



Certificate # 2861.01

GRGTEST®

Page 1 of 47

# Test Report

Verified code: 439202

Report No.: E20240725192701-4

Customer: Lumi United Technology Co., Ltd

Address: B1, Chongwen Park, Nanshan iPark, Liuxian Avenue, Taoyuan Residential District,  
Nanshan District, Shenzhen, China

Sample Name: Voice Mate H1

Sample Model: AT-R01E

Receive Sample  
Date: Aug.05,2024

Test Date: Aug.09,2024 ~ Aug.26,2024

Reference 47 CFR, FCC Part 15 Subpart C  
Document: RADIO FREQUENCY DEVICES:Subpart C—Intentional Radiators

Test Result: Pass

Prepared by: Wen Wenwen  
Wen Wenwen

Reviewed by: Wu Haoting  
Wu Haoting

Approved by: Xiao Liang  
Xiao Liang

GRG METROLOGY & TEST GROUP CO., LTD.

Issued Date: 2024-09-06

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## TABLE OF CONTENTS

1. TEST RESULT SUMMARY .....	6
2. GENERAL DESCRIPTION OF EUT .....	7
2.1 APPLICANT .....	7
2.2 MANUFACTURER .....	7
2.3 BASIC DESCRIPTION OF EQUIPMENT UNDER TEST .....	7
2.4 CHANNEL LIST .....	8
2.5 TEST OPERATION MODE .....	8
2.6 LOCAL SUPPORTIVE .....	8
2.7 CONFIGURATION OF SYSTEM UNDER TEST .....	8
2.8 DUTY CYCLE .....	9
3. LABORATORY AND ACCREDITATIONS .....	10
3.1 LABORATORY .....	10
3.2 ACCREDITATIONS .....	10
4. MEASUREMENT UNCERTAINTY .....	11
5. LIST OF USED TEST EQUIPMENT AT GRGT .....	12
6. RADIATED SPURIOUS EMISSIONS .....	13
6.1 LIMITS .....	13
6.2 TEST PROCEDURES .....	13
6.3 TEST SETUP .....	16
6.4 DATA SAMPLE .....	18
6.5 TEST RESULTS .....	19
7. 6DB BANDWIDTH .....	26
7.1 LIMITS .....	26
7.2 TEST PROCEDURES .....	26
7.3 TEST SETUP .....	26
7.4 TEST RESULTS .....	26
8. MAXIMUM PEAK OUTPUT POWER .....	29
8.1 LIMITS .....	29
8.2 TEST PROCEDURES .....	29
8.3 TEST SETUP .....	29
8.4 TEST RESULTS .....	29
9. POWER SPECTRAL DENSITY .....	30
9.1 LIMITS .....	30
9.2 TEST PROCEDURES .....	30
9.3 TEST SETUP .....	30
9.4 TEST RESULTS .....	31
10. CONDUCTED BAND EDGES AND SPURIOUS EMISSIONS .....	33
10.1 LIMITS .....	33
10.2 TEST PROCEDURES .....	33
10.3 TEST SETUP .....	33
10.4 TEST RESULTS .....	33
11. RESTRICTED BANDS OF OPERATION .....	40
11.1 LIMITS .....	40
11.2 TEST PROCEDURES .....	41
11.3 TEST SETUP .....	41
11.4 TEST RESULTS .....	42
APPENDIX A. PHOTOGRAPH OF THE TEST CONNECTION DIAGRAM .....	47

APPENDIX B. PHOTOGRAPH OF THE EUT.....47

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REPORT ISSUED HISTORY

Report Version	Report No.	Description	Compile Date
1.0	E20240725192701-4	Original Issue	2024-09-04

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**1. TEST RESULT SUMMARY**

Technical Requirements		
47 CFR, FCC Part 15 Subpart C ( §15.247) ANSI C63.10-2020 KDB 558074 D01 15.247 measurement guidance v05r02		
Limit / Severity	Item	Result
§15.247(b)(3)	Maximum peak output power	Pass
§15.247(e)	Power spectral density	Pass
§15.247(a)(2)	6dB bandwidth	Pass
§15.247(d)& §15.205& §15.209	Restricted bands of operation	Pass
§15.247(d)	Conducted band edges and spurious emissions	Pass
§15.207(a)	Conducted Emission	N/A
§15.247(d) & §15.209 & §15.205	Radiated spurious emissions	Pass
§15.203	Antenna requirement	Pass

Note:

- 1)The EUT has one antenna. The antenna is Internal antenna, the max gain of antenna is 1.0dBi,which accordance 15.203.is considered sufficient to comply with the provisions of this section.
- 2) N/A is not applied. The prototype is DC battery powered.

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## 2. GENERAL DESCRIPTION OF EUT

### 2.1 APPLICANT

Name: Lumi United Technology Co., Ltd  
Address: B1, Chongwen Park, Nanshan iPark, Liuxian Avenue, Taoyuan Residential District, Nanshan District, Shenzhen, China

### 2.2 MANUFACTURER

Name: Lumi United Technology Co., Ltd  
Address: B1, Chongwen Park, Nanshan iPark, Liuxian Avenue, Taoyuan Residential District, Nanshan District, Shenzhen, China

### 2.3 BASIC DESCRIPTION OF EQUIPMENT UNDER TEST

Product Name: Voice Mate H1  
Product Model: AT-R01E  
Trade Name: Aqara  
Additional Model: AT-R01D  
Model difference descriptions: They have the same software and hardware constructions including circuit diagram, PCB layout and electrical parts, except Model name and packaging are different, as they would distribute in different regions to satisfy subdividing market demands.  
Power Supply: 3.0V DC supplied by button cell  
Battery Specification: CR2450 3.0V DC  
FCC ID: 2AKIT-ATR01  
Frequency Range: 2405MHz-2480MHz  
Transmit Power: 8.34dBm  
Modulation type: O-QPSK  
Antenna Type: Internal antenna  
Antenna Gain: 1.0dBi (Max.)  
Temperature Range: 0 °C ~ 50 °C  
Hardware Version: V1.0  
Software Version: V1.0.0.1  
Sample No: E20240725192701-0001, E20240725192701-0002

Note 1: The EUT antenna gain is provided by the applicant. This report is made solely on the basis of such data and/or information. We accept no responsibility for the authenticity and completeness of the above data and information and the validity of the results and/or conclusions.

Note 2: The EUT have two colors, the one is white, the other is black, they have the same software and hardware constructions including circuit diagram, PCB layout and electrical parts, except color is different. All tests were performed on the

AT-R01E model.

**2.4 CHANNEL LIST**

Channel No.	Frequency (MHz)	Channel No.	Frequency (MHz)	Channel No.	Frequency (MHz)	Channel No.	Frequency (MHz)
*11	2405	12	2410	13	2415	14	2420
15	2425	16	2430	17	2435	*18	2440
19	2445	20	2450	21	2455	22	2460
23	2465	24	2470	25	2475	*26	2480

\* is the test frequency

**2.5 TEST OPERATION MODE**

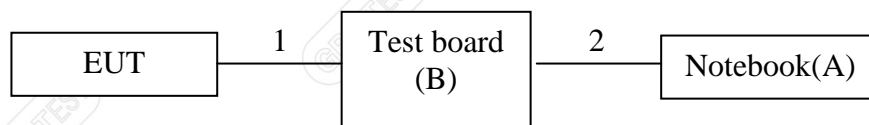
Mode No.	Description of the modes
1	Thread fixed frequency transmitting

**2.6 LOCAL SUPPORTIVE**

No.	Name of Equipment	Manufacturer	Model	Serial Number
A	Notebook	DELL	Latitude3300	2C6CFW2
B	Test board	/	/	/

No.	Cable Type	Qty.	Shielded Type	Ferrite Core(Qty.)	Length
1	Serial cable	1	No	0	0.2m
2	USB cable	1	No	0	0.5m

Note: The notebook is just used to produce fixed frequency transmitting.

**2.7 CONFIGURATION OF SYSTEM UNDER TEST****Test software:**

Software version	Test level
QCOM_V1.0	2405MHz: 80 2440MHz: 80 2480MHz: 80



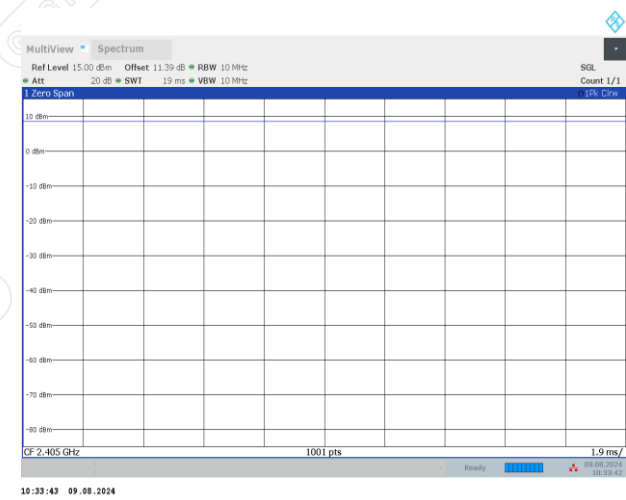
2.8 DUTY CYCLE

Environment: 25.3°C/59%RH/101.0kPa  
Tested By: Qin tingting

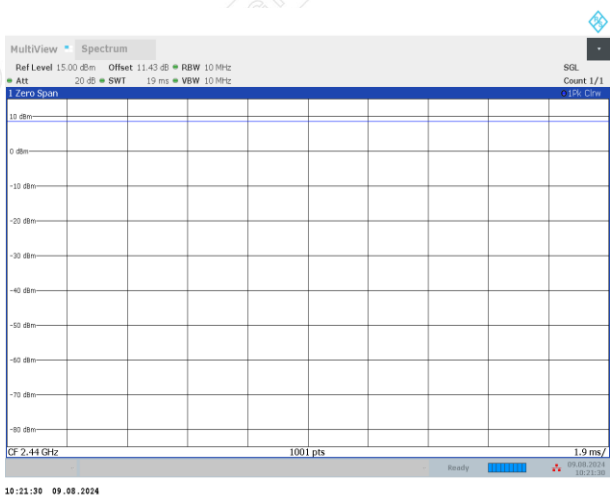
Voltage: DC 3V  
Date: 2024-08-09

Test Mode	Antenna	Frequency (MHz)	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	T [s]
Thread	Ant1	2405	19.00	19.00	100	/
		2440	19.00	19.00	100	/
		2480	19.00	19.00	100	/

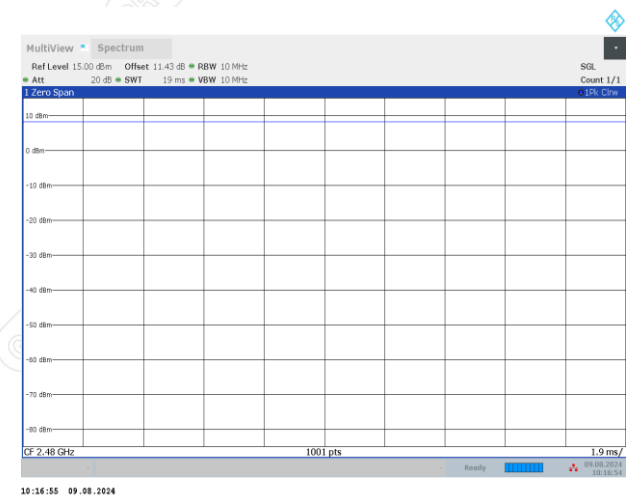
Lowest\_2405MHz



Middle\_2440MHz



Highest\_2480MHz



### 3. LABORATORY AND ACCREDITATIONS

#### 3.1 LABORATORY

The tests & measurements refer to this report were performed by Shenzhen EMC Laboratory of GRG METROLOGY & TEST GROUP CO., LTD.

Add : No.1301 Guanguang Road Xinlan Community, Guanlan Street, Longhua District  
Shenzhen, 518110, People's Republic of China

P.C. : 518110

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#### 3.2 ACCREDITATIONS

Our laboratories are accredited and approved by the following approval agencies according to ISO/IEC 17025:2017.

**USA** A2LA(Certificate #2861.01)

The measuring facility of laboratories has been authorized or registered by the following approval agencies.

