



# RF TEST REPORT

Product Name: WIRELESS REMOTE

Model Name: EWX124-CAD, T41224-CAD, TR1224-CAD, EWX004-CAD,  
T41224AS-CAD, EWX001-CAD, EWX003-CAD, EWX005-CAD

FCC ID: 2AAX4EWX124-CAD

Issued For : Zhejiang Runva Mechanical & Electrical Co., Ltd.

NO.1 JINLONG ROAD, WUCHENG DISTRICT, JINHUA,  
ZHEJIANG, CHINA

Issued By : Shenzhen LGT Test Service Co., Ltd.

Room 205, Building 13, Zone B, Zhenxiong Industrial Park,  
No.177, Renmin West Road, Jinsha, Kengzi Street, Pingshan  
District, Shenzhen, Guangdong, China

Report Number: LGT23J060RF01

Sample Received Date: Oct. 20, 2023

Date of Test: Oct. 20, 2023 – Nov. 22, 2023

Date of Issue: Nov. 22, 2023

The test report is effective only with both signature and specialized stamp. This report shall not be reproduced except in full without the written approval of the Laboratory. The results in this report only apply to the tested sample.



## TEST REPORT CERTIFICATION

**Applicant:** Zhejiang Runva Mechanical & Electrical Co., Ltd.  
**Address:** NO.1 JINLONG ROAD, WUCHENG DISTRICT, JINHUA, ZHEJIANG, CHINA

**Manufacturer:** Zhejiang Runva Mechanical & Electrical Co., Ltd.  
**Address:** NO.1 JINLONG ROAD, WUCHENG DISTRICT, JINHUA, ZHEJIANG, CHINA

**Product Name:** WIRELESS REMOTE

**Trademark:** N/A

**Model Name:** EWX124-CAD, T41224-CAD, TR1224-CAD, EWX004-CAD, T41224AS-CAD, EWX001-CAD, EWX003-CAD, EWX005-CAD

**Sample Status:** Normal

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
FCC Part 15.249, Subpart C ANSI C63.10-2013	PASS

Prepared by:

Zane Shan

Zane Shan  
Engineer

Approved by:

Vita Li

Vita Li  
Technical Director





<b>Table of Contents</b>	<b>Page</b>
<b>1. SUMMARY OF TEST RESULTS</b>	<b>5</b>
1.1 TEST FACTORY	6
1.2 MEASUREMENT UNCERTAINTY	6
<b>2. GENERAL INFORMATION</b>	<b>7</b>
2.1 GENERAL DESCRIPTION OF THE EUT	7
2.2 DESCRIPTION OF THE TEST MODES	9
2.3 DESCRIPTION OF NECESSARY ACCESSORIES AND SUPPORT UNITS	9
2.4 EQUIPMENTS LIST	10
<b>3. EMC EMISSION TEST</b>	<b>11</b>
3.1 CONDUCTED EMISSION MEASUREMENT	11
3.2 TEST PROCEDURE	12
3.3 TEST SETUP	12
3.4 EUT OPERATING CONDITIONS	12
3.5 TEST RESULTS	12
<b>4. RADIATED EMISSION MEASUREMENT</b>	<b>13</b>
4.1 RADIATED EMISSION LIMITS	13
4.2 TEST PROCEDURE	14
4.3 TEST SETUP	15
4.4 EUT OPERATING CONDITIONS	15
4.5 FIELD STRENGTH CALCULATION	16
4.6 TEST RESULTS	17
4.7 FIELD STRENGTH OF FUNDAMENTAL	21
4.8 TEST RESULTS (BAND EDGE REQUIREMENTS)	25
<b>5. BANDWIDTH TEST</b>	<b>28</b>
5.1 TEST PROCEDURE	28
5.2 TEST SETUP	28
5.3 EUT OPERATION CONDITIONS	28
5.4 TEST RESULTS	28
<b>6. ANTENNA REQUIREMENT</b>	<b>30</b>
6.1 STANDARD REQUIREMENT	30
6.2 EUT ANTENNA	30
<b>APPENDIX - TEST SETUP PHOTOS</b>	<b>31</b>



**Revision History**

Rev.	Issue Date	Contents
00	Nov. 22, 2023	Initial Issue



## 1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

<b>FCC Part 15.249, Subpart C</b>			
<b>Standard Section</b>	<b>Test Item</b>	<b>Judgment</b>	<b>Remark</b>
15.207	Conducted Emission	N/A	--
15.249	Radiated Spurious Emission	PASS	--
15.205	Restricted Band Edge Emission	PASS	--
15.249	20dB Bandwidth	Pass	--
15.203	Antenna Requirement	PASS	--

### NOTE:

- (1) 'N/A' denotes test is not applicable in this Test Report.
- (2) All tests are according to ANSI C63.10-2013.



## 1.1 TEST FACTORY

Company Name:	Shenzhen LGT Test Service Co., Ltd.
Address:	Room 205, Building 13, Zone B, Zhenxiong Industrial Park, No.177, Renmin West Road, Jinsha, Kengzi Street, Pingshan District, Shenzhen, Guangdong, China
Accreditation Certificate	A2LA Certificate No.: 6727.01
	FCC Registration No.: 746540
	CAB ID: CN0136

## 1.2 MEASUREMENT UNCERTAINTY

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

No.	Item	Uncertainty
1	RF output power, conducted	$\pm 0.68$ dB
2	Unwanted Emissions, conducted	$\pm 2.988$ dB
3	All emissions, radiated 9K-30MHz	$\pm 2.84$ dB
4	All emissions, radiated 30M-1GHz	$\pm 4.39$ dB
5	All emissions, radiated 1G-6GHz	$\pm 5.10$ dB
6	All emissions, radiated >6G	$\pm 5.48$ dB
7	Conducted Emission (9KHz-150KHz)	$\pm 2.79$ dB
8	Conducted Emission (150KHz-30MHz)	$\pm 2.80$ dB
9	Occupied Channel Bandwidth	$\pm 3.2$ %

Note: The measurement uncertainty is not included in the test result.



## 2. GENERAL INFORMATION

### 2.1 GENERAL DESCRIPTION OF THE EUT

Product Name:	WIRELESS REMOTE	
Trademark:	N/A	
Model Name:	EWX124-CAD	
Series Model:	T41224-CAD, TR1224-CAD, EWX004-CAD, T41224AS-CAD, EWX001-CAD, EWX003-CAD, EWX005-CAD	
Model Difference:	Only the different in model name	
Product Description:	Operation Frequency:	2405~2475 MHz
	Modulation Type:	GFSK
	Number Of Channel:	16
	Antenna Type:	PCB
	Antenna Gain (dBi):	2.76
Channel List:	Please refer to the Note 3.	
Rating:	DC 9V	
Battery:	Capacity: 170mAh Rated Voltage: 9 V	
Hardware Version:	V2.0	
Software Version:	V1.5	
Connecting I/O Port(s):	Please refer to the Note 1.	

Note:

- 1 For a more detailed features description, please refer to the manufacturer's specifications or the User Manual.
- 2 The antenna information refers to the manufacturer provide report, applicable only to the tested sample identified in the report. Due to the incorrect antenna information, a series of problems such as the accuracy of the test results will be borne by the customer.



3.

Channel List	
Channel No.	Frequency (MHz)
1	2405
2	2408
3	2414
4	2420
5	2426
6	2428
7	2432
8	2434
9	2440
10	2446
11	2452
12	2455
13	2461
14	2467
15	2473
16	2475





## 2.2 DESCRIPTION OF THE TEST MODES

For conducted test items and radiated spurious emissions  
Each of these EUT operation mode(s) or test configuration mode(s) mentioned below was evaluated respectively.

Worst Mode	Description	Modulation
Mode 1	TX CH01(2405MHz)	GFSK
Mode 2	TX CH26(2440MHz)	GFSK
Mode 3	TX CH50(2475MHz)	GFSK

Note:

- (1) All above mode has been measurement, only worst data was reported.
- (2) New battery was used during the Radiated and RF conducted test.

## 2.3 DESCRIPTION OF NECESSARY ACCESSORIES AND SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

### Accessories Equipment

Description	Manufacturer	Model	S/N	Rating

### Auxiliary Equipment

Description	Manufacturer	Model	S/N	Rating

Note:

- (1) For detachable type I/O cable should be specified the length in cm in 『Length』 column.
- (2) “YES” is means “with core”; “NO” is means “without core”.



