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Verified code: 098378

# **Test Report**

Report No.: E20240508268401-1

Customer: Shenzhen Malide Technology Co.,Ltd

201, Building A, No.26, Xinge Industrial Zone, Pinghu Street, Longgang District, Address:

Shenzhen, China

**TPMS** Sample Name:

Sample Model: MLD-B08

Receive Sample

May.22,2024 Date:

Test Date: May.28,2024 ~ Jun.11,2024

Reference

47 CFR Part 15 Subpart C Intentional Radiators Document:

Test Result: Pass

Prepared by: Reviewed by: Approved by: Huang Lifang Wu Haoting Xiao Liang

GRG METROLOGY & TEST GROUP CO., LTD

**Issued Date:** 2024-06-26

#### GRG METROLOGY & TEST GROUP CO., LTD.

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# **Statement**

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- 2. The sample information is provided by the client and responsible for its authenticity; The content of the report is only valid for the samples sent this time.
- 3. When there are reports in both Chinese and English, the Chinese version will prevail when the language problems are inconsistent.
- 4. If there is any objection concerning the report, please inform us within 15 days from the date of receiving the report.
- 5. Without the agreement of the laboratory, the client is not authorized to use the test results for unapproved propaganda.



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# REPORT ISSUED HISTORY

Report Version	Report No.	Description	Compile Date
1.0	E20240508268401-1	Original Issue	2024-06-12



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#### 1. TEST RESULT SUMMARY

#### **Technical Requirements**

47 CFR Part 15 Subpart C 15.247

ANSI C63.10-2020

KDB 558074 D01 15.247 measurement guidance v05r02

Limit / Severity	Item	Result
§15.203	Antenna Requirement	Pass <sup>1)</sup>
§15.207(a)	Conducted Emission	Not Applicable <sup>2)</sup>
§15.247(d)&15.205& 15.209	Radiated Spurious Emission	Pass
§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)	Conducted band edges and Spurious Emission	Pass
§15.247(d)&15.205& 15.209	Restricted bands of operation	Pass

Note:

The antenna is external copper antenna. The max gain of antenna is 0.45dBi.which accordance 15.203.is considered sufficient to comply with the provisions of this section.

<sup>&</sup>lt;sup>2)</sup> Test is not applicable to this Equipment. This EUT is no AC mains power ports.

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#### 2. GENERAL DESCRIPTION OF EUT

#### 2.1 APPLICANT

Name: Shenzhen Malide Technology Co.,Ltd

Address: 201, Building A, No.26, Xinge Industrial Zone, Pinghu Street, Longgang

District, Shenzhen, China

#### 2.2 MANUFACTURER

Name: Shenzhen Malide Technology Co.,Ltd

Address: 201, Building A, No.26, Xinge Industrial Zone, Pinghu Street, Longgang

District, Shenzhen, China

#### 2.3 FACTORY

Name: Shenzhen Malide Technology Co.,Ltd

Address: 201, Building A, No.26, Xinge Industrial Zone, Pinghu Street, Longgang

District, Shenzhen, China

#### 2.4 BASIC DESCRIPTION OF EQUIPMENT UNDER TEST

Equipment: TPMS

Model No.: MLD-B08
Adding Model: MLD-B20

Models Difference: MLD-B08 and MLD-B20 have the same schematic diagram, same structure and

other things. Only the model number is different.

Trade Name: Malide

FCC ID: 2AV7VMLD-B08

Power supply: DC 3V power supplied by button battey

Battery Model: CR1632

Specification: Nominal Capacity: 3V,140mAh

Frequency Band: 2402MHz-2480MHz

Transmit Power: GFSK for 1Mbps:0.20dBm

Modulation type: GFSK for 1Mbps

Channel space: 2MHz

Antenna

Specification: External copper antenna with 0.45dBi gain (Max.)

Temperature Range: -20°C-85°C

Hardware Version: MLD\_B08\_V01\_20211127

Software Version: V1.0

Sample No: E20240508268401-0001, E20240508268401-0003

Note:

1. The basic description of the EUT is provided by the applicant. This report is made Solel you 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.

2. The model MLD-B08 was tested and recorded in this report.

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# 2.5 CHANNELLIST

Channel	Frequency (MHz)						
*00	2402	10	2422	20	2442	30	2462
01	2404	11	2424	21	2444	31	2464
02	2406	12	2426	22	2446	32	2466
03	2408	13	2428	23	2448	33	2468
04	2410	14	2430	24	2450	34	2470
05	2412	15	2432	25	2452	35	2472
06	2414	16	2434	26	2454	36	2474
07	2416	17	2436	27	2456	37	2476
08	2418	18	2438	28	2458	38	2478
09	2420	*19	2440	29	2460	*39	2480

<sup>\*</sup> is the test frequency

# 2.6 TEST OPERATION MODE

Mode No.	Description of the modes	
1	Bluetooth (BLE) fixed frequency transmitting	

# 2.7 LOCAL SUPPORTIVE

No.	Name of equipment	Manufacturer	Model	Serial number	Note
A	Notebook	DELL	Latitude3300	2C6CFW2	/
В	Test board	/	/	/	1

No.	Cable Type	Qty.	Shielded Type	Ferrite Core(Qty.)	Length
	Serial cable	1	No	0	0.1m
2	USB cable	1	No	0	0.3m

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# 2.8 CONFIGURATION OF SYSTEM UNDER TEST

For 6dB bandwidth, Maximum Peak Output Power, Power Spectral Density, Conducted band edges and Spurious Emission



For Radiated Spurious Emission, Restricted bands of operation

EUT

#### **Test software:**

Software version	Test level	
BlueNRG GUI	5	

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# 2.9 DUTY CYCLE

Environment: 26.2°C/55%RH/101.0kPa Voltage: DC 3V

Date: 2024-05-28

Tested By: Haung Tianmei

	/ (%* /					
Test Mode	Antenna	Frequency [MHz]	ON Time [ms]	Period [ms]	DC [%]	T [s]
BLE_1M	Ant1	2440	0.39	0.63	61.90	0.00039

# 

Date: 28.MAY.2024 16:25:32

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#### 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

Tel : 0755-61180008

Fax : 0755-61180008

#### 3.2 ACCREDITATIONS

Our laboratories are accredited and approved by the following approval agencies according to GB/T 27025(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)

USA FCC (Registration Number: 759402, Designation Number: CN1198)

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

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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
	X	9kHz~30MHz	4.4dB <sup>1)</sup>
	Y	9kHz~30MHz	4.4dB <sup>1)</sup>
	Z	9kHz~30MHz	4.4dB <sup>1)</sup>
		30MHz~200MHz	4.6dB <sup>1)</sup>
		200MHz~1000MHz	4.8dB <sup>1)</sup>
Radiated Emission		1GHz~18GHz	5.0dB <sup>1)</sup>
/2	5	18GHz~26.5GHz	5.2dB <sup>1)</sup>
		30MHz~200MHz	4.7dB <sup>1)</sup>
5	Vertical	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	6.0×10 <sup>-6</sup>
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℃

#### Note:

<sup>&</sup>lt;sup>1)</sup> This uncertainty represents an expanded uncertainty expressed at approximately the 95%. This uncertainty represents an expanded uncertainty factor of k=2.

