Report No: JYTO-R01-2300004

FCC REPORT

Applicant:	EASEPAL ENTERPRISES LTD
Address of Applicant:	18th Floor, 171# East Tapu Road, Siming District, Xiamen, China. 361008
Equipment Under Test (EUT)	
Product Name:	Leg Massager
Model No.:	ER201A, ER203A
FCC ID:	2AWAKER201A
Applicable standards:	FCC CFR Title 47 Part 15 Subpart C Section 15.247
Date of sample receipt:	09 February 2023
Date of Test:	09 February 2023 to 06 March 2023
Date of report issued:	21 March 2023
Test Result:	PASS *

* In the configuration tested, the EUT complied with the standards specified above.

This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product and does not permit the use of the JYTproduct certification mark. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

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1 Modified Information

Version No.	Date	Description
00	*21 March 2023*	*Original*

Prepared by: Leo Zhang ***Date:*** 21 March 2023

Leo Zhang / Engineer

Reviewed by: ***Date:*** 21 March 2023

Louis Ye / Manager

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3 Test Summary

Test Items	Section in CFR 47	Result
Antenna requirement	15.203&15.247 (b)	Pass
AC Power Line Conducted Emission	15.207	Pass
Conducted Peak Output Power	15.247 (b)(3)	Pass
6dB Emission Bandwidth 99% Occupied Bandwidth	15.247 (a)(2)	Pass
Power Spectral Density	15.247 (e)	Pass
Band Edge	15.247(d)	Pass
Spurious Emission	15.205&15.209	Pass

Remark:

1. *Pass: The EUT complies with the essential requirements in the standard.*
2. *N/A: Not Applicable.*
3. *The cable insertion loss used by "RF Output Power" and other conduction measurement items is 1dB (provided by the customer).*

Test Method:	*ANSI C63.10-2013* *KDB 558074 D01 15.247 Meas Guidance v05r02*

4 General Information

4.1 Client Information

Applicant:	EASEPAL ENTERPRISES LTD
Address:	18th Floor, 171# East Tapu Road, Siming District, Xiamen, China. 361008
Manufacturer:	EASEPAL ENTERPRISES LTD
Address:	18th Floor, 171# East Tapu Road, Siming District, Xiamen, China. 361008

4.2 General Description of E.U.T.

Product Name:	Leg Massager
Model No.:	ER201A, ER203A
Operation Frequency:	2402-2480 MHz
Channel numbers:	40
Channel separation:	2 MHz
Modulation technology:	GFSK
Data speed :	1Mbps
Antenna Type:	internal Antenna
Antenna gain:	-3 dBi
Power supply:	Rechargeable Li-ion polymer Battery DC 3.7V or charging by AC 120V/60Hz
AC adapter:	N/A
Differences of series model:	All models are the same except the symmetrical design of the fabric, so full tests were performed on the model ER201A.

Operation Frequency each of channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
0	2402MHz	10	2422MHz	20	2442MHz	30	2462MHz
1	2404MHz	11	2424MHz	21	2444MHz	31	2464MHz
2	2406MHz	12	2426MHz	22	2446MHz	32	2466MHz
3	2408MHz	13	2428MHz	23	2448MHz	33	2468MHz
4	2410MHz	14	2430MHz	24	2450MHz	34	2470MHz
5	2412MHz	15	2432MHz	25	2452MHz	35	2472MHz
6	2414MHz	16	2434MHz	26	2454MHz	36	2474MHz
7	2416MHz	17	2436MHz	27	2456MHz	37	2476MHz
8	2418MHz	18	2438MHz	28	2458MHz	38	2478MHz
9	2420MHz	19	2440MHz	29	2460MHz	39	2480MHz

Note:
In section 15.31(m), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test. Channel No. 0, 19& 39 were selected as Lowest, Middle and Highest channel.

4.3 Test environment and test mode

Operating Environment:	
Temperature:	21.2 °C
Humidity:	51 % RH
Atmospheric Pressure:	1010 mbar
Test mode:	
Transmitting mode	Keep the EUT in continuous transmitting with modulation

The sample was placed 0.8m(below 1GHz)/1.5m(above 1GHz) above the ground plane of 3m chamber. Measurements in both horizontal and vertical polarities were performed. During the test, each emission was maximized by: having the EUT continuously working, investigated all operating modes, rotated about all 3 axis (X, Y & Z) and considered typical configuration to obtain worst position, manipulating interconnecting cables, rotating the turntable, varying antenna height from 1m to 4m in both horizontal and vertical polarizations. The emissions worst-case are shown in Test Results of the following pages. Duty cycle setting during the transmission is 100% with maximum power setting for all modulations.

4.4 Description of Support Units

The EUT has been tested as an independent unit.