## 2.4 EQUIPMENTS LIST

<b>Radiated Test equipment</b>					
<b>Equipment</b>	<b>Manufacturer</b>	<b>Model No.</b>	<b>Serial No.</b>	<b>Cal. Date</b>	<b>Cal. Until</b>
EMI Test Receiver	R&S	ESU8	100372	2023.04.13	2024.04.12
Active loop Antenna	ETS	6502	00049544	2022.06.02	2025.06.01
Spectrum Analyzer	Keysight	N9010B	MY60242508	2023.04.10	2024.04.09
Bilog Antenna(30M-1G)	SCHWARZBECK	VULB 9168	01447	2022.06.05	2025.06.04
Horn Antenna(1-18G)	SCHWARZBECK	3115	10SL0060	2022.06.02	2025.06.01
Horn Antenna(18-40G)	A-INFO	LB-180400-KF	J211060273	2022.06.08	2025.06.07
Pre-amplifier(30M-1G)	EMtrace	RP01A	02019	2023.04.07	2024.04.06
Pre-amplifier(1-26.5G)	Agilent	8449B	3008A4722	2023.04.07	2024.04.06
Pre-amplifier(18-40G)	com-mw	LNPA_18-40-01	18050003	2023.04.07	2024.04.06
Wireless Communications Test Set	R&S	CMW 500	137737	2023.04.13	2024.04.12
Temperature & Humidity Testing Software	KTJ	TA218B	N.A	2023.04.24	2024.04.23
	EMC-I_V1.4.0.3_SKET				

<b>Conducted Test equipment</b>					
<b>Equipment</b>	<b>Manufacturer</b>	<b>Model No.</b>	<b>Serial No.</b>	<b>Cal. Date</b>	<b>Cal. Until</b>
Signal Analyzer	Keysight	N9010B	MY60242508	2023.04.10	2024.04.09
Wireless Communications Test Set	R&S	CMW 500	137737	2023.04.13	2024.04.12
MXG Vector Signal Generator	Keysight	N5182B	MY59100717	2023.04.07	2024.04.06
Power Sensor	MW	MW100-RFCB	MW220324LG-33	2023.04.13	2024.04.12
Temperature & Humidity Testing Software	KTJ	TA218B	N.A	2023.04.24	2024.04.23
Temperature & Humidity test chamber	AISRY	LX-1000L	171200018	2023.05.10	2024.05.09
Attenuator	eastsheep	90db	N.A	2023.04.10	2024.04.09
Testing Software	MTS8200_V2.0.0.0_MW				



### 3. EMC EMISSION TEST

#### 3.1 CONDUCTED EMISSION MEASUREMENT

##### 3.1.1 POWER LINE CONDUCTED EMISSION LIMITS

The radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table.

FREQUENCY (MHz)	Conducted Emission limit (dBuV)	
	Quasi-peak	Average
0.15 -0.5	66 - 56 *	56 - 46 *
0.50 -5.0	56.00	46.00
5.0 -30.0	60.00	50.00

Note:

- (1) The tighter limit applies at the band edges.
- (2) The limit of “ \* ” marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

The following table is the setting of the receiver

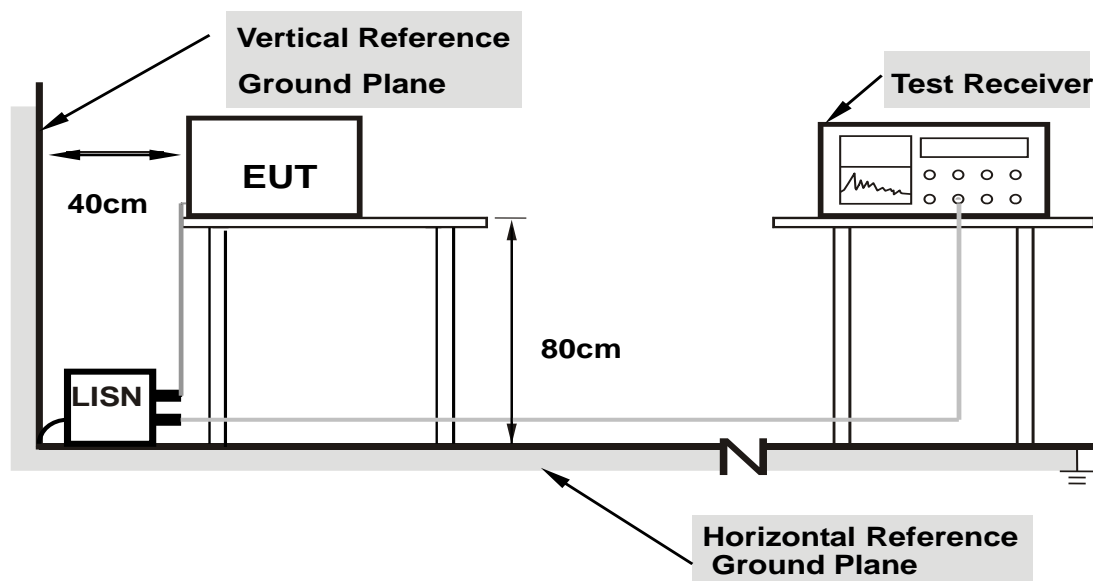
Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz



### 3.2 TEST PROCEDURE

- a. The EUT is 0.8 m from the horizontal ground plane and 0.4 m from the vertical ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments are powered from additional LISN(s). The LISN provides 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- d. LISN is at least 80 cm from the nearest part of EUT chassis.
- e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

### 3.3 TEST SETUP



**Note: 1. Support units were connected to second LISN.**

**2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes support units.**

### 3.4 EUT OPERATING CONDITIONS

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

### 3.5 TEST RESULTS

N/A



#### 4. RADIATED EMISSION MEASUREMENT

##### 4.1 RADIATED EMISSION LIMITS

20dBc in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on Part 15.249 and the Part 15.209(a) limit in the table below has to be followed.

Standard FCC 15.209

Frequencies (MHz)	Field Strength (micovolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
960~1000	500	3
Above 1000	Other:74.0 dB( $\mu$ V)/m (Peak) 54.0 dB( $\mu$ V)/m (Average)	3

Standard FCC 15.249

Frequency of Emission (MHz)	Field Strength of fundamental (millivolts /meter)	Field Strength of Harmonics (microvolts/meter)
900~928	50	500
2400~2483.5	50	500
5725~5875	50	500
24000~242500	250	2500

Notes:

- (1) Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in Section 15.209, whichever is the lesser attenuation.

Spectrum Parameter	Setting
Detector	Peak/AV
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RB (emission in restricted band)	>20BW
VB (emission in restricted band)	=3xRB



Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~90kHz / RB 200Hz for PK & AV
	90kHz~110kHz / RB 200Hz for QP
	110kHz~490kHz / RB 200Hz for PK & AV
	490kHz~30MHz / RB 9kHz for QP
	30MHz~1000MHz / RB 120kHz for QP

#### 4.2 TEST PROCEDURE

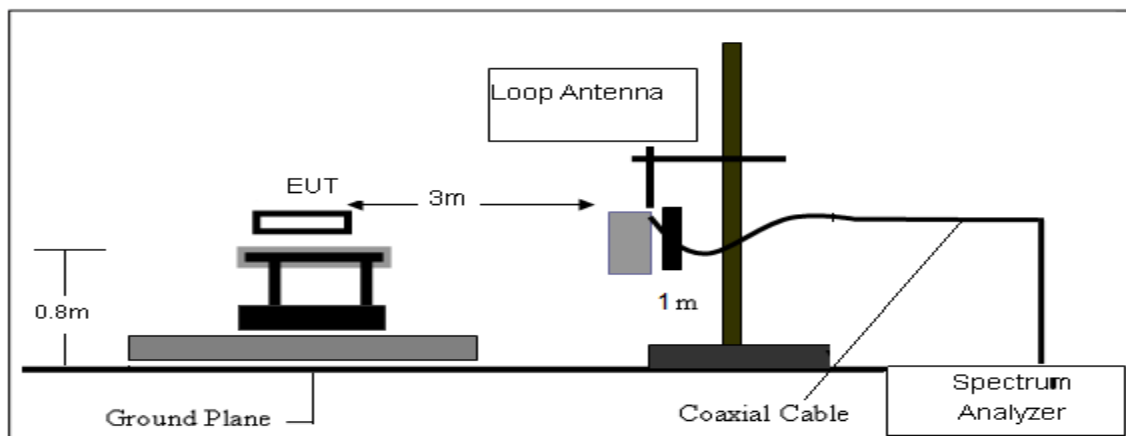
- a. The measuring distance at 3 m shall be used for measurements at frequency 0.009MHz up to 1GHz, and above 1GHz.
- b. The EUT was placed on the top of a rotating table 0.8 m (above 1GHz is 1.5 m) above the ground at a 3 m anechoic chamber test site. The table was rotated 360 degree to determine the position of the highest radiation.
- c. The height of the equipment shall be 0.8 m(above 1GHz is 1.5 m); the height of the test antenna shall vary between 1 m to 4 m. Horizontal and vertical polarization of the antenna are set to make the measurement.
- d. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and QuasiPeak detector mode will be re-measured.
- e. If the Peak Mode measured value is compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and no additional QP Mode measurement was performed.
- f. For the actual test configuration, please refer to the related Item –EUT Test Photos.