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# 5. LIST OF USED TEST EQUIPMENT AT GRGT

/_(\$`/				/_(G) <sup>*</sup> /
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
Radiated Spurious Emissi	on&Restricted ba	ands of operation		
Test Receiver	R&S	ESR26	101758	2024-09-22
Bi-log Antenna	Schwarzbeck	VULB9160	VULB9160-3402	2024-10-06
Loop Antenna	Schwarzbeck	FMZB 1513-60	1513-60-56	2025-05-07
Preamplifier	SHIRONG ELECTRONIC	DLNA-30M1G-G41	20200928002	2024-10-24
Horn Antenna	Schwarzbeck	BBHA9120D	02143	2024-09-23
Board-Band Horn Antenna	Schwarzbeck	BBHA 9170	BBHA 9170-497	2024-09-18
Amplifier	ifier Tonscend TAP01018048 AP20E8060075		2025-03-01	
Amplifier	Tonscend	TAP184050	AP20E806071	2025-03-01
Amplifier	SHIRONG ELECTRONIC	DLNA-1G18G-G40	20200928005	2024-08-17
Test S/W	Tonscend	JS32-RE/5.0.0	-L	
6dB Bandwidth&Conduct	ed band edges an	d Spurious Emissioné	&Power Spectral De	ensity
Spectrum Analyzer	R&S	FSV30	1321.3008K30-10 4381-rH	2024-10-13
Automatic control unit	TONSCEND	JS0806-2	2018060317	2024-08-04
BT/WIFI System	Tonscend	JS1120-3		l
Maximum Peak Output Po	ower			
Pulse power sensor	e power sensor Anritsu MA2411B 1126150		2025-01-11	
Power meter	Anritsu	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 100kHz 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 20dB below that in the 100kHz 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 30dB instead of 20dB. Attenuation below the general limits specified in \$15,209(a) is not required.

Frequency (MHz)	Quasi-peak(μV/m)	Measurement distance(m)	Quasi-peak(dBμV/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 emission limits for the ranges 9-90kHz and 110-490kHz are based on measurements employing a linear average detector.
- (2) The lower limit shall apply at the transition frequencies.
- (3) Above 18GHz test distance is 1m, so the Peak Limit= $74+20*\log(3/1)=83.54$  (dB $\mu$ V/m) The Avg Limit= $54+20*\log(3/1)=63.54$  (dB $\mu$ V/m).

## 6.2 TEST PROCEDURES

#### 1) 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 0.8m height is used.
- --- If the EUT is a floor standing device, it is placed on the ground.
- --- Auxiliary equipment and cables were positioned to simulate fixed frequency transmitting conditions.
- --- The AC power port of the EUT (if available) is connected to a power outlet below the turntable.
- --- The measurement distance is 3meter.
- --- 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

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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.

#### 2) 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 0.8m 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.
- --- Auxiliary equipment and cables were positioned to simulate fixed frequency transmitting conditions.
- --- The AC power port of the EUT (if available) is connected to a power outlet below the turntable.
- ---- The measurement distance is 3 meter.
- --- The EUT was set into operation.

#### **Pre measurement:**

- --- The turntable rotates from  $0^{\circ}$  to  $360^{\circ}$ .
- --- 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.

#### 3) 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 1.5m height is used.
- --- If the EUT is a floor standing device, it is placed on the ground plane with insulation between both.
- --- Auxiliary equipment and cables were positioned to simulate fixed frequency transmitting conditions.
- --- The AC power port of the EUT (if available) is connected to a power outlet below the turntable.
- --- The measurement distance is 3 meter.
- --- The EUT was set into operation.

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#### **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.

# 4) 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.
- --- Auxiliary equipment and cables were positioned to simulate fixed frequency transmitting conditions.
- --- The AC power port of the EUT (if available) is connected to a power outlet below the turntable.
- --- The measurement distance is 1 meter.
- --- The EUT was set into operation.

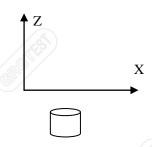
#### Pre measurement:

- --- 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  $0^{\circ}$  to  $360^{\circ}$  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.

5) The radiation measurements are tested under 2-axes(X, Z) position(X denotes lying on the table and Z denotes vertical stand), After pre-test, It was found that the worse radiation emission was get at the X position. So the data shown was the X position only.



#### NOTE:

- (a). The frequency from 9kHz to 150kHz, Set RBW=300Hz(for Peak&AVG), VBW=300Hz(for Peak&AVG). The frequency from 150kHz to 30MHz, Set RBW=9kHz, VBW=9kHz, (for QP Detector).
- (b). The frequency from 30MHz to 1GHz, Set RBW=120kHz, VBW=300kHz, (for QP Detector).
- (c). The frequency above 1GHz, for Peak detector: Set RBW=1MHz, VBW=3MHz.
- (d). The frequency above 1GHz, for Avg detector: Set RBW=1MHz,if 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  $\leq$ 98%, set VBW $\geq$ 1/T, Where T is defined in section 2.9.

#### 6.3 TEST SETUP

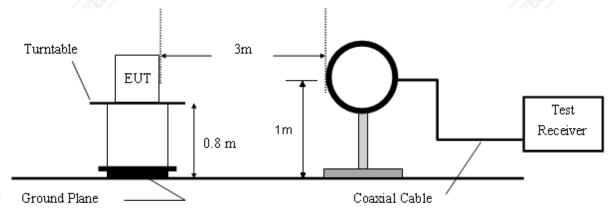


Figure 1. 9kHz to 30MHz radiated emissions test configuration

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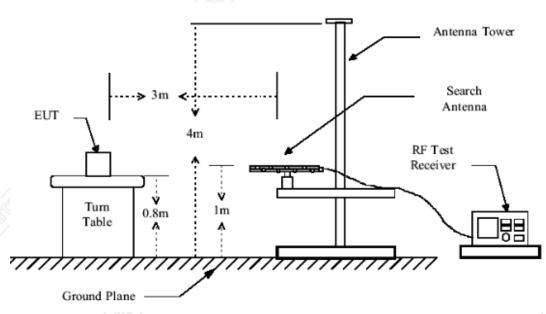


Figure 2. 30MHz to 1GHz radiated emissions test configuration

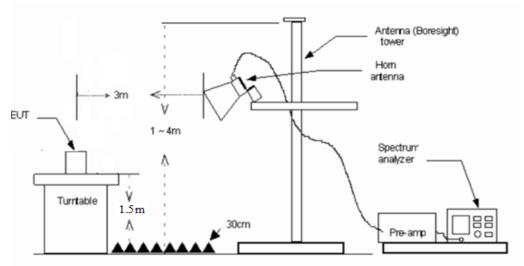


Figure 3. 1GHz to 18GHz radiated emissions test configuration

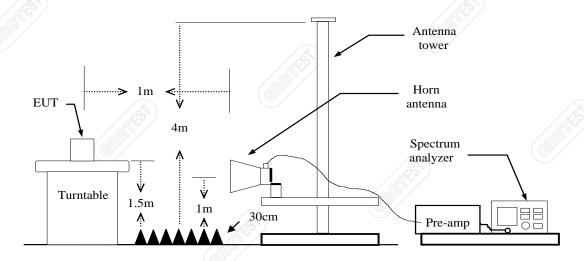


Figure 4. 18GHz to 26.5GHz radiated emissions test configuration

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#### 6.4 DATA SAMPLE

#### 30MHz to 1GHz

	Suspected Data List											
NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Trace	Height [cm]	Angle [ ]	Polarity		
XXXX	XXXX	66.85	31.09	-35.76	40.00	8.91	PK	200	351	Horizontal		

