.

(1) Fixed point-to-point operation:

(i) Systems operating in the 2400-2483.5 MHz band that are used exclusively for fixed, point-to-point operations may employ transmitting antennas with directional gain greater than 6 dBi provided the maximum conducted output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6 dBi.

(ii) Systems operating in the 5725-5850 MHz band that are used exclusively for fixed, point-to-point operations may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted output power.

### 6.2 Measurement Procedure

1. Place the EUT on the table and set it in transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the power meter or spectrum analyzer with proper instrument's parameters.
3. Record the max. reading.
4. Repeat above procedures until all frequency measured were complete.

### 6.3 Measurement Result

#### Peak Power

Mode	Freq. (MHz)	Output Power (dBm)	Duty Factor (dB)	Total Output Power (dBm)	Output Power Limit (dBm)
BLE (1M)	2402	5.497	-----	5.497	30
	2442	5.22	-----	5.22	30
	2480	4.987	-----	4.987	30

#### Peak Power

Mode	Freq. (MHz)	Output Power (dBm)	Duty Factor (dB)	Total Output Power (dBm)	Output Power Limit (dBm)
BLE (2M)	2402	5.484	-----	5.484	30
	2442	5.223	-----	5.223	30
	2480	5.008	-----	5.008	30

## 7. Radiated Spurious Emission Test

### 7.1 Standard Applicable

According to §15.247(d), all other emissions outside these bands shall not exceed the general radiated emission limits specified in §15.209(a). And according to §15.33(a)(1), for an intentional radiator operates below 10GHz, the frequency range of measurements: to the tenth harmonic of the highest fundamental frequency or to 40GHz, whichever is lower.

### 7.2 Measurement Procedure

1. The EUT was placed on a turn table which is 0.8m/1.5m above ground plane in 966 chamber.
2. The turn table shall rotate 360 degrees to determine the position of maximum emission level.
3. EUT is set 3m away from the receiving antenna which varied from 1m to 4m to find out the highest emissions.
4. When measurement procedures for electric field radiated emissions above 1 GHz the EUT measurement is to be made “while keeping the antenna in the ‘cone of radiation’ from that area and pointed at the area both in azimuth and elevation, with polarization oriented for maximum response.” is still within the 3dB illumination BW of the measurement antenna.
5. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
6. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
7. Repeat above procedures until all frequency measured were complete.

Test receiver setting	: Blew 1GHz
Detector	: Average (9kHz – 90kHz, 110kHz – 90kHz), Quasi-Peak
Bandwidth	: 200Hz, 120kHz
Test spectrum setting	: Above 1GHz
Peak	: RBW=1MHz, VBW $\geq$ 3*RBW, Sweep=auto
Average	: RBW=1MHz, VBW $\geq$ 1/T <sub>on</sub> , Sweep=auto

### 7.3 Field Strength Calculation

The field strength is calculated by adding the Antenna Factor and Cable Factor and subtracting the Amplifier Gain and Duty Cycle Correction Factor (if any) from the measured reading. The basic equation with a sample calculation is as follows:

$$FS = RA + AF + CL - AG$$

Where	FS = Field Strength	CL = Cable Attenuation Factor (Cable Loss)
	RA = Reading Amplitude	AG = Amplifier Gain
	AF = Antenna Factor	

Remark:

<1GHz

1. No further spurious emissions detected from the lowest internal frequency and 30MHz.
2. Measuring frequencies from the lowest internal frequency to the 1GHz.
3. Radiated emissions measured in frequency range from 9kHz to 1000MHz were made with an instrument detector setting 9-90kHz/110-490kHz using PK/AV and other Frequency Band using PK/QP
4. Measurement result within this frequency range shown “ - ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

>1GHz

- 5 Measuring frequencies from the lowest internal frequency to the 10th of fundamental frequency
- 6 Field strength limits for frequency above 1000MHz are based on average limits. However, Peak mode field strength shall not exceed the average limits specified plus 20dB.
- 7 Measurement of data within this frequency range shown “ - ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.



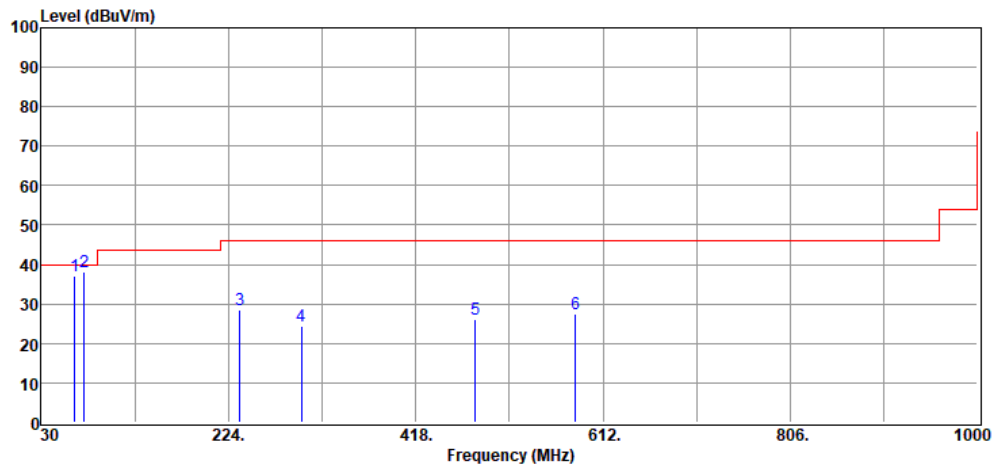
## 7.4 Measurement Result

### 7.4.1 Radiated Spurious Emission Measurement Result (below 1GHz)

(worse mode: BLE)

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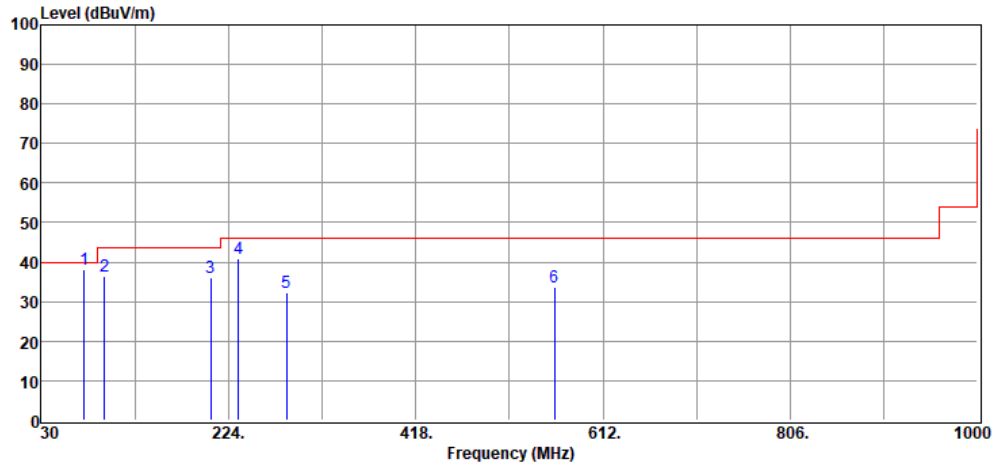
Project Number. : 25LR0117 Temp.(°C)/RH(%) : 25/60  
Test Mode : BLE 1M TX Low Ch Tested by : Barry Lee



No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	64.92	49.48	-12.27	37.21	40.00	-2.79	Peak	VERTICAL
2	74.62	52.52	-14.24	38.28	40.00	-1.72	Peak	VERTICAL
3	235.64	41.11	-12.70	28.41	46.00	-17.59	Peak	VERTICAL
4	299.66	34.28	-9.99	24.29	46.00	-21.71	Peak	VERTICAL
5	480.08	31.51	-5.30	26.21	46.00	-19.79	Peak	VERTICAL
6	583.87	30.49	-3.04	27.45	46.00	-18.55	Peak	VERTICAL

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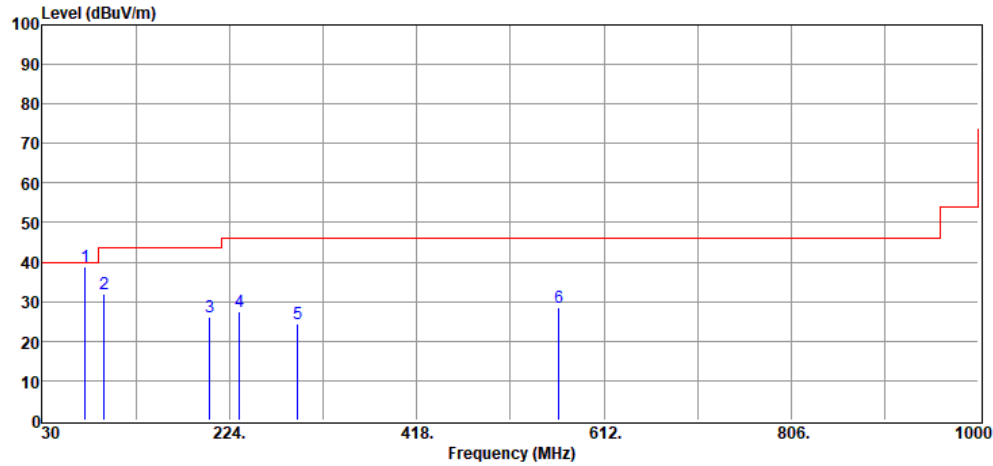
Project Number. : 25LR0117 Temp.(°C)/RH(%) : 25/60  
Test Mode : BLE 1M TX Low Ch Tested by : Barry Lee



No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	74.62	52.48	-14.24	38.24	40.00	-1.76	Peak	HORIZONTAL
2	95.96	52.90	-16.33	36.57	43.50	-6.93	Peak	HORIZONTAL
3	205.57	50.10	-13.91	36.19	43.50	-7.31	Peak	HORIZONTAL
4	234.67	53.57	-12.82	40.75	46.00	-5.25	Peak	HORIZONTAL
5	284.14	42.62	-10.27	32.35	46.00	-13.65	Peak	HORIZONTAL
6	561.56	37.61	-3.77	33.84	46.00	-12.16	Peak	HORIZONTAL

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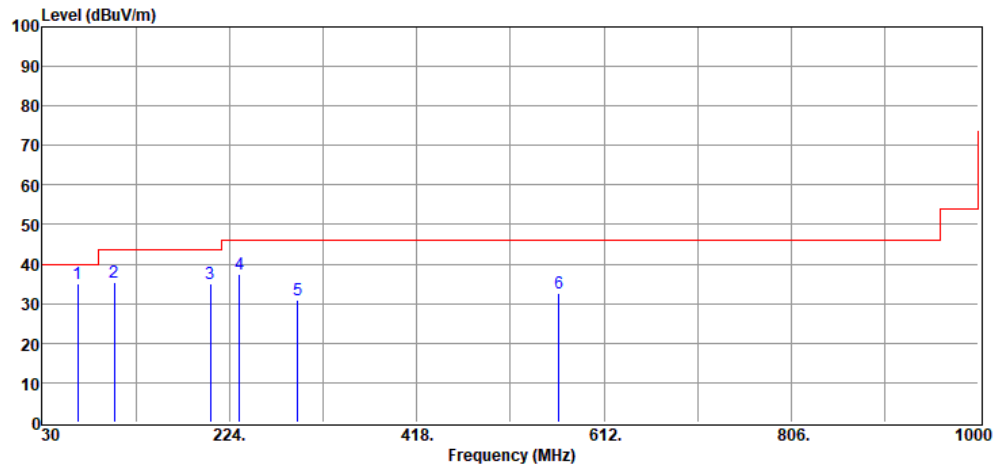
Project Number. : 25LR0117 Temp.(°C)/RH(%) : 25/60  
Test Mode : BLE 1M TX Mid Ch Tested by : Barry Lee



No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	74.62	52.95	-14.24	38.71	40.00	-1.29	Peak	VERTICAL
2	94.02	48.51	-16.53	31.98	43.50	-11.52	Peak	VERTICAL
3	203.63	39.97	-13.90	26.07	43.50	-17.43	Peak	VERTICAL
4	234.67	40.46	-12.82	27.64	46.00	-18.36	Peak	VERTICAL
5	294.81	34.44	-10.10	24.34	46.00	-21.66	Peak	VERTICAL
6	565.44	32.17	-3.66	28.51	46.00	-17.49	Peak	VERTICAL

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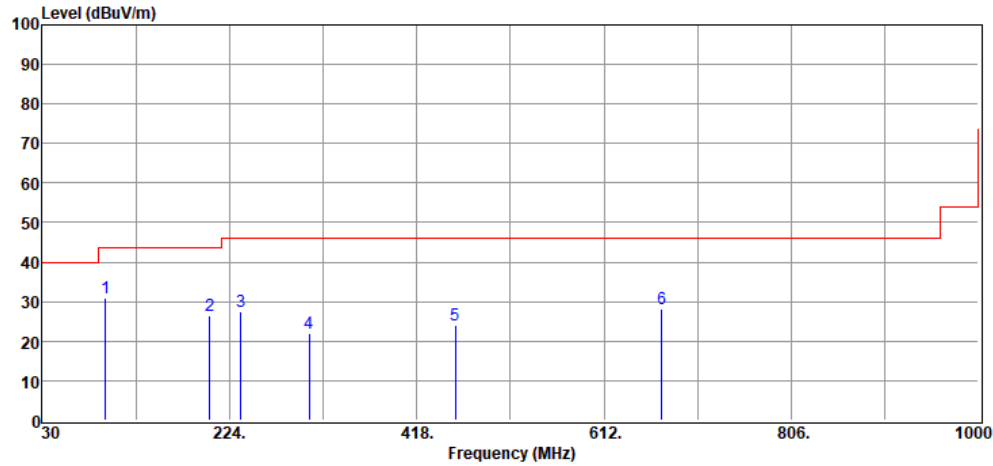
Project Number. : 25LR0117 Temp.(°C)/RH(%) : 25/60  
Test Mode : BLE 1M TX Mid Ch Tested by : Barry Lee



No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	66.86	47.76	-12.78	34.98	40.00	-5.02	Peak	HORIZONTAL
2	104.69	50.29	-14.72	35.57	43.50	-7.93	Peak	HORIZONTAL
3	204.60	48.93	-13.91	35.02	43.50	-8.48	Peak	HORIZONTAL
4	234.67	50.37	-12.82	37.55	46.00	-8.45	Peak	HORIZONTAL
5	294.81	40.94	-10.10	30.84	46.00	-15.16	Peak	HORIZONTAL
6	565.44	36.18	-3.66	32.52	46.00	-13.48	Peak	HORIZONTAL

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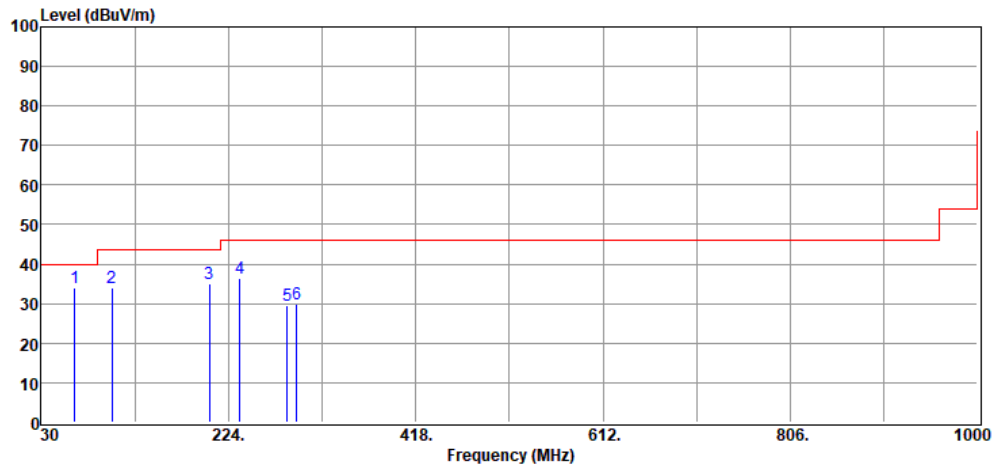
Project Number. : 25LR0117 Temp.(°C)/RH(%) : 25/60  
Test Mode : BLE 1M TX High Ch Tested by : Barry Lee



No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	95.96	47.13	-16.33	30.80	43.50	-12.70	Peak	VERTICAL
2	203.63	40.28	-13.90	26.38	43.50	-17.12	Peak	VERTICAL
3	235.64	40.05	-12.70	27.35	46.00	-18.65	Peak	VERTICAL
4	306.45	31.91	-9.82	22.09	46.00	-23.91	Peak	VERTICAL
5	457.77	29.67	-5.59	24.08	46.00	-21.92	Peak	VERTICAL
6	672.14	29.80	-1.49	28.31	46.00	-17.69	Peak	VERTICAL

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Company Address: No. 120, Lane 180, Hsin Ho Rd.  
Lung-Tan Dist., Tao Yuan City 325, Taiwan  
Date: 2025-07-31