Note:

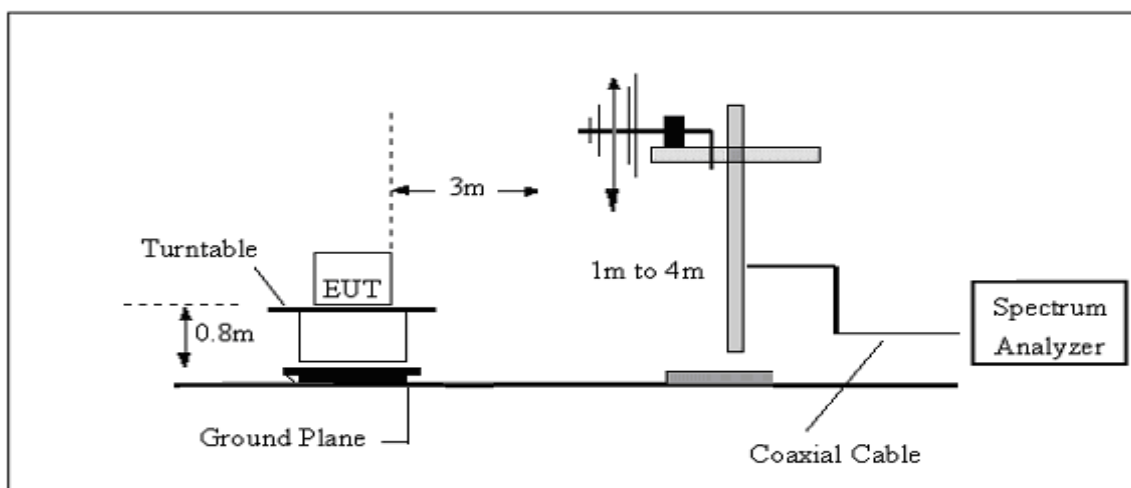
Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported.

### 4.3 TEST SETUP

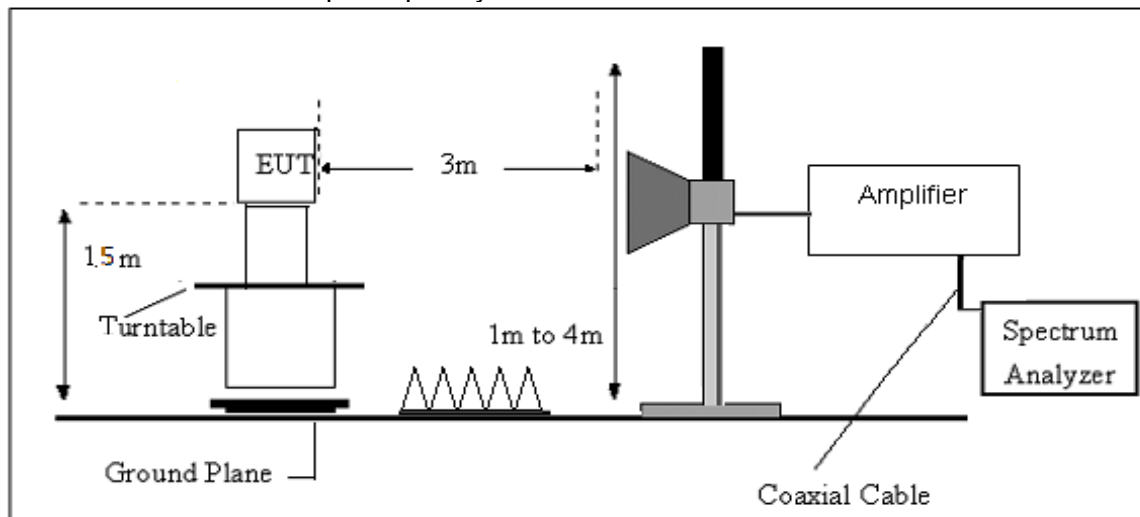
#### (A) Radiated Emission Test-Up Frequency Below 30MHz



#### (B) Radiated Emission Test-Up Frequency 30MHz~1GHz



#### (C) Radiated Emission Test-Up Frequency Above 1GHz



### 4.4 EUT OPERATING CONDITIONS

Please refer to section 3.4 of this report.



#### 4.5 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

For example

Frequency (MHz)	FS (dB $\mu$ V/m)	RA (dB $\mu$ V/m)	AF (dB)	CL (dB)	AG (dB)	Factor (dB)
300	40	58.1	12.2	1.6	31.9	-18.1

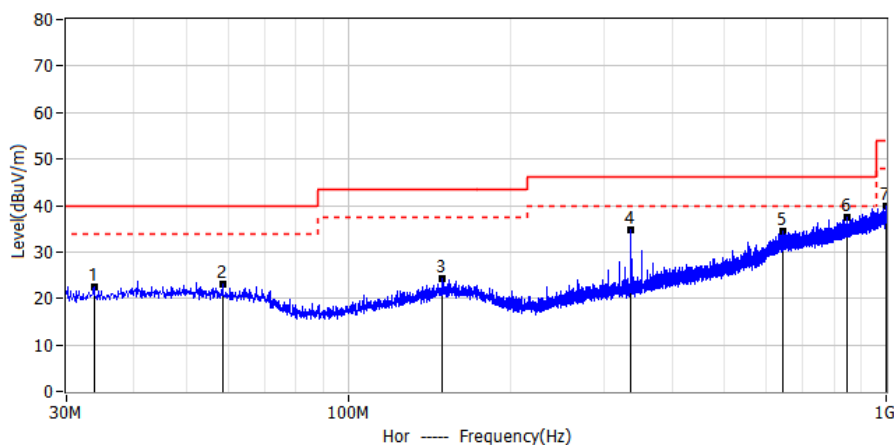
$$\text{Factor} = \text{AF} + \text{CL} - \text{AG}$$



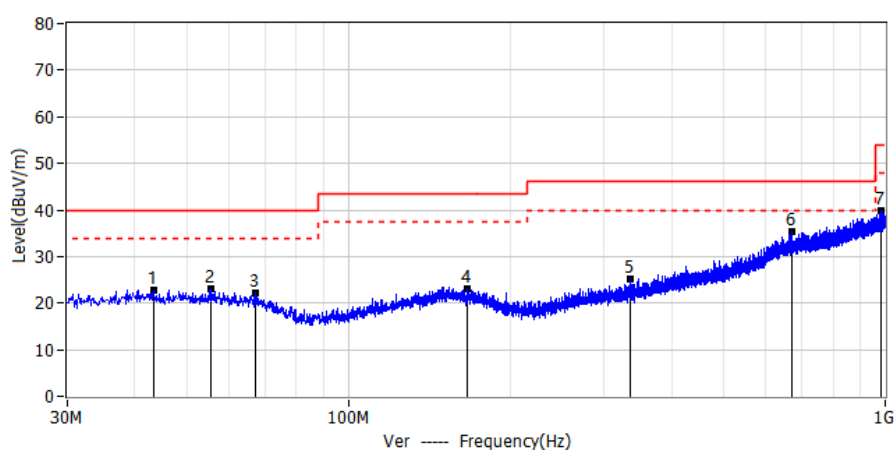


## 4.6 TEST RESULTS

Project: LGT23J060	Test Engineer: Xiangdong Ma
EUT: WIRELESS REMOTE	Temperature: 29.4°C
M/N: Model: EWX124-CAD	Humidity: 45%RH
Test Voltage: Battery	Test Data: 2023-11-21
Test Mode: 2405	
Note: Worst case	



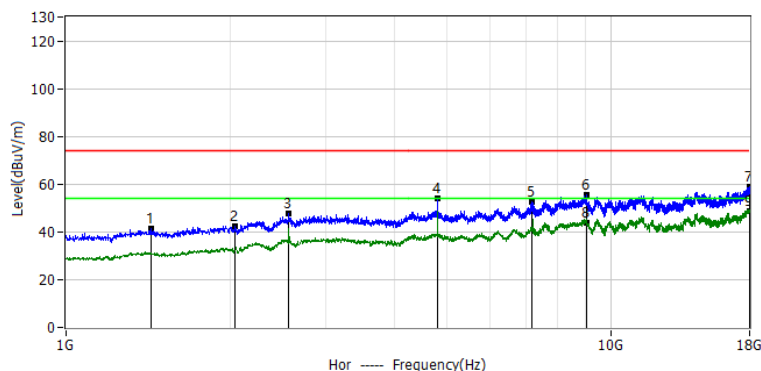
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	33.759	3.92	18.46	22.38	40.00	-17.62	QP	Hor
2*	58.494	4.20	18.75	22.95	40.00	-17.05	QP	Hor
3*	149.916	4.26	19.98	24.24	43.50	-19.26	QP	Hor
4*	336.035	13.82	20.92	34.74	46.00	-11.30	QP	Hor
5*	641.464	5.54	29.02	34.56	46.00	-11.44	QP	Hor
6*	843.588	5.41	32.18	37.59	46.00	-8.41	QP	Hor