	Final Data List											
NO.	Freq. [MHz]	Factor [dB]	QP Reading [dBμV/m]	Level [dBµV/m]	QP Limit [dBµV/m]	QP Margin [dB]	Height [cm]	Angle [ ]	Polarity			
xxxx	xxxx	-31.57	71.28	39.71	46.00	6.29	100	196	Horizontal			

Frequency (MHz) = Emission frequency in MHz

Reading (dBuV/m) = Uncorrected Analyzer / Receiver reading
Factor (dB) = Antenna factor + Cable loss - Amplifier gain

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

Limit (dBuV/m) = Limit stated in standard

Margin (dB) = Limit (dBuV/m) – Level (dBuV/m)

Polarity = Antenna polarization

Peak = Peak Reading

QP = Quasi-peak Reading

#### 1GHz-18GHz

101	Z IOGIIZ								/ ~ / /	
No.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [ ]	Polarity	Remark
XXX	XXXX	78.01	55.30	-22.71	74.00	18.70	100	50	Horizontal	Peak
XXX	XXXX	66.37	43.66	-22.71	54.00	10.34	100	50	Horizontal	AVG

#### Above 18GHz

No.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle	Polarity	Remark
XXX	xxxx	54.49	42.38	-12.11	83.54	41.16	100	211	Vertical	Peak
xxx	xxxx	43.99	31.88	-12.11	63.54	31.66	100	211	Vertical	AVG

Frequency (MHz) = Emission frequency in MHz

Reading (dBuV/m) = Uncorrected Analyzer / Receiver reading
Factor (dB) = Antenna factor + Cable loss – Amplifier gain

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

Limit (dBuV/m) = Limit stated in standard

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

Polarity = Antenna polarization

Peak = Peak Reading
AVG = Average Reading

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#### 6.5 TEST RESULTS

#### **Below 1GHz**

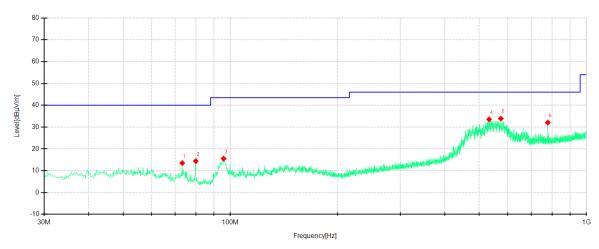
The chart below shows the highest readings taken from the final data.

Mode: Mode 1

Lowest Frequency (2402MHz) Environment: 23.6°C/56%RH 101.0kPa Test Engineer: Chen Xiaocong

## Date: 2024-05-31 Test Voltage: DC 3V Probe: Horizontal

# **Test Graph**



				Suspec	ted Data List					
NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Trace	Height [cm]	Angle [ ]	Polarity
1	73.2917	45.43	13.51	-31.92	40.00	26.49	PK	100	114	Horizontal
2	79.9612	48.11	14.40	-33.71	40.00	25.60	PK	200	172	Horizontal
3	95.7257	48.25	15.54	-32.71	43.50	27.96	PK	100	267	Horizontal
4	532.8866	54.35	33.54	-20.81	46.00	12.46	PK	200	341	Horizontal
5	574.6018	53.69	33.86	-19.83	46.00	12.14	PK	200	327	Horizontal
6	778.4486	49.03	32.07	-16.96	46.00	13.93	PK	200	160	Horizontal

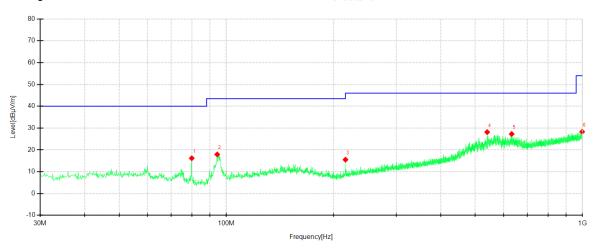
Report No.: E20240508268401-1 Page 22 of 50

Mode: Mode 1

Lowest Frequency (2402MHz) Date: 2024-05-31 Environment: 23.6°C/56%RH 101.0kPa Test Voltage: DC 3V Probe: Vertical

Test Engineer: Chen Xiaocong

#### **Test Graph**



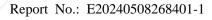
				Suspec	ted Data List					
NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Trace	Height [cm]	Angle [ ]	Polarity
1	79.9612	49.88	16.17	-33.71	40.00	23.83	PK	200	163	Vertical
2	94.2705	50.87	17.91	-32.96	43.50	25.59	PK	100	249	Vertical
3	216.0208	46.68	15.52	-31.16	46.00	30.48	PK	200	203	Vertical
4	540.0413	48.65	28.15	-20.50	46.00	17.85	PK	100	288	Vertical
5	632.6878	46.15	27.29	-18.86	46.00	18.71	PK	100	155	Vertical
6	997.9385	42.39	28.31	-14.08	54.00	25.69	PK	200	203	Vertical

#### Remark:

- No emission found between lowest internal used/generated frequency to 30MHz.
- 2 Pre-scan all mode and recorded the worst case results in this report (TX- Lowest Channel(DH5))
- 3 Measuring frequencies from 9kHz to the 1GHz.
- Radiated emissions measured in frequency range from 30MHz to 1GHz were made with an instrument using Peak/Quasi-peak detector mode.
- 5 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.
- 6 The IF bandwidth of SPA between 30MHz to 1GHz was 120kHz.
- If the margin of the pre-test results is greater than 6dB, it meets the requirements of quasi peak value, and final testing is no longer required.

Voltage: DC 3V

Date: 2024-06-11



#### **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.

Mode: Mode 1

Lowest Frequency (2402MHz)

Environment: 25.3°C/59%RH/101.0kPa

Tested By:Chen Xiaocong

Suspec	ted Data List								
NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [ ]	Polarity
1	2029.2000	48.95	44.99	-3.96	74.00	29.01	100	88	Horizontal
2	2381.0000	53.21	49.90	-3.31	74.00	24.10	100	250	Horizontal
3	4803.0000	58.65	51.51	-7.14	74.00	22.49	100	313	Horizontal
4	12150.0000	36.10	50.29	14.19	74.00	23.71	100	204	Horizontal
5	12649.5000	37.80	50.46	12.66	74.00	23.54	100	14	Horizontal
6	15754 5000	20.22	50.02	10.70	74.00	22.09	100	12	Homizontol

AV Fina	al 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	2370.0430	-3.31	40.07	36.76	54.00	17.24	100	242.3	Horizontal
2	4804.0430	-7.14	55.11	47.97	54.00	6.03	152	321.8	Horizontal
3	12203.4500	14.19	24.44	38.63	54.00	15.37	100	159.3	Horizontal
4	12663.9625	12.66	24.89	37.55	54.00	16.45	182	174.3	Horizontal
5	15686.7875	10.79	26.61	37.40	54.00	16.60	140	0.3	Horizontal