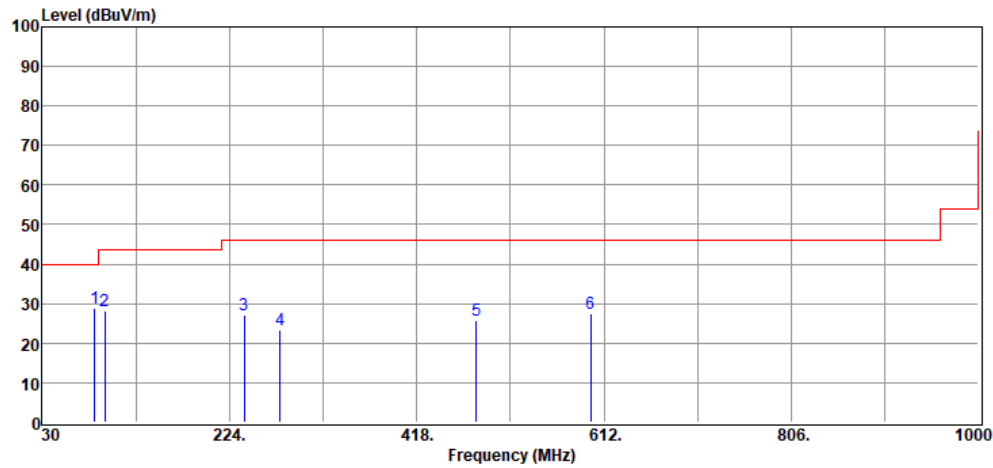
Project Number. : 25LR0117 Temp.(°C)/RH(%) : 25/60  
Test Mode : BLE 1M TX High Ch Tested by : Barry Lee



No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	64.92	46.32	-12.27	34.05	40.00	-5.95	Peak	HORIZONTAL
2	103.72	49.12	-14.99	34.13	43.50	-9.37	Peak	HORIZONTAL
3	204.60	49.02	-13.91	35.11	43.50	-8.39	Peak	HORIZONTAL
4	235.64	49.11	-12.70	36.41	46.00	-9.59	Peak	HORIZONTAL
5	285.11	39.81	-10.24	29.57	46.00	-16.43	Peak	HORIZONTAL
6	294.81	40.12	-10.10	30.02	46.00	-15.98	Peak	HORIZONTAL

International Standard Laboratory Corp.  
Company Address: No. 120, Lane 180, Hsin Ho Rd.  
Lung-Tan Dist., Tao Yuan City 325, Taiwan  
Date: 2025-07-31

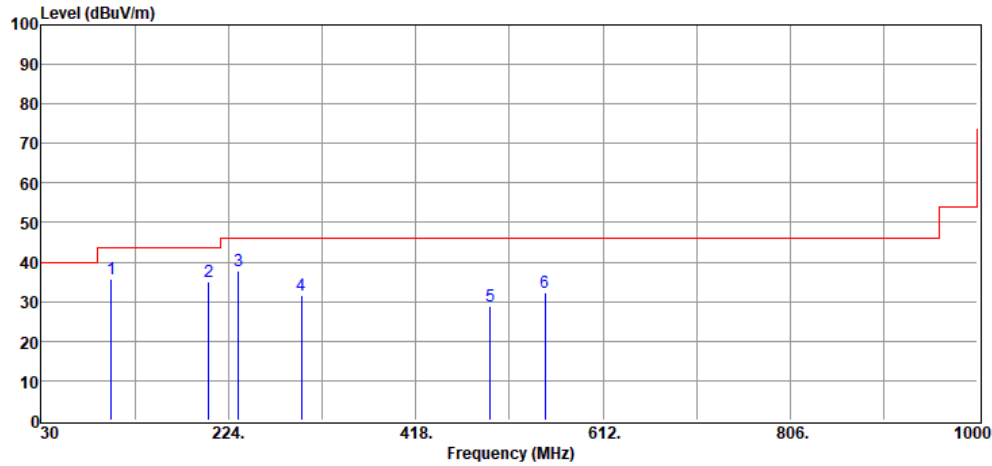
Project Number. : 25LR0117 Temp.(°C)/RH(%) : 25/60  
Test Mode : BLE 2M TX Low Ch Tested by : Barry Lee



No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	84.32	45.70	-16.81	28.89	40.00	-11.11	Peak	VERTICAL
2	94.99	44.82	-16.62	28.20	43.50	-15.30	Peak	VERTICAL
3	239.52	39.47	-12.29	27.18	46.00	-18.82	Peak	VERTICAL
4	276.38	33.98	-10.61	23.37	46.00	-22.63	Peak	VERTICAL
5	480.08	30.94	-5.30	25.64	46.00	-20.36	Peak	VERTICAL
6	598.42	30.19	-2.63	27.56	46.00	-18.44	Peak	VERTICAL

International Standard Laboratory Corp.  
Company Address: No. 120, Lane 180, Hsin Ho Rd.  
Lung-Tan Dist., Tao Yuan City 325, Taiwan  
Date: 2025-07-31

Project Number. : 25LR0117 Temp.(°C)/RH(%) : 25/60  
Test Mode : BLE 2M TX Low Ch Tested by : Barry Lee

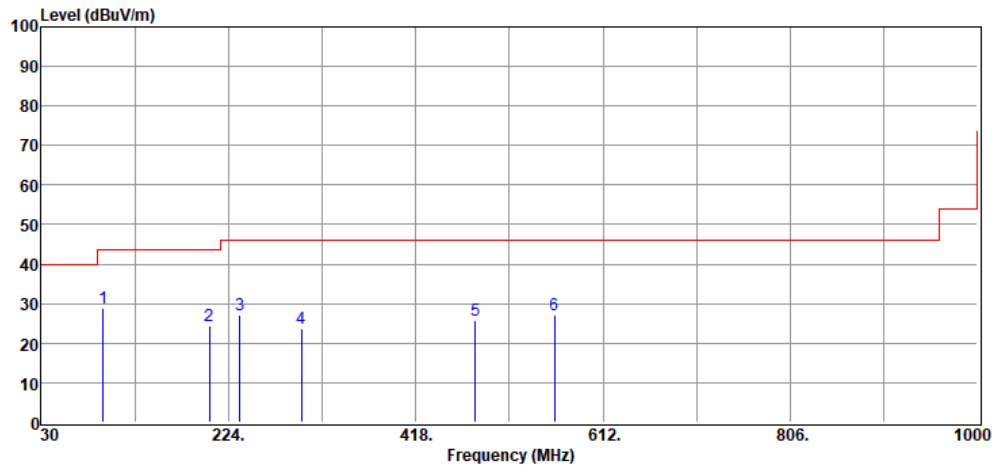


No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	102.75	51.08	-15.31	35.77	43.50	-7.73	Peak	HORIZONTAL
2	203.63	48.93	-13.90	35.03	43.50	-8.47	Peak	HORIZONTAL
3	234.67	50.72	-12.82	37.90	46.00	-8.10	Peak	HORIZONTAL
4	299.66	41.50	-9.99	31.51	46.00	-14.49	Peak	HORIZONTAL
5	495.60	33.82	-5.04	28.78	46.00	-17.22	Peak	HORIZONTAL
6	551.86	36.45	-3.99	32.46	46.00	-13.54	Peak	HORIZONTAL



International Standard Laboratory Corp.  
Company Address: No. 120, Lane 180, Hsin Ho Rd.  
Lung-Tan Dist., Tao Yuan City 325, Taiwan  
Date: 2025-07-31

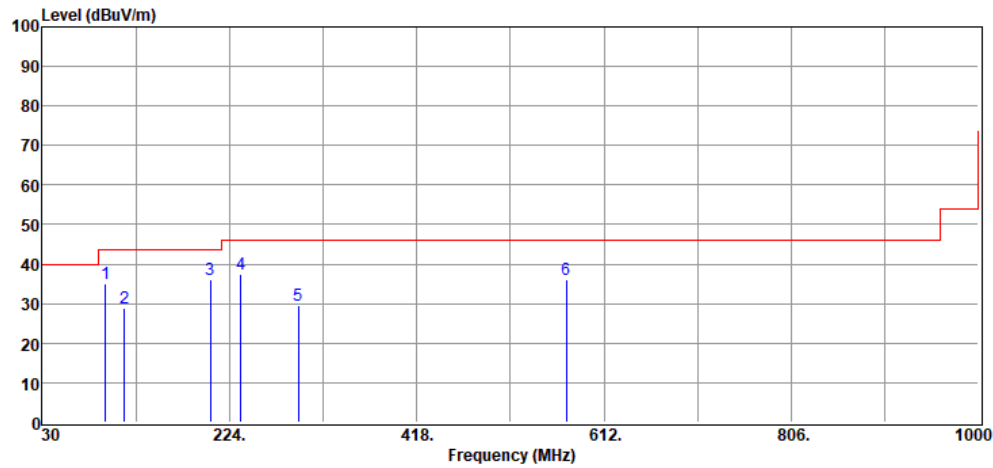
Project Number. : 25LR0117 Temp.(°C)/RH(%) : 25/60  
Test Mode : BLE 2M TX Mid Ch Tested by : Barry Lee



No	Freq MHz	Reading dBUV	Factor dB/m	Level dBUV/m	Limit dBUV/m	Margin dB	Remark	Pol V/H
1	94.02	45.57	-16.53	29.04	43.50	-14.46	Peak	VERTICAL
2	204.60	38.32	-13.91	24.41	43.50	-19.09	Peak	VERTICAL
3	235.64	39.89	-12.70	27.19	46.00	-18.81	Peak	VERTICAL
4	299.66	33.53	-9.99	23.54	46.00	-22.46	Peak	VERTICAL
5	480.08	31.16	-5.30	25.86	46.00	-20.14	Peak	VERTICAL
6	561.56	30.94	-3.77	27.17	46.00	-18.83	Peak	VERTICAL

International Standard Laboratory Corp.  
Company Address: No. 120, Lane 180, Hsin Ho Rd.  
Lung-Tan Dist., Tao Yuan City 325, Taiwan  
Date: 2025-07-31

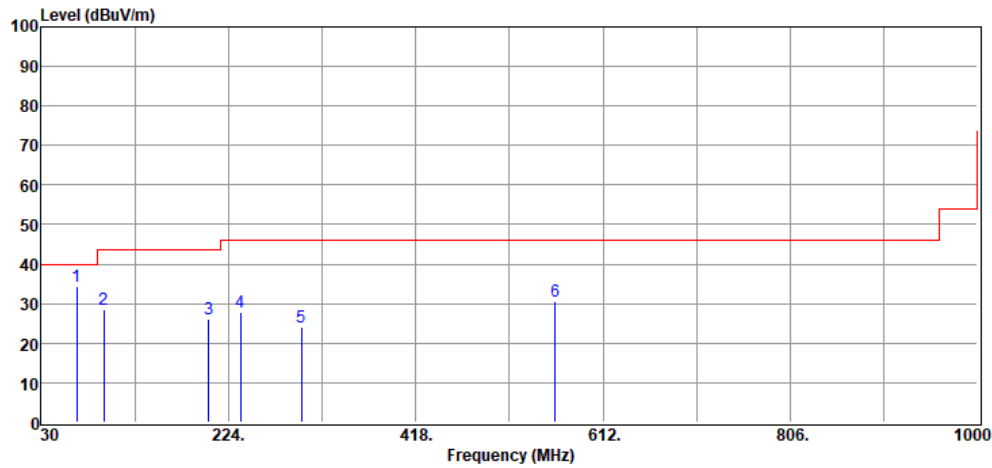
Project Number. : 25LR0117 Temp.(°C)/RH(%) : 25/60  
Test Mode : BLE 2M TX Mid Ch Tested by : Barry Lee



No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	95.96	51.45	-16.33	35.12	43.50	-8.38	Peak	HORIZONTAL
2	115.36	42.69	-13.79	28.90	43.50	-14.60	Peak	HORIZONTAL
3	204.60	49.92	-13.91	36.01	43.50	-7.49	Peak	HORIZONTAL
4	235.64	50.17	-12.70	37.47	46.00	-8.53	Peak	HORIZONTAL
5	295.78	39.64	-10.07	29.57	46.00	-16.43	Peak	HORIZONTAL
6	573.20	39.53	-3.40	36.13	46.00	-9.87	Peak	HORIZONTAL

International Standard Laboratory Corp.  
Company Address: No. 120, Lane 180, Hsin Ho Rd.  
Lung-Tan Dist., Tao Yuan City 325, Taiwan  
Date: 2025-07-31

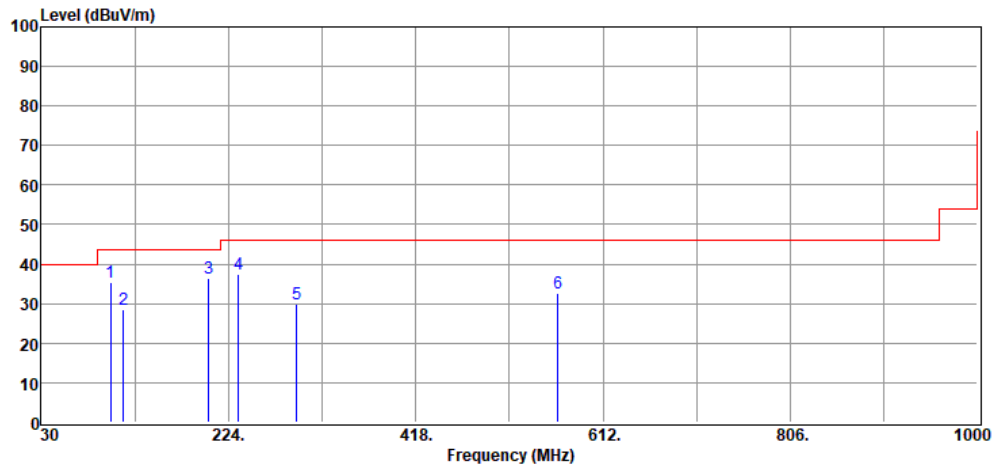
Project Number. : 25LR0117 Temp.(°C)/RH(%) : 25/60  
Test Mode : BLE 2M TX High Ch Tested by : Barry Lee



No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	66.86	47.28	-12.78	34.50	40.00	-5.50	Peak	VERTICAL
2	94.99	45.25	-16.62	28.63	43.50	-14.87	Peak	VERTICAL
3	203.63	40.18	-13.90	26.28	43.50	-17.22	Peak	VERTICAL
4	236.61	40.27	-12.59	27.68	46.00	-18.32	Peak	VERTICAL
5	299.66	33.95	-9.99	23.96	46.00	-22.04	Peak	VERTICAL
6	562.53	34.36	-3.75	30.61	46.00	-15.39	Peak	VERTICAL

International Standard Laboratory Corp.  
Company Address: No. 120, Lane 180, Hsin Ho Rd.  
Lung-Tan Dist., Tao Yuan City 325, Taiwan  
Date: 2025-07-31

Project Number. : 25LR0117 Temp.(°C)/RH(%) : 25/60  
Test Mode : BLE 2M TX High Ch Tested by : Barry Lee



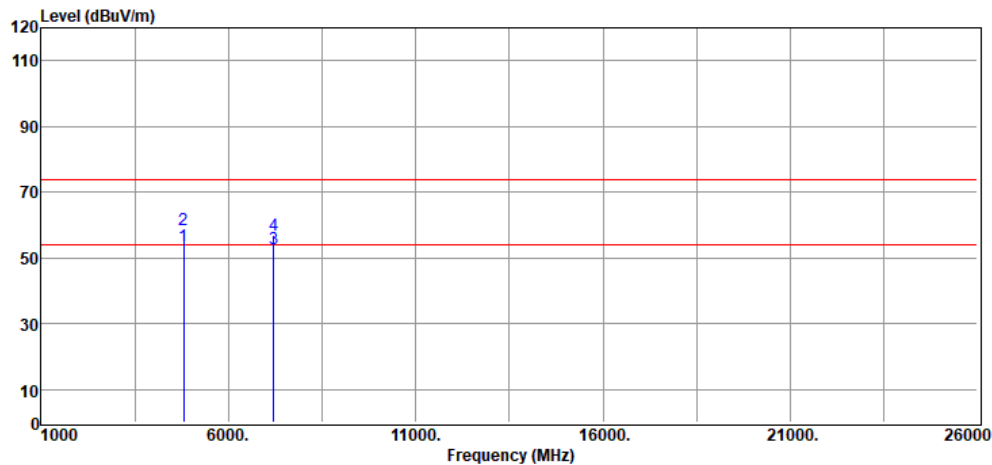
No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	101.78	50.77	-15.39	35.38	43.50	-8.12	Peak	HORIZONTAL
2	115.36	42.41	-13.79	28.62	43.50	-14.88	Peak	HORIZONTAL
3	203.63	50.16	-13.90	36.26	43.50	-7.24	Peak	HORIZONTAL
4	234.67	50.29	-12.82	37.47	46.00	-8.53	Peak	HORIZONTAL
5	294.81	39.91	-10.10	29.81	46.00	-16.19	Peak	HORIZONTAL
6	565.44	36.39	-3.66	32.73	46.00	-13.27	Peak	HORIZONTAL

### 7.4.2 Radiated Spurious Emission Measurement Result (above1GHz)

(最差模式: BLE)

International Standard Laboratory Corp.  
Company Address: No.120, Lane 180, Hsin Ho Rd.  
Lung-Tan Dist., Tao Yuan City 325, Taiwan  
Date: 2025-07-31