**Canada** ISED (Company Number: 24897, CAB identifier:CN0069)

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Copies of granted accreditation certificates are available for downloading from our web site,  
<http://www.grgtest.com>

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#### 4. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

Measurement		Frequency	Uncertainty
Radiated Emission	X	9kHz~30MHz	4.4dB <sup>1)</sup>
	Y	9kHz~30MHz	4.4dB <sup>1)</sup>
	Z	9kHz~30MHz	4.4dB <sup>1)</sup>
	Horizontal	30MHz~200MHz	4.6dB <sup>1)</sup>
		200MHz~1000MHz	4.8dB <sup>1)</sup>
		1GHz~18GHz	5.0dB <sup>1)</sup>
		18GHz~26.5GHz	5.2dB <sup>1)</sup>
	Vertical	30MHz~200MHz	4.7dB <sup>1)</sup>
		200MHz~1000MHz	4.7dB <sup>1)</sup>
		1GHz~18GHz	5.1dB <sup>1)</sup>
		18GHz~26.5GHz	5.4dB <sup>1)</sup>

Measurement	Uncertainty
RF frequency	$6.0 \times 10^{-6}$
RF power conducted	0.80dB
Power spectral density conducted	0.80dB
Occupied channel bandwidth	0.40dB
Unwanted emission, conducted	0.70dB
Humidity	6.0%
Temperature	2.0°C

Note:

<sup>1)</sup> This uncertainty represents an expanded uncertainty expressed at approximately the 95%.

This uncertainty represents an expanded uncertainty factor of  $k=2$ .

**5. LIST OF USED TEST EQUIPMENT AT GRGT**

Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
Radiated Spurious Emission & Restricted bands of operation				
Loop Antenna	Schwarzbeck	FMZB 1513-60	1513-60-56	2025-05-07
Bi-log Antenna	Schwarzbeck	VULB9160	VULB9160-3402	2024-10-06
Horn Antenna	Schwarzbeck	BBHA 9120D	02143	2024-09-23
Test Receiver	R&S	ESR26	101758	2024-09-22
Board-Band Horn Antenna	Schwarzbeck	BBHA 9170	BBHA 9170-497	2024-09-18
Amplifier	SHIRONG ELECTRONIC	DLNA-30M1G-G4 0	20200928001	2025-01-30
Amplifier	Tonscend	TAP01018048	AP20E8060075	2025-03-01
Amplifier	Tonscend	TAP184050	AP20E806071	2025-03-01
Amplifier	SHIRONG ELECTRONIC	DLNA-1G18G-G40	20200928005	2025-07-19
Test S/W	Tonscend	JS32-RE/5.0.0		
6dB Bandwidth & Conducted band edges and Spurious Emission & Power Spectral Density				
Spectrum Analyzer	R&S	FSW43	102072	2025-06-14
Automatic power test unit	TONSCEND	JS0806-2	21B8060365	2024-12-28
BT/WIFI System	Tonscend	JS1120-3		
Maximum peak output power				
Pulse power sensor	Anristu	MA2411B	1126150	2025-01-11
Power meter	Anristu	ML2495A	1204003	2025-01-11

Note: The calibration cycle of the above instruments is 12 months.

## 6. RADIATED SPURIOUS EMISSIONS

### 6.1 LIMITS

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator 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 the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required.

Frequency (MHz)	Quasi-peak( $\mu\text{V/m}$ )	Measurement distance(m)	Quasi-peak(dB $\mu\text{V/m}$ )@distance 3m
0.009-0.490	2400/F(kHz)	300	128.5~93.8
0.490-1.705	24000/F(kHz)	30	73.8~63
1.705-30.0	30	30	69.5
30~88	100	3	40
88~216	150	3	43.5
216~960	200	3	46
Above 960	500	3	54

**NOTE:** (1) The lower limit shall apply at the transition frequencies.

(2) Above 18GHz test distance is 1m, so the Peak Limit=74+20\*log(3/1)=83.54 (dB $\mu\text{V/m}$ ).

The Avg Limit=54+20\*log(3/1)=63.54 (dB $\mu\text{V/m}$ ).

### 6.2 TEST PROCEDURES

#### a) Sequence of testing 9kHz to 30MHz

##### Setup:

--- The equipment was set up to simulate a typical usage like described in the user manual or described by manufacturer.

--- If the EUT is a tabletop system, a rotatable table with 0.8 m height is used.

--- If the EUT is a floor standing device, it is placed on the ground.

--- Use serial board or connecting line to make EUT and notebook to communicate, according to the actual need to make EUT send constant frequency signal continuously.

--- The EUT is placed on a desktop position in the center of the turntable.

--- The measurement distance is 3 meter.

--- The EUT was set into operation.

##### Pre measurement:

--- The turntable rotates from 0 ° to 360 °.

--- The antenna height is 1.0 meter.

--- The antenna is polarized X, Y and Z.

--- At each turntable position the analyzer sweeps with peak detection to find the maximum of all emissions.

##### Final measurement:

--- Identified emissions during the pre measurement the software maximizes by rotating the turntable position (0 ° to 360 °) and by rotating the elevation axes (0 ° to 360 °).

--- The final measurement will be done in the position (turntable and elevation) causing the highest emissions with QP detector.

--- The final levels, frequency, measuring time, bandwidth, turntable position, correction factor, margin to the limit and limit will be recorded. Also a plot with the graph of the pre measurement and the limit will be stored.

#### **b) Sequence of testing 30MHz to 1GHz**

##### **Setup:**

--- The equipment was set up to simulate a typical usage like described in the user manual or described by manufacturer.

--- If the EUT is a tabletop system, a table with 0.8 m height is used, which is placed on the ground plane.

--- If the EUT is a floor standing device, it is placed on the ground plane with insulation between both.

--- Use serial board or connecting line to make EUT and notebook to communicate, according to the actual need to make EUT send constant frequency signal continuously.

--- The EUT is placed on a desktop position in the center of the turntable.

--- The measurement distance is 3 meter.

--- The EUT was set into operation.

##### **Pre measurement:**

--- The turntable rotates from 0 ° to 360 °.

--- The antenna is polarized vertical and horizontal.

--- The antenna height changes from 1 to 4 meter.

--- At each turntable position, antenna polarization and height the analyzer sweeps three times in peak to find the maximum of all emissions.

##### **Final measurement:**

--- The final measurement will be performed with minimum the six highest peaks.

--- According to the maximum antenna and turntable positions of pre measurement the software maximize the peaks by changing turntable rotates from 0 ° to 360 ° and antenna movement between 1 and 4 meter.

--- The final measurement will be done with QP detector with an EMI receiver.

--- The final levels, frequency, measuring time, bandwidth, antenna height, antenna polarization, turntable angle, correction factor, margin to the limit and limit will be recorded. Also a plot with the graph of the pre measurement with marked maximum final measurements and the limit will be stored.

#### **c) Sequence of testing 1GHz to 18GHz**

##### **Setup:**

--- The equipment was set up to simulate a typical usage like described in the user manual or described by manufacturer.

--- If the EUT is a tabletop system, a rotatable table with 1.5 m height is used.

--- If the EUT is a floor standing device, it is placed on the ground plane with insulation between both.

--- Use serial board or connecting line to make EUT and notebook to communicate, according to the actual need to make EUT send constant frequency signal continuously.

--- The EUT is placed on a desktop position in the center of the turntable.

--- The measurement distance is 3 meter.

--- The EUT was set into operation.



**Pre measurement:**

- The turntable rotates from 0 ° to 360 °.
- The antenna is polarized vertical and horizontal.
- The antenna height scan range is 1 meter to 4 meter.
- At each turntable position and antenna polarization the analyzer sweeps with peak detection to find the maximum of all emissions.

**Final measurement:**

- The final measurement will be performed with minimum the six highest peaks.
- According to the maximum antenna and turntable positions of pre measurement the software maximize the peaks by changing turntable rotates from 0 ° to 360 ° and antenna movement between 1 and 4 meter. This procedure is repeated for both antenna polarizations.
- The final measurement will be done in the position (turntable, EUT-table and antenna polarization) causing the highest emissions with Peak and Average detector.
- The final levels, frequency, measuring time, bandwidth, turntable position, EUT-table position, antenna polarization, correction factor, margin to the limit and limit will be recorded. Also a plot with the graph of the pre measurement with marked maximum final measurements and the limit will be stored.

**d) Sequence of testing above 18GHz****Setup:**

- The equipment was set up to simulate a typical usage like described in the user manual or described by manufacturer.
- If the EUT is a tabletop system, a rotatable table with 1.5 m height is used.
- If the EUT is a floor standing device, it is placed on the ground plane with insulation between both.
- Use serial board or connecting line to make EUT and notebook to communicate, according to the actual need to make EUT send constant frequency signal continuously.
- The EUT is placed on a desktop position in the center of the turntable.
- The measurement distance is 1 meter.
- The EUT was set into operation.

**Pre measurement:**

- The turntable rotates from 0 ° to 360 °.
- The antenna is polarized vertical and horizontal.
- The antenna height scan range is 1 meter to 4 meter.
- At each turntable position and antenna polarization the analyzer sweeps with peak detection to find the maximum of all emissions.

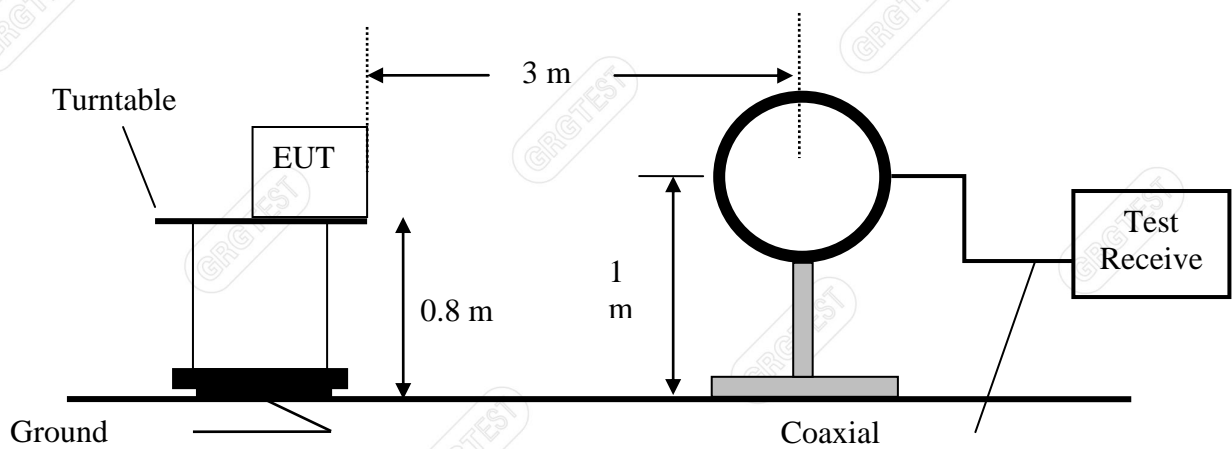
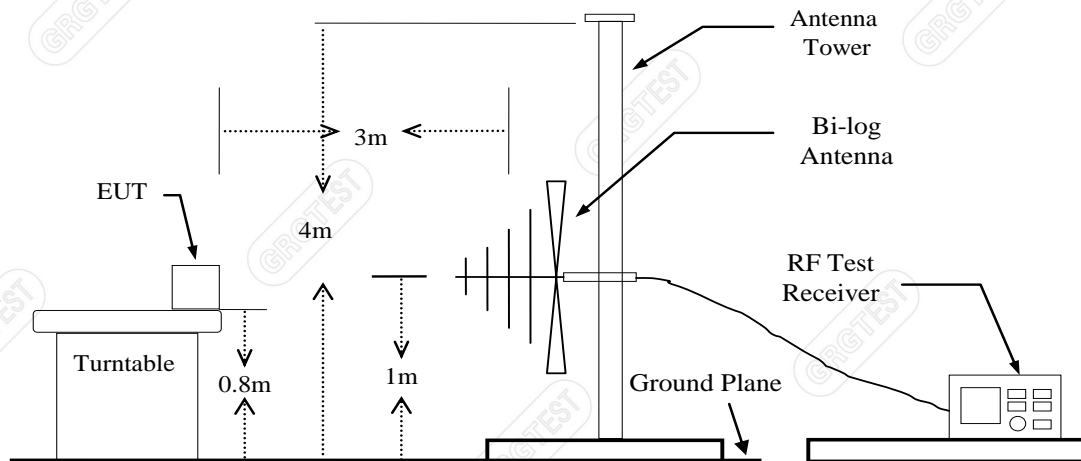
**Final measurement:**