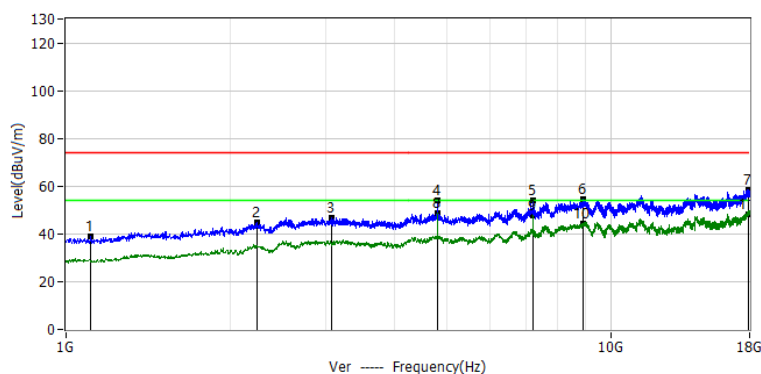
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	43.338	3.60	19.27	22.87	40.00	-17.13	QP	Ver
2*	55.341	4.00	18.98	22.98	40.00	-17.02	QP	Ver
3*	67.103	3.97	18.20	22.17	40.00	-17.83	QP	Ver
4*	166.528	3.33	19.80	23.13	43.50	-20.37	QP	Ver
5*	336.035	4.33	20.92	25.25	46.00	-20.75	QP	Ver
6*	670.443	5.92	29.46	35.38	46.00	-10.62	QP	Ver



Project: LGT23J060	Test Engineer: Xiangdong Ma
EUT: WIRELESS REMOTE	Temperature: 21°C
M/N: Model: EWX124-CAD	Humidity: 50%RH
Test Voltage: Battery	Test Data: 2023-11-20
Test Mode: 2405	
Note:	



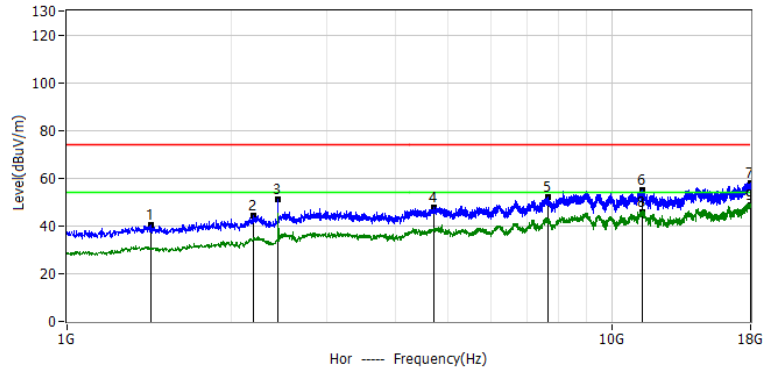
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	1431.4000	62.43	-21.21	41.22	74.00	-32.78	PK	Hor
2*	2045.5000	58.26	-15.75	42.51	74.00	-31.49	PK	Hor
3*	2564.0000	58.57	-10.65	47.92	74.00	-26.08	PK	Hor
4*	4810.1000	59.97	-5.99	53.98	74.00	-20.02	PK	Hor
5*	7183.7000	57.87	-5.18	52.69	74.00	-21.31	PK	Hor
6*	9026.1000	56.55	-1.17	55.38	74.00	-18.62	PK	Hor
7*	17974.5000	50.37	8.50	58.87	74.00	-15.13	PK	Hor
8*	9026.1000	45.17	-1.17	44.00	54.00	-10.00	AV	Hor
9*	17974.5000	40.40	8.50	48.90	54.00	-5.10	AV	Hor



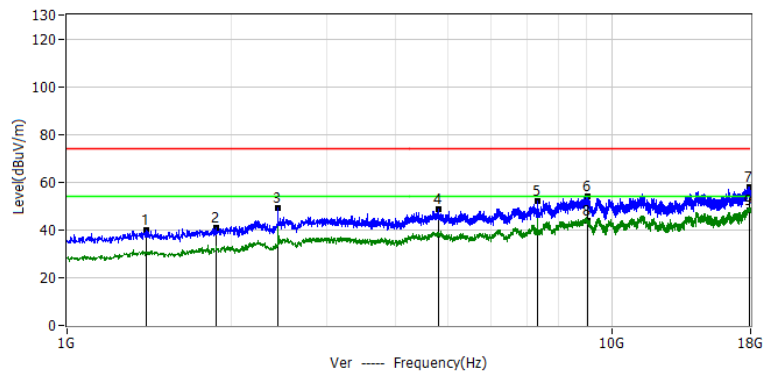
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	1108.4000	62.63	-23.78	38.85	74.00	-35.15	PK	Ver
2*	2238.9000	58.36	-13.72	44.64	74.00	-29.36	PK	Ver
3*	3071.9000	55.30	-8.36	46.94	74.00	-27.06	PK	Ver
4*	4812.2000	60.28	-6.00	54.28	74.00	-19.72	PK	Ver
5*	7213.5000	59.36	-5.09	54.27	74.00	-19.73	PK	Ver
6*	8919.9000	55.86	-1.40	54.46	74.00	-19.54	PK	Ver
7*	17919.2000	50.17	8.46	58.63	74.00	-15.37	PK	Ver
8*	4812.2000	54.70	-6.00	48.70	54.00	-5.30	AV	Ver
9*	7217.7000	52.62	-5.08	47.54	54.00	-6.46	AV	Ver
10*	8919.9000	45.60	-1.40	44.20	54.00	-9.80	AV	Ver
11*	17919.2000	39.94	8.46	48.40	54.00	-5.60	AV	Ver



Project: LGT23J060	Test Engineer: Xiangdong Ma
EUT: WIRELESS REMOTE	Temperature: 21°C
M/N: Model: EWX124-CAD	Humidity: 50%RH
Test Voltage: Battery	Test Data: 2023-11-20
Test Mode: 2440	
Note:	



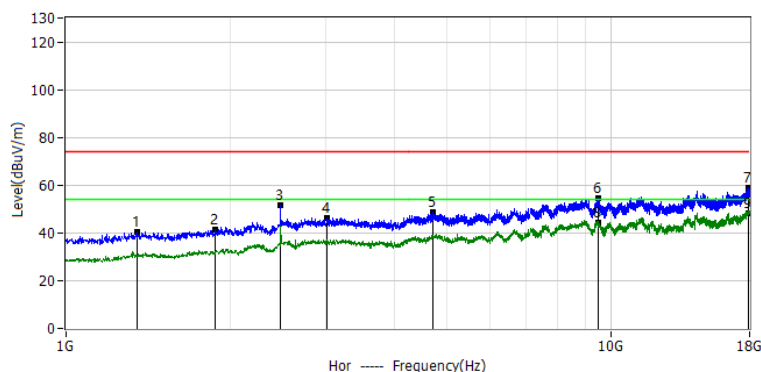
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	1422.9000	61.74	-21.26	40.48	74.00	-33.52	PK	Hor
2*	2196.4000	58.27	-14.17	44.10	74.00	-29.90	PK	Hor
3*	2440.7000	62.76	-11.61	51.15	74.00	-22.85	PK	Hor
4*	4706.0000	53.64	-5.91	47.73	74.00	-26.27	PK	Hor
5*	7644.9000	56.10	-4.21	51.89	74.00	-22.11	PK	Hor
6*	11397.6000	52.99	1.86	54.85	74.00	-19.15	PK	Hor
7*	17961.7000	49.52	8.49	58.01	74.00	-15.99	PK	Hor
8*	11397.6000	44.04	1.86	45.90	54.00	-8.10	AV	Hor
9*	17961.7000	40.41	8.49	48.90	54.00	-5.10	AV	Hor