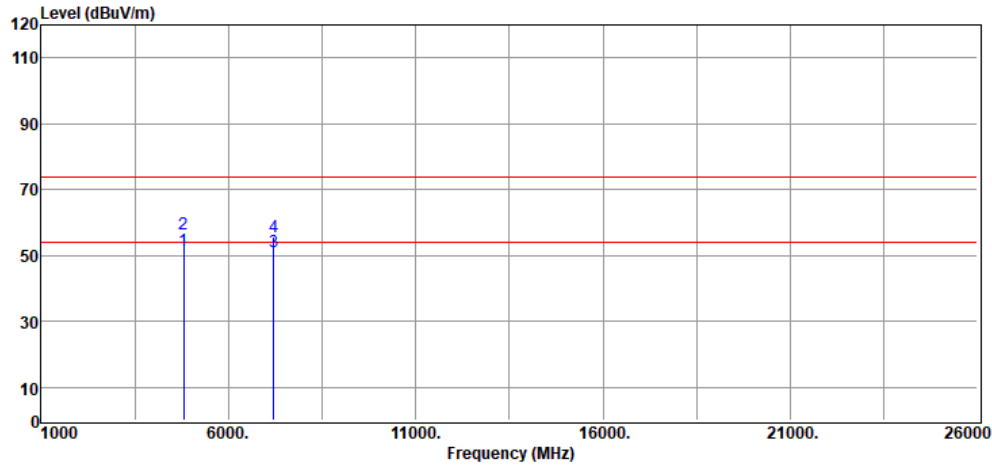
Project Number. : 25LR0117 Temp.(°C)/RH(%) : 25/60  
Test Mode : BLE 1M TX Low Ch Tested by : Barry Lee



No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	4804.00	46.02	7.46	53.48	54.00	-0.52	Average	VERTICAL
2	4804.00	51.29	7.46	58.75	74.00	-15.25	Peak	VERTICAL
3	7206.00	42.37	10.25	52.62	54.00	-1.38	Average	VERTICAL
4	7206.00	46.74	10.25	56.99	74.00	-17.01	Peak	VERTICAL

International Standard Laboratory Corp.  
Company Address: No. 120, Lane 180, Hsin Ho Rd.  
Lung-Tan Dist., Tao Yuan City 325, Taiwan  
Date: 2025-07-31

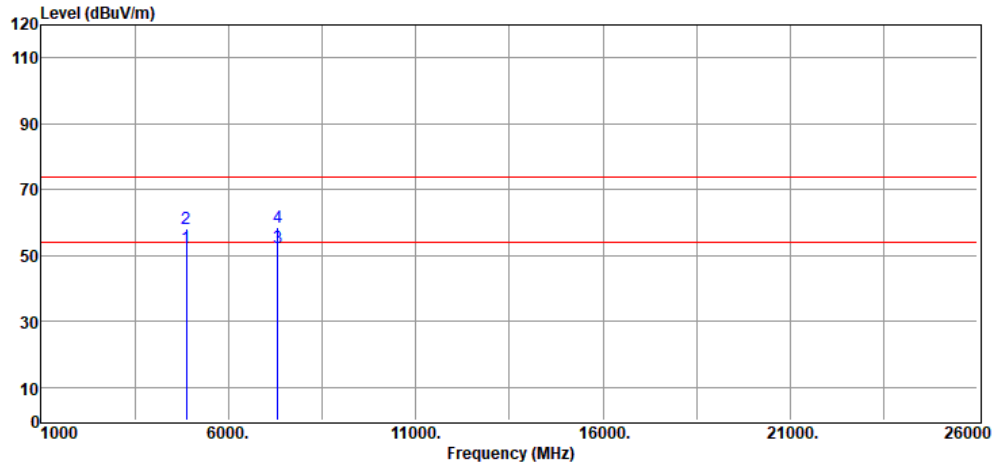
Project Number. : 25LR0117 Temp.(°C)/RH(%) : 25/60  
Test Mode : BLE 1M TX Low Ch Tested by : Barry Lee



No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	4804.00	44.05	7.46	51.51	54.00	-2.49	Average	HORIZONTAL
2	4804.00	49.05	7.46	56.51	74.00	-17.49	Peak	HORIZONTAL
3	7206.00	41.06	10.25	51.31	54.00	-2.69	Average	HORIZONTAL
4	7206.00	45.51	10.25	55.76	74.00	-18.24	Peak	HORIZONTAL

International Standard Laboratory Corp.  
Company Address: No. 120, Lane 180, Hsin Ho Rd.  
Lung-Tan Dist., Tao Yuan City 325, Taiwan  
Date: 2025-07-31

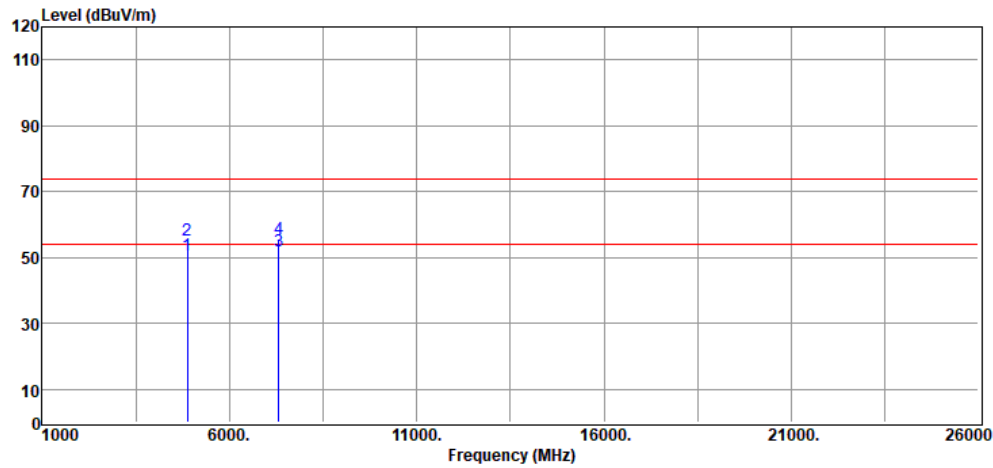
Project Number. : 25LR0117 Temp.(°C)/RH(%) : 25/60  
Test Mode : BLE 1M TX Mid Ch Tested by : Barry Lee



No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	4884.00	45.01	7.51	52.52	54.00	-1.48	Average	VERTICAL
2	4884.00	50.78	7.51	58.29	74.00	-15.71	Peak	VERTICAL
3	7326.00	42.19	10.31	52.50	54.00	-1.50	Average	VERTICAL
4	7326.00	48.15	10.31	58.46	74.00	-15.54	Peak	VERTICAL

International Standard Laboratory Corp.  
Company Address: No. 120, Lane 180, Hsin Ho Rd.  
Lung-Tan Dist., Tao Yuan City 325, Taiwan  
Date: 2025-07-31

Project Number. : 25LR0117 Temp.(°C)/RH(%) : 25/60  
Test Mode : BLE 1M TX Mid Ch Tested by : Barry Lee

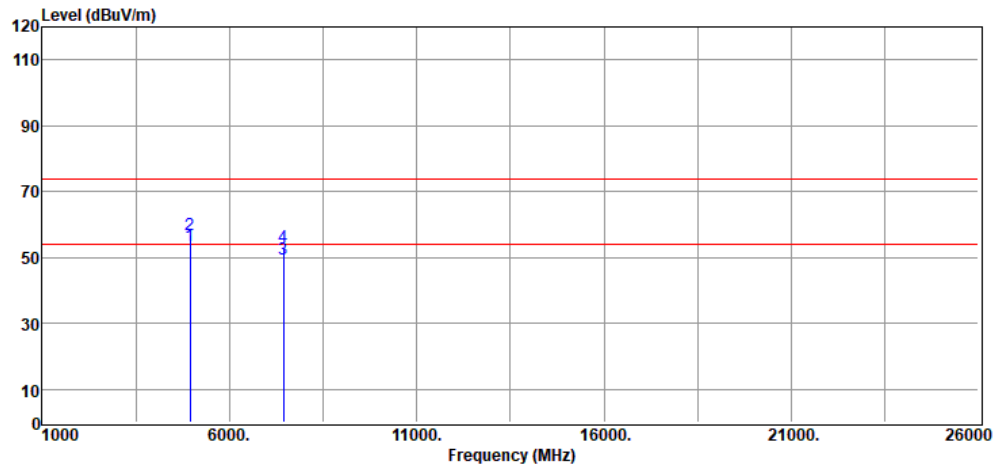


No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	4884.00	43.11	7.51	50.62	54.00	-3.38	Average	HORIZONTAL
2	4884.00	47.57	7.51	55.08	74.00	-18.92	Peak	HORIZONTAL
3	7326.00	41.48	10.31	51.79	54.00	-2.21	Average	HORIZONTAL
4	7326.00	45.47	10.31	55.78	74.00	-18.22	Peak	HORIZONTAL



International Standard Laboratory Corp.  
Company Address: No. 120, Lane 180, Hsin Ho Rd.  
Lung-Tan Dist., Tao Yuan City 325, Taiwan  
Date: 2025-07-31

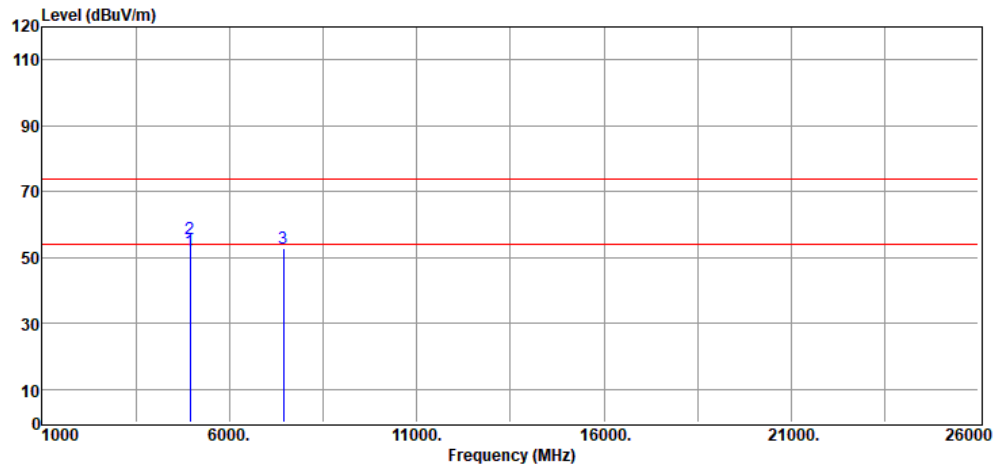
Project Number. : 25LR0117 Temp.(°C)/RH(%) : 25/60  
Test Mode : BLE 1M TX High Ch Tested by : Barry Lee



No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	4960.00	45.93	7.61	53.54	54.00	-0.46	Average	VERTICAL
2	4960.00	49.42	7.61	57.03	74.00	-16.97	Peak	VERTICAL
3	7440.00	39.23	10.36	49.59	54.00	-4.41	Average	VERTICAL
4	7440.00	42.68	10.36	53.04	74.00	-20.96	Peak	VERTICAL

International Standard Laboratory Corp.  
Company Address: No. 120, Lane 180, Hsin Ho Rd.  
Lung-Tan Dist., Tao Yuan City 325, Taiwan  
Date: 2025-07-31

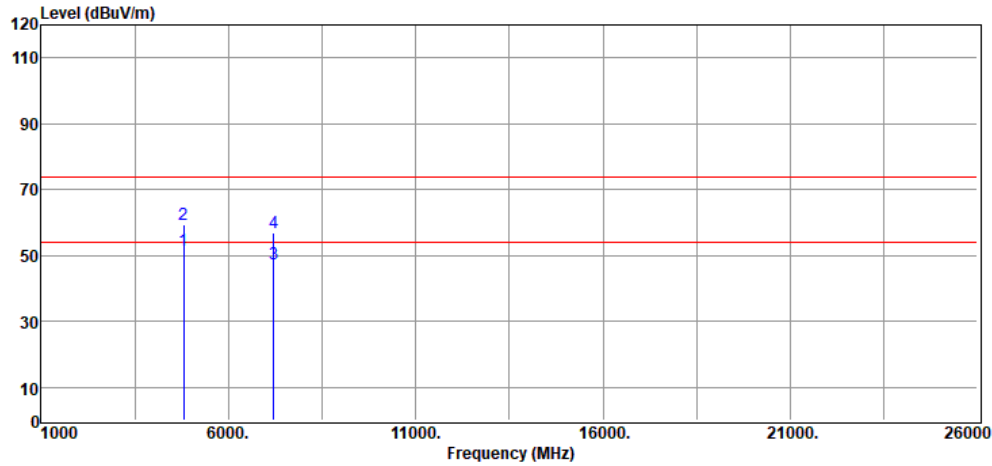
Project Number. : 25LR0117 Temp.(°C)/RH(%) : 25/60  
Test Mode : BLE 1M TX High Ch Tested by : Barry Lee



No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	4960.00	44.32	7.61	51.93	54.00	-2.07	Average	HORIZONTAL
2	4960.00	47.97	7.61	55.58	74.00	-18.42	Peak	HORIZONTAL
3	7440.00	42.48	10.36	52.84	74.00	-21.16	Peak	HORIZONTAL

International Standard Laboratory Corp.  
Company Address: No. 120, Lane 180, Hsin Ho Rd.  
Lung-Tan Dist., Tao Yuan City 325, Taiwan  
Date: 2025-07-31

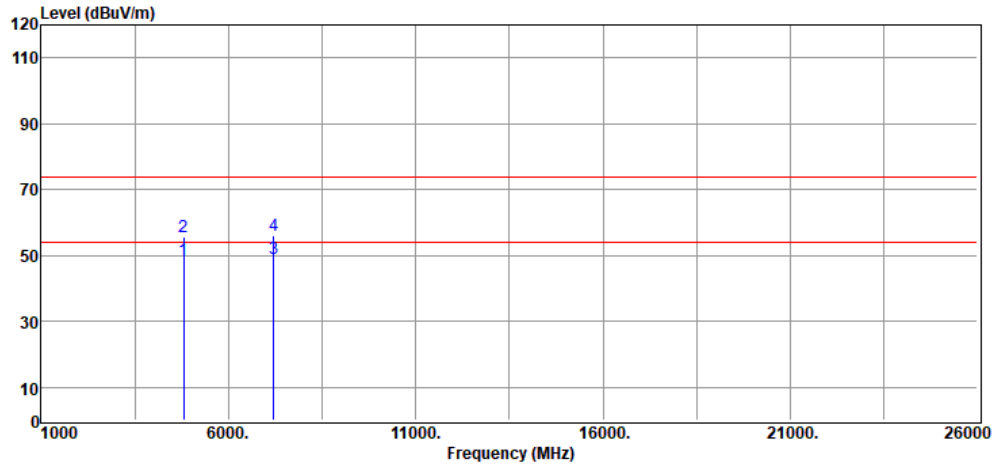
Project Number. : 25LR0117 Temp.(°C)/RH(%) : 25/60  
Test Mode : BLE 2M TX Low Ch Tested by : Barry Lee



No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	4804.00	44.05	7.46	51.51	54.00	-2.49	Average	VERTICAL
2	4804.00	52.09	7.46	59.55	74.00	-14.45	Peak	VERTICAL
3	7206.00	36.98	10.25	47.23	54.00	-6.77	Average	VERTICAL
4	7206.00	46.46	10.25	56.71	74.00	-17.29	Peak	VERTICAL

International Standard Laboratory Corp.  
Company Address: No. 120, Lane 180, Hsin Ho Rd.  
Lung-Tan Dist., Tao Yuan City 325, Taiwan  
Date: 2025-07-31

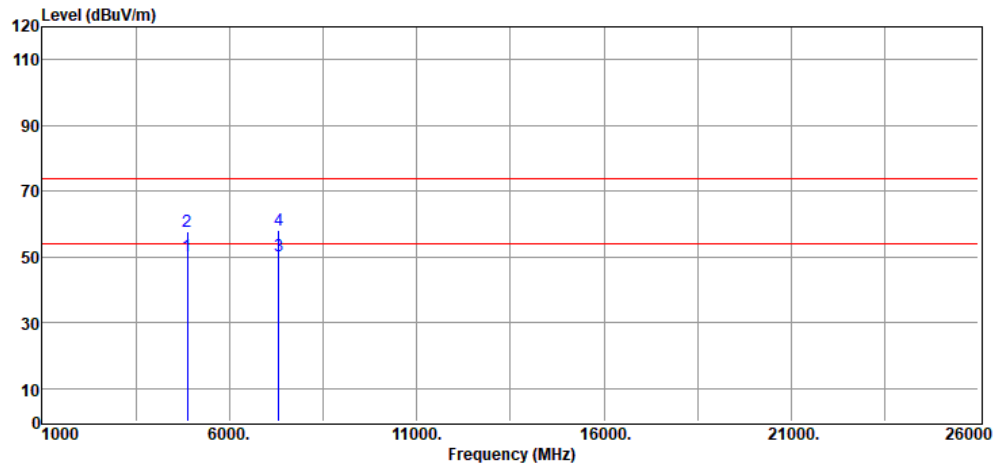
Project Number. : 25LR0117 Temp.(°C)/RH(%) : 25/60  
Test Mode : BLE 2M TX Low Ch Tested by : Barry Lee



No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	4804.00	41.09	7.46	48.55	54.00	-5.45	Average	HORIZONTAL
2	4804.00	48.26	7.46	55.72	74.00	-18.28	Peak	HORIZONTAL
3	7206.00	38.63	10.25	48.88	54.00	-5.12	Average	HORIZONTAL
4	7206.00	45.69	10.25	55.94	74.00	-18.06	Peak	HORIZONTAL

International Standard Laboratory Corp.  
Company Address: No. 120, Lane 180, Hsin Ho Rd.  
Lung-Tan Dist., Tao Yuan City 325, Taiwan  
Date: 2025-07-31