Suspect	Suspected Data List											
NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [ ]	Polarity			
1	1933.0000	48.37	44.23	-4.14	74.00	29.77	100	253	Vertical			
2	2492.0000	48.07	47.52	-0.55	74.00	26.48	200	172	Vertical			
3	4801.5000	59.44	52.30	-7.14	74.00	21.70	200	284	Vertical			
4	10426.5000	39.03	49.19	10.16	74.00	24.81	100	297	Vertical			
5	12823.5000	36.57	50.40	13.83	74.00	23.60	200	0	Vertical			
6	17997.0000	37.88	51.35	13.47	74.00	22.65	200	313	Vertical			

		/ /						/ ^ 5	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
AV Fin	al 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	4804.1405	-7.14	52.40	45.26	54.00	8.74	150	276.5	Vertical
2	10391.6475	10.16	26.31	36.47	54.00	17.53	193	273.9	Vertical
3	12803.6425	13.83	23.97	37.80	54.00	16.20	200	94.9	Vertical
4	17998.5700	13.47	26.46	39.93	54.00	14.07	200	290	Vertical

Report No.: E20240508268401-1

Mode: Mode 1

Middle Frequency (2440MHz) Environment: 25.3°C/59%RH/101.0kPa

Tested By:Chen Xiaocong

Voltage: DC 3V Date: 2024-06-11

Suspec	ted Data List								
NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [ ]	Polarity
1	1296.4000	51.27	42.59	-8.68	74.00	31.41	100	56	Horizontal
2	2500.4000	47.24	47.05	-0.19	74.00	26.95	200	202	Horizontal
3	2856.4000	47.97	46.92	-1.05	74.00	27.08	200	311	Horizontal
4	4879.5000	60.73	53.84	-6.89	74.00	20.16	100	142	Horizontal
5	12151.5000	36.18	50.32	14.14	74.00	23.68	200	249	Horizontal
6	13561.5000	36.74	50.44	13.70	74.00	23.56	100	236	Horizontal

AV Fina	al 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
1.00	4879.9945	-6.89	56.46	49.57	54.00	4.43	154	135.3	Horizontal
2	12151.5000	14.14	23.15	37.29	54.00	16.71	200	249	Horizontal
3	13561.5000	13.70	22.98	36.68	54.00	17.32	100	236	Horizontal
			((	31°/					(817)

Suspect	ted Data List								
NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [ ]	Polarity
1	1295.8000	51.56	43.67	-7.89	74.00	30.33	100	231	Vertical
2	2163.6000	48.15	44.64	-3.51	74.00	29.36	200	1	Vertical
3	2503.8000	47.85	47.29	-0.56	74.00	26.71	200	244	Vertical
4	4879.5000	58.92	51.61	-7.31	74.00	22.39	200	102	Vertical
5	13447.5000	36.83	50.60	13.77	74.00	23.40	200	102	Vertical
6	17992.5000	38.60	52.07	13.47	74.00	21.93	200	75	Vertical

							) /					
AV Fin	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	4879.9945	-7.31	50.23	42.92	54.00	11.08	138	95.6	Vertical			
2	13447.5000	13.77	22.59	36.36	54.00	17.64	200	102	Vertical			
3	17992.5000	13.47	24.68	38.15	54.00	15.85	200	75	Vertical			

Report No.: E20240508268401-1

Mode: Mode 1

Highest Frequency (2480MHz)

Environment: 25.3°C/59%RH/101.0kPa

Tested By:Chen Xiaocong

Voltage: DC 3V Date: 2024-06-11

Suspect	ted Data List								
NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [ ]	Polarity
1	2079.0000	48.61	44.59	-4.02	74.00	29.41	200	339	Horizontal
2	2495.6000	51.77	51.43	-0.34	74.00	22.57	100	233	Horizontal
3	2790.2000	48.46	47.16	-1.30	74.00	26.84	100	178	Horizontal
4	4959.0000	60.01	53.67	-6.34	74.00	20.33	100	291	Horizontal
5	12148.5000	36.50	50.67	14.17	74.00	23.33	100	168	Horizontal
6	15672.0000	38.36	50.20	11.84	74.00	23.80	100	222	Horizontal

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AV Fin	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 /	2495.6000	-0.34	48.86	48.52	54.00	5.48	100	233	Horizontal	
2	4960.0760	-6.34	55.15	48.81	54.00	5.19	153	281.4	Horizontal	
3	12148.5000	14.17	24.12	38.29	54.00	15.71	100	168	Horizontal	
4	15672.0000	11.84	26.53	38.37	54.00	15.63	100	222	Horizontal	

Suspec	ted Data List								
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle	Polarity
51	1902.2000	48.52	45.18	-3.34	74.00	28.82	100	205	Vertical
2	2497.4000	47.99	47.56	-0.43	74.00	26.44	200	105	Vertical
3	2979.2000	47.89	46.56	-1.33	74.00	27.44	200	0	Vertical
4	4960.5000	55.90	49.20	-6.70	74.00	24.80	100	20	Vertical
5	12166.5000	36.61	50.15	13.54	74.00	23.85	100	357	Vertical
6	13516.5000	36.11	50.28	14.17	74.00	23.72	200	21	Vertical

AV Fina	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	4960.0695	-6.70	50.16	43.46	54.00	10.54	120	3.3	Vertical		
2	12166.5000	13.54	24.18	37.72	54.00	16.28	100	357	Vertical		
3	13516.5000	14.17	24.10	38.27	54.00	15.73	200	21	Vertical		

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#### Remark:

- 1 Measuring frequencies from 1GHz to the 10th harmonic of highest fundamental frequency.
- 2 Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
- Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
- 4 Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, 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.



#### **18GHz to 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.

Only the worst mode and channel were recorded in this report. (BLE\_1M 2402MHz)

Mode: Mode 1

Highest Frequency (2402MHz)

Environment: 25.3°C/59%RH/101.0kPa Voltage: DC 3V

Tested By: Chen Xiaocong

Date: 2024-06-11

	/ CAN /						100				
Suspe	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	18569.5000	53.24	35.90	26.36	-17.34	74	47.64	100	328	Horizontal	
2	19914.2000	51.71	35.18	25.64	-16.53	74	48.36	100	344	Horizontal	
3	21075.7250	51.49	35.67	26.13	-15.82	74	47.87	100	344	Horizontal	
4	23332.9000	50.17	35.51	25.97	-14.66	74	48.03	100	156	Horizontal	
5	24211.8000	49.48	35.08	25.54	-14.40	74	48.46	100	141	Horizontal	
6	26284.9500	49.80	35.66	26.12	-14.14	74	47.88	100	298	Horizontal	

Suspe	ected 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	18493.4250	53.22	35.87	26.33	-17.35	74	47.67	100	298	Vertical
2	19302.2000	53.34	36.54	27.00	-16.80	74	47.00	100	79	Vertical
3	20833.0500	51.70	35.87	26.33	-15.83	74	47.67	100	346	Vertical
4	22800.3750	50.58	35.83	26.29	-14.75	74	47.71	100	189	Vertical
5	24387.7500	49.65	35.45	25.91	-14.20	74	48.09	100	63	Vertical
6	26359.7500	49.39	35.40	25.86	-13.99	74	48.14	100	346	Vertical

#### Remark:

- 1 Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 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.
- 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.
- Above 18G test distance is 1m, so the Level for 3m= Level for 1m + 20\*log(1/3)

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#### 7. 6dB BANDWIDTH

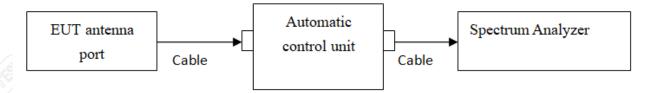
#### 7.1 LIMITS

Systems using digital modulation techniques may operate in the 902–928MHz, 2400–2483.5MHz, and 5725–5850MHz bands. The minimum 6dB bandwidth shall be at least 500kHz.