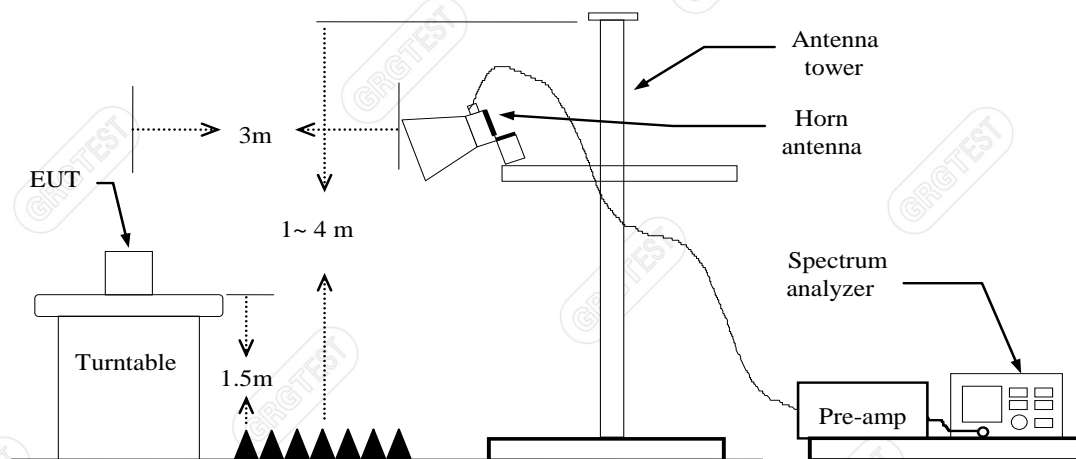
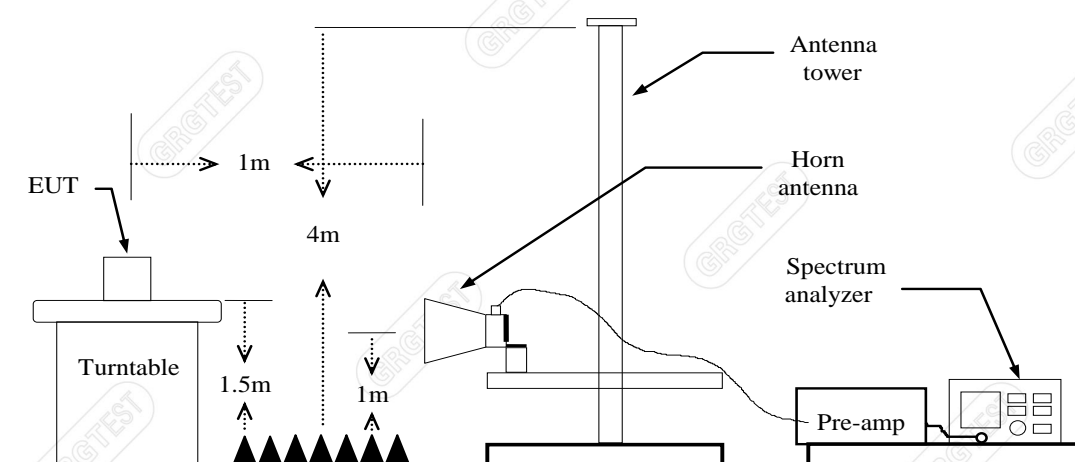
- The final measurement will be performed with minimum the six highest peaks.
- According to the maximum antenna and turntable positions of pre measurement the software maximize the peaks by changing turntable rotates from 0 ° to 360 ° and antenna movement between 1 and 4 meter. This procedure is repeated for both antenna polarizations.
- The final measurement will be done in the position (turntable, EUT-table and antenna polarization) causing the highest emissions with Peak and Average detector.
- The final levels, frequency, measuring time, bandwidth, turntable position, EUT-table position, antenna polarization, correction factor, margin to the limit and limit will be recorded. Also a plot with the graph of the pre measurement with marked maximum final measurements and the limit will be stored.



**NOTE:**

- (1).The frequency from 9kHz to 150kHz, Set RBW=300Hz(for Peak&AVG), RBW=300Hz(for Peak&AVG).  
the frequency from 150kHz to 30MHz, Set RBW=9kHz, RBW=9kHz, (for QP Detector).
- (2).The frequency from 30MHz to 1GHz, Set RBW=120kHz, RBW=300kHz, (for QP Detector).
- (3).The frequency above 1GHz, for Peak detector: Set RBW=1MHz, RBW=3MHz.
- (4).The frequency above 1GHz, for Avg detector: Set RBW=1MHz, the EUT is configured to transmit with duty cycle $\geq 98\%$ , set VBW $\leq RBW/100$  (i.e.,10kHz) but not less than 10 Hz. If the EUT duty cycle is  $< 98\%$ , set VBW $\geq 1/T$ , Where T is defined in section 2.8.

**6.3 TEST SETUP****Figure 1. 9kHz to 30MHz radiated emissions test configuration****Figure 2. 30MHz to 1GHz radiated emissions test configuration**

**Figure 3. 1GHz-18GHz radiated emissions test configuration****Figure 4. 18GHz-26.5GHz radiated emissions test configuration**

**6.4 DATA SAMPLE****30MHz to 1GHz**

NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Trace	Height [cm]	Angle [°]	Polarity	Verdict
xxx	86.5096	67.55	33.83	-33.72	40.00	6.17	QP	200	118	Horizontal	PASS

Frequency (MHz)

= Emission frequency in MHz

Reading (dBuV)

= Uncorrected Analyzer / Receiver reading

Factor (dB)

= Antenna factor + Cable loss – Amplifier gain

Level (dBuV/m)

= Reading (dBuV) + Factor (dB)

Limit (dBuV/m)

= Limit stated in standard

Margin (dB)

= Limit (dBuV/m) - Level (dBuV/m)

QP

= Quasi-peak Reading

**1GHz-18GHz**

No.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
xxx	xxxx	78.01	55.30	-22.71	74.00	18.70	100	50	Horizontal
xxx	xxxx	66.37	43.66	-22.71	54.00	10.34	100	50	Horizontal

**Above 18GHz**

NO.	Freq. [MHz]	Reading [dBμV/m]	Level for 1m [dBμV/m]	Level for 3m [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
xxx	xxx	62.46	45.31	35.77	-17.15	74	38.23	100	19	Horizontal

Frequency (MHz)

= Emission frequency in MHz

Reading (dBuV/m)

= Uncorrected Analyzer / Receiver reading

Factor (dB)

= Antenna factor + Cable loss – Amplifier gain

Level for 1m (dBuV/m)

= Reading (dBuV/m) + Factor (dB)

Level for 3m (dBuV/m)

= Level for 1m (dBuV/m) + 20\*log(1/3)

Limit (dBuV/m)

= Limit stated in standard

Margin (dB)

= Limit (dBuV/m) – Level (dBuV/m)

Polarity

= Antenna polarization

Peak

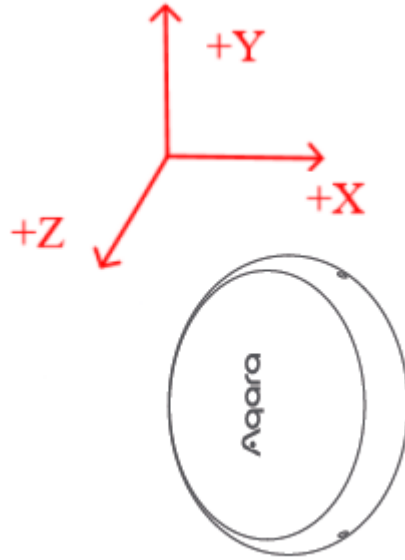
= Peak Reading

AVG

= Average Reading

## 6.5 TEST RESULTS

The test are under 3-axes(X,Y,Z) position(X denotes lying on the table, Y denotes side stand and Z denotes vertical stand), After pre-test, It was found that the worse radiation emission was get at the Z position. So the data shown the Z position only.

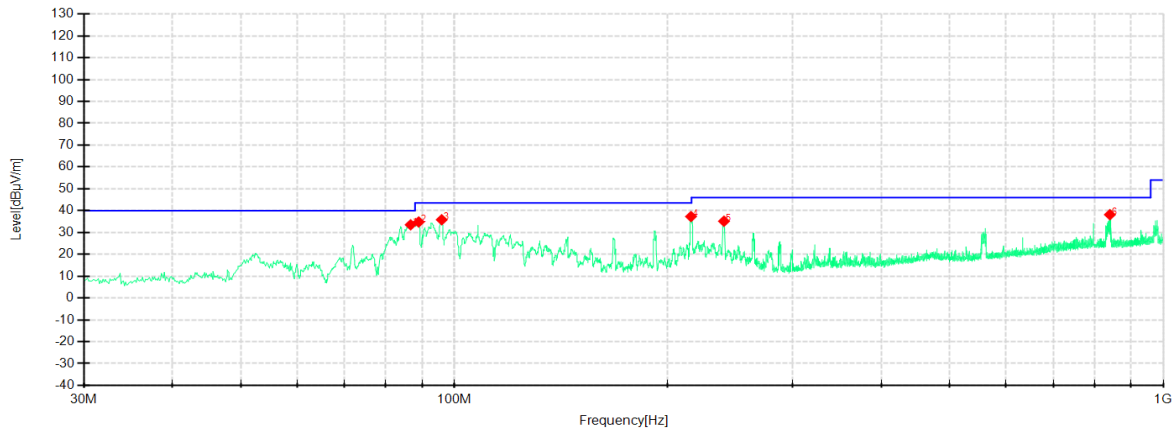


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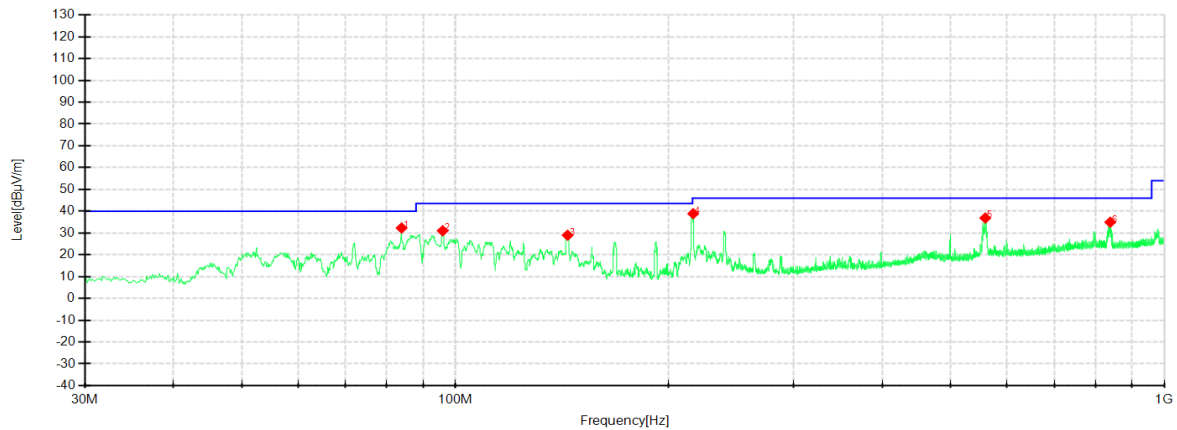
**Below 1GHz**

Note: Pre-scan all modes , only the worst case(Lowest Frequency\_2405MHz) were recorded in this report.