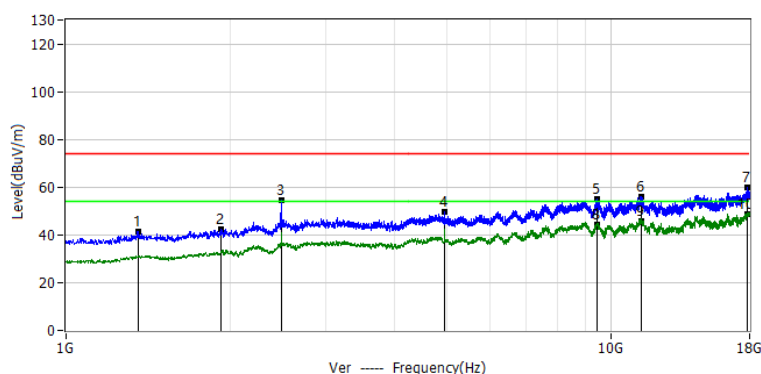
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	1395.2000	61.21	-21.42	39.79	74.00	-34.21	PK	Ver
2*	1875.5000	58.46	-17.49	40.97	74.00	-33.03	PK	Ver
3*	2440.7000	60.79	-11.61	49.18	74.00	-24.82	PK	Ver
4*	4805.9000	54.54	-5.99	48.55	74.00	-25.45	PK	Ver
5*	7319.7000	57.07	-4.80	52.27	74.00	-21.73	PK	Ver
6*	9019.7000	55.44	-1.17	54.27	74.00	-19.73	PK	Ver
7*	17902.2000	49.44	8.45	57.89	74.00	-16.11	PK	Ver
8*	9019.7000	45.17	-1.17	44.00	54.00	-10.00	AV	Ver
9*	17902.2000	39.65	8.45	48.10	54.00	-5.90	AV	Ver



Project: LGT23J060	Test Engineer: Xiangdong Ma
EUT: WIRELESS REMOTE	Temperature: 21°C
M/N: Model: EWX124-CAD	Humidity: 50%RH
Test Voltage: Battery	Test Data: 2023-11-20
Test Mode: 2475	
Note:	



No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	1350.6000	62.00	-21.77	40.23	74.00	-33.77	PK	Hor
2*	1877.6000	58.93	-17.47	41.46	74.00	-32.54	PK	Hor
3*	2476.9000	63.03	-11.23	51.80	74.00	-22.20	PK	Hor
4*	3016.6000	54.75	-8.35	46.40	74.00	-27.60	PK	Hor
5*	4725.1000	54.59	-5.93	48.66	74.00	-25.34	PK	Hor
6*	9468.1000	55.77	-1.17	54.60	74.00	-19.40	PK	Hor
7*	17953.2000	50.28	8.49	58.77	74.00	-15.23	PK	Hor
8*	9468.1000	45.47	-1.17	44.30	54.00	-9.70	AV	Hor
9*	17953.2000	39.71	8.49	48.20	54.00	-5.80	AV	Hor

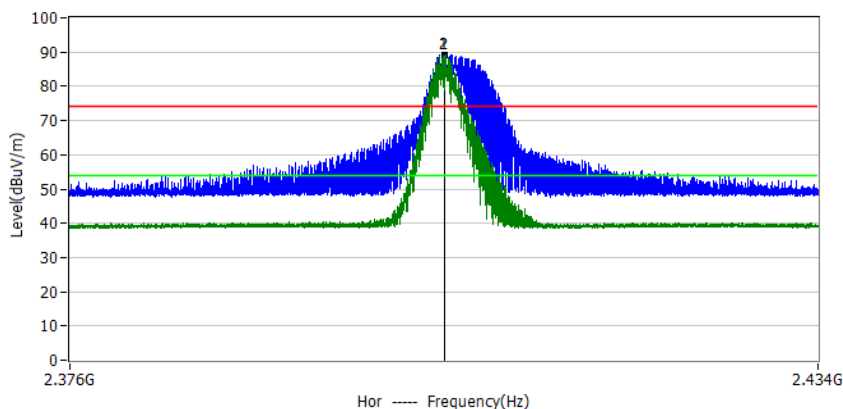


No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	1357.0000	63.16	-21.72	41.44	74.00	-32.56	PK	Ver
2*	1928.6000	59.36	-16.95	42.41	74.00	-31.59	PK	Ver
3*	2481.1000	65.51	-11.18	54.33	74.00	-19.67	PK	Ver
4*	4950.4000	55.55	-6.10	49.45	74.00	-24.55	PK	Ver
5*	9429.9000	55.97	-1.17	54.80	74.00	-19.20	PK	Ver
6*	11395.5000	54.13	1.86	55.99	74.00	-18.01	PK	Ver
7*	17851.2000	51.62	8.42	60.04	74.00	-13.96	PK	Ver
8*	9429.9000	45.27	-1.17	44.10	54.00	-9.90	AV	Ver
9*	11395.5000	43.84	1.86	45.70	54.00	-8.30	AV	Ver
10*	17851.2000	40.18	8.42	48.60	54.00	-5.40	AV	Ver

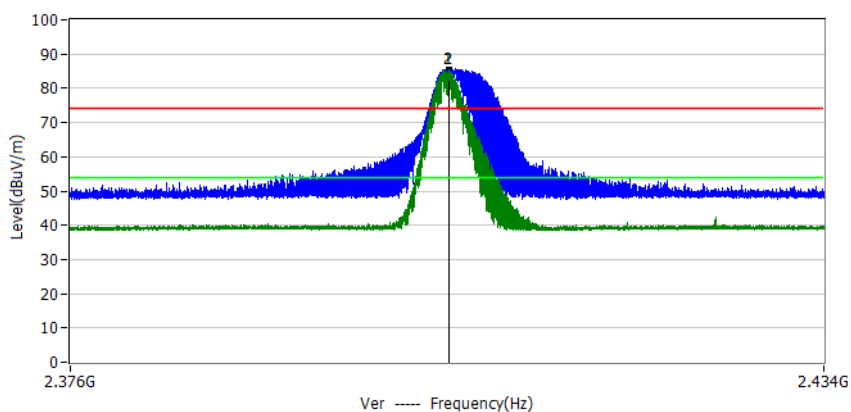


#### 4.7 FIELD STRENGTH OF FUNDAMENTAL

Project: LGT23J060	Test Engineer: Xiangdong Ma
EUT: WIRELESS REMOTE	Temperature: 29.4°C
M/N: Model:EWX124-CAD	Humidity: 45%RH
Test Voltage: Battery	Test Data: 2023-11-21
Test Mode: 2405	
Note:	



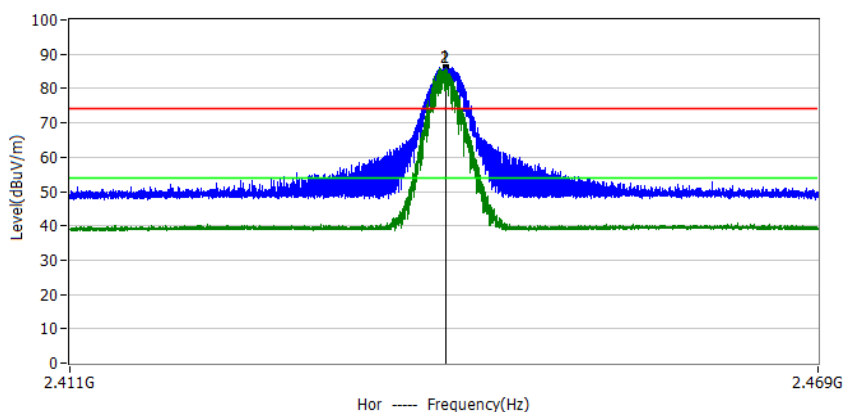
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
!1*	2404.9000	55.34	33.94	89.28	113.98	-24.70	PK	Hor
No.	Frequency MHz	Reading dBuV	Duty cycle Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
!2*	2404.9000	89.28	-22.52	66.76	93.98	-27.22	QP	Hor



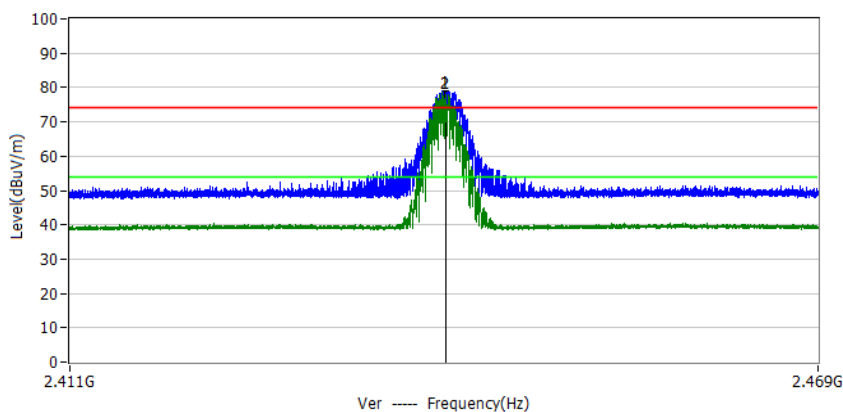
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
!1*	2405.0000	51.61	33.94	85.55	113.98	-28.43	PK	Ver
No.	Frequency MHz	Reading dBuV	Duty cycle Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
!2*	2405.0000	85.55	-22.52	63.03	93.98	-30.95	QP	Ver