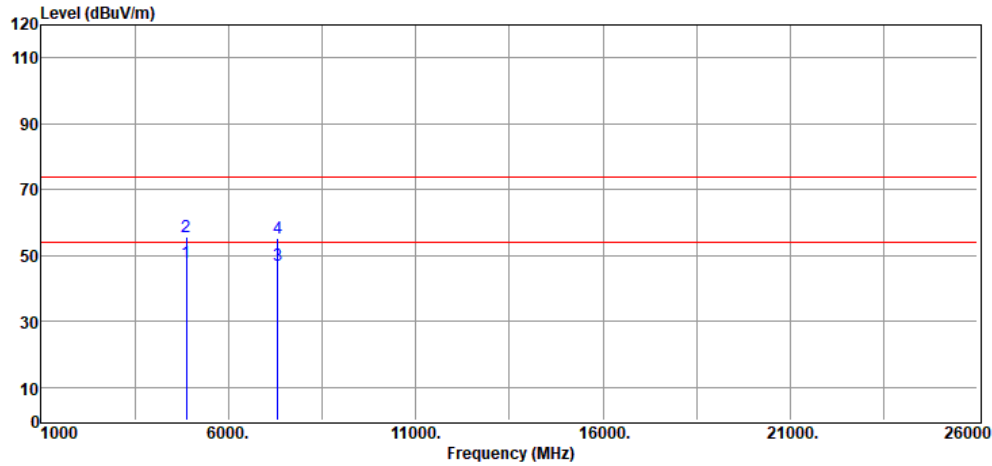
Project Number. : 25LR0117 Temp.(°C)/RH(%) : 25/60  
Test Mode : BLE 2M TX Mid Ch Tested by : Barry Lee



No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	4884.00	42.86	7.51	50.37	54.00	-3.63	Average	VERTICAL
2	4884.00	50.33	7.51	57.84	74.00	-16.16	Peak	VERTICAL
3	7326.00	39.85	10.31	50.16	54.00	-3.84	Average	VERTICAL
4	7326.00	47.89	10.31	58.20	74.00	-15.80	Peak	VERTICAL

International Standard Laboratory Corp.  
Company Address: No. 120, Lane 180, Hsin Ho Rd.  
Lung-Tan Dist., Tao Yuan City 325, Taiwan  
Date: 2025-07-31

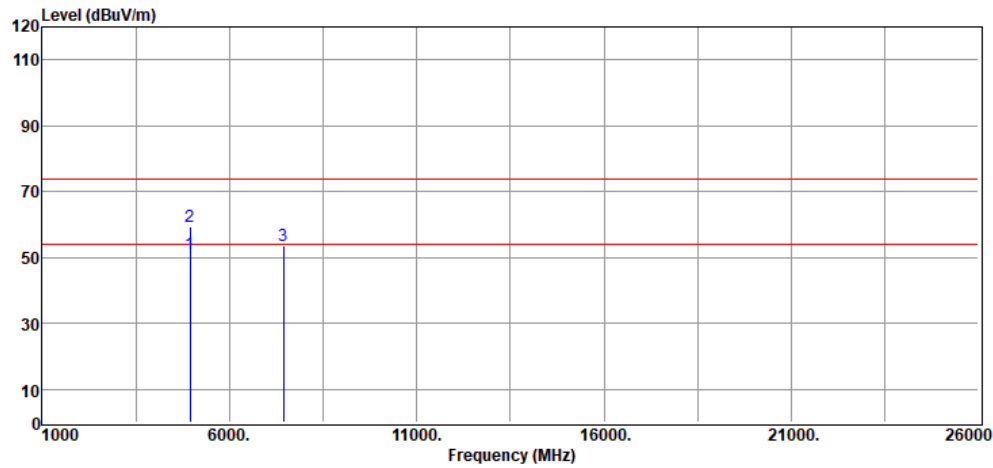
Project Number. : 25LR0117 Temp.(°C)/RH(%) : 25/60  
Test Mode : BLE 2M TX Mid Ch Tested by : Barry Lee



No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	4884.00	40.17	7.51	47.68	54.00	-6.32	Average	HORIZONTAL
2	4884.00	48.05	7.51	55.56	74.00	-18.44	Peak	HORIZONTAL
3	7326.00	36.74	10.31	47.05	54.00	-6.95	Average	HORIZONTAL
4	7326.00	44.79	10.31	55.10	74.00	-18.90	Peak	HORIZONTAL

International Standard Laboratory Corp.  
Company Address: No. 120, Lane 180, Hsin Ho Rd.  
Lung-Tan Dist., Tao Yuan City 325, Taiwan  
Date: 2025-07-31

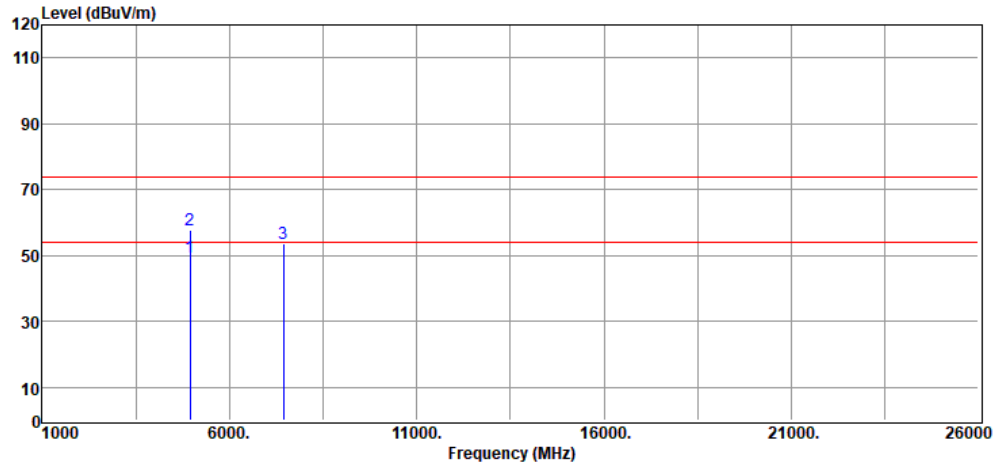
Project Number. : 25LR0117 Temp.(°C)/RH(%) : 25/60  
Test Mode : BLE 2M TX High Ch Tested by : Barry Lee



No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	4960.00	43.32	7.61	50.93	54.00	-3.07	Average	VERTICAL
2	4960.00	51.92	7.61	59.53	74.00	-14.47	Peak	VERTICAL
3	7440.00	43.34	10.36	53.70	74.00	-20.30	Peak	VERTICAL

International Standard Laboratory Corp.  
Company Address:No.120,Lane 180, Hsin Ho Rd.  
Lung-Tan Dist., Tao Yuan City 325, Taiwan  
Date: 2025-07-31

Project Number. : 25LR0117 Temp.(°C)/RH(%) : 25/60  
Test Mode : BLE 2M TX High Ch Tested by : Barry Lee

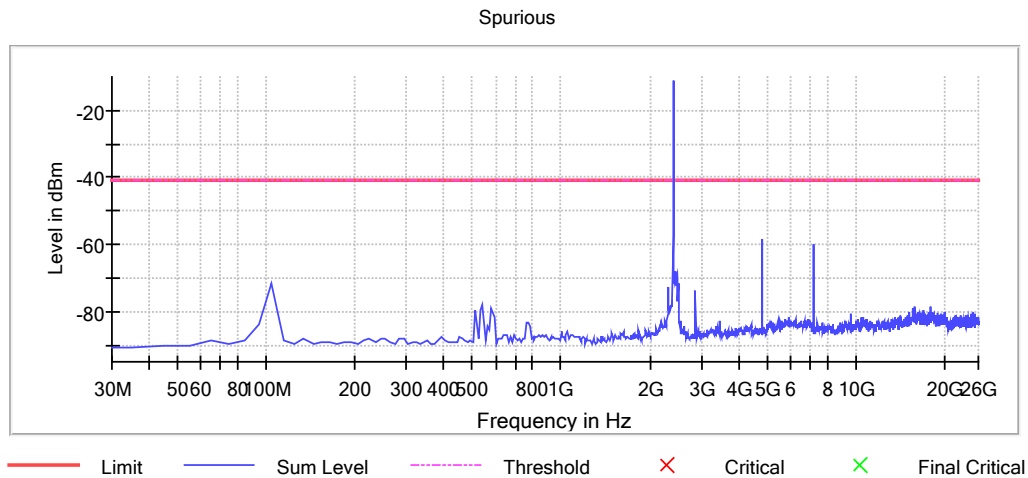


No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	4960.00	42.04	7.61	49.65	54.00	-4.35	Average	HORIZONTAL
2	4960.00	50.12	7.61	57.73	74.00	-16.27	Peak	HORIZONTAL
3	7440.00	43.11	10.36	53.47	74.00	-20.53	Peak	HORIZONTAL

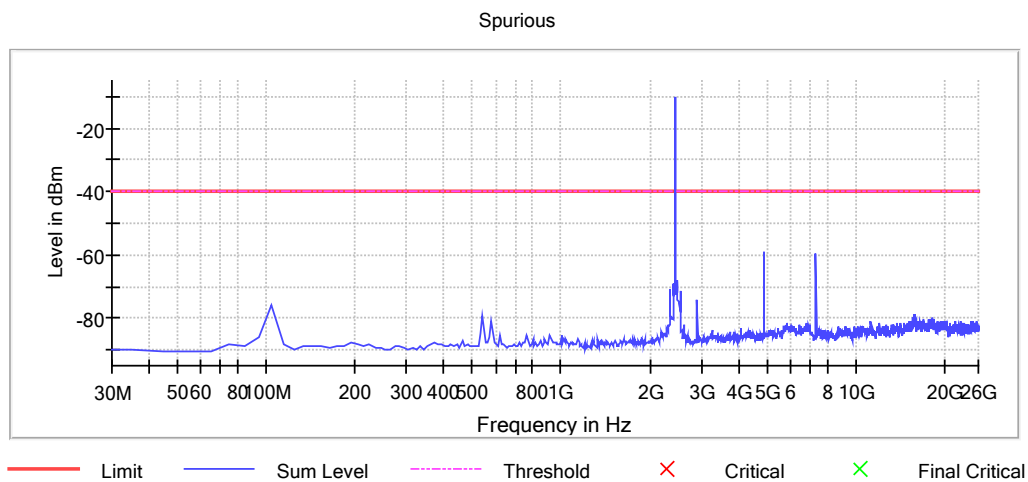


### 7.4.3 Conducted Spurious Emission Measurement Result

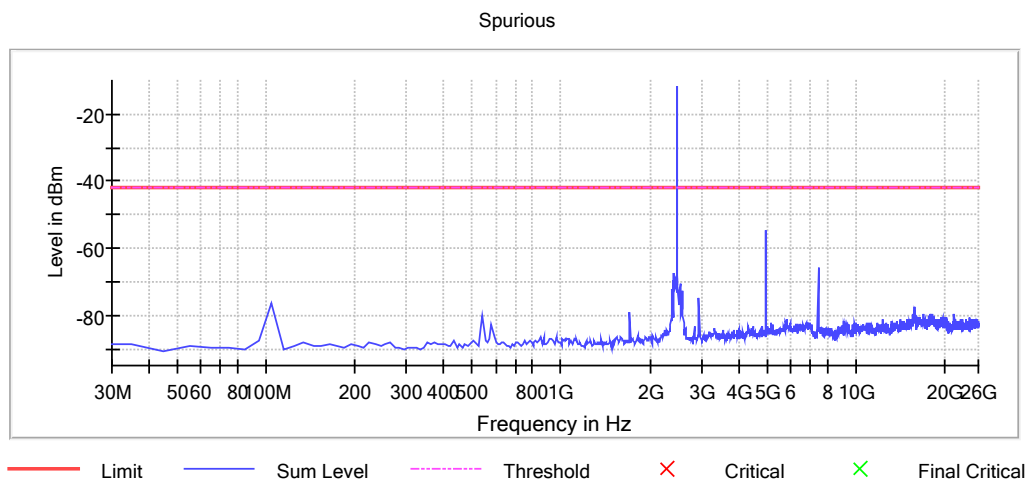
#### Tx Spurious Emission (BLE 1M 2402MHz)



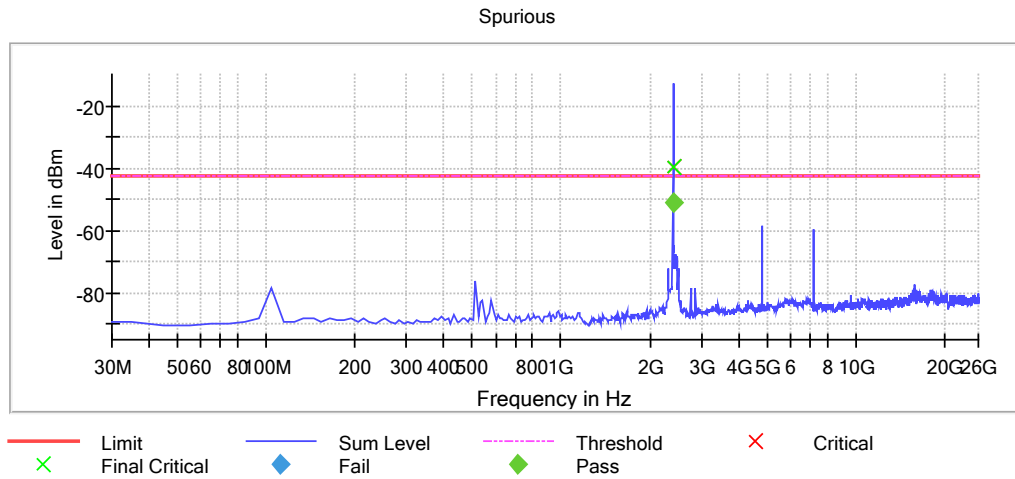
#### Tx Spurious Emission (BLE 1M 2442MHz)



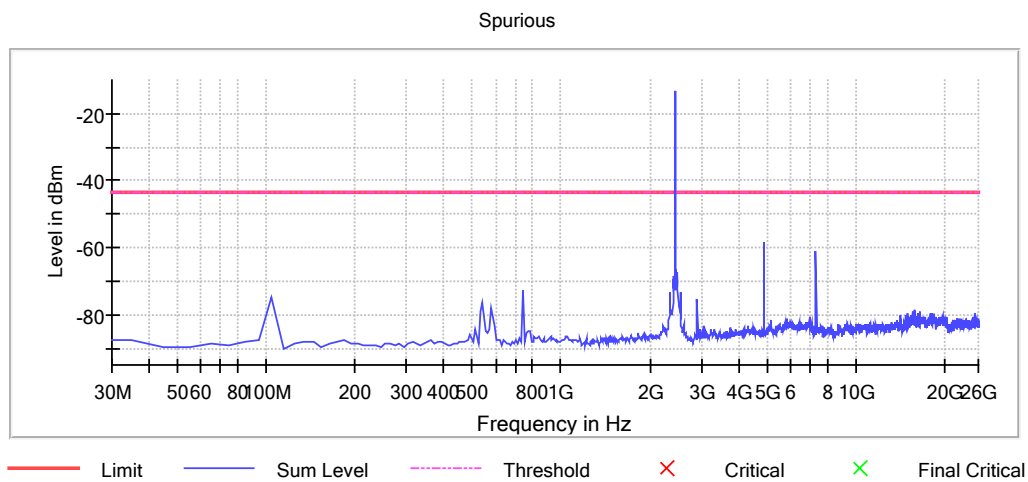
#### Tx Spurious Emission (BLE 1M 2480MHz)



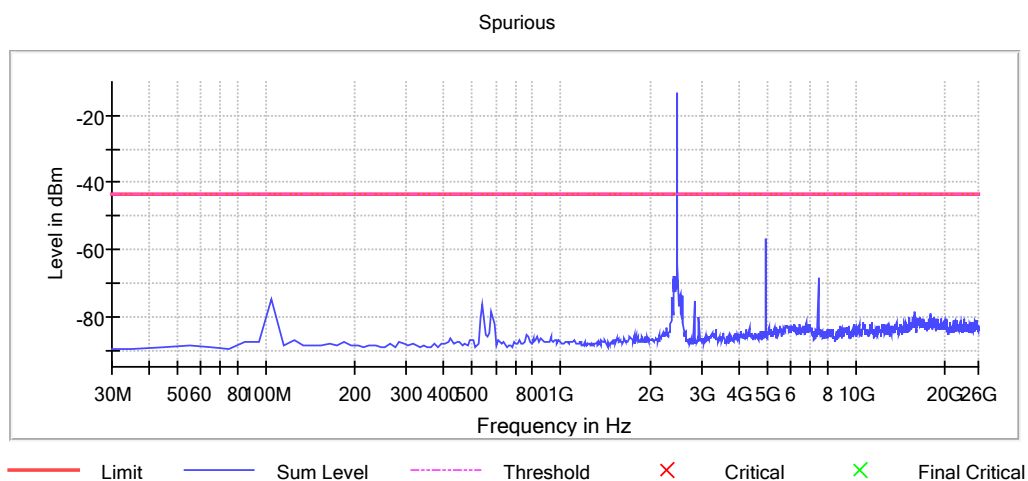
#### Tx Spurious Emission (BLE 2M 2402MHz)



## Tx Spurious Emission (BLE 2M 2442MHz)



## Tx Spurious Emission (BLE 2M 2480MHz)



## 8. 100kHz Bandwidth of Band Edges Measurement

### 8.1 Standard Applicable

According to §15.247(d), in any 100 kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, In addition, radiated emissions 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).