#### 7.2 TEST PROCEDURES

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

#### 7.3 TEST SETUP



#### 7.4 TEST RESULTS

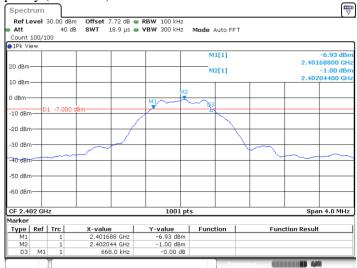
Environment: 26.2°C/55%RH/101.0kPa Voltage: DC 3V Tested By: Huang Tianmei Date: 2024-05-28

#### BLE\_1M

Channel	Frequency (MHz)	Bandwidth (kHz)	Limit (kHz)	Test Result
Lowest	2402	668		PASS
Middle	2440	672	≥500	PASS
Highest	2480	676	(5)	PASS

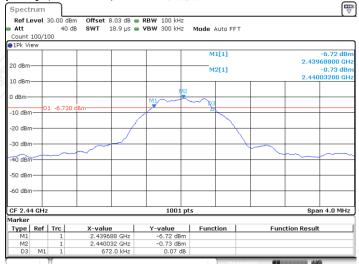
#### BLE\_1M

# Lowest Frequency (2402MHz)



Date: 28.MAY.2024 16:24:01

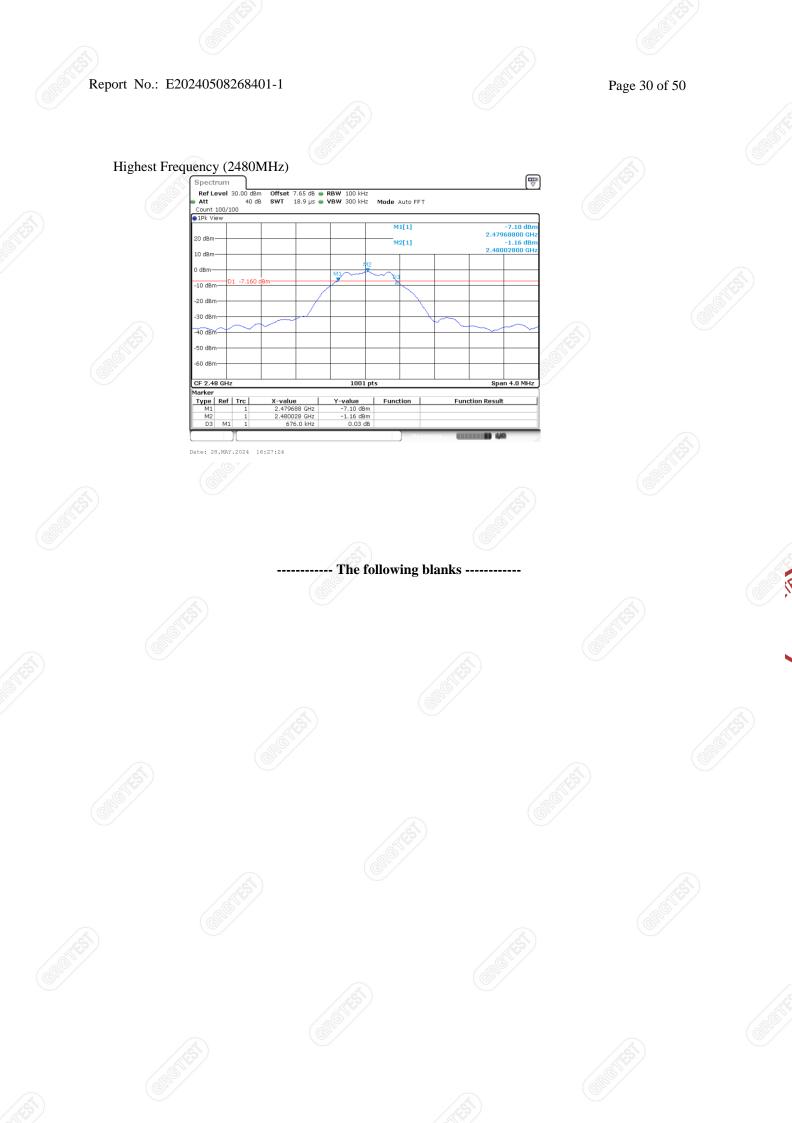
#### Middle Frequency (2440 MHz)



Date: 28.MAY.2024 16:25:39







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#### 8. MAXIMUM PEAK OUTPUT POWER

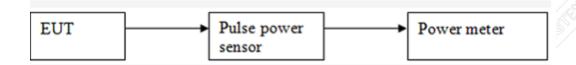
#### 8.1 LIMITS

The maximum Peak output power measurement is 1W

#### 8.2 TEST PROCEDURES

- RF output of EUT was connected to the broadband peak RF power meter by RF cable. The path loss was 1) compensated to the results for each measurement.
- 2) Set to the maximum power setting and enable the EUT transmit continuously.
- Measure the conducted output power and record the results in the test report.

#### 8.3 TEST SETUP



#### 8.4 TEST RESULTS

Environment: 26.2°C/55%RH/101.0kPa

Voltage: DC 3V Tested By: Huang Tianmei Date: 2024-05-28

BLE\_1M

Channel	Frequency (MHz)	Measured Channel Power (dBm)	Limit	Peak/ Average	Result
Lowest	2402	0.20	1111		Pass
Middle	2440	-0.04	1W (30dBm)	Peak	Pass
Highest	2480	-0.30	(SOUDIII)		Pass

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#### 9. POWER SPECTRAL DENSITY

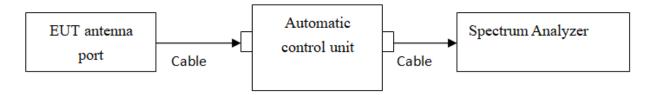
#### 9.1 LIMITS

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8dBm in any 3kHz 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

- 1) Remove the antenna from the EUT, and then connect a low loss RF cable from antenna port to the spectrum analyzer.
- 2) 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.
- 3) Set the analyzer span to 1.5 times the DTS bandwidth. Set the RBW to 3 kHz ≤ RBW ≤ 100 kHz. Set the VBW ≥ [3 × RBW]. Detector = peak. Sweep time = auto couple. Trace mode = max hold. Allow trace to fully stabilize. Use the peak marker function to determine the maximum amplitude level within the RBW. If measured value exceeds requirement, then reduce RBW (but no less than 3kHz) and repeat.
- 4) Repeat above procedures until all frequencies measured were complete.