Project: LGT23J060	Test Engineer: Xiangdong Ma
EUT: WIRELESS REMOTE	Temperature: 29.4°C
M/N: Model:EWX124-CAD	Humidity: 45%RH
Test Voltage: Battery	Test Data: 2023-11-21
Test Mode: 2440	
Note:	



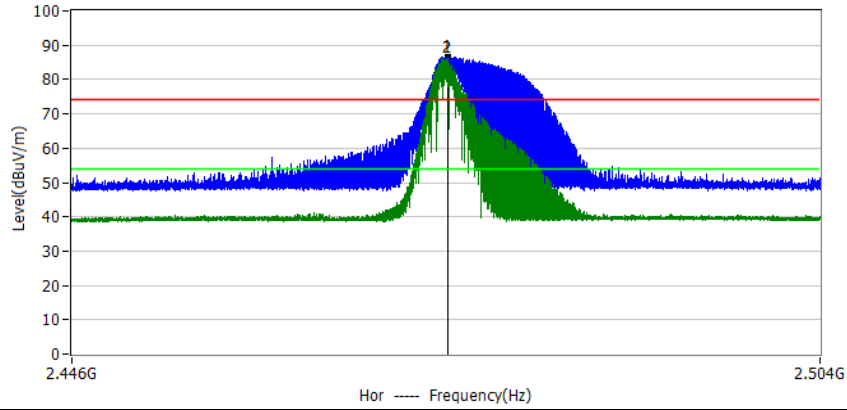
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
!1*	2440.0000	51.99	34.02	86.01	113.98	-27.97	PK	Hor
No.	Frequency MHz	Reading dBuV	Duty cycle Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
!2*	2440.0000	86.01	-22.52	63.49	93.98	-30.49	QP	Hor



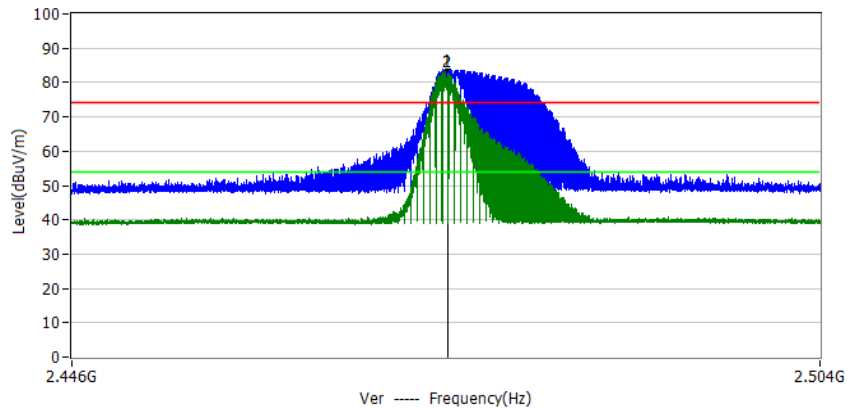
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
!1*	2440.0000	44.26	34.02	78.28	113.98	-35.70	PK	Ver
No.	Frequency MHz	Reading dBuV	Duty cycle Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
!2*	2440.0000	78.28	-22.52	55.76	93.98	-38.22	QP	Ver



Project: LGT23J060	Test Engineer: Xiangdong Ma
EUT: WIRELESS REMOTE	Temperature: 29.4°C
M/N: Model:EWX124-CAD	Humidity: 45%RH
Test Voltage: Battery	Test Data: 2023-11-21
Test Mode: 2475	
Note:	



No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
!1*	2475.0000	52.4	34.11	86.51	113.98	-27.47	PK	Hor
No.	Frequency MHz	Reading dBuV	Duty cycle Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
!2*	2475.0000	86.51	-22.52	63.99	93.98	-29.99	QP	Hor



No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
!1*	2475.0000	49.06	34.11	83.17	113.98	-30.81	PK	Ver
No.	Frequency MHz	Reading dBuV	Duty cycle Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
!2*	2475.0000	83.17	-22.52	60.65	93.98	-33.33	QP	Ver



## Duty cycle



On time (ms)	0.187
Pulse period (ms)	2.5005
Duty Cycle (%)	7.48%
PDCF	-22.52

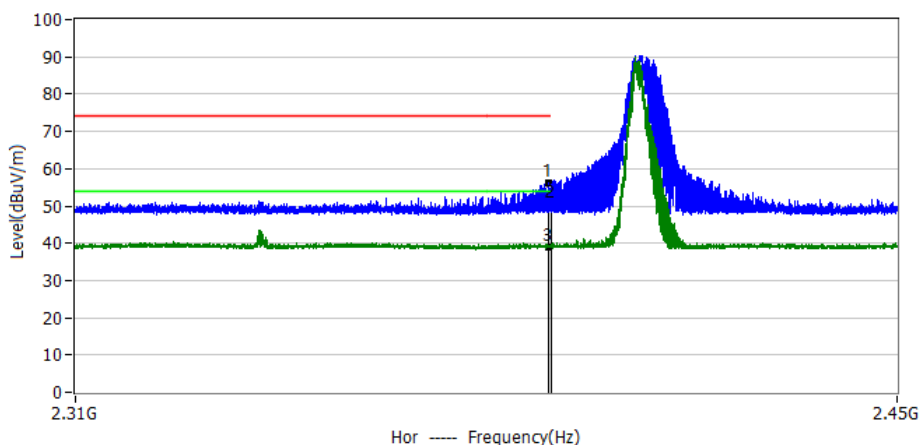
Note: Duty Factor =  $20 \cdot \text{LOG} (T_{on}/T_p)$



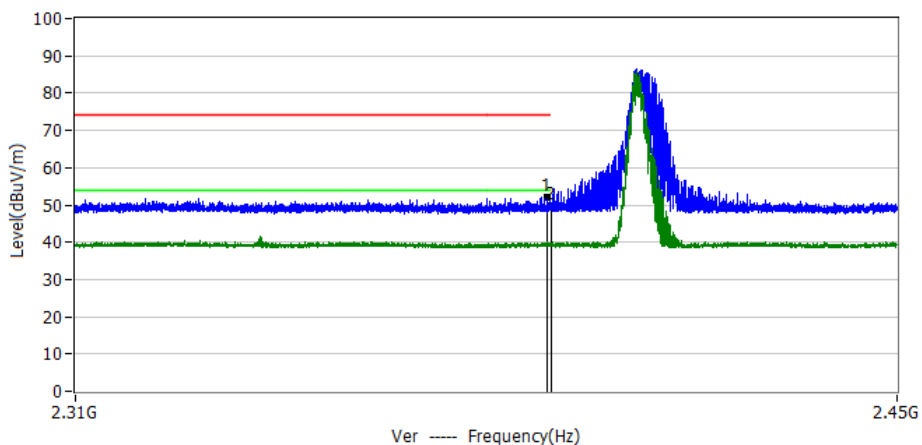


#### 4.8 TEST RESULTS (BAND EDGE REQUIREMENTS)

Project: LGT23J060	Test Engineer: Xiangdong Ma
EUT: WIRELESS REMOTE	Temperature: 21°C
M/N: EWX124-CAD	Humidity: 50%RH
Test Voltage: Battery	Test Data: 2023-11-21
Test Mode: 2405	
Note:	



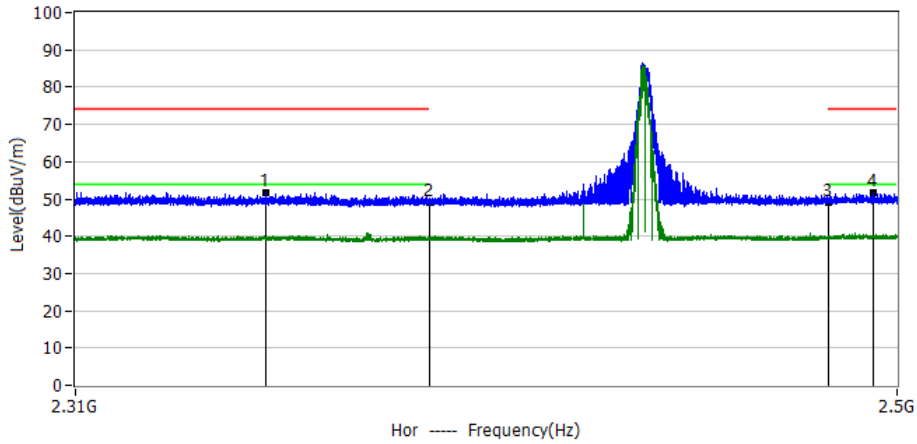
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	2389.5000	22.39	33.95	56.34	74.00	-17.66	PK	Hor
2*	2390.0000	16.55	33.95	50.50	74.00	-23.50	PK	Hor
3*	2389.5000	5.05	33.95	39.00	54.00	-15.00	AV	Hor