### 8.2 Measurement Procedure

1. Place the EUT on the table and set it in transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
3. Set center frequency of spectrum analyzer = operating frequency.
4. Set the spectrum analyzer as RBW=1MHz, VBW $\geq$ 3\*RBW (for Peak); VBW $\geq$ 1/T<sub>on</sub> (for Average), Sweep = auto.
5. Mark Peak, 2.390GHz and 2.4835GHz and record the max. level.
6. Repeat above procedures until all frequency measured were complete.

### 8.3 Field Strength Calculation

The field strength is calculated by adding the Antenna Factor and Cable Factor and subtracting the Amplifier Gain and Duty Cycle Correction Factor (if any) from the measured reading. The basic equation with a sample calculation is as follows:

$$FS = RA + AF + CL - AG$$

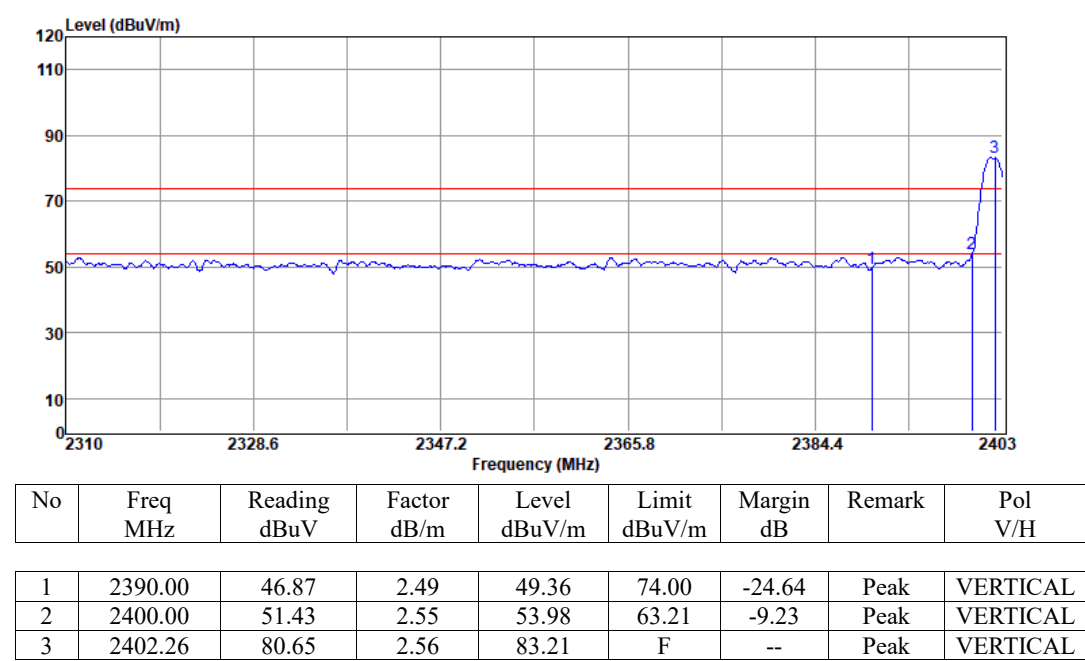
Where	FS = Field Strength	CL = Cable Attenuation Factor (Cable Loss)
	RA = Reading Amplitude	AG = Amplifier Gain
	AF = Antenna Factor	

8.4 Measurement Result

8.4.1 Radiated Band Edges Measurement Result

International Standard Laboratory Corp.  
Company Address: No. 120, Lane 180, Hsin Ho Rd.  
Lung-Tan Dist., Tao Yuan City 325, Taiwan  
Date: 2025-07-31

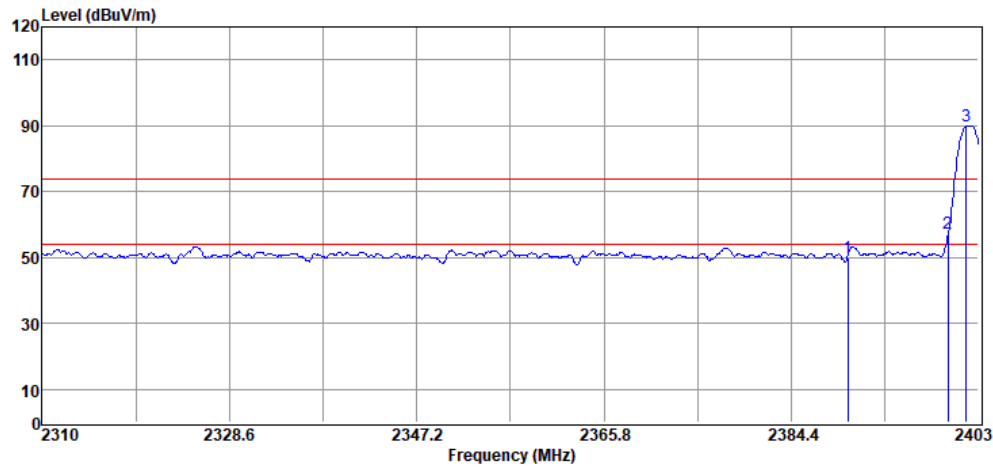
Project Number. : 25LR0117 Temp.(°C)/RH(%) : 25/60  
Test Mode : BLE 1M Bandedge Low Ch Tested by : Barry Lee



Note: "F" denotes fundamental frequency.

International Standard Laboratory Corp.  
Company Address: No. 120, Lane 180, Hsin Ho Rd.  
Lung-Tan Dist., Tao Yuan City 325, Taiwan  
Date: 2025-07-31

Project Number. : 25LR0117 Temp.(°C)/RH(%) : 25/60  
Test Mode : BLE 1M Bandedge Low Ch Tested by : Barry Lee

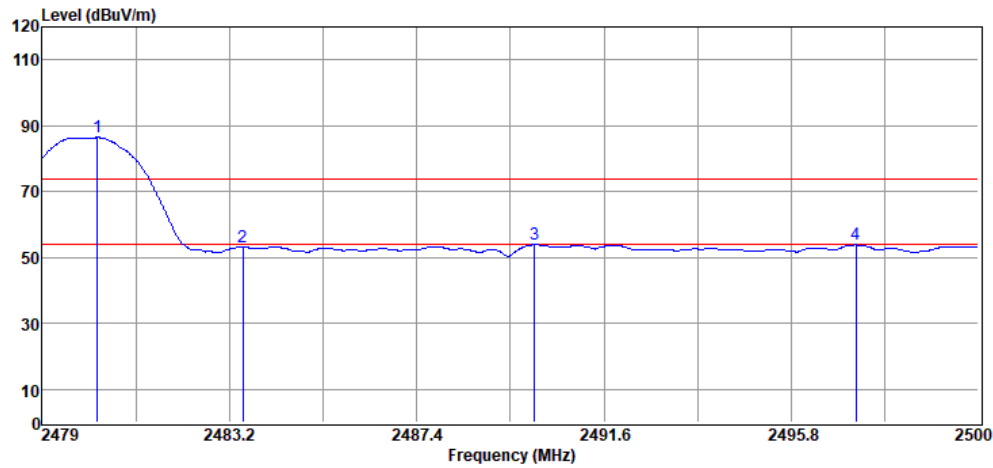


No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	2390.00	47.53	2.49	50.02	74.00	-23.98	Peak	HORIZONTAL
2	2400.00	54.67	2.55	57.22	70.08	-12.86	Peak	HORIZONTAL
3	2401.79	87.52	2.56	90.08	F	--	Peak	HORIZONTAL

Note: "F" denotes fundamental frequency.

International Standard Laboratory Corp.  
Company Address: No. 120, Lane 180, Hsin Ho Rd.  
Lung-Tan Dist., Tao Yuan City 325, Taiwan  
Date: 2025-07-31

Project Number. : 25LR0117 Temp.(°C)/RH(%) : 25/60  
Test Mode : BLE 1M Bandedge High Ch Tested by : Barry Lee

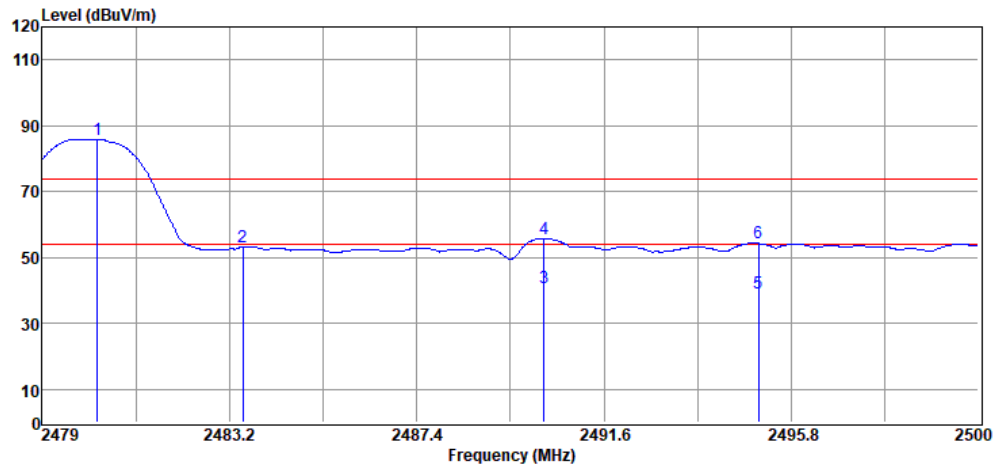


No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	2480.24	83.35	3.06	86.41	F	--	Peak	HORIZONTAL
2	2483.50	50.05	3.08	53.13	74.00	-20.87	Peak	HORIZONTAL
3	2490.05	50.74	3.13	53.87	74.00	-20.13	Peak	HORIZONTAL
4	2497.25	50.63	3.19	53.82	74.00	-20.18	Peak	HORIZONTAL

Note: "F" denotes fundamental frequency.

International Standard Laboratory Corp.  
Company Address: No. 120, Lane 180, Hsin Ho Rd.  
Lung-Tan Dist., Tao Yuan City 325, Taiwan  
Date: 2025-07-31

Project Number. : 25LR0117 Temp.(°C)/RH(%) : 25/60  
Test Mode : BLE 1M Bandedge High Ch Tested by : Barry Lee

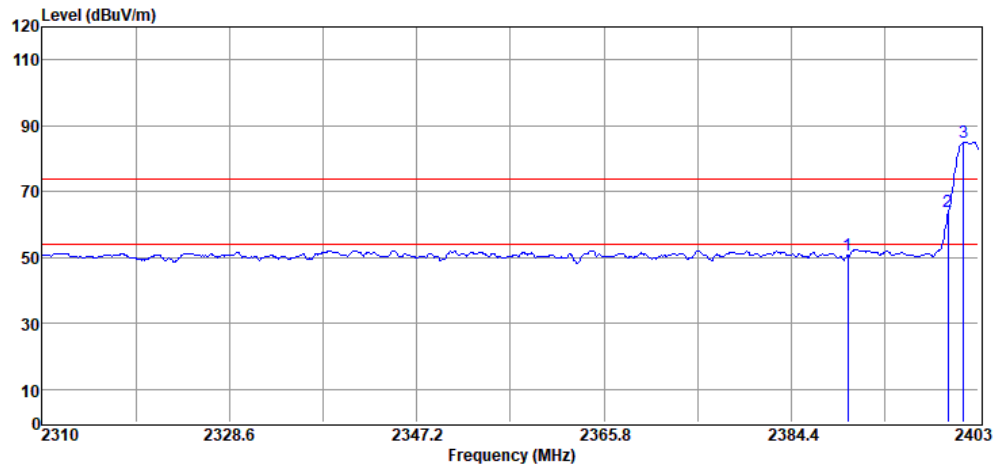


No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	2480.24	82.82	3.06	85.88	F	--	Peak	HORIZONTAL
2	2483.50	50.13	3.08	53.21	74.00	-20.79	Peak	HORIZONTAL
3	2490.26	37.82	3.13	40.95	54.00	-13.05	Average	HORIZONTAL
4	2490.26	52.65	3.13	55.78	74.00	-18.22	Peak	HORIZONTAL
5	2495.07	36.11	3.17	39.28	54.00	-14.72	Average	HORIZONTAL
6	2495.07	51.12	3.17	54.29	74.00	-19.71	Peak	HORIZONTAL

Note: "F" denotes fundamental frequency.

International Standard Laboratory Corp.  
Company Address: No. 120, Lane 180, Hsin Ho Rd.  
Lung-Tan Dist., Tao Yuan City 325, Taiwan  
Date: 2025-07-31

Project Number. : 25LR0117 Temp.(°C)/RH(%) : 25/60  
Test Mode : BLE 2M Bandedge Low Ch Tested by : Barry Lee



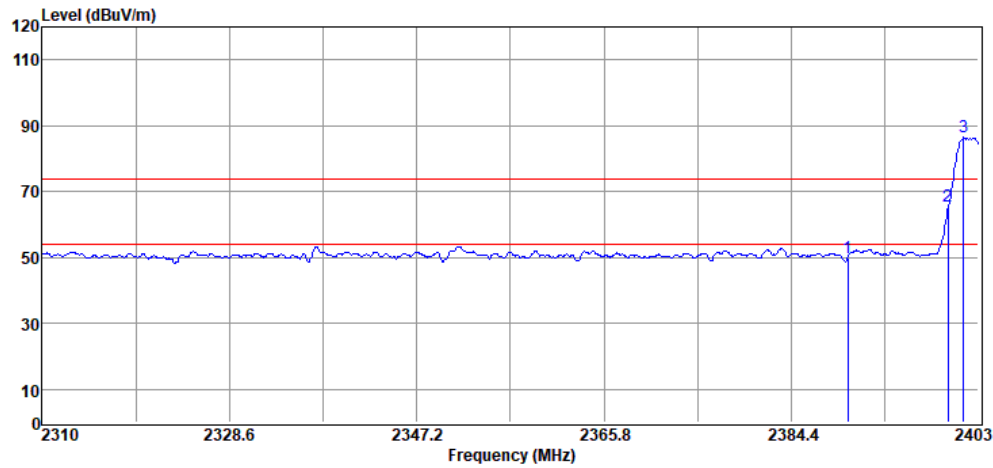
No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	2390.00	48.03	2.49	50.52	74.00	-23.48	Peak	VERTICAL
2	2400.00	61.24	2.55	63.79	65.10	-1.31	Peak	VERTICAL
3	2401.51	82.54	2.56	85.10	F	--	Peak	VERTICAL

Note: "F" denotes fundamental frequency.



International Standard Laboratory Corp.  
Company Address: No. 120, Lane 180, Hsin Ho Rd.  
Lung-Tan Dist., Tao Yuan City 325, Taiwan  
Date: 2025-07-31

Project Number. : 25LR0117 Temp.(°C)/RH(%) : 25/60  
Test Mode : BLE 2M Bandedge Low Ch Tested by : Barry Lee

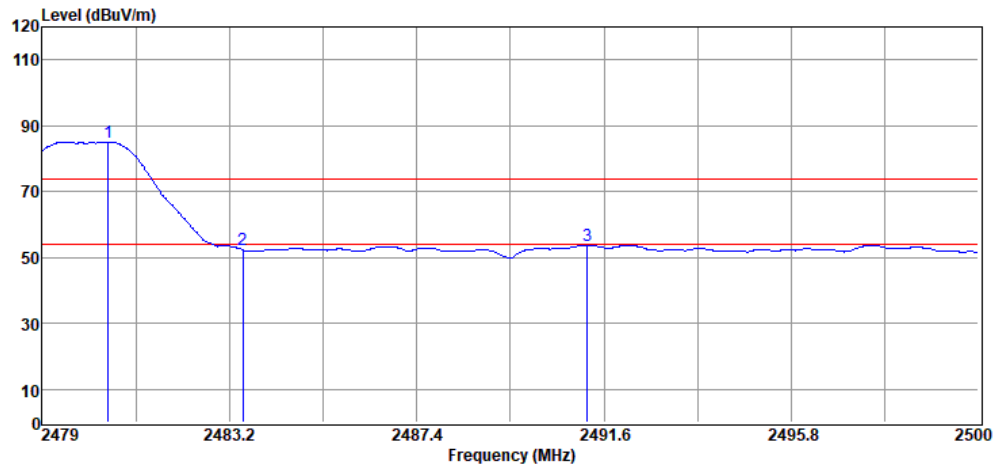


No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	2390.00	47.24	2.49	49.73	74.00	-24.27	Peak	HORIZONTAL
2	2400.00	62.82	2.55	65.37	66.40	-1.03	Peak	HORIZONTAL
3	2401.51	83.84	2.56	86.40	F	--	Peak	HORIZONTAL

Note: "F" denotes fundamental frequency.