#### 9.3 TEST SETUP



#### 9.4 TEST RESULTS

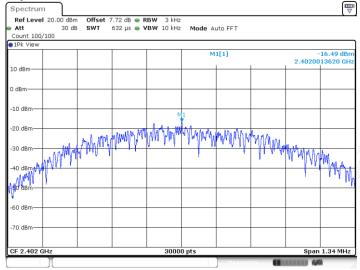
Environment: 26.2°C/55%RH/101.0kPa Voltage: DC 3V Tested By: Huang Tianmei Date: 2024-05-28

#### BLE 1M

Channel	Frequency (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Test Result
Lowest	2402	-16.49		PASS
Middle	2440	-16.38	8.00	PASS
Highest	2480	-17.16		PASS

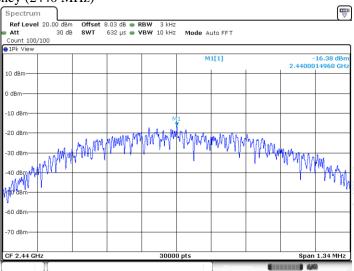
BLE\_1M

# Lowest Frequency (2402MHz)

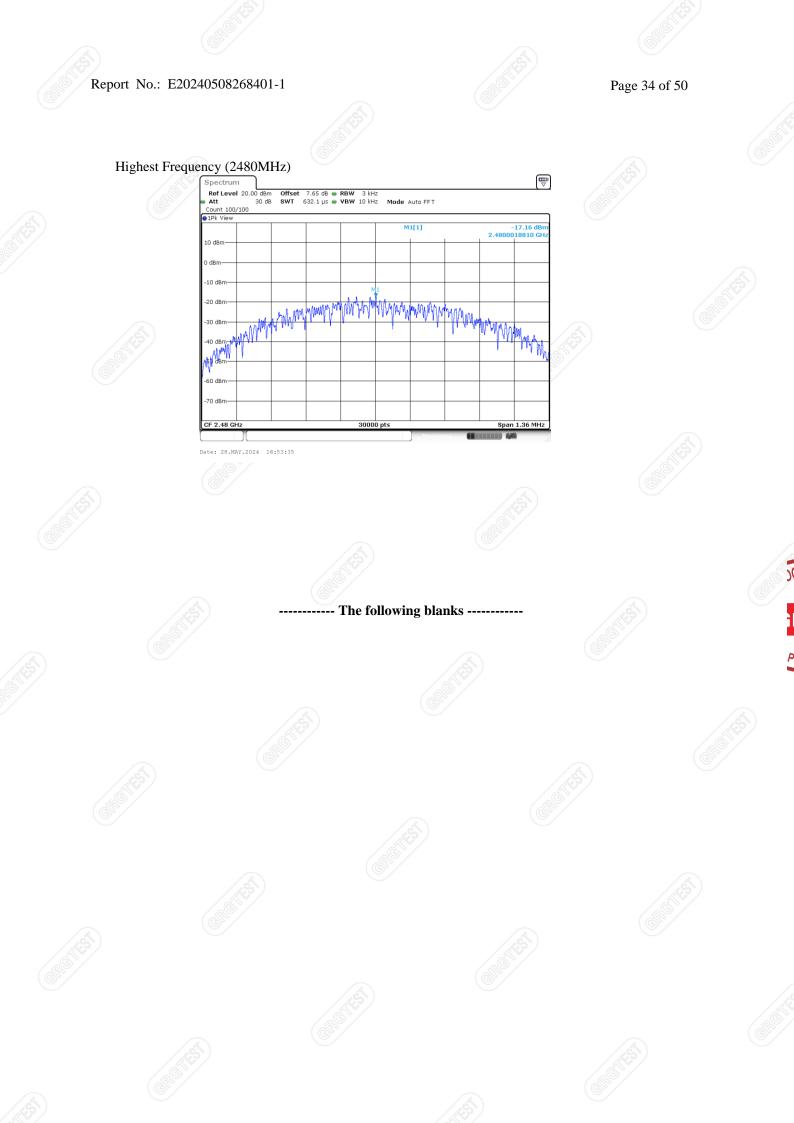


Date: 28.MAY.2024 16:52:53

# Middle Frequency (2440 MHz)



Date: 28.MAY.2024 16:53:15



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#### 10. CONDUCTED BAND EDGES AND SPURIOUS EMISSIONS

#### 10.1 LIMITS

In any 100kHz 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 20dB below that in the 100kHz 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 30dB instead of 20dB.

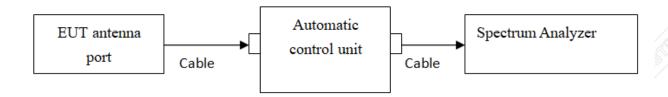
#### 10.2 TEST PROCEDURES

Test procedures follow KDB 558074 D01 15.247 Measurement Guidance v05r02.

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

- 1) Remove the antenna from the EUT and then connect a low attenuation cable from the antenna port to the spectrum.
- 2) Set the spectrum analyzer: RBW =100kHz; VBW =300kHz, Frequency range = 30MHz to 26.5GHz; Sweep = auto; Detector Function = Peak. Trace = Max, hold.
- 3) Measure and record the results in the test report.
- 4) The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