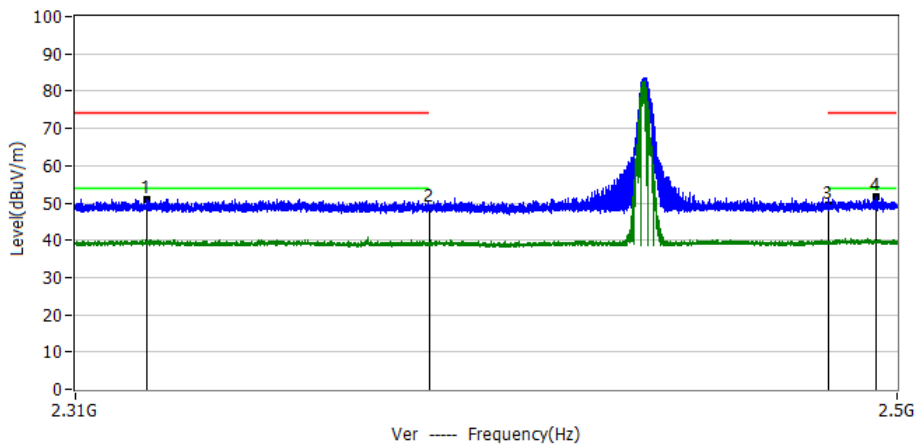
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	2389.4000	18.00	33.95	51.95	74.00	-22.05	PK	Ver
2*	2390.0000	15.75	33.95	49.70	74.00	-24.30	PK	Ver



Project: LGT23J060	Test Engineer: Xiangdong Ma
EUT: WIRELESS REMOTE	Temperature: 21°C
M/N: EWX124-CAD	Humidity: 50%RH
Test Voltage: Battery	Test Data: 2023-11-21
Test Mode: 2440	
Note:	



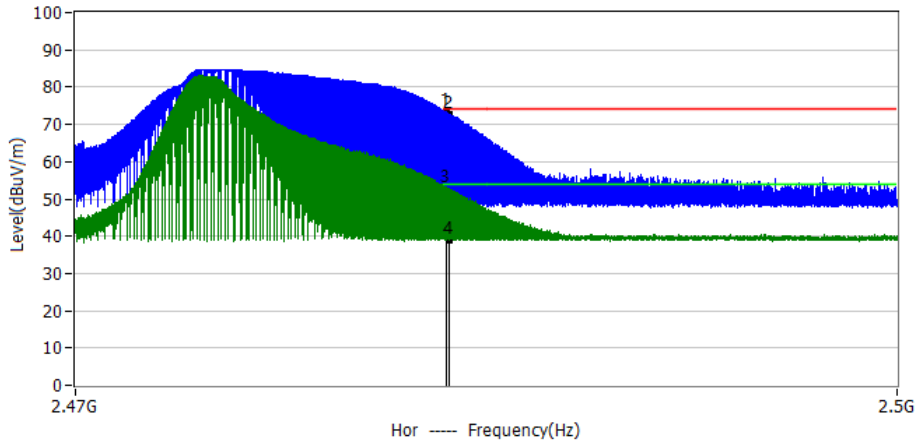
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	2352.6000	17.76	34.04	51.80	74.00	-22.20	PK	Hor
2*	2390.0000	14.95	33.95	48.90	74.00	-25.10	PK	Hor
3*	2483.5000	14.97	34.13	49.10	74.00	-24.90	PK	Hor
4*	2494.3000	17.70	34.15	51.85	74.00	-22.15	PK	Hor



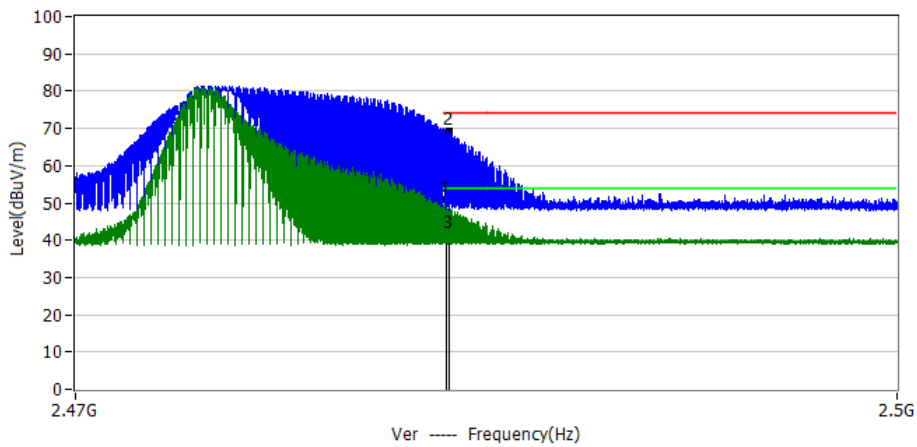
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	2325.9000	17.01	34.10	51.11	74.00	-22.89	PK	Ver
2*	2390.0000	14.85	33.95	48.80	74.00	-25.20	PK	Ver
3*	2483.5000	15.47	34.13	49.60	74.00	-24.40	PK	Ver
4*	2495.0000	17.52	34.15	51.67	74.00	-22.33	PK	Ver



Project: LGT23J060	Test Engineer: Xiangdong Ma
EUT: WIRELESS REMOTE	Temperature: 21°C
M/N: EWX124-CAD	Humidity: 50%RH
Test Voltage: Battery	Test Data: 2023-11-21
Test Mode: 2475	
Note:	



No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	2483.5000	39.17	34.13	73.30	74.00	-0.70	PK	Hor
2*	2483.6000	38.59	34.13	72.72	74.00	-1.28	PK	Hor
3*	2483.5000	18.67	34.13	52.80	54.00	-1.20	AV	Hor
4*	2483.6000	4.97	34.13	39.10	54.00	-14.90	AV	Hor



No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	2483.5000	16.87	34.13	51.00	74.00	-23.00	PK	Ver
2*	2483.6000	35.17	34.13	69.30	74.00	-4.70	PK	Ver
3*	2483.6000	7.37	34.13	41.50	54.00	-12.50	AV	Ver

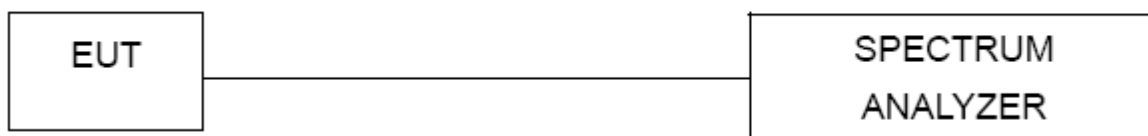


## 5. BANDWIDTH TEST

### 5.1 TEST PROCEDURE

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- b. Spectrum Setting : RBW= 30KHz, VBW $\geq$ RBW, Sweep time = Auto.

### 5.2 TEST SETUP



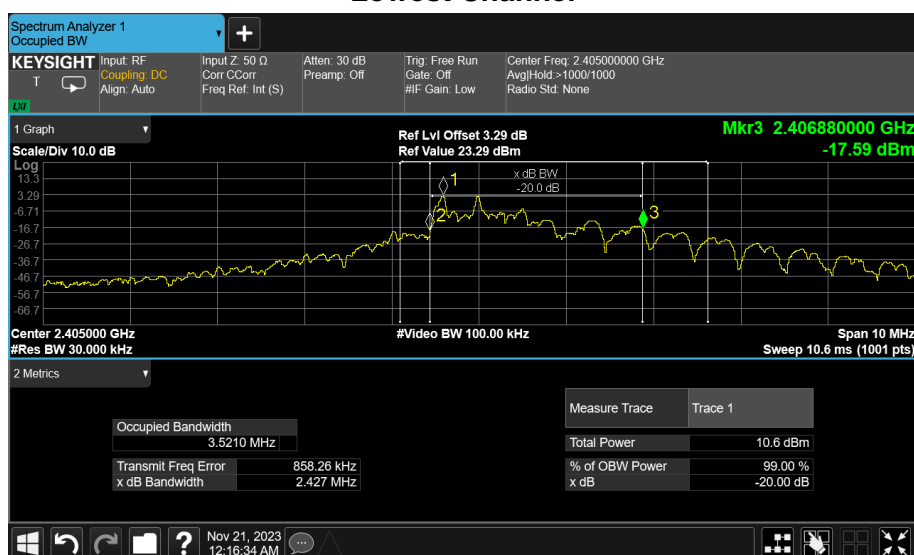
### 5.3 EUT OPERATION CONDITIONS

TX mode.