Model:	AT-R01E	Frequency:	2405MHz
Power supply:	DC 3V	Environmental Conditions:	23.5℃/65%RH/101.0kPa
Test Engineer:	Wen wenwen	Test Date:	2024-08-17



NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Trace	Height [cm]	Angle [°]	Polarity	Verdict
1	86.7521	67.23	33.51	-33.72	40.00	6.49	QP	200	173	Horizontal	PASS
2	89.0561	68.54	34.82	-33.72	43.50	8.68	QP	200	186	Horizontal	PASS
3	95.9682	68.49	35.82	-32.67	43.50	7.68	QP	200	160	Horizontal	PASS
4	215.6570	68.47	37.29	-31.18	43.50	6.21	QP	100	327	Horizontal	PASS
5	240.0313	64.79	35.15	-29.64	46.00	10.85	QP	100	339	Horizontal	PASS
6	840.7788	54.31	38.16	-16.15	46.00	7.84	QP	100	165	Horizontal	PASS



NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Trace	Height [cm]	Angle [°]	Polarity	Verdict
1	83.9630	66.02	32.30	-33.72	40.00	7.70	QP	100	351	Vertical	PASS
2	95.9682	63.70	31.03	-32.67	43.50	12.47	QP	200	59	Vertical	PASS
3	143.9892	57.28	28.98	-28.30	43.50	14.52	QP	100	263	Vertical	PASS
4	216.5058	69.99	38.86	-31.13	46.00	7.14	QP	100	237	Vertical	PASS
5	559.0799	57.03	36.87	-20.16	46.00	9.13	QP	200	185	Vertical	PASS
6	839.0811	51.12	34.94	-16.18	46.00	11.06	QP	200	212	Vertical	PASS

#### Remark:

- 1 No emission found between lowest internal used/generated frequency to 30MHz.
- 2 Radiated emissions measured in frequency range from 9kHz to 1GHz were made with an instrument using Quasi-peak detector mode.
- 3 Data of measurement 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.
- 4 The IF bandwidth of Receiver between 30MHz to 1GHz was 120kHz.



**1GHz-18GHz:**

According to C63.10, if the peak (or quasi-peak) measured value complies with the average limit, it is unnecessary to perform an average measurement, so AV emission value did not show in below table if the peak value complies with average limit.

Lowest Frequency (2405MHz)

Environment: 24.9°C/64%RH/101.0kPa

Tested By: Wen wenwen

Voltage: DC 3V

Date: 2024-08-17

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1121.6000	55.66	45.75	-9.91	74.00	28.25	100	247	Horizontal
2	1245.6000	58.44	49.85	-8.59	74.00	24.15	100	300	Horizontal
3	1994.6000	51.13	47.25	-3.88	74.00	26.75	100	274	Horizontal
4	4809.0000	64.84	57.69	-7.15	74.00	16.31	100	33	Horizontal
5	7216.5000	45.54	46.70	1.16	74.00	27.30	200	299	Horizontal
6	14571.0000	40.33	53.12	12.79	74.00	20.88	200	180	Horizontal

AV Final Data List									
NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1245.6000	-8.59	39.11	30.52	54.00	23.48	100	300	Horizontal
2	4809.4870	-7.15	55.78	48.63	54.00	5.37	151	23.6	Horizontal
3	14571.0000	12.79	29.57	42.36	54.00	11.64	200	180	Horizontal

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1996.4000	50.63	46.74	-3.89	74.00	27.26	100	193	Vertical
2	4810.5000	65.65	58.58	-7.07	74.00	15.42	100	21	Vertical
3	5326.5000	50.86	45.21	-5.65	74.00	28.79	100	247	Vertical
4	6373.5000	59.65	56.94	-2.71	74.00	17.06	100	247	Vertical
5	7216.5000	46.86	48.05	1.19	74.00	25.95	200	47	Vertical
6	15147.0000	40.48	53.03	12.55	74.00	20.97	100	21	Vertical

AV Final Data List									
NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	4809.8735	-7.07	54.97	47.90	54.00	6.10	100	360	Vertical
2	6366.7665	-2.71	40.17	37.46	54.00	16.54	100	259.2	Vertical
3	7216.5000	1.19	45.93	47.12	54.00	6.88	200	47	Vertical
4	15147.0000	12.55	29.63	42.18	54.00	11.82	100	21	Vertical



Middle Frequency (2440MHz)  
Environment: 24.9℃/64%RH/101.0kPa  
Tested By: Wen wenwen

Voltage: DC 3V  
Date: 2024-08-17

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1111.0000	56.34	46.24	-10.10	74.00	27.76	100	315	Horizontal
2	1720.0000	52.30	45.09	-7.21	74.00	28.91	200	182	Horizontal
3	2501.4000	47.22	46.78	-0.44	74.00	27.22	200	340	Horizontal
4	4878.0000	60.51	53.51	-7.00	74.00	20.49	200	217	Horizontal
5	7318.5000	44.50	46.01	1.51	74.00	27.99	200	310	Horizontal
6	15705.0000	42.75	52.76	10.01	74.00	21.24	100	336	Horizontal

AV Final Data List									
NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	4878.0000	-7.00	54.37	48.37	54.00	5.63	200	217	Horizontal
2	15705.0000	10.01	30.76	40.77	54.00	13.23	100	336	Horizontal

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1998.2000	50.52	46.63	-3.89	74.00	27.37	100	274	Vertical
2	3441.0000	56.32	43.41	-12.91	74.00	30.59	100	296	Vertical
3	4264.5000	51.76	42.42	-9.34	74.00	31.58	100	136	Vertical
4	4878.0000	61.68	54.73	-6.95	74.00	19.27	100	136	Vertical
5	6393.0000	55.43	53.21	-2.22	74.00	20.79	100	283	Vertical
6	15760.5000	42.59	52.28	9.69	74.00	21.72	200	101	Vertical

AV Final Data List									
NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	4878.0000	-6.95	56.36	49.41	54.00	4.59	100	136	Vertical
2	6393.0000	-2.22	41.35	39.13	54.00	14.87	100	283	Vertical
3	15760.5000	9.69	31.14	40.83	54.00	13.17	200	101	Vertical

Highest Frequency (2480MHz)  
Environment: 24.9°C/64%RH/101.0kPa  
Tested By: Wen wenwen

Voltage: DC 3V  
Date: 2024-08-17

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1120.0000	55.78	45.84	-9.94	74.00	28.16	100	247	Horizontal
2	1952.8000	51.41	47.52	-3.89	74.00	26.48	100	22	Horizontal
3	4960.5000	60.71	54.15	-6.56	74.00	19.85	100	21	Horizontal
4	6067.5000	46.86	43.06	-3.80	74.00	30.94	100	259	Horizontal
5	7441.5000	49.70	51.31	1.61	74.00	22.69	200	325	Horizontal
6	14661.0000	40.93	53.11	12.18	74.00	20.89	100	351	Horizontal

AV Final Data List									
NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	4959.0645	-6.56	53.47	46.91	54.00	7.09	152	38.4	Horizontal
2	7437.8425	1.61	36.25	37.86	54.00	16.14	200	270	Horizontal
3	14661.0000	12.18	29.38	41.56	54.00	12.44	100	351	Horizontal

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1994.4000	52.13	48.22	-3.91	74.00	25.78	100	115	Vertical
2	2994.8000	48.25	47.84	-0.41	74.00	26.16	200	192	Vertical
3	4959.0000	56.95	50.61	-6.34	74.00	23.39	100	19	Vertical
4	6390.0000	52.93	50.64	-2.29	74.00	23.36	100	243	Vertical
5	7438.5000	48.02	49.78	1.76	74.00	24.22	100	19	Vertical
6	15120.0000	40.61	52.96	12.35	74.00	21.04	100	32	Vertical

AV Final Data List									
NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	4960.7940	-6.34	49.28	42.94	54.00	11.06	154	33.2	Vertical
2	6377.8860	-2.29	43.12	40.83	54.00	13.17	101	250.9	Vertical
3	7441.2975	1.76	39.04	40.80	54.00	13.20	100	2	Vertical
4	15120.0000	12.35	28.91	41.26	54.00	12.74	100	32	Vertical

**18GHz-26.5GHz:**

According to C63.10, if the peak (or quasi-peak) measured value complies with the average limit, it is unnecessary to perform an average measurement, so AV emission value did not show in below table if the peak value complies with average limit.

Note: Pre-scan all modes, only the worst case 2405MHz were recorded in this report.

Environment: 26.5°C/65%RH/101.0kPa  
Tested By: Wen wenwen

Voltage: DC 3V  
Date: 2024-08-26

Suspected Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Level for 1m [dBμV/m]	Level for 3m [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	19048.05	62.32	45.38	35.84	-16.94	74	38.16	110	116	Horizontal
2	19671.95	63.5	46.73	37.19	-16.77	74	36.81	100	19	Horizontal
3	21113.125	62.51	46.55	37.01	-15.96	74	36.99	100	342	Horizontal
4	22635.05	63.04	48.1	38.56	-14.94	74	35.44	120	116	Horizontal
5	23799.125	64.5	49.91	40.37	-14.59	74	33.63	100	178	Horizontal
6	25749.025	65.45	51.16	41.62	-14.29	74	32.38	100	116	Horizontal

Suspected Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Level for 1m [dBμV/m]	Level for 3m [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	18955.4	62.75	45.67	36.13	-17.08	74	37.87	100	89	Vertical
2	19687.25	62.61	45.65	36.11	-16.96	74	37.89	110	282	Vertical
3	21593.8	61.68	45.8	36.26	-15.88	74	37.74	100	345	Vertical
4	23570.9	63.69	48.78	39.24	-14.91	74	34.76	100	21	Vertical
5	24938.975	64.41	50.47	40.93	-13.94	74	33.07	120	282	Vertical
6	25916.05	64.84	50.49	40.95	-14.35	74	33.05	100	251	Vertical

**Remark:**

- 1 Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2 Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3 Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4 Above 18G test distance is 1m, so the Level for 3m= Level for 1m + 20\*log(1/3).

## 7. 6dB BANDWIDTH

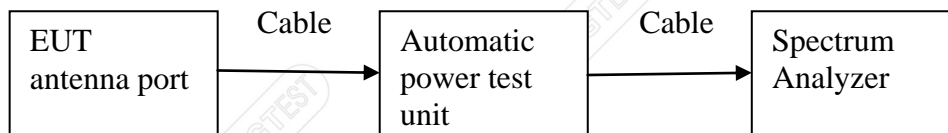
### 7.1 LIMITS

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 500 kHz.

### 7.2 TEST PROCEDURES

- Remove the antenna from the EUT, and then connect a low loss RF cable from antenna port to Automatic power measuring unit.
- Set resolution bandwidth (RBW) = 100kHz. Set the video bandwidth (VBW)  $\geq 3 \times$  RBW. Detector = Peak. Trace mode = max hold. Sweep = auto couple. Allow the trace to stabilize, record 6dB bandwidth value.
- Repeat above procedures until all frequencies measured were complete.

### 7.3 TEST SETUP



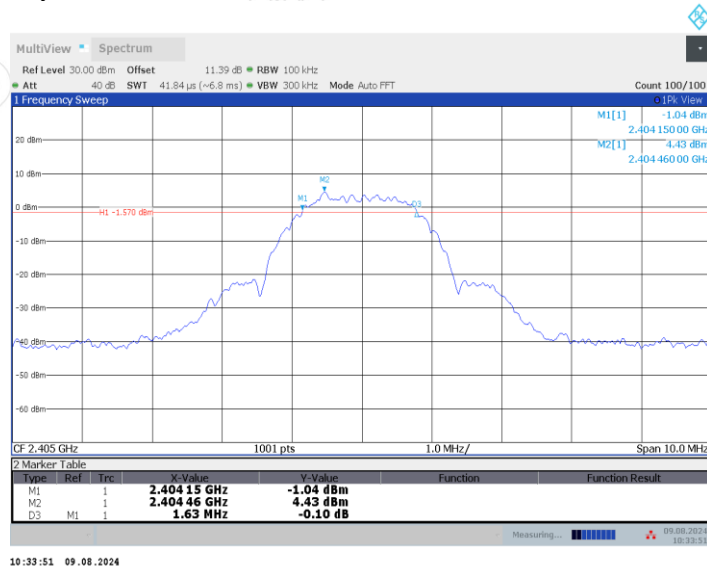
### 7.4 TEST RESULTS

Environment: 25.3°C/53%RH/101.0kPa  
Tested By: Qin tingting

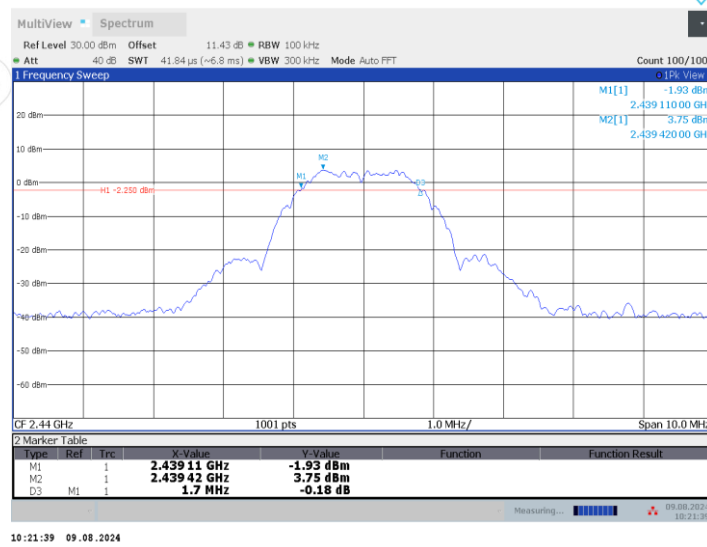
Voltage: DC 3V  
Date: 2024-08-09

Ch Name	Frequency (MHz)	Bandwidth [kHz]	Limit[kHz]	Verdict
Lowest	2405	1630	$\geq 500$	PASS
Middle	2440	1700		PASS
Highest	2480	1620		PASS