#### 10.3 TEST SETUP



Voltage: DC 3V

Date: 2024-05-28

# 10.4 TEST RESULTS

Environment: 26.2°C/55%RH/101.0kPa

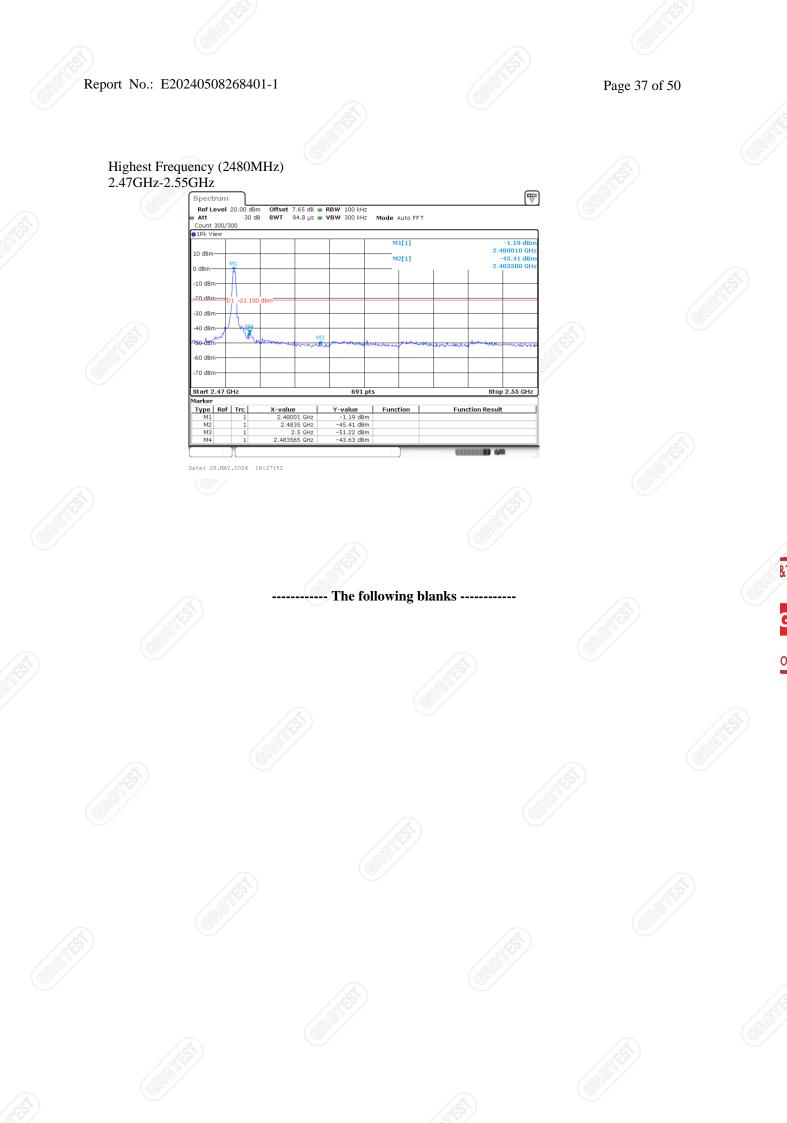
Tested By: Huang Tianmei

#### Band edge measurements

BLE\_1M

Lowest Frequency (2402MHz) 2.35GHz-2.405GHz

Date: 28.MAY.2024 16:24:29

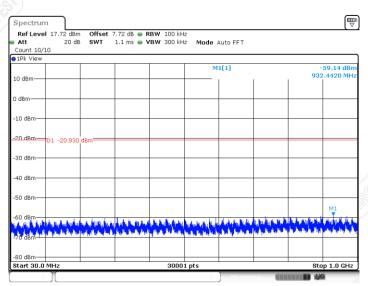


# **Conducted Spurious Emission** BLE\_1M

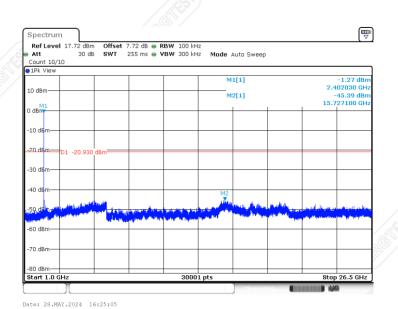
Lowest Frequency (2402MHz)



Date: 28.MAY.2024 16:24:37



Date: 28.MAY.2024 16:24:41



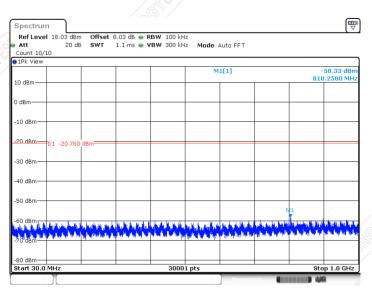
# Middle Frequency (2440MHz)



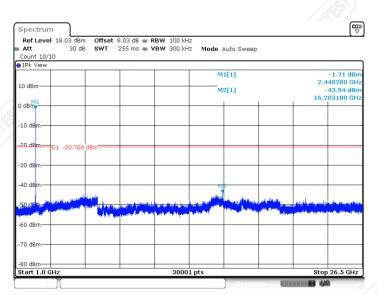
Date: 28.MAY.2024 16:26:05







Date: 28.MAY.2024 16:26:10

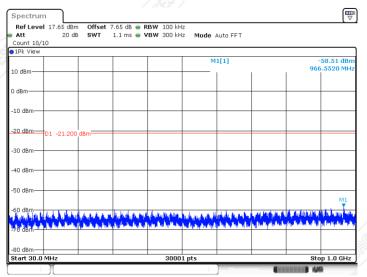


Date: 28.MAY.2024 16:26:33

# Highest Frequency (2480MHz)



Date: 28.MAY.2024 16:27:59



Date: 28.MAY.2024 16:28:04



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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		
<sup>1</sup> 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	156.52475 - 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(μV/m)	Measurement distance(m)	Quasi-peak(dBµV/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

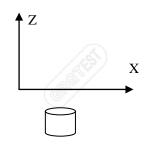
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### 11.2 TEST PROCEDURES

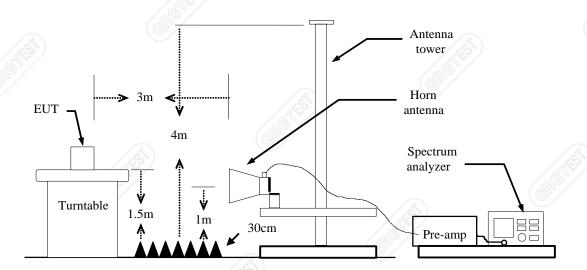
Test procedures follow KDB 558074 D01 15.247 Meas Guidance v05r02.

- 1) The EUT is placed on a turntable, which is 1.5m above the ground plane.
- 2) The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
- 3) EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emission.
- 4) Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of the emission:
  - a) PEAK: RBW=1MHz / VBW=1MHz / Sweep=AUTO.
  - b) AVERAGE: RBW=1MHz / VBW=1/T / Sweep=AUTO.

    If the EUT is configured to transmit with duty cycle ≥98%, set VBW≤RBW/100 (i.e.,10kHz) but not less than 10 Hz. If the EUT duty cycle is <98%, set VBW≥1/T, Where T is defined in section 2.9.
- 5) Repeat the procedures until all the PEAK and AVERAGE versus polarization are measured.
- 6) The radiation measurements are tested under 2-axes(X, Z) position(X denotes lying on the table and Z denotes vertical stand), After pre-test, It was found that the worse radiation emission was get at the X position. So the data shown was the X position only.



#### 11.3 TEST SETUP

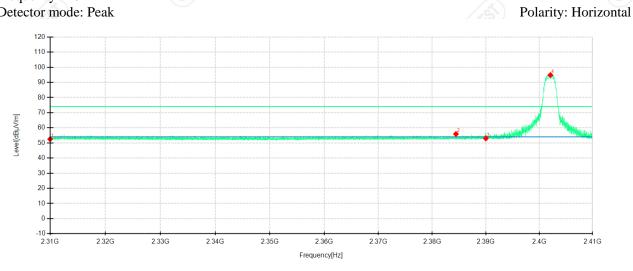


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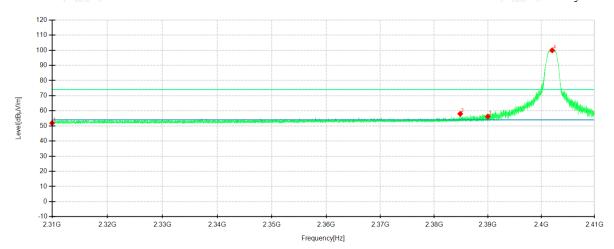
### 11.4 TEST RESULTS

Equipment:	TPMS	Test Date	2024-06-06	
Model No.:	Model No.: MLD-B08		Chen Xiaocong	
Test Voltage:	DC 3V	Environmental Conditions	22.5°C/60%RH/101.0kPa	

BLE 1M Lowest Frequency Frequency 2402MHz Detector mode: Peak



Detector mode: Peak Polarity: Vertical







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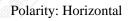
No.	Frequency MHz	Reading dBµV/m	Level dBµV/m	Factor dB	Limit dBuV/m	Margin dB	Height cm	Angle	Pole	Remark
_ 1	2310.0000	57.48	52.52	-4.96	74.00	21.48	100	203	Horizontal	/
2	2384.4250	61.71	55.90	-5.81	74.00	18.10	100	98	Horizontal	/
3	2390.0000	58.82	52.99	-5.83	74.00	21.01	200	131	Horizontal	/
4	2402.0875	100.74	94.88	-5.86	74.00	-20.88	100	98	Horizontal	No limit
1	2310.0000	57.55	51.89	-5.66	74.00	22.11	100	2	Vertical	
2	2384.8500	63.43	58.00	-5.43	74.00	16.00	100	171	Vertical	//
3	2390.0000	61.64	56.23	-5.41	74.00	17.77	100	145	Vertical	1
4	2402.0500	105.32	99.96	-5.36	74.00	-25.96	100	171	Vertical	No limit