### 5.4 TEST RESULTS

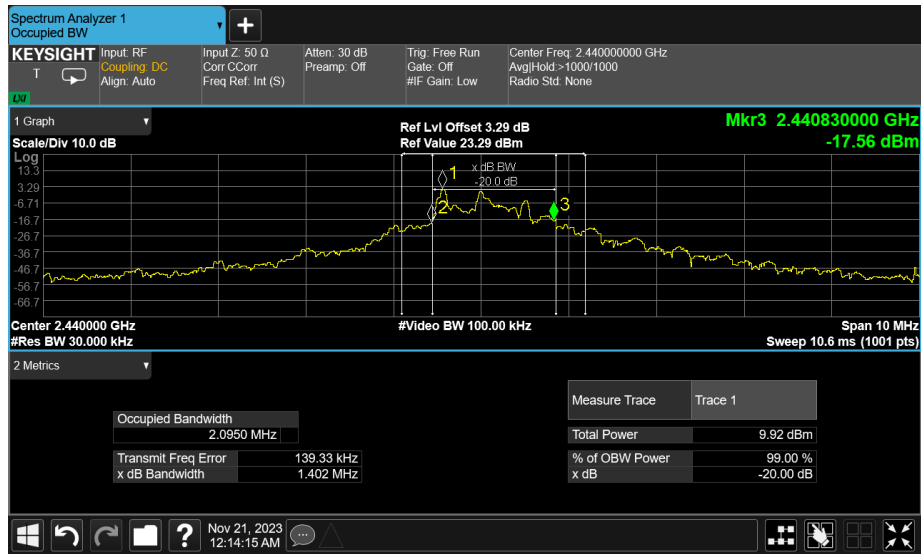
Centre Frequency (MHz)	20dB Bandwidth (MHz)	Low Edge (MHz)	Upper Edge (MHz)	Limit (MHz)	Result
2405	2.427	2404.453	2406.88	2400-2483.5	Pass
2440	1.402	2439.428	2440.83	2400-2483.5	Pass
2475	3.647	2470.663	2474.31	2400-2483.5	Pass

### Lowest Channel

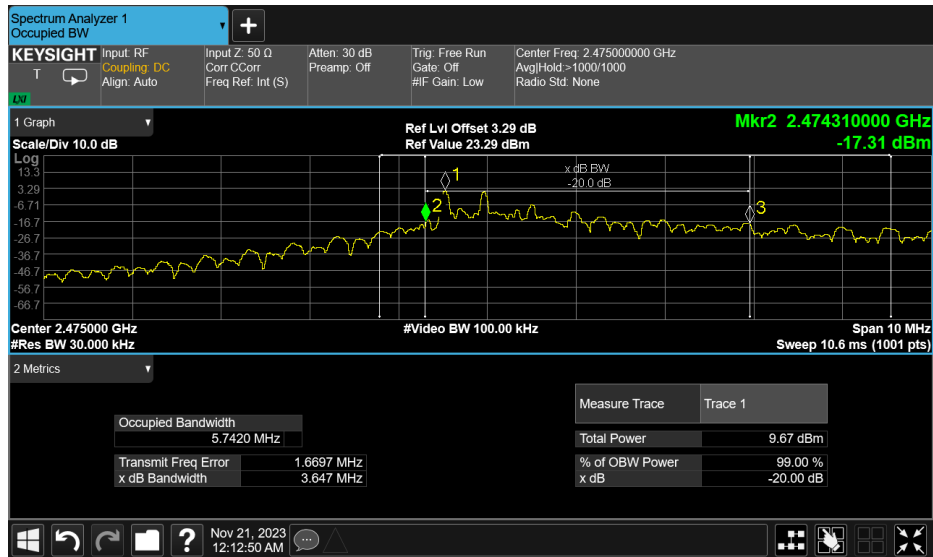




### Middle Channel



### High Channel





## 6. ANTENNA REQUIREMENT

### 6.1 STANDARD REQUIREMENT

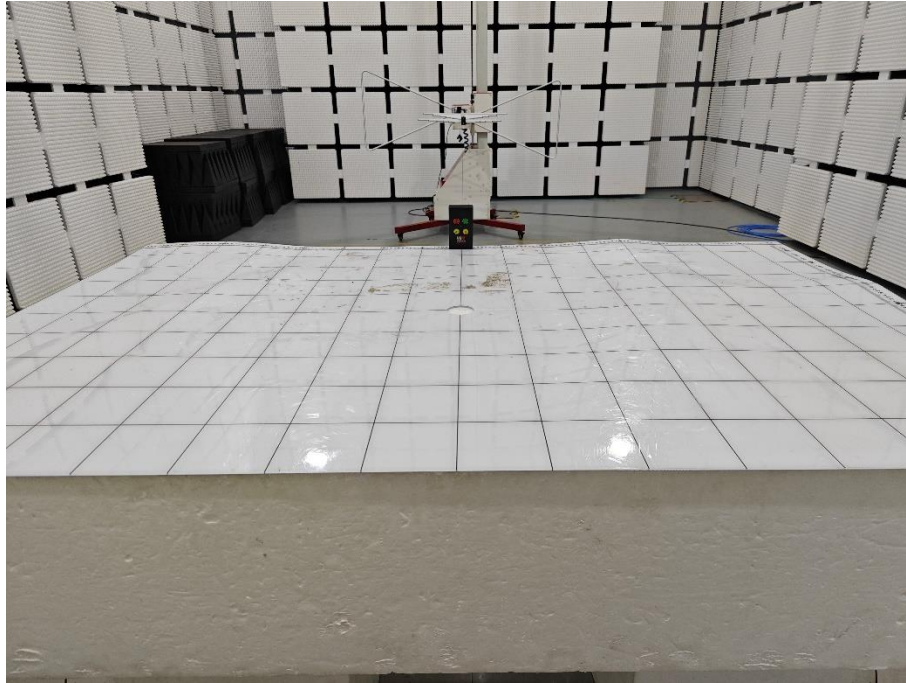
According to the FCC Part 15 Paragraph 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

### 6.2 EUT ANTENNA

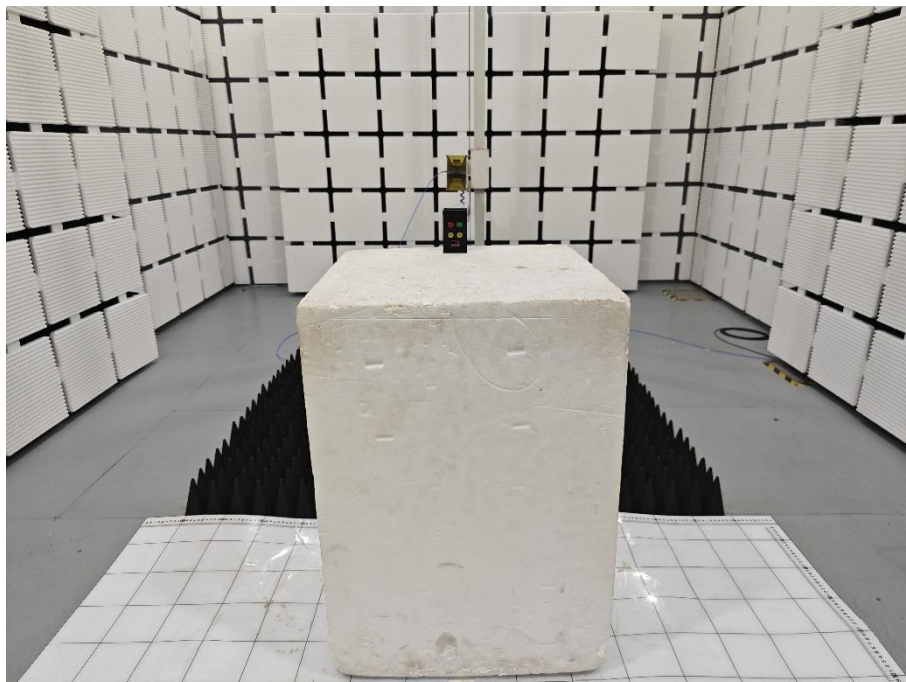
The EUT antenna is PCB Antenna. It comply with the standard requirement.

## Appendix - Test Setup photos

### Set-up for Radiated Spurious Emission, Below 1GHz



### Set-up for Radiated Spurious Emission, Above 1GHz



※※※※END OF THE REPORT※※※※