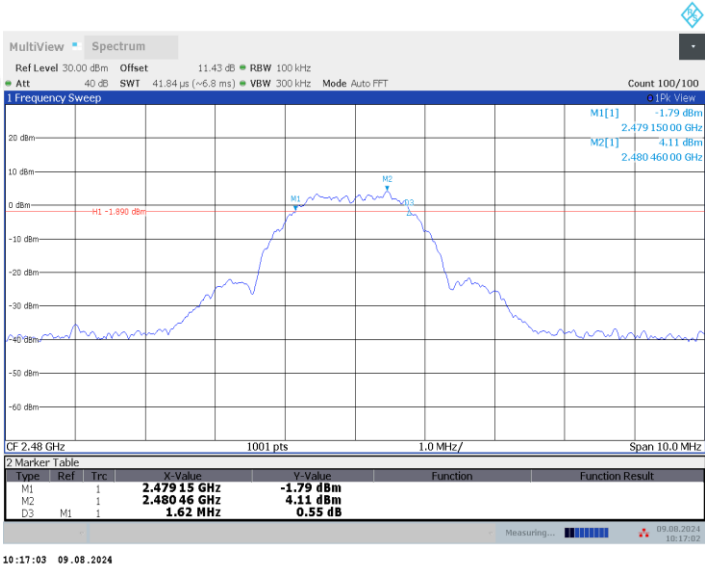
## Lowest Frequency (2405MHz)



## Middle Frequency (2440 MHz)



Highest Frequency (2480MHz)



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8. MAXIMUM PEAK OUTPUT POWER

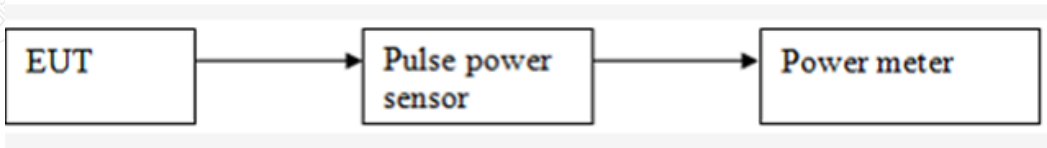
8.1 LIMITS

The maximum Peak output power measurement is 1W

8.2 TEST PROCEDURES

- a) According to the test mode, the channel requirements set EUT to continuous transmission mode.
- b) Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the power meter.

8.3 TEST SETUP



8.4 TEST RESULTS

Environment: 25.3°C/53%RH/101.0kPa  
Tested By: Qin tingting

Voltage: DC 3V  
Date: 2024-08-09

ChName	Frequency (MHz)	Measured Channel Power (dBm)	Limit	Peak/ Average	Result
Lowest	2405	8.34	1W (30dBm)	Peak	Pass
Middle	2440	8.22			Pass
Highest	2480	8.16			Pass

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## 9. POWER SPECTRAL DENSITY

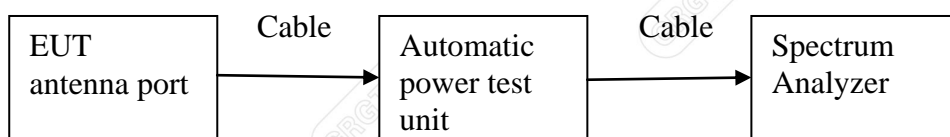
### 9.1 LIMITS

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.

### 9.2 TEST PROCEDURES

- a) Remove the antenna from the EUT, and then connect a low loss RF cable from antenna port to the spectrum analyzer.
- b) Position the EUT was set without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range.
- c) The following procedure shall be used if maximum peak conducted output power was used to determine compliance, and it is optional if the maximum conducted (average) output power was used to determine compliance:
  - 1) Set analyzer center frequency to DTS channel center frequency.
  - 2) Set the span to at least 1.5 times the DTS bandwidth.
  - 3) Set the RBW to  $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$ .
  - 4) Set the VBW  $\geq [3 \times \text{RBW}]$ .
  - 5) Detector = peak
  - 6) Sweep time = auto couple.
  - 7) Trace mode = max hold.
  - 8) Allow trace to fully stabilize.
  - 9) Use the peak marker function to determine the maximum amplitude level within the RBW.
  - 10) If measured value exceeds requirement, then reduce RBW (but no less than 3 kHz) and repeat.
- d) Repeat above procedures until all frequencies measured were complete.

### 9.3 TEST SETUP



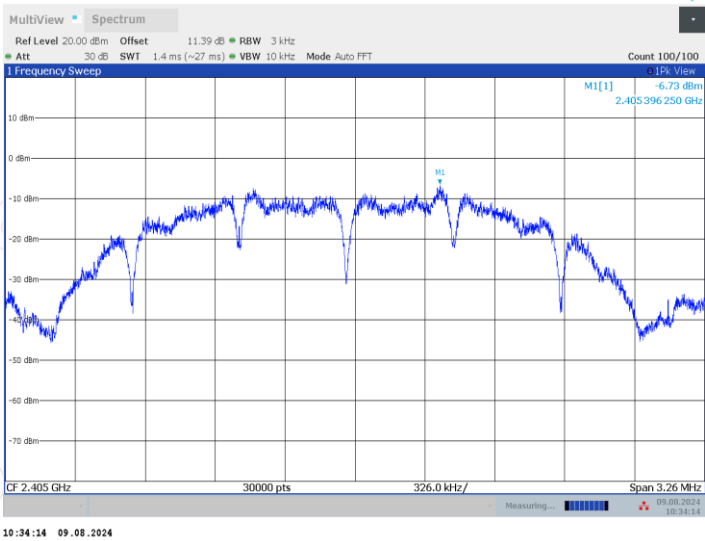
9.4 TEST RESULTS

Environment: 25.3°C/53%RH/101.0kPa  
Tested By: Qin tingting

Voltage: DC 3V  
Date: 2024-08-09

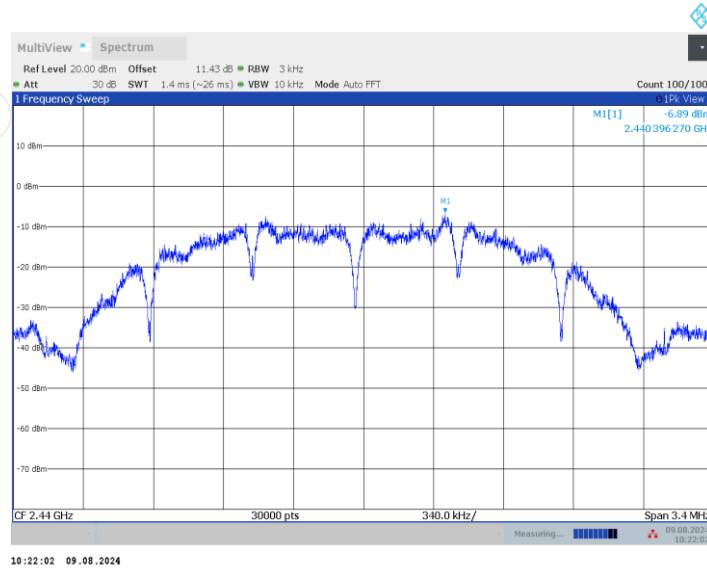
Ch Name	Frequency (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Result
Lowest	2405	-6.73	8.00	Pass
Middle	2440	-6.89	8.00	Pass
Highest	2480	-7.18	8.00	Pass

Lowest Frequency (2405MHz)

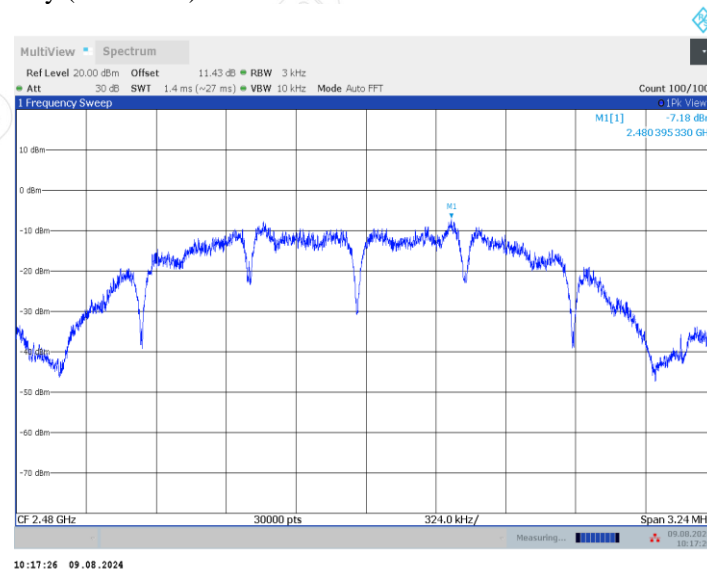


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## Middle Frequency (2440 MHz)



## Highest Frequency (2480MHz)



## 10. CONDUCTED BAND EDGES AND SPURIOUS EMISSIONS

### 10.1 LIMITS

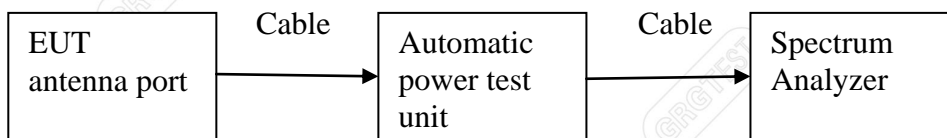
(d) In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB.

### 10.2 TEST PROCEDURES

Remove the antenna from the EUT and then connect a low attenuation cable from the antenna port to the spectrum.

- Remove the antenna from the EUT and then connect a low attenuation cable from the antenna port to the spectrum.
- Set the spectrum analyzer: RBW=100kHz; VBW=300kHz, Span=10MHz to 26.5GHz; Sweep=auto; Detector Function=Peak. Trace=Max, hold.
- Measure and record the results in the test report.
- The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
- Measurements are made from 30MHz to 26.5GHz with the transmitter set to the lowest, middle, and highest channels.