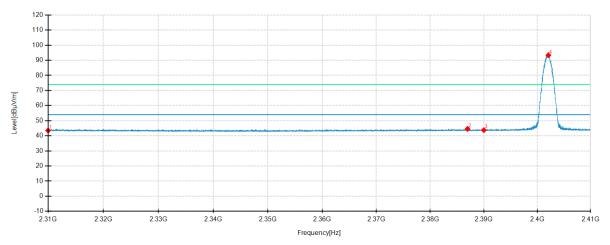
----- The following blanks -----

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**Lowest Frequency** Frequency 2402MHz

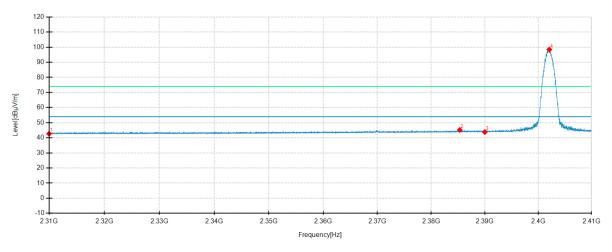
Detector mode: Average



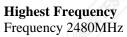


Detector mode: Average

Polarity: Vertical



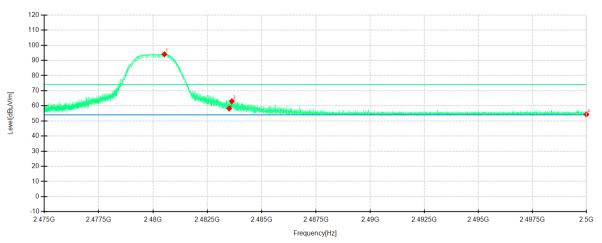
No.	Frequency MHz	Reading dBµV/m	Level dBµV/m	Factor	Limit dBuV/m	Margin	Height	Angle	Pole	Remark
	MILLE	ασμ ν/ιιι	αδμ ν/ιιι	dB	ubu v/III	dB	cm			
1	2310.0000	48.45	43.49	-4.96	54.00	10.51	200	39	Horizontal	/
2	2386.9500	50.41	44.59	-5.82	54.00	9.41	100	21	Horizontal	/
3	2390.0000	49.60	43.77	-5.83	54.00	10.23	100	61	Horizontal	/
4	2402.0875	99.25	93.39	-5.86	54.00	-39.39	100	98	Horizontal	No limit
1	2310.0000	48.34	42.68	-5.66	74.00	31.32	200	84	Vertical	/
2	2385.3125	50.62	45.19	-5.43	54.00	8.81	100	250	Vertical	/
3	2390.0000	49.25	43.84	-5.41	74.00	30.16	200	58	Vertical	/
4	2402.0750	103.80	98.44	-5.36	54.00	-44.44	100	172	Vertical	No limit



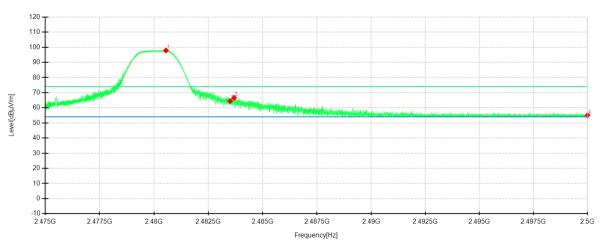
Report No.: E20240508268401-1

Detector mode: Peak

Polarity: Horizontal



Detector mode: Peak Polarity: Vertical

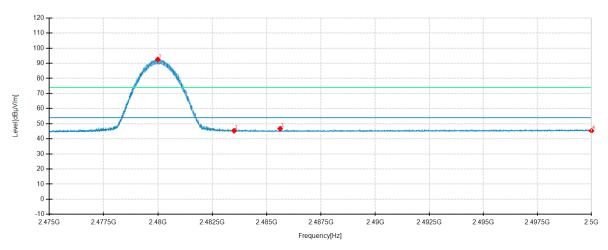


No.	Frequency	Reading	Level	Factor	Limit	Margin	Height	Angle	Pole	Remark
	MHz	$dB\mu V/m$	dBμV/m	dB	dBuV/m	dB	cm	0		
1	2480.5219	99.25	94.09	-5.16	74.00	-20.09	100	110	Horizontal	No limit
2	2483.5000	63.30	58.20	-5.10	74.00	15.80	200	105	Horizontal	/
3	2483.6250	68.10	63.01	-5.09	74.00	10.99	100	110	Horizontal	/
4	2500.0000	59.07	54.28	-4.79	74.00	19.72	100	46	Horizontal	/
1	2480.5500	102.95	97.90	-5.05	74.00	-23.90	100	52	Vertical	No limit
2	2483.5000	69.41	64.38	-5.03	74.00	9.62	100	90	Vertical	/
3	2483.6844	71.68	66.65	-5.03	74.00	7.35	100	52	Vertical	/
4	2500.0000	60.08	55.09	-4.99	74.00	18.91	200	322	Vertical	1

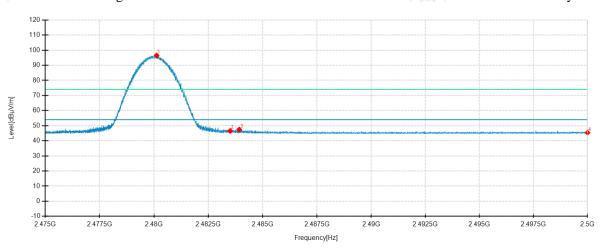
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**Highest Frequency** Frequency 2480MHz

Detector mode: Average Polarity: Horizontal



Detector mode: Average Polarity: Vertical



No.	Frequency	Reading	Level	Factor	Limit	Margin	Height	Angle	Pole	Remark
	MHz	$dB\mu V/m$	$dB\mu V/m$	dB	dBuV/m	dB	cm			
1	2479.9906	97.76	92.59	-5.17	54.00	-38.59	100	111	Horizontal	No limit
2	2483.5000	50.41	45.31	-5.10	54.00	8.69	200	340	Horizontal	/
3	2485.6188	51.77	46.71	-5.06	54.00	7.29	100	345	Horizontal	/
4	2500.0000	50.08	45.29	-4.79	54.00	8.71	100	319	Horizontal	/ /
1	2480.1188	101.56	96.51	-5.05	54.00	-42.51	100	53	Vertical	No limit
2	2483.5000	51.56	46.53	-5.03	54.00	7.47	100	170	Vertical	/
3	2483.9188	52.47	47.44	-5.03	54.00	6.56	200	59	Vertical	/
4	2500.0000	50.38	45.39	-4.99	54.00	8.61	100	341	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 E20240508268401-7-Test Photo.

# APPENDIX B. PHOTOGRAPH OF THE EUT

Please refer to the attached document E20240508268401-8-EUT Photo.

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