4.5 Measurement Uncertainty

Parameters	Expanded Uncertainty
Conducted Output Power	±1.7 dB (k=2)
Occupied Bandwidth	1.3%
Conducted Spurious Emission	±1.9 dB (k=2)
Conducted Emission (150kHz ~ 30MHz)	±3.2 dB (k=2)
Radiated Emission (9kHz ~ 30MHz)	±1.8 dB (k=2)
Radiated Emission (30MHz ~ 1000MHz)	±4.0 dB (k=2)
Radiated Emission (1GHz ~ 18GHz)	±5.6 dB (k=2)
Radiated Emission (18GHz ~ 40GHz)	±4.8 dB (k=2)

4.6 Additions to, deviations, or exclusions from the method

No

4.7 Laboratory Facility

The test facility is recognized, certified, or accredited by the following organizations:

●FCC - Designation No.: CN1279

Jianyan Testing Group Co., Ltd. has been accredited as a testing laboratory by FCC(Federal Communications Commission). The test firm Registration No. is 892155.

● ISED – CAB identifier.: CN0102

Jianyan Testing Group Co., Ltd. has been recognized by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements with ISED#:26114.

●CNAS - Registration No.: CNAS L0658

Jianyan Testing Group Co., Ltd. is accredited to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration laboratories for the competence of testing. The Registration No. is CNAS L0658.

●A2LA - Registration No.: 5568.01

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017General requirements for the competence of testing and calibration laboratories. The test scope can be found as below link: https://portal.a2la.org/scopepdf/5568-01.pdf

4.8 Laboratory Location

JianYan Testing Group Co., Ltd.
Address: No.760, Fengling Road, Tong'an District, Xiamen, Fujian, China
Tel: +86-592-2273071, Fax:+86-592-2273700
Email: info-jytee@lets.com, Website: http://jyt.lets.com

4.9 Test Instruments list

Conducted Emission:					
Test Equipment	**Manufacturer**	**Model No.**	**Equipment No.**	**Cal. Date (mm-dd-yy)**	**Cal. Due date (mm-dd-yy)**
EMI Test Receiver	R&S	ESR 3	SBE0005-1	2022-07-14	2023-07-13
LISN	R&S	ENV 216	SBE0005-3	2022-07-14	2023-07-13
AUX LISN	AFJ/Italy	LS16C\10	SBE0028-1	2023-02-23	2024-02-22
EMI Test Software	Farad	EZ-EMC	Version: V.EMCE-3A1		

Radiated Emission:					
Test Equipment	**Manufacturer**	**Model No.**	**Equipment No.**	**Cal. Date (mm-dd-yy)**	**Cal. Due date (mm-dd-yy)**
EMI Test Receiver	R&S	ESR 3	SBE0007-1	2022-07-14	2023-07-13
Spectrum Analyzer	R&S	FSV40-N	SBE0023-2	2023-02-27	2024-02-26
Loop Antenna	ETS	6502	SBE0007-4	2023-03-03	2024-03-02
BiConiLog Antenna	SCHWARZBECK	VULB 9163	SBE0007-3	2022-12-02	2023-12-01
Horn Antenna	SCHWARZBECK	BBHA 9120 D	SBE0020	2023-03-03	2024-03-02
Pre-amplifier	SCHWARZBECK	BBV9743	SBE0007-2	2022-07-14	2023-07-13
Pre-amplifier	SCHWARZBECK	BBV9718C	SBE0021	2023-02-27	2024-02-26
EMI Test Software	Farad	EZ-EMC	Version: V.EMCE-3A1		

Conducted method					
Test Equipment	**Manufacturer**	**Model No.**	**Equipment No.**	**Cal. Date (mm-dd-yy)**	**Cal. Due date (mm-dd-yy)**
Signal Generator	Agilent	N5181	SBE0023-1	2023-02-02	2024-02-01
Signal Generator	Agilent	N5182A	SBE0023-8	2023-02-02	2024-02-01
Spectrum Analyzer	R&S	FSV40-N	SBE0023-2	2023-02-27	2024-02-26
Power Sensor	Keysight	U2021XA	SBE0023-3	2023-02-02	2024-02-01
Temperature Humidity Chamber	ZCMLAB	ZCMTH-6216	SBD0015-4	2022-04-06	2023-04-05
Test Software	MWRFTEST	MTS 8310	Version: 2.0.0.0		

5 Test results and Measurement Data

5.1 Antenna requirement:

Standard requirement:	FCC Part15 C Section 15.203 /247(b)
15.203 requirement: An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. 15.247(b) (4) requirement: (4) The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.	
E.U.T Antenna:	
The Bluetooth antenna is an Internal antenna which permanently attached, and the best case gain of the antenna is -3 dBi.	