### 10.3 TEST SETUP



### 10.4 TEST RESULTS

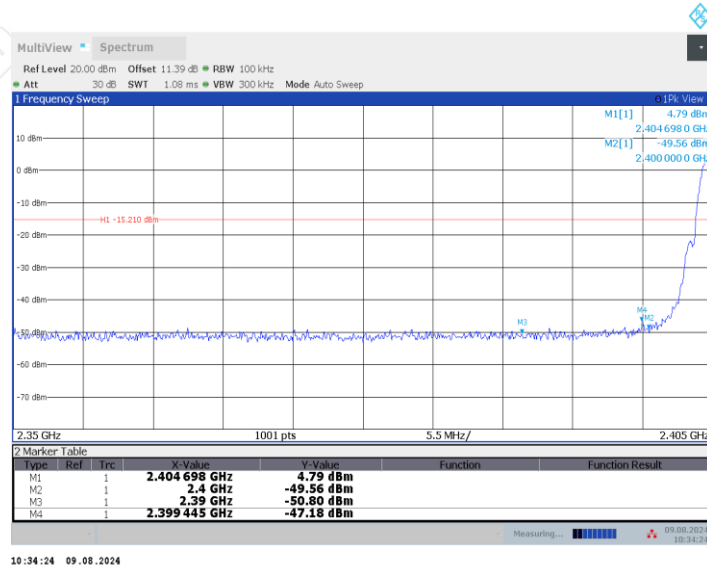
Environment: 25.3°C/53%RH/101.0kPa  
Tested By: Qin tingting

Voltage: DC 3V  
Date: 2024-08-09

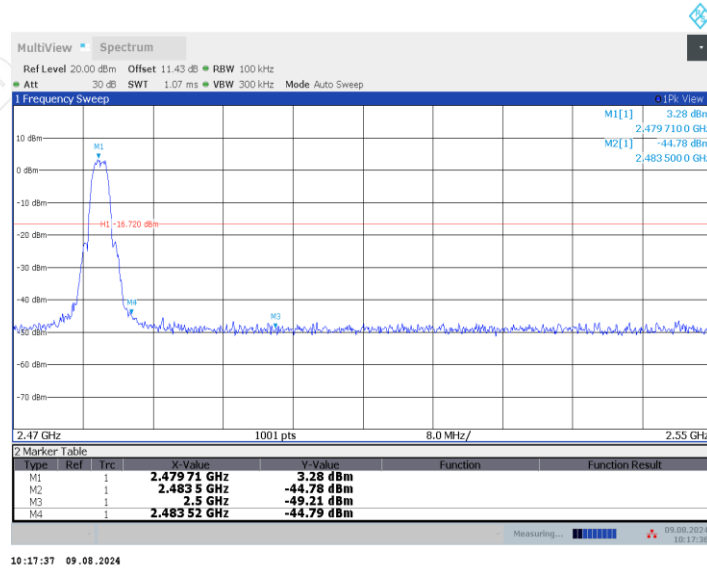
Band edge

Test Mode	Antenna	Ch Name	Frequency [MHz]	Ref Level[dBm]	Result[dBm]	Limit[dBm]	Verdict
Thread	Ant1	Lowest	2405	4.79	-47.18	≤-15.21	PASS
		Highest	2480	3.28	-44.79	≤-16.72	PASS

Lowest Frequency (2405MHz)  
2.35GHz-2.41GHz



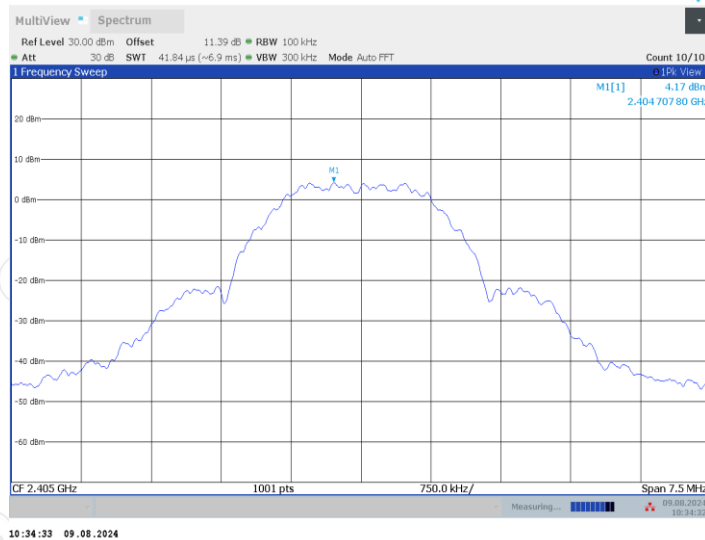
Highest Frequency (2480MHz)  
2.47GHz-2.55GHz



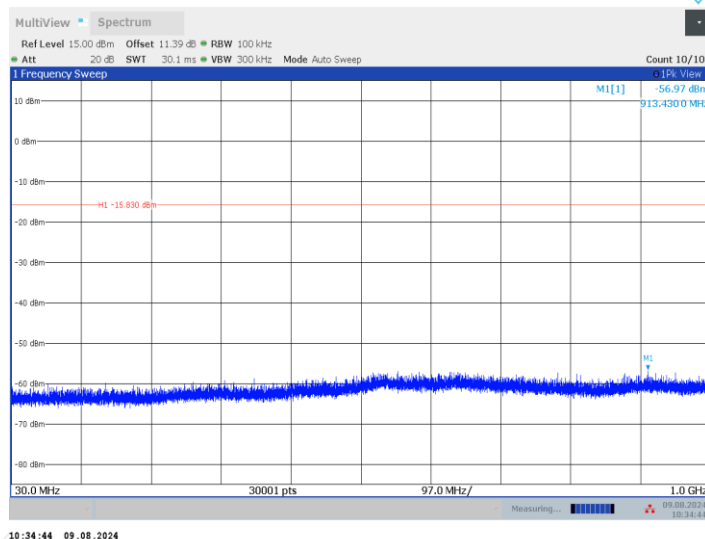
## Conducted Spurious Emission

Test Mode	Antenna	Frequency [MHz]	Freq Range [MHz]	Ref Level [dBm]	Result[dBm]	Limit[dBm]	Verdict
Thread	Ant1	2405	Reference	4.17	4.17	---	PASS
			30~1000	4.17	-56.97	$\leq -15.83$	PASS
			1000~26500	4.17	-42.56	$\leq -15.83$	PASS
		2440	Reference	3.87	3.87	---	PASS
			30~1000	3.87	-56.9	$\leq -16.13$	PASS
			1000~26500	3.87	-42.81	$\leq -16.13$	PASS
		2480	Reference	3.97	3.97	---	PASS
			30~1000	3.97	-56.51	$\leq -16.03$	PASS
			1000~26500	3.97	-42.09	$\leq -16.03$	PASS

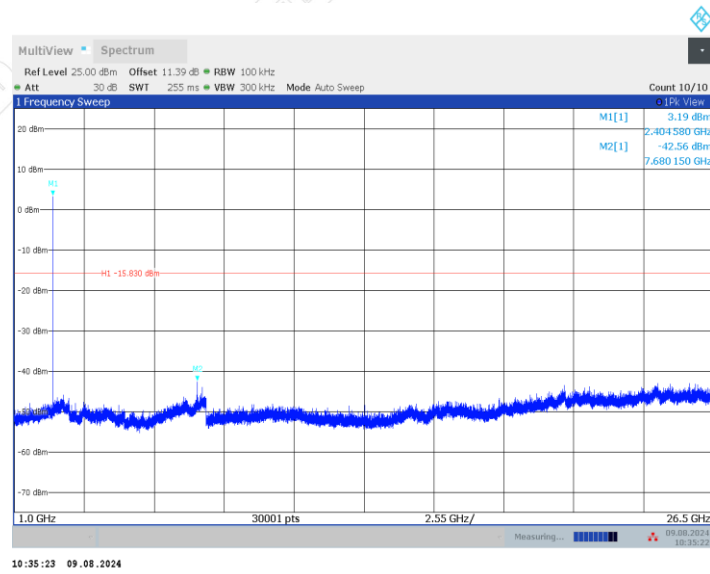
## Lowest Frequency (2405MHz)



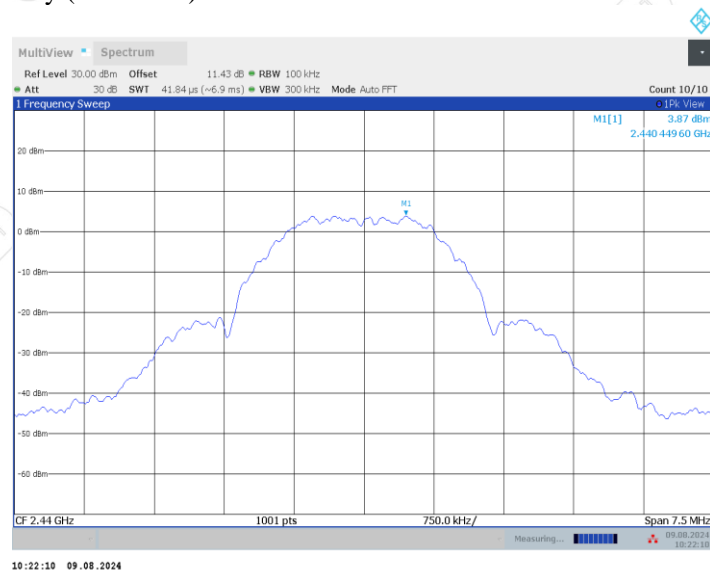
## 0.03GHz-1GHz



1GHz-26.5GHz

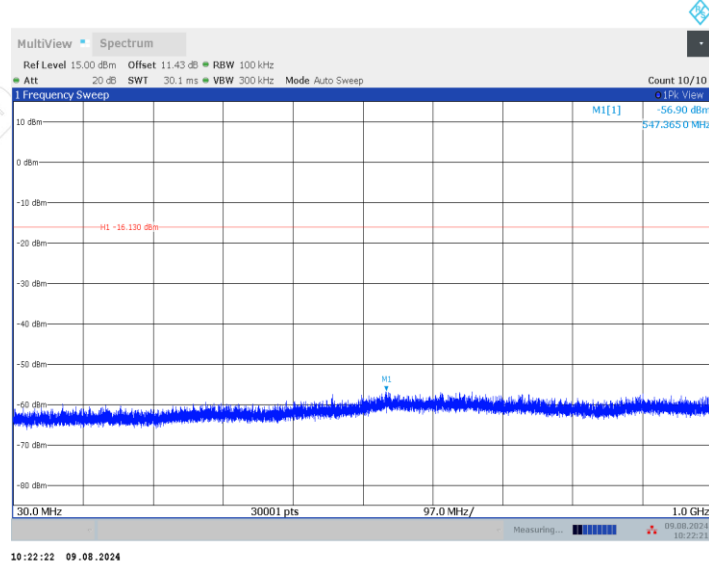


Middle Frequency (2440MHz)