International Standard Laboratory Corp.  
Company Address: No. 120, Lane 180, Hsin Ho Rd.  
Lung-Tan Dist., Tao Yuan City 325, Taiwan  
Date: 2025-07-31

Project Number. : 25LR0117 Temp.(°C)/RH(%) : 25/60  
Test Mode : BLE 2M Bandedge High Ch Tested by : Barry Lee

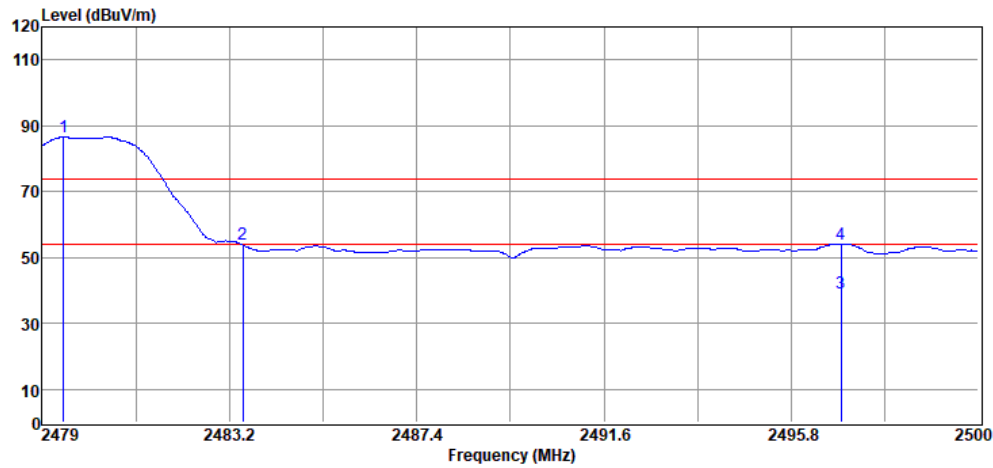


No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	2480.49	82.08	3.06	85.14	F	--	Peak	VERTICAL
2	2483.50	49.29	3.08	52.37	74.00	-21.63	Peak	VERTICAL
3	2491.22	50.60	3.15	53.75	74.00	-20.25	Peak	VERTICAL

Note: "F" denotes fundamental frequency.

International Standard Laboratory Corp.  
Company Address: No. 120, Lane 180, Hsin Ho Rd.  
Lung-Tan Dist., Tao Yuan City 325, Taiwan  
Date: 2025-07-31

Project Number. : 25LR0117 Temp.(°C)/RH(%) : 25/60  
Test Mode : BLE 2M Bandedge High Ch Tested by : Barry Lee

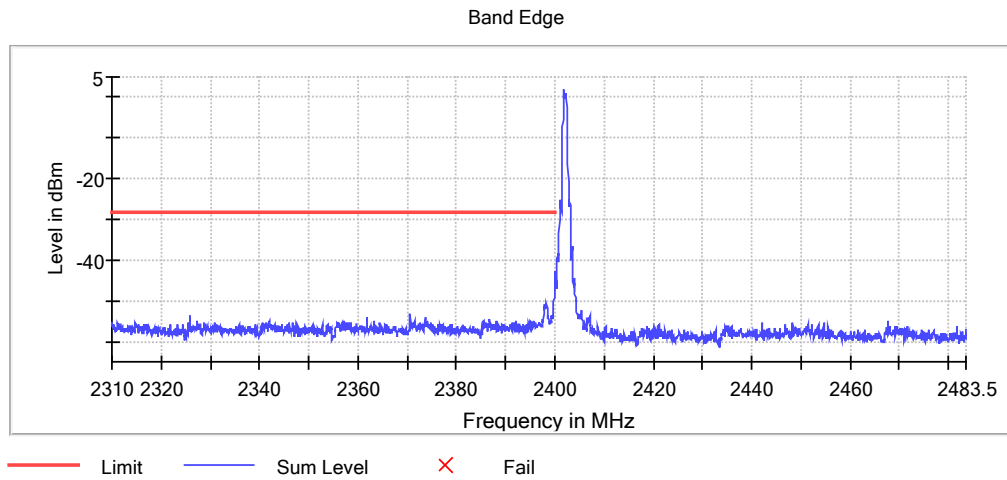


No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	2479.48	83.44	3.06	86.50	F	--	Peak	HORIZONTAL
2	2483.50	50.85	3.08	53.93	74.00	-20.07	Peak	HORIZONTAL
3	2496.91	36.01	3.19	39.20	54.00	-14.80	Average	HORIZONTAL
4	2496.91	51.02	3.19	54.21	74.00	-19.79	Peak	HORIZONTAL

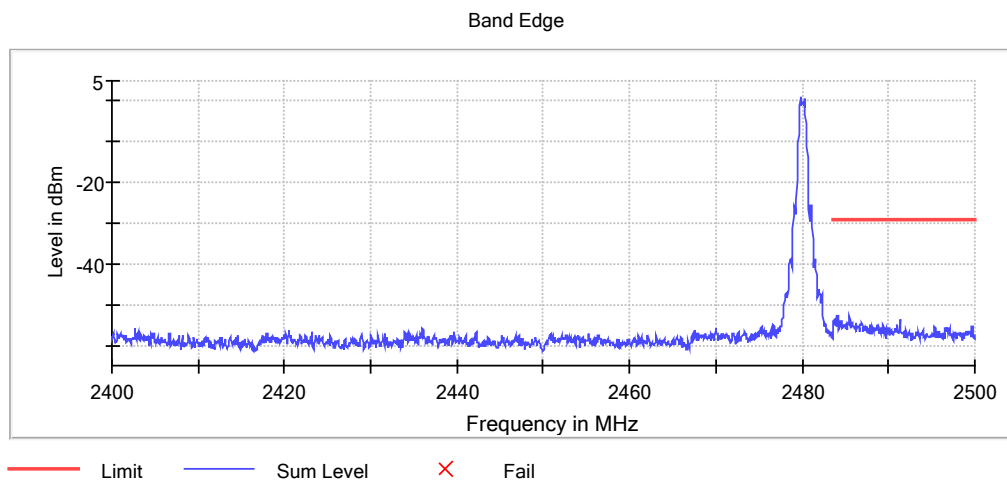
Note: "F" denotes fundamental frequency.

## 8.4.2 Conducted Band Edges Measurement Result

### Band Edge low (BLE 1M 2402 MHz)

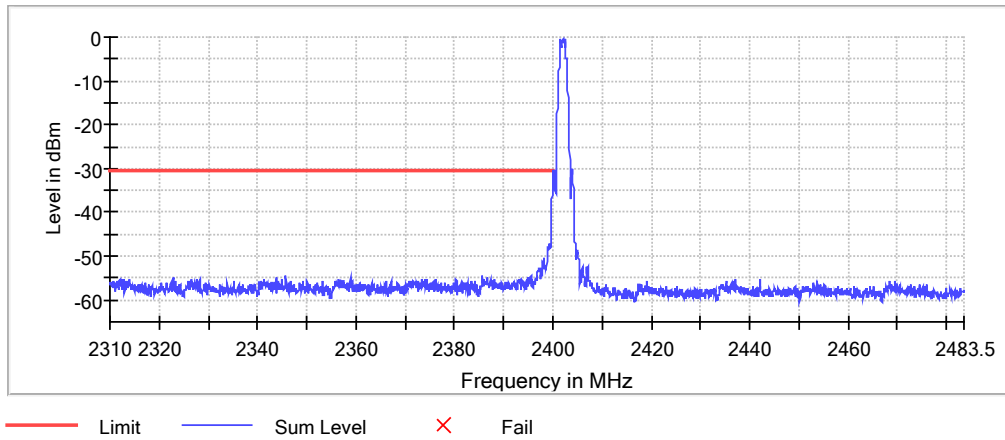


### Band Edge high (BLE 1M 2480 MHz)



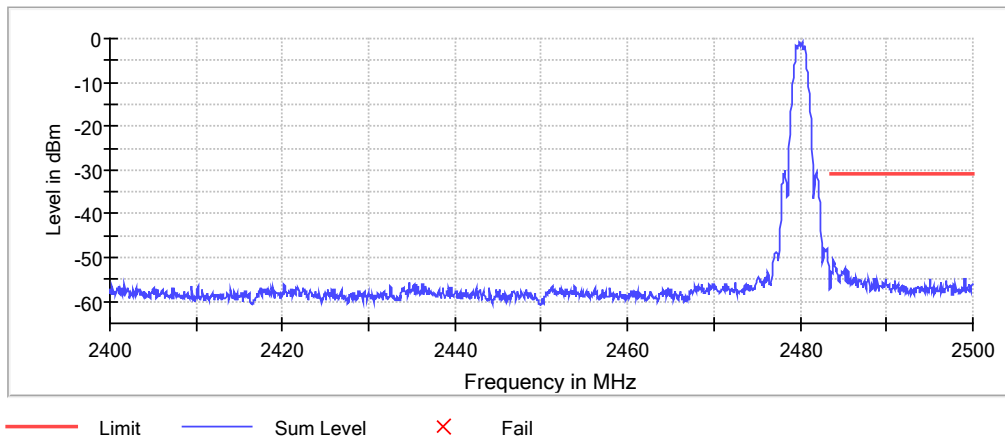
## Band Edge low (BLE 2M 2402 MHz)

Band Edge



## Band Edge high (BLE 2M 2480 MHz)

Band Edge



## 9. 6dB Bandwidth

### 9.1 Standard Applicable

According to §15.247(a)(2), Systems using digital modulation techniques may operate in the 902 - 928 MHz, 2400 - 2483.5 MHz, and 5725 - 5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500kHz.

### 9.2 Measurement Procedure

1. Place the EUT on the table and set it in transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
3. Set the spectrum analyzer as  
RBW = 100 kHz.  
VBW  $\geq 3 \times$  RBW.  
Detector = Peak.  
Trace mode = max hold.  
Sweep = auto couple.  
Allow the trace to stabilize.  
Use 6-dB BW measurement function
4. Repeat above procedures until all frequency measured were complete.

### 9.3 Measurement Result

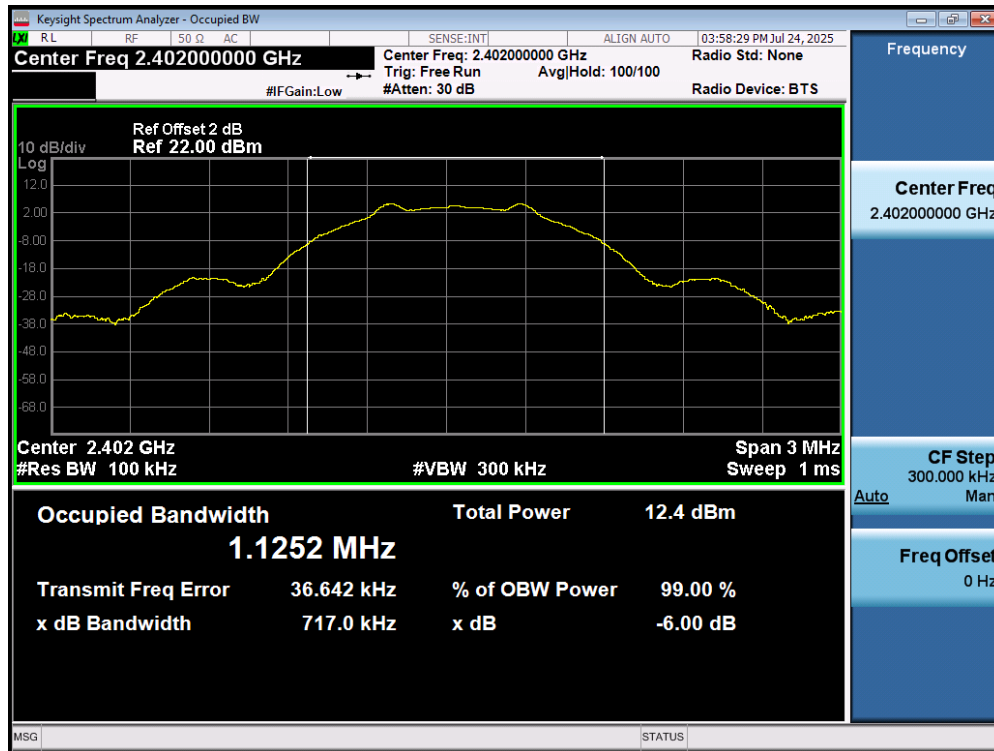
BLE (1M)

Frequency (MHz)	6dB Bandwidth (MHz)	6dB BW Limit (kHz)
2402	0.717	> 500
2442	0.713	> 500
2480	0.72	> 500

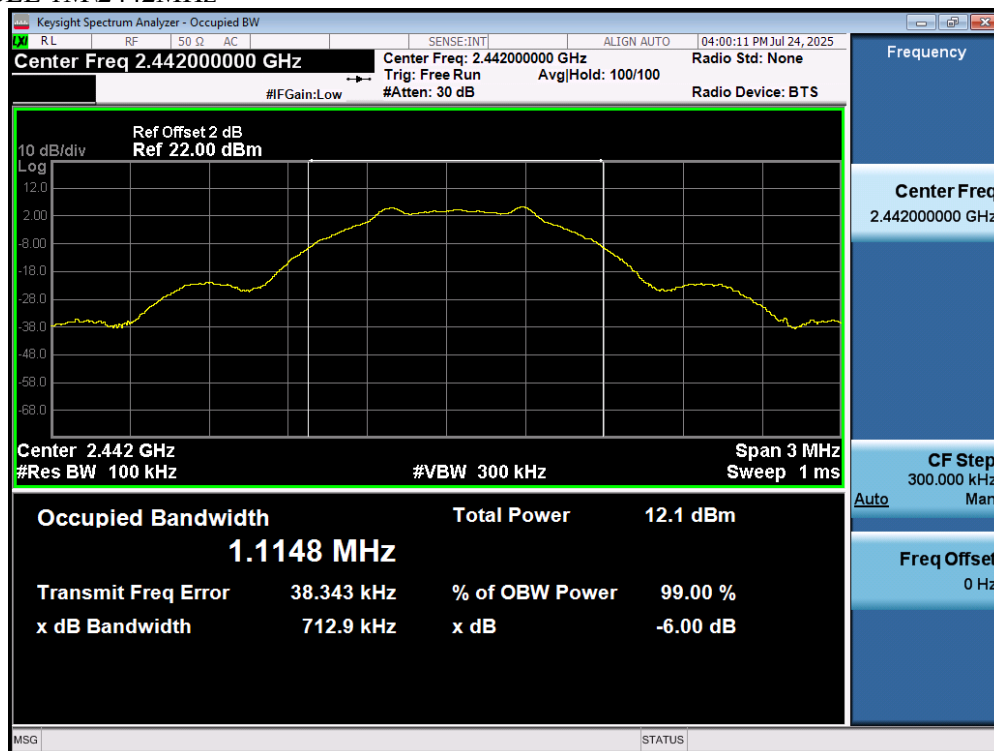
BLE (2M)

Frequency (MHz)	6dB Bandwidth (MHz)	6dB BW Limit (kHz)
2402	1.384	> 500
2442	1.431	> 500
2480	1.412	> 500