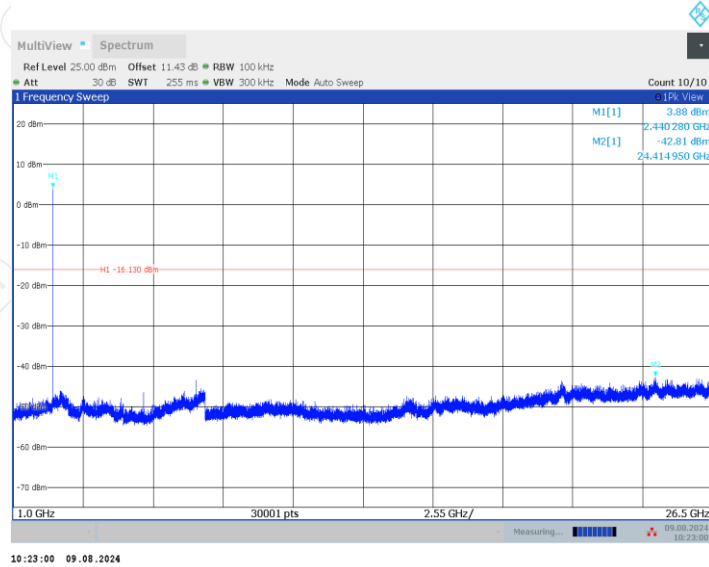




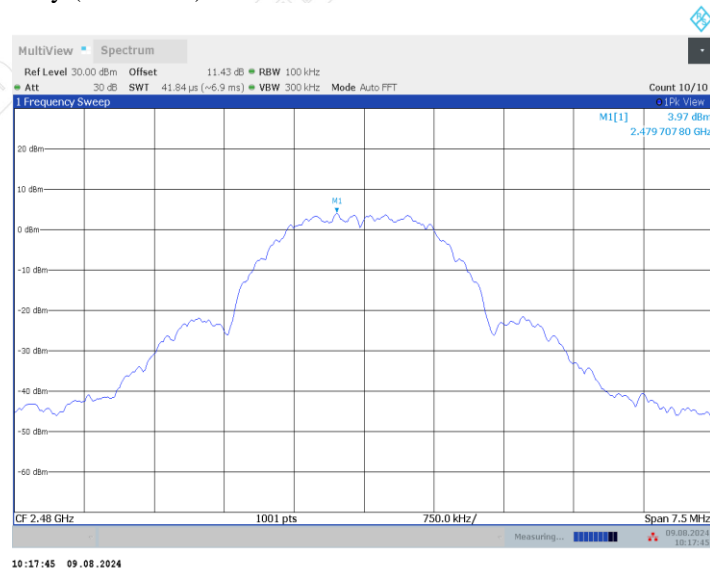
0.03GHz-1GHz



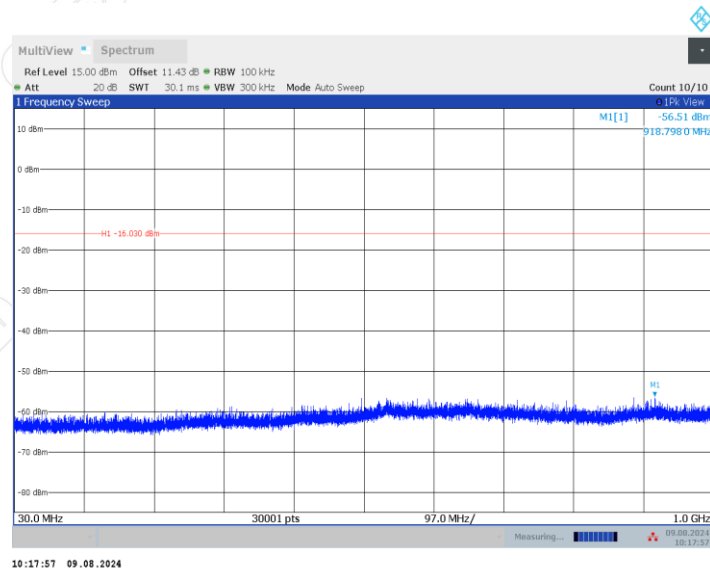
1GHz-26.5GHz



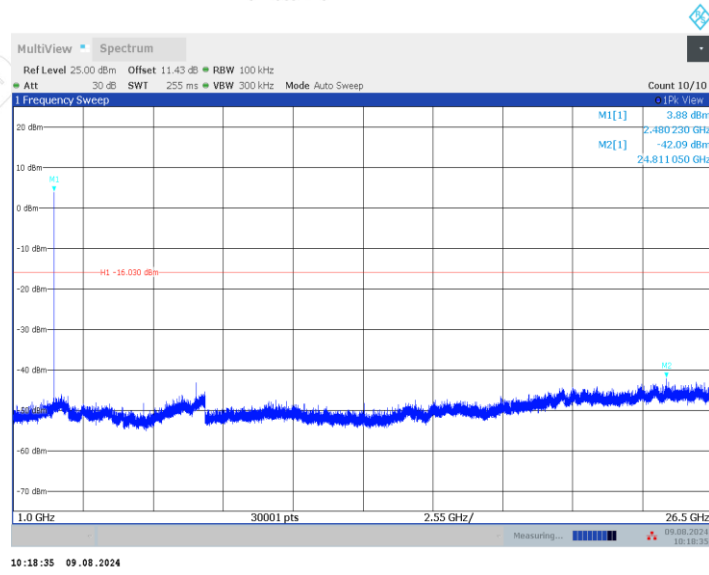
## Highest Frequency (2480MHz)



## 0.03GHz-1GHz



1GHz-26.5GHz



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## 11. RESTRICTED BANDS OF OPERATION

### 11.1 LIMITS

Section 15.247(d) 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) (see §15.205(c)).

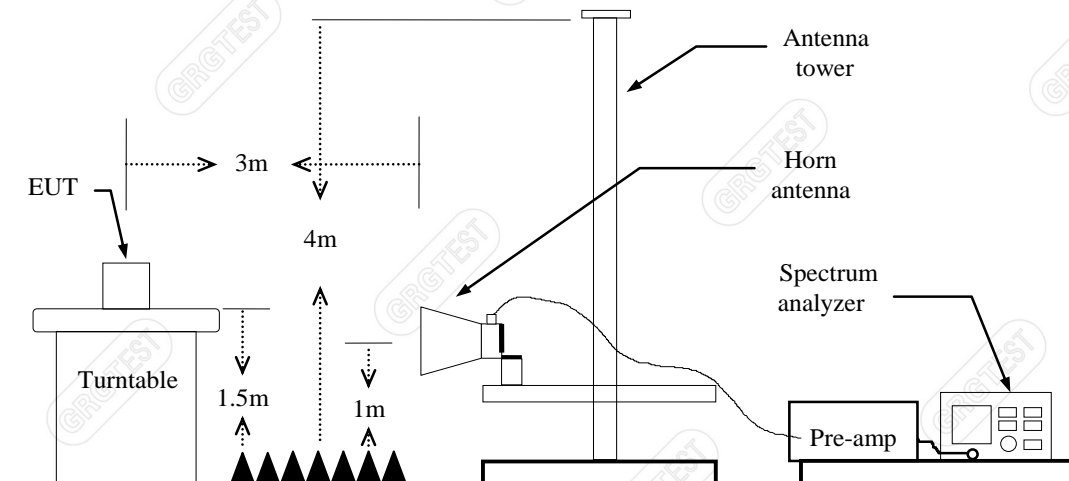
MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52480 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2655 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	
13.36 - 13.41			

Frequency (MHz)	Quasi-peak( $\mu$ V/m)	Measurement distance(m)	Quasi-peak(dB $\mu$ V/m)@distance 3m
0.009-0.490	2400/F(kHz)	300	128.5~93.8
0.490-1.705	24000/F(kHz)	30	73.8~63
1.705-30.0	30	30	69.5
30 ~ 88	100	3	40
88~216	150	3	43.5
216 ~ 960	200	3	46
Above 960	500	3	54

## 11.2 TEST PROCEDURES

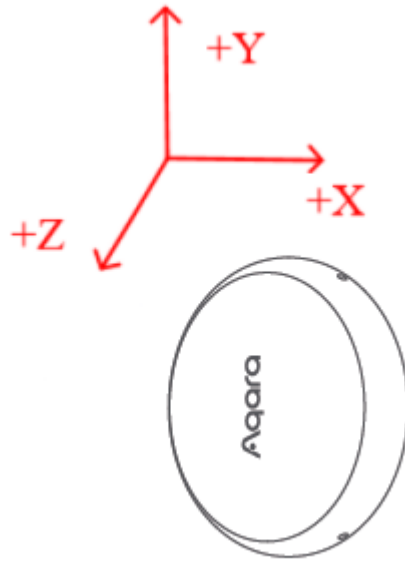
- a) The EUT is placed on a turntable, which is 1.5m above the ground plane.
- b) The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
- c) EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emission.
- d) Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of the emission:
  - a) For Peak detector: Set RBW=1MHz, RBW=3MHz, Sweep=AUTO.
  - b) For Avg detector: Set RBW=1MHz, Sweep=AUTO, the EUT is configured to transmit with duty cycle  $\geq 98\%$ , set  $VBW \leq RBW/100$  (i.e., 10kHz) but not less than 10 Hz. If the EUT duty cycle is  $< 98\%$ , set  $VBW \geq 1/T$ , Where T is defined in section 2.8.
- e) Repeat the procedures until all the PEAK and AVERAGE versus polarization are measured.

## 11.3 TEST SETUP



#### 11.4 TEST RESULTS

The test are under 3-axes(X,Y,Z) position(X denotes lying on the table, Y denotes side stand and Z denotes vertical stand), After pre-test, It was found that the worse radiation emission was get at the Z position. So the data shown the Z position only.



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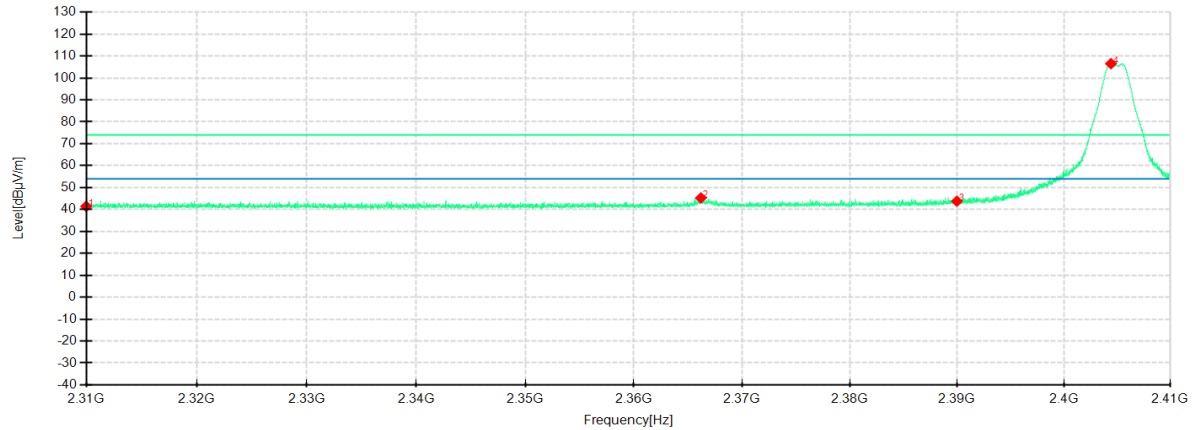
Test Voltage:	DC 3V	Test Engineer:	Qin tingting
Test Date	2024-08-17	Environmental Conditions	24.9°C/64%RH/101.0kPa

**Lowest Channel**

Frequency: 2405MHz

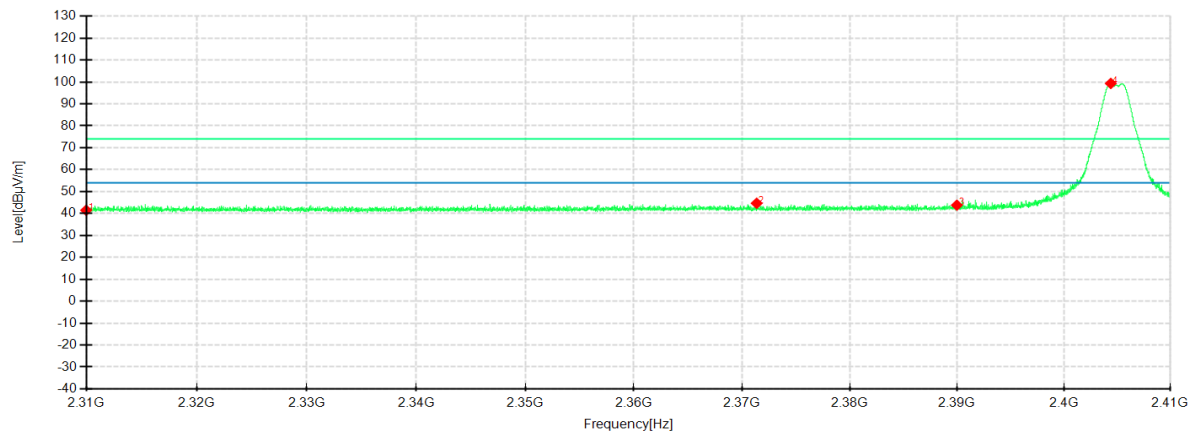
Detector mode: Peak

Polarity: Horizontal



Detector mode: Peak

Polarity: Vertical



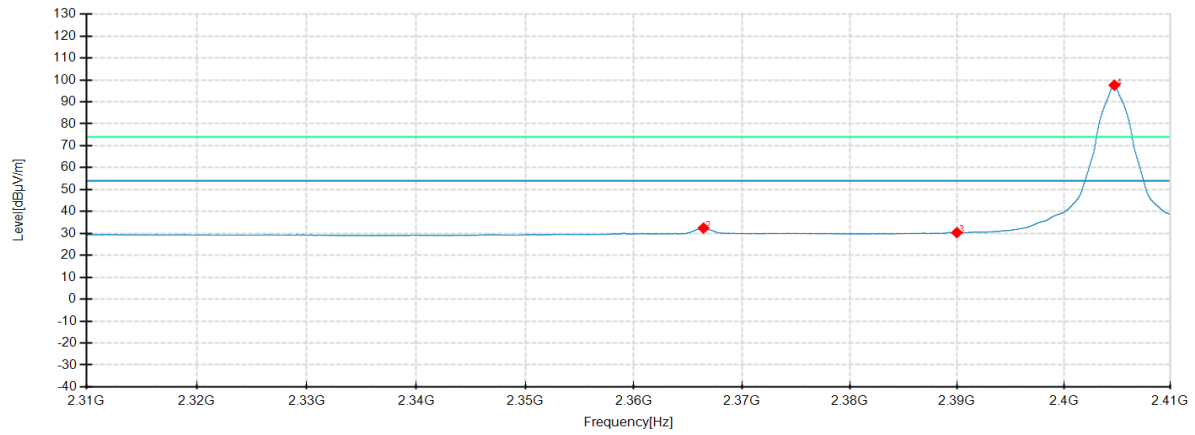
No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBμV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	2310.0000	46.92	41.44	-5.48	74.00	32.56	200	213	Horizontal	/
2	2366.2000	50.95	45.27	-5.68	74.00	28.73	100	187	Horizontal	/
3	2390.0000	49.18	43.79	-5.39	74.00	30.21	200	226	Horizontal	
4	2404.4375	111.73	106.52	-5.21	74.00	-32.52	100	187	Horizontal	No limit
1	2310.0000	46.81	41.49	-5.32	74.00	32.51	200	225	Vertical	/
2	2371.3625	50.13	44.66	-5.47	74.00	29.34	100	200	Vertical	/
3	2390.0000	49.27	43.80	-5.47	74.00	30.20	100	238	Vertical	/
4	2404.4250	104.76	99.31	-5.45	74.00	-25.31	200	124	Vertical	No limit