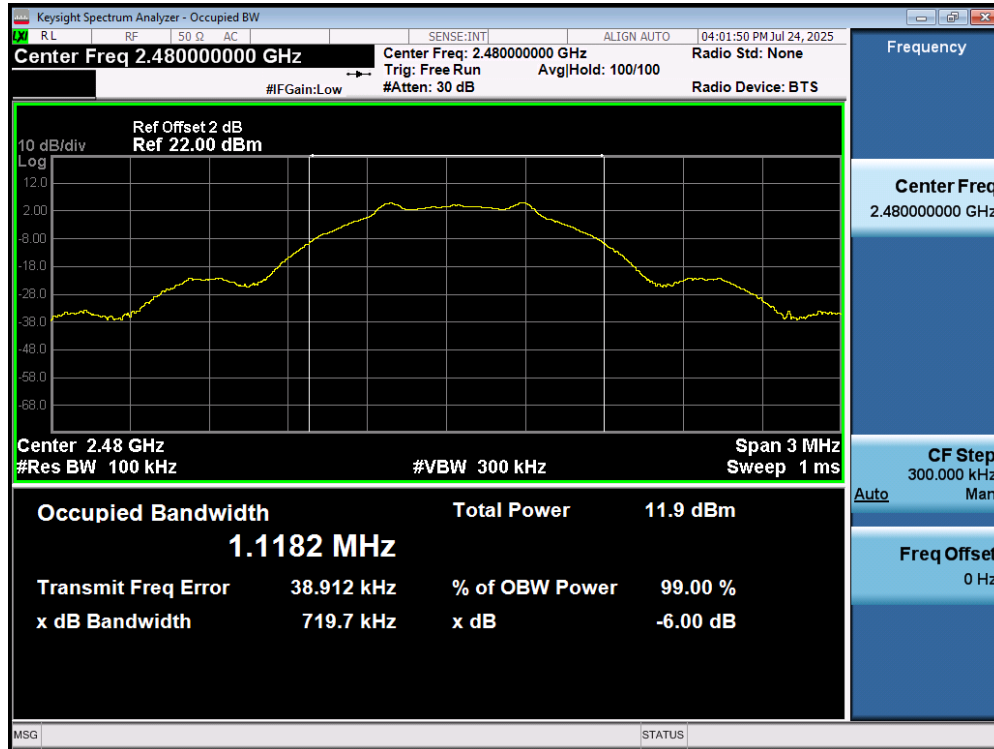
Test Data: BLE 1M\2402MHz



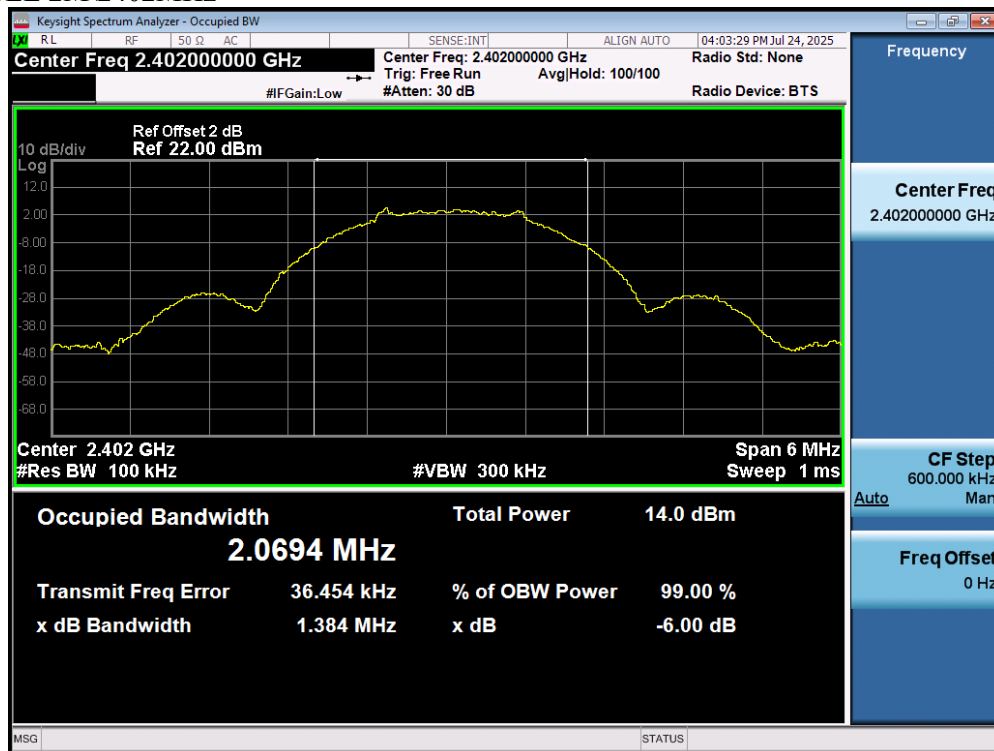
Test Data: BLE 1M\2442MHz



Test Data: BLE 1M\2480MHz

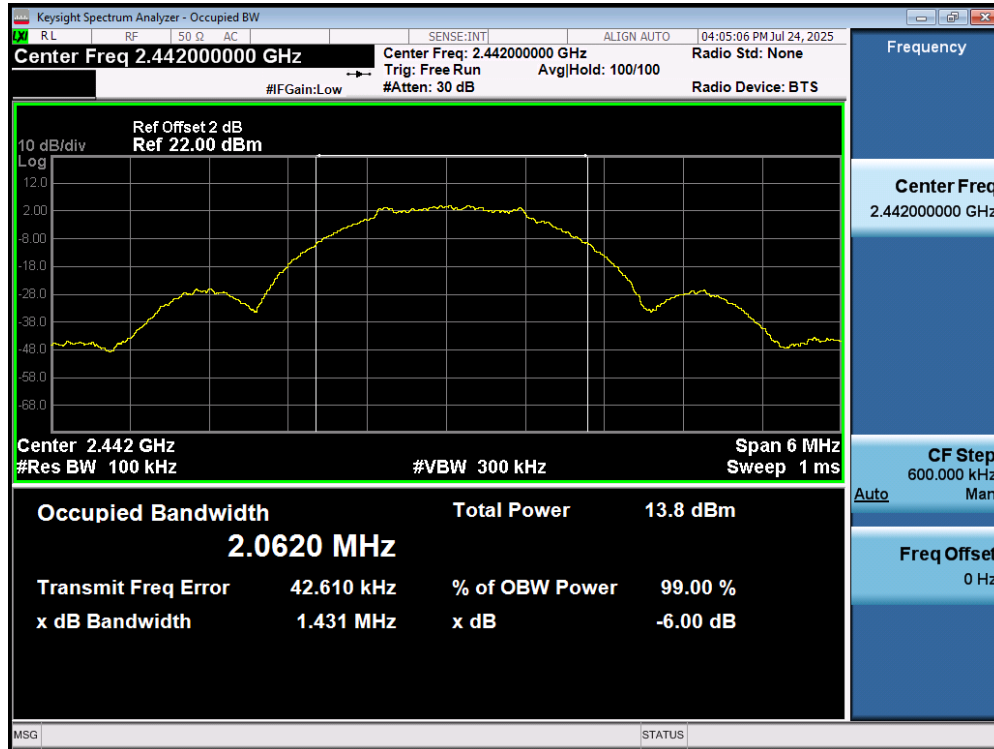


Test Data: BLE 2M\2402MHz

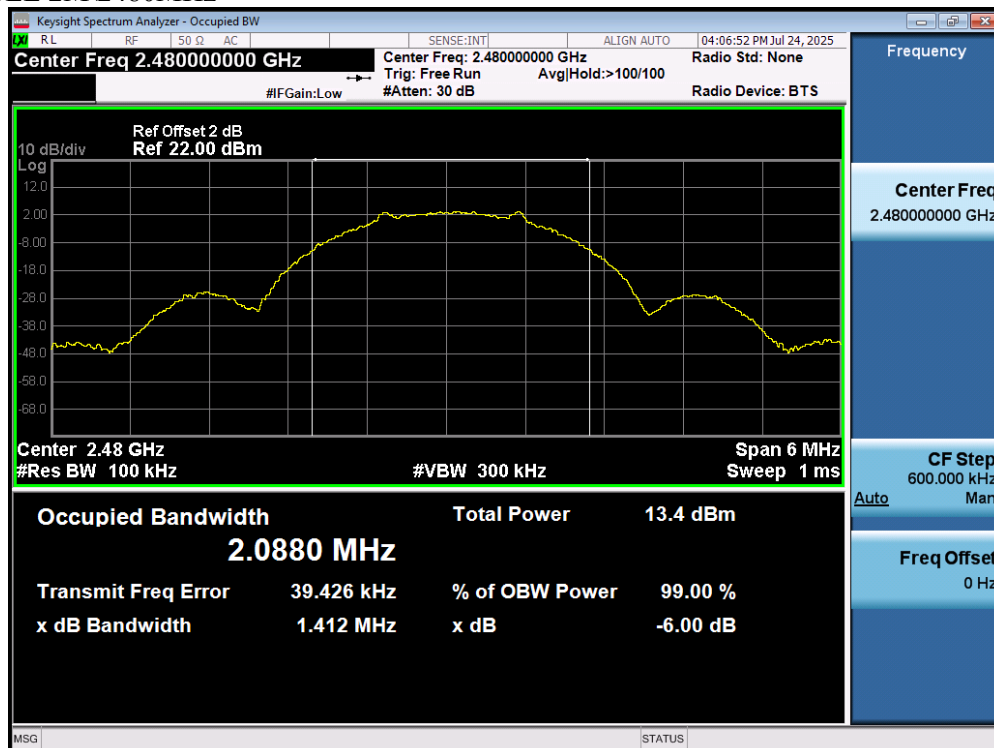




Test Data: BLE 2M\2442MHz



Test Data: BLE 2M\2480MHz



## 10. Peak Power Spectral Density

### 10.1 Standard Applicable

According to §15.247(e) 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. This power spectral density shall be determined in accordance with the provisions of paragraph (b) of this section. The same method of determining the conducted output power shall be used to determine the power spectral density.

### 10.2 Measurement Procedure

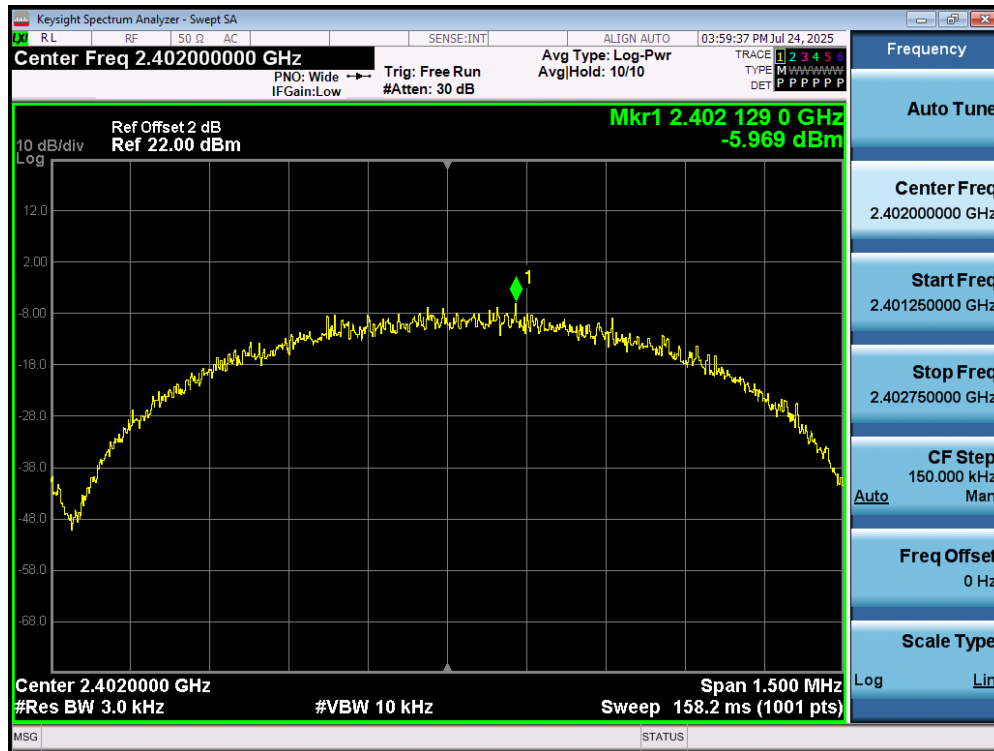
1. Place the EUT on the table and set it in transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
3. Set the spectrum analyzer as RBW =3kHz, VBW = 10kHz, Set the span to 1.5 DTS bandwidth., Sweep=Auto
4. Record the max. reading.
5. Repeat above procedures until all frequency measured were complete.

### 10.3 Measurement Result

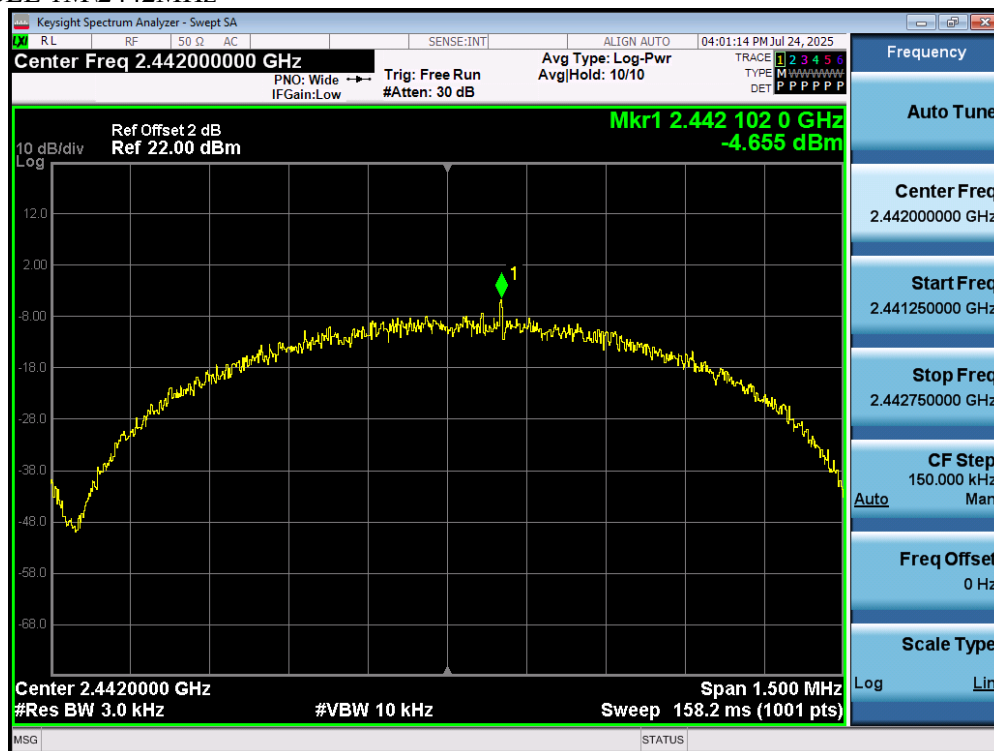
Mode	Freq. (MHz)	PSD (dBm/3kHz)	Duty Factor (dB)	Total PSD (dBm/3kHz)	PSD Limit (dBm/3kHz)
BLE (1M)	2402	-5.969	-----	-5.969	8
	2442	-4.655	-----	-4.655	8
	2480	-7.444	-----	-7.444	8

Mode	Freq. (MHz)	PSD (dBm/3kHz)	Duty Factor (dB)	Total PSD (dBm/3kHz)	PSD Limit (dBm/3kHz)
BLE (2M)	2402	-9.816	-----	-9.816	8
	2442	-8.589	-----	-8.589	8
	2480	-10.504	-----	-10.504	8