**Lowest Channel**

Frequency: 2405MHz

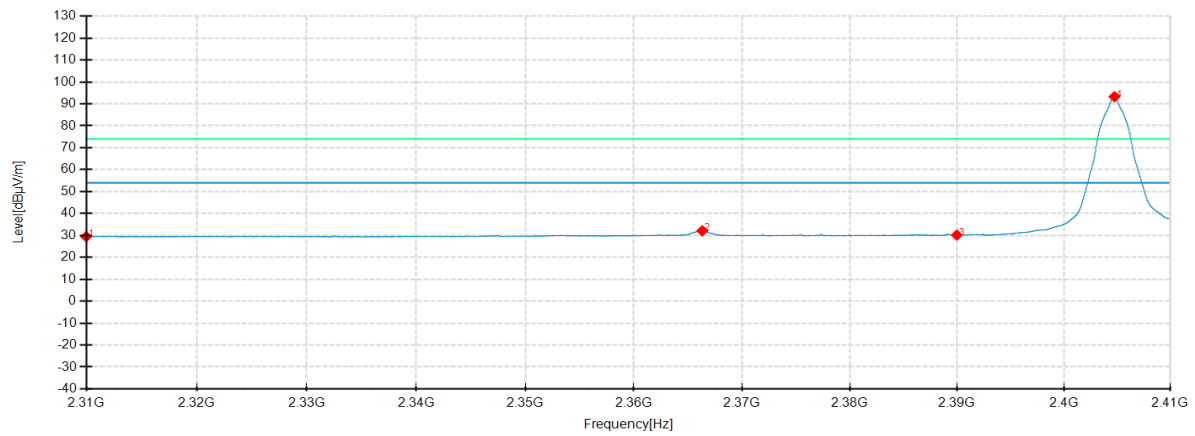
Detector mode: Average

Polarity: Horizontal



Detector mode: Average

Polarity: Vertical



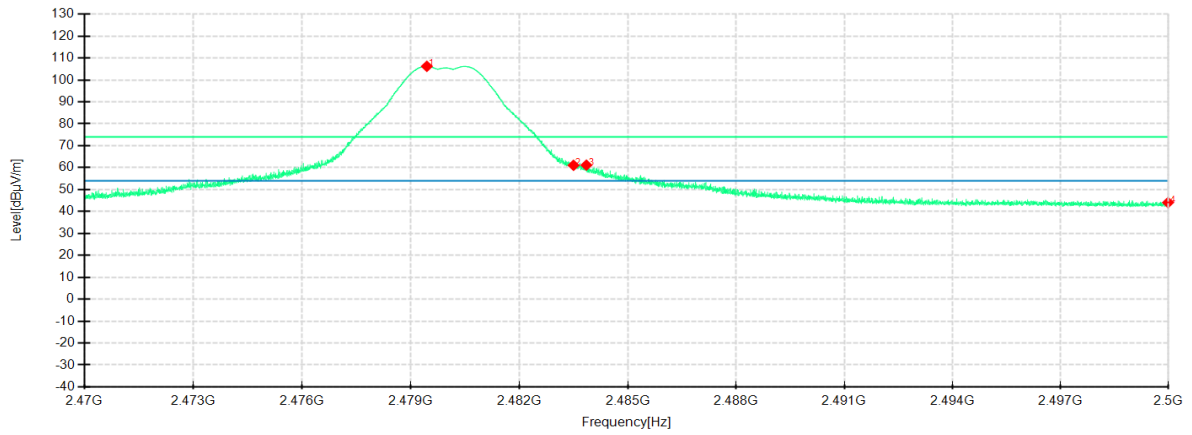
No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBμV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	310.0000	34.88	29.40	-5.48	54.00	24.60	100	0	Horizontal	/
2	2366.4375	38.12	32.45	-5.67	54.00	21.55	100	160	Horizontal	/
3	2390.0000	35.76	30.37	-5.39	54.00	23.63	100	69	Horizontal	/
4	2404.7625	102.80	97.60	-5.20	54.00	-43.60	100	20	Horizontal	No limit
1	2310.0000	34.78	29.46	-5.32	54.00	24.54	200	341	Vertical	/
2	2366.3250	37.57	32.10	-5.47	54.00	21.90	200	341	Vertical	/
3	2390.0000	35.61	30.14	-5.47	54.00	23.86	100	20	Vertical	/
4	2404.7750	98.72	93.27	-5.45	54.00	-39.27	200	341	Vertical	No limit

**Highest Channel**

Frequency: 2480MHz

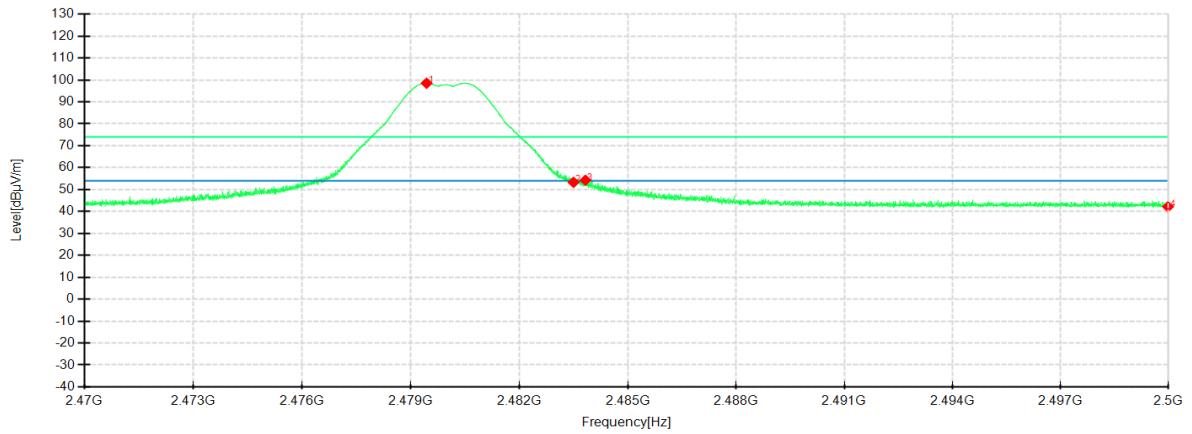
Detector mode: Peak

Polarity: Horizontal



Detector mode: Peak

Polarity: Vertical



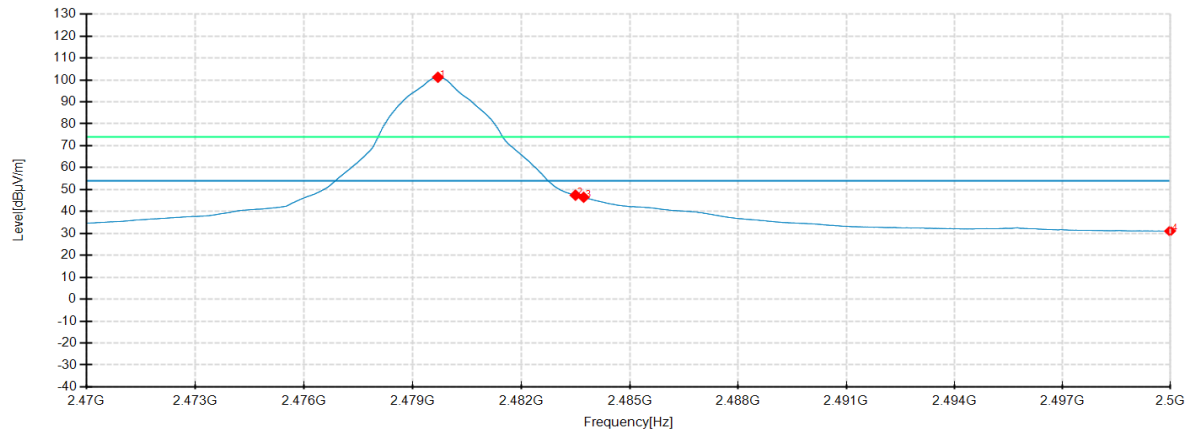
No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBμV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	2479.4463	111.02	106.22	-4.80	74.00	-32.22	100	200	Horizontal	No limit
2	2483.5000	65.89	61.06	-4.83	74.00	12.94	100	161	Horizontal	/
3	2483.8563	65.98	61.14	-4.84	74.00	12.86	100	187	Horizontal	/
4	2500.0000	49.06	44.07	-4.99	74.00	29.93	100	0	Horizontal	/
1	2479.4388	103.58	98.49	-5.09	74.00	-24.49	200	112	Vertical	No limit
2	2483.5000	58.36	53.29	-5.07	74.00	20.71	200	59	Vertical	/
3	2483.8300	59.34	54.28	-5.06	74.00	19.72	200	99	Vertical	/
4	2500.0000	47.17	42.18	-4.99	74.00	31.82	100	360	Vertical	/

**Highest Channel**

Frequency: 2480MHz

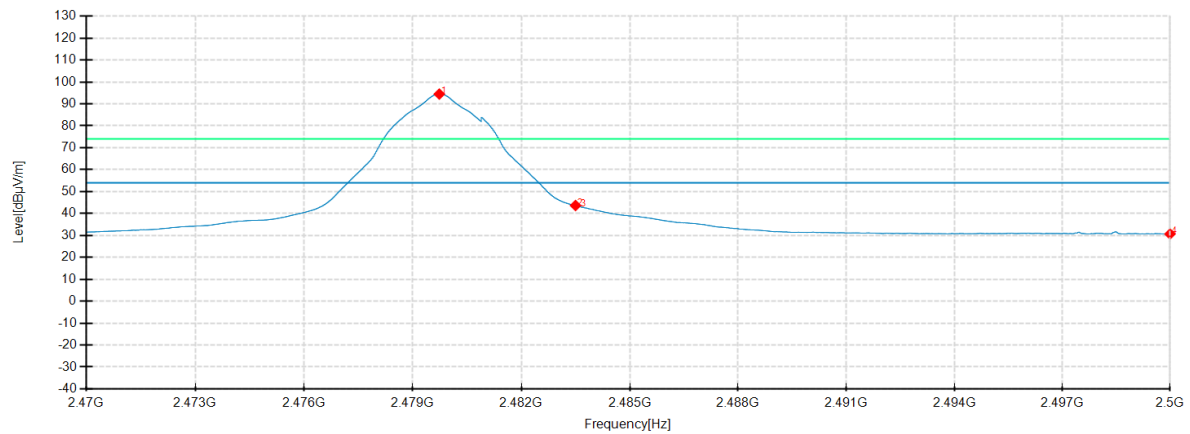
Detector mode: Average

Polarity: Horizontal



Detector mode: Average

Polarity: Vertical



No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBμV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	2479.6975	106.02	101.21	-4.81	54.00	-47.21	100	226	Horizontal	No limit
2	2483.5000	52.27	47.44	-4.83	54.00	6.56	100	212	Horizontal	/
3	2483.7250	51.32	46.48	-4.84	54.00	7.52	100	201	Horizontal	/
4	2500.0000	36.06	31.07	-4.99	54.00	22.93	100	150	Horizontal	/
1	2479.7350	99.56	94.47	-5.09	54.00	-40.47	200	110	Vertical	No limit
2	2483.5000	48.71	43.64	-5.07	54.00	10.36	200	340	Vertical	/
3	2483.5788	48.39	43.32	-5.07	54.00	10.68	200	340	Vertical	/
4	2500.0000	35.65	30.66	-4.99	54.00	23.34	100	210	Vertical	/

Remark: Max field strength in 3m distance. No any other emission which falls in restricted bands can be detected and be reported.

#### **APPENDIX A. PHOTOGRAPH OF THE TEST CONNECTION DIAGRAM**

Please refer to the attached document E20240725192701-test setup photo-FCC+IC.

#### **APPENDIX B. PHOTOGRAPH OF THE EUT**

Please refer to the attached document E20240725192701-EUT photo.

----- End of Report -----