Test Data: BLE 1M\2402MHz



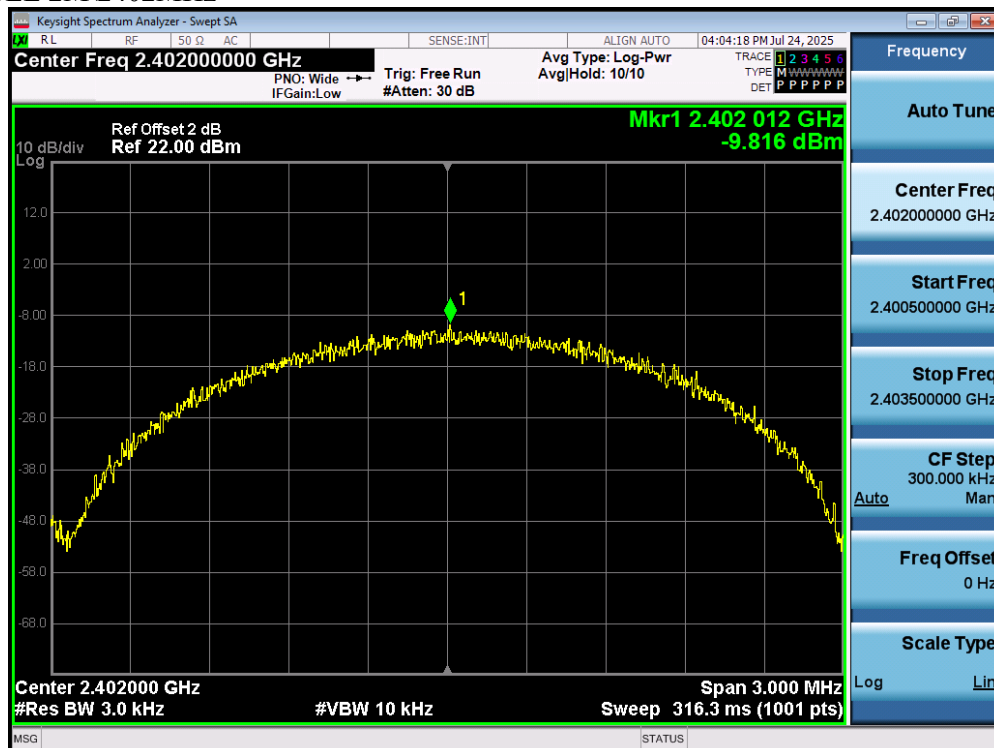
Test Data: BLE 1M\2442MHz



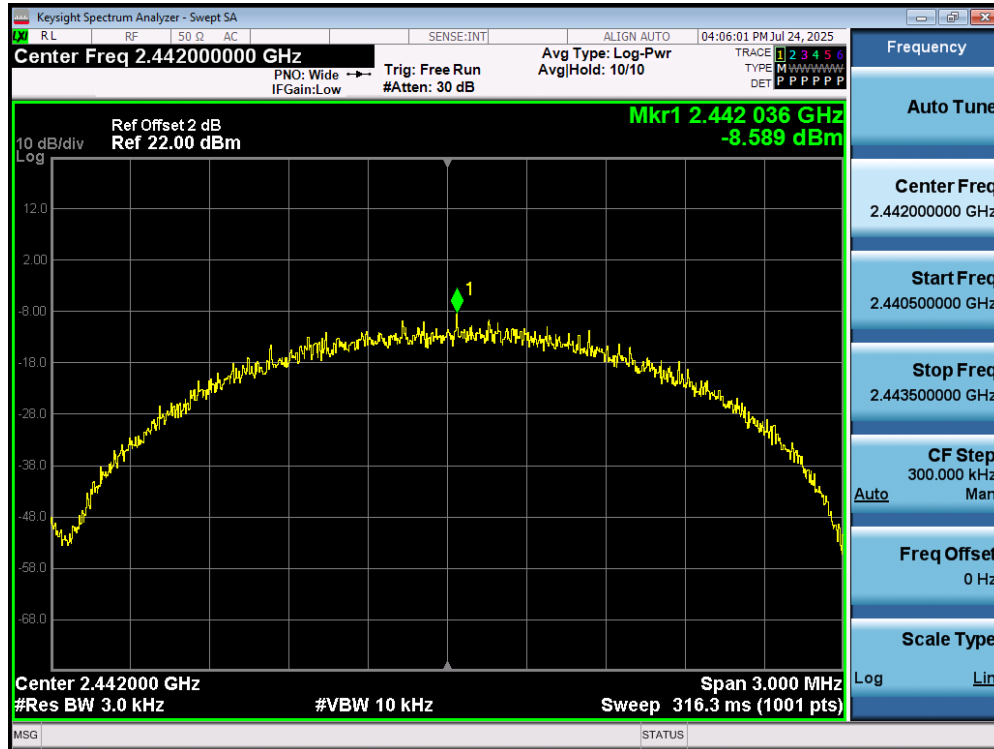
Test Data: BLE 1M\2480MHz



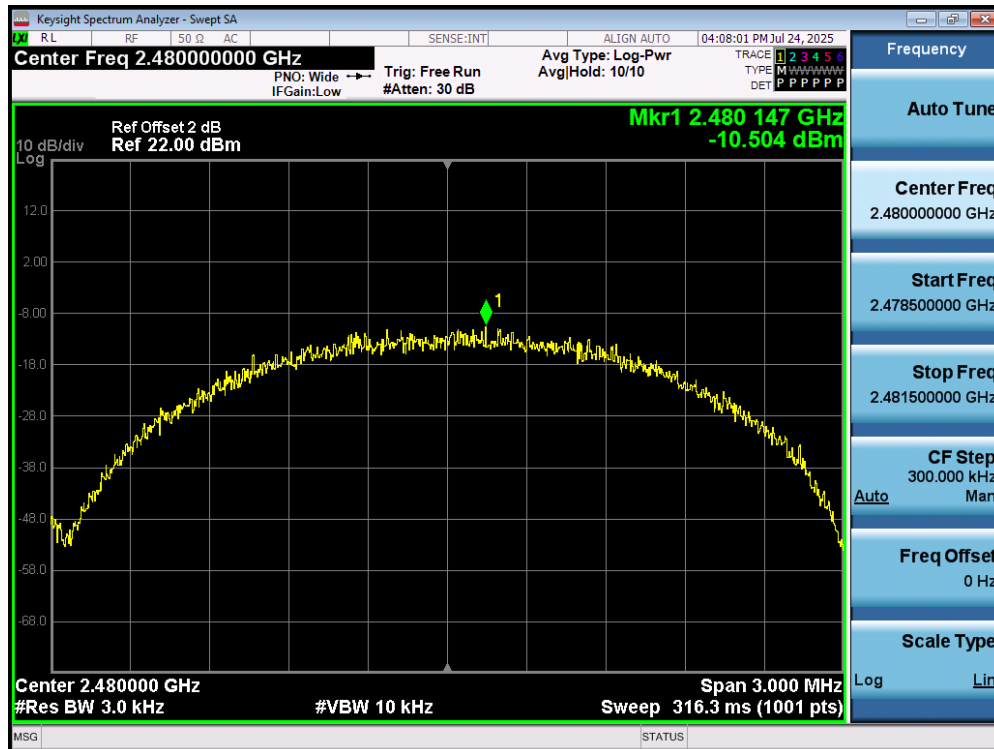
Test Data: BLE 2M\2402MHz



Test Data: BLE 2M\2442MHz



Test Data: BLE 2M\2480MHz



## 11. Appendix

### 11.1 Appendix A: Equipment List

Location	Equipment Name	Brand	Model	S/N	Last Cal. Date	Next Cal. Date
Conduction 02	EMI Receiver 20	R&S	ESR7	101326	04/25/2025	04/25/2026
Conduction 02	Conduction 02-1 01 Cable	WOKEN	CFD 300-NL	Conduction 02 -1	09/25/2024	09/25/2025
Conduction 02	LISN 26	R&S	ENV216	102378	11/29/2024	11/29/2025
Conduction 02	LISN 21	R&S	ENV216	101476	07/05/2025	07/05/2026
Conduction 02	ISN T8 CAT6A 03	SCHWARZBECK	NTFM 8158	NTFM 8158-00367	05/29/2025	05/29/2026
Conduction 02	ISN T4 06	TESEQ	ISN T400A	28574	09/12/2024	09/12/2025
Conduction 02	ISN T8 10	TESEQ	ISN T800	42773	06/04/2025	06/04/2026
Conduction 02	CDN ISN ST08A 01	TESEQ	CDN ISN ST08A	43352	08/07/2025	08/07/2026
Conduction 02	Capacitive Voltage Probe 01	SCHAFFNER	CVP 2200A	18711	01/23/2025	01/23/2026
Conduction 02	Current Probe 01	SCHAFFNER	SMZ 11	18030	01/15/2025	01/15/2026

Location Conducted	Equipment Name	Brand	Model	S/N	Last Cal. Date	Next Cal. Date
Chamber 19	Spectrum Analyzer	R&S	FSV40	101919	07/22/2025	07/22/2026
Chamber 19	EMI Receiver	R&S	ESR3	102461	05/12/2025	05/12/2026
Chamber 19	Loop Antenna	EM	EM-6879	271	09/25/2024	09/25/2025
Chamber 19	Bilog Antenna (30MHz-1GHz)	Schwarzbeck	VULB9168 w 5dB Att.	9168-736	04/21/2025	04/21/2026
Chamber 19	Horn antenna (1GHz-18GHz)	ETS • LINDGREN	3117	00218718	10/04/2024	10/04/2025
Chamber 19	Horn antenna (18GHz-26GHz)	Com-power	AH-826	081001	11/28/2024	11/28/2025
Chamber 19	Horn antenna (26GHz-40GHz)	Com-power	AH-640	100A	03/27/2025	03/27/2026
Chamber 19	Preamplifier (9kHz-3GHz)	EM	EM330	060822	04/22/2025	04/22/2026
Chamber 19	Preamplifier (1GHz-26GHz)	HP	8449B	3008A02471	10/23/2024	10/23/2025
Chamber 19	Preamplifier (26GHz-40GHz)	MITEQ	JS4-26004000-27-5A	818471	05/06/2025	05/06/2026
Chamber 19	RF Cable (9kHz-26.5GHz)	Huber Suhner	Sucoflex 104A	MY1394/4A & 50886/4A	07/17/2025	07/17/2026
Chamber 19	RF Cable (18GHz-40GHz)	HUBER SUHNER	Sucoflex 102	27963/2&37421/2	11/22/2024	11/22/2025
Chamber 19	MXG Vector Signal Generator	Keysight	N5182B	MY53052399	12/26/2023	12/26/2025
Chamber 19	Test Software	Audix	e3 Ver:6.120203	N/A	N/A	N/A

Location Conducted	Equipment Name	Brand	Model	S/N	Last Cal. Date	Next Cal. Date
Conducted	Power Meter	Anritsu	ML2495A	1116010	09/26/2024	09/26/2025
Conducted	Power Sensor	Anritsu	MA2411B	34NKF50	09/26/2024	09/26/2025
Conducted	Temperature Chamber	KSON	THS-B4H100	2287	05/23/2025	05/23/2026
Conducted	DC Power supply	ABM	8185D	N/A	12/27/2024	12/27/2025
Conducted	AC Power supply	EXTECH	CFC105W	NA	N/A	N/A
Conducted	Spectrum analyzer	Keysight	N9010A	MY56070257	09/25/2024	09/25/2025
Conducted	Test Software	DARE	Radiation Ver:2013.1.23	NA	NA	NA
Conducted	Wideband Radio Comm. Tester	R&S	CMW500	1201.002K50108793-JG	10/26/2024	10/26/2025
Conducted	Radio Communication Test Station	Anritsu	MT8000A	6272539604	08/29/2024	08/29/2025
Conducted	MT8000A Test Software	Anritsu	MX800000A Application Launcher V10.10.34.0	NA	NA	NA
Conducted	BT Simulator	Agilent	N4010A	MY48100200	NA	NA
Conducted	MXG Vector Signal Generator	Keysight	N5182B	MY53052399	12/26/2023	12/26/2025
Conducted (TS8997)	Wideband Radio Comm. Tester	R&S	CMW500	168811	09/25/2024	09/25/2025
Conducted (TS8997)	UP/DOWN converter	R&S	CMW-Z800A	100566	09/25/2024	09/25/2025
Conducted (TS8997)	Signal Generator	R&S	SMB100A	183701	09/10/2024	09/10/2025
Conducted (TS8997)	Vector Signal Generator	R&S	SMM100A	101908	09/10/2024	09/10/2025
Conducted (TS8997)	Signal analyzer 40GHz	R&S	FSV40	101884	09/11/2024	09/11/2025
Conducted (TS8997)	OSP150 extension unit CAM-BUS	R&S	OSP150	101107	09/11/2024	09/11/2025
Conducted (TS8997)	Test Software	R&S	EMC32 Ver: 12.00.00	NA	NA	NA

## 11.2 Appendix B: Uncertainty of Measurement

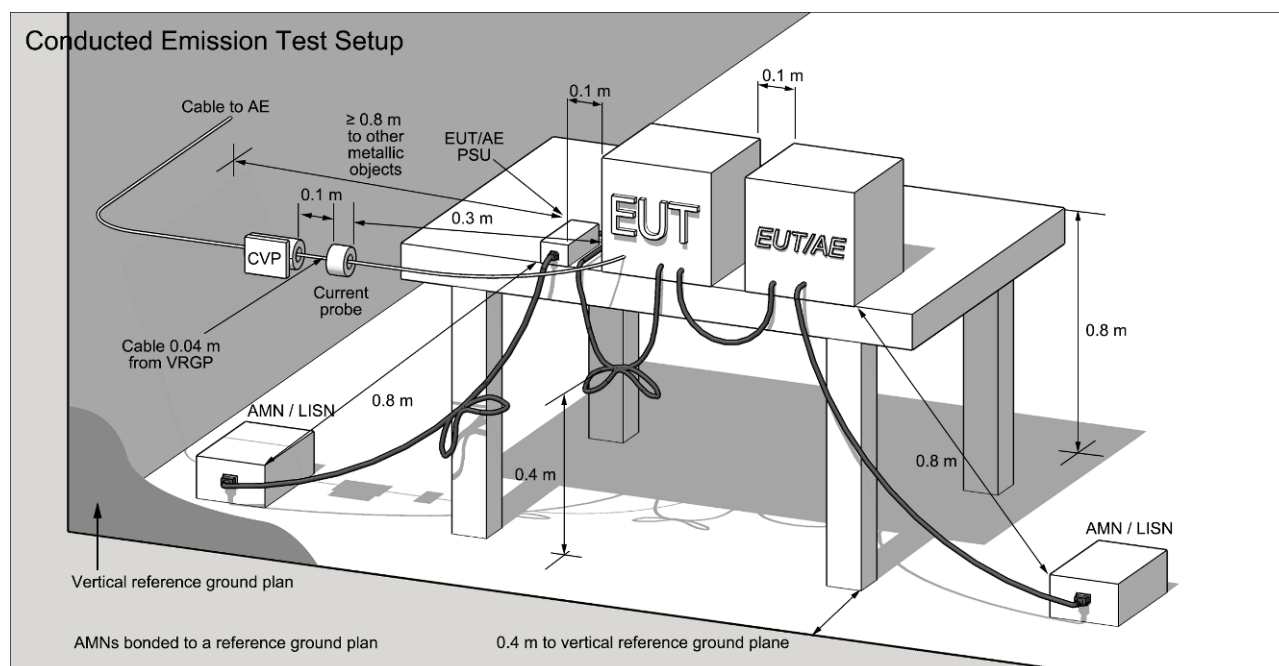
ISO/IEC 17025 requires that an estimate of measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor ( $k=2$ )).

Parameter	Uncertainty ( $k=2$ )
Conducted Emission (AC power line)	$\pm 1.6$ dB
Spurious emissions, radiated	$\pm 4.8$ dB
RF power, conducted	$\pm 2.2$ dB
Power Density	$\pm 2.3$ dB
RF Frequency	$\pm 1.5$ %
DC Voltage	$\pm 2.2$ %



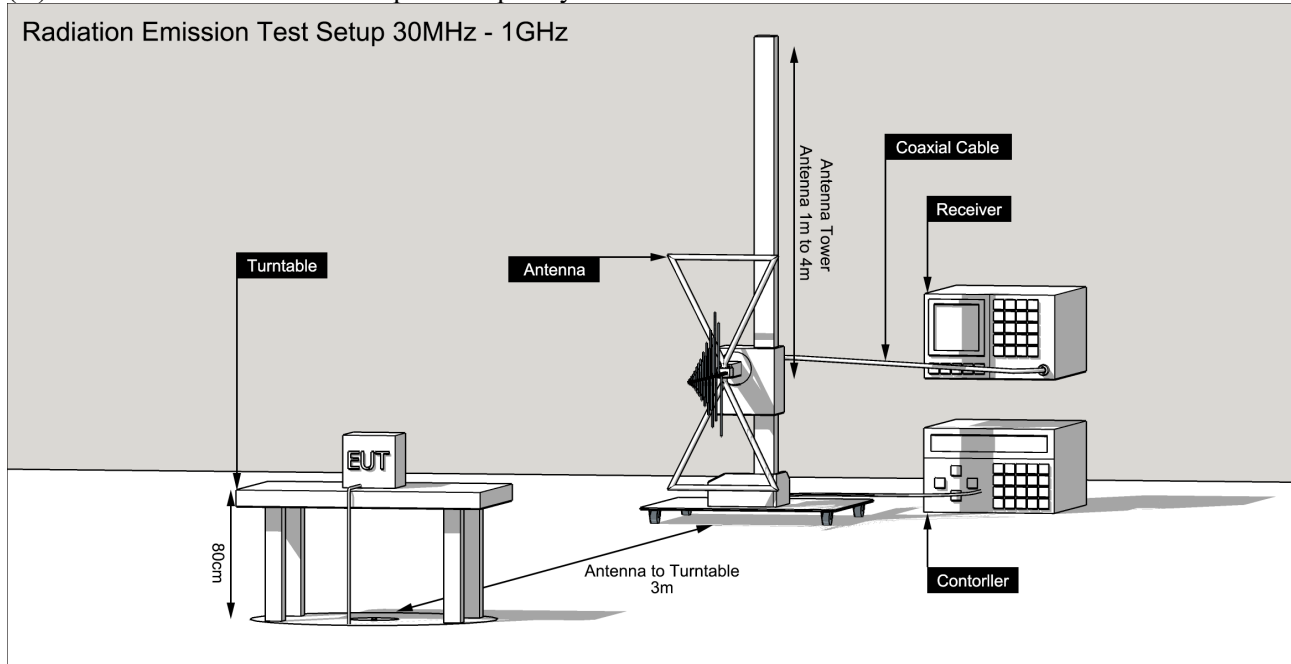
### AC Line Conduced Emission Test Setup

1. The conducted emission tests were performed in the test site, using the setup in accordance with the ANSI C63.10-2013.
2. The AC/DC Power adaptor of EUT was plug-in LISN. The EUT was placed flushed with the rear of the table.
3. The LISN was connected with 120Vac/60Hz power source.

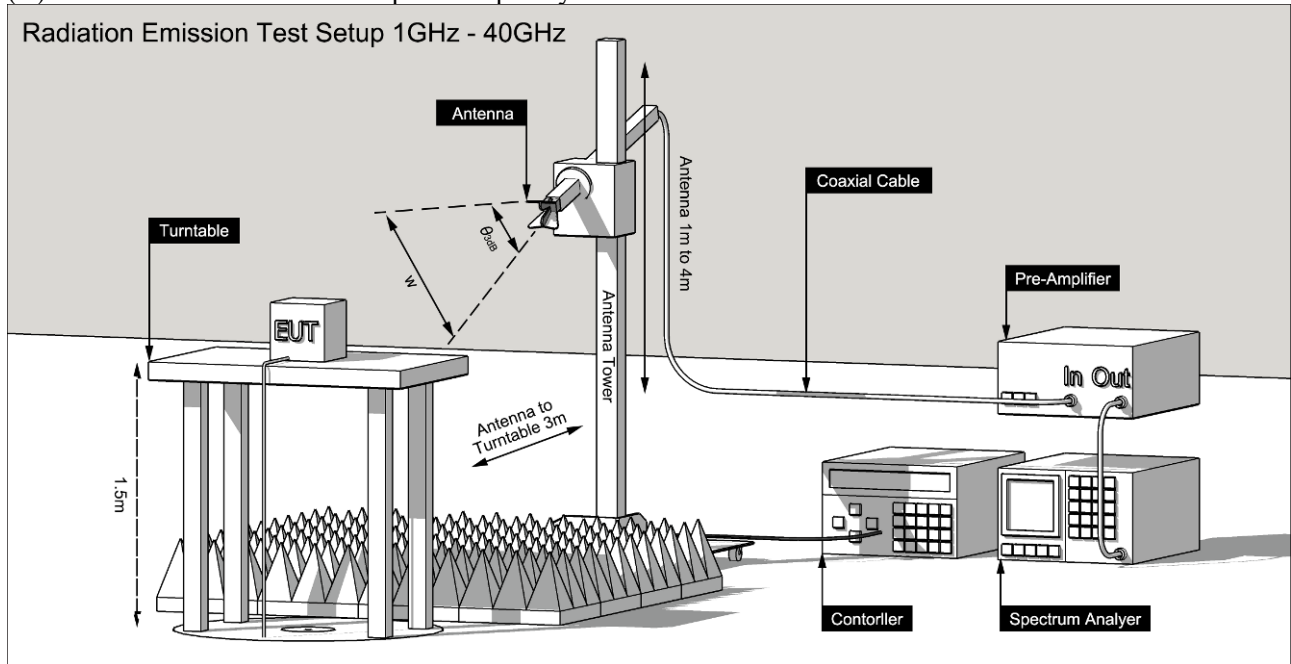


## Radiated Spurious Emission Test & 100kHz Bandwidth of Band Edges Measurement Test Setup

### (A) Radiated Emission Test Setup for frequency below 1000MHz



### (B) Radiated Emission Test Setup for frequency above 1 GHz



## RF Conducted Measurement Test Setup