5.2 Conducted Emission

Test Requirement:	FCC Part15 C Section 15.207
Test Frequency Range:	150 kHz to 30MHz
Class / Severity:	Class B
Receiver setup:	RBW=9kHz, VBW=30kHz
Limit:	

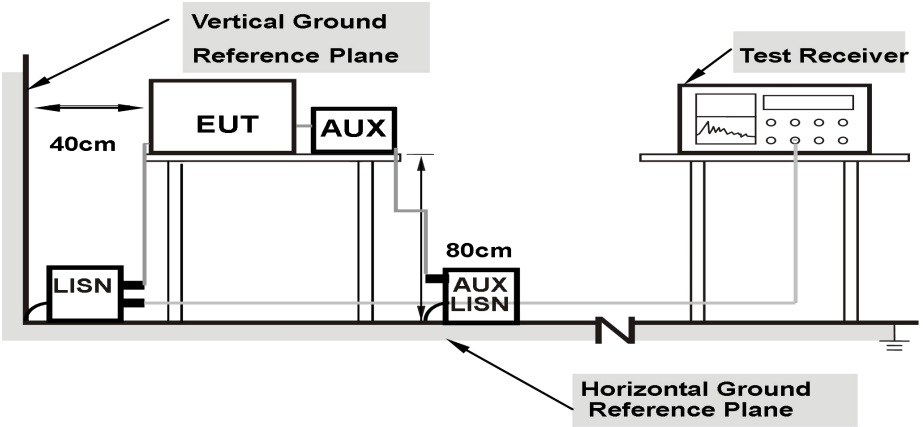
Frequency range (MHz)	Limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

* Decreases with the logarithm of the frequency.

Test procedure:

1. The E.U.T and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.), which provides a 50ohm/50uH coupling impedance for the measuring equipment.
2. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refer to the block diagram of the test setup and photographs).
3. Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10(latest version) on conducted measurement.

Test setup:

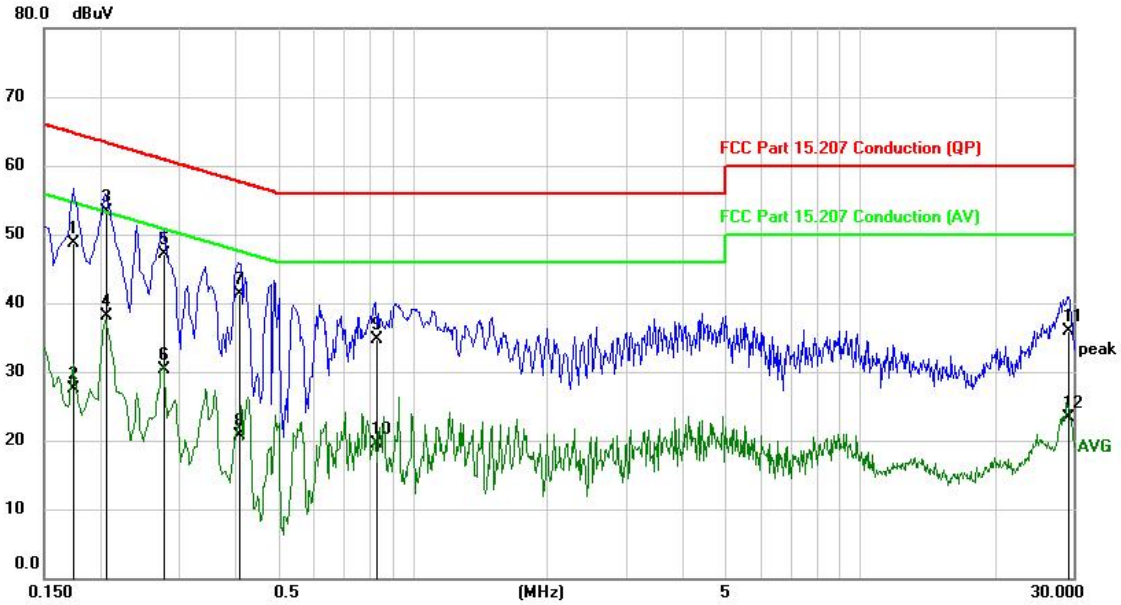


Note: 1.Support units were connected to second LISN.
2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes

Test Instruments:	Refer to section 4.9 for details
Test mode:	Charging + BLE Link.
Test results:	Pass

Measurement Data:

Product model:	ER201A	**Test result:**	pass
Test by:	Leo Zhang	**Test mode:**	Charging + BLE Link
Test voltage:	AC 120V/60Hz	**Phase:**	Line (N)
Environment:	Temp.: 20.9℃ Humi.: 43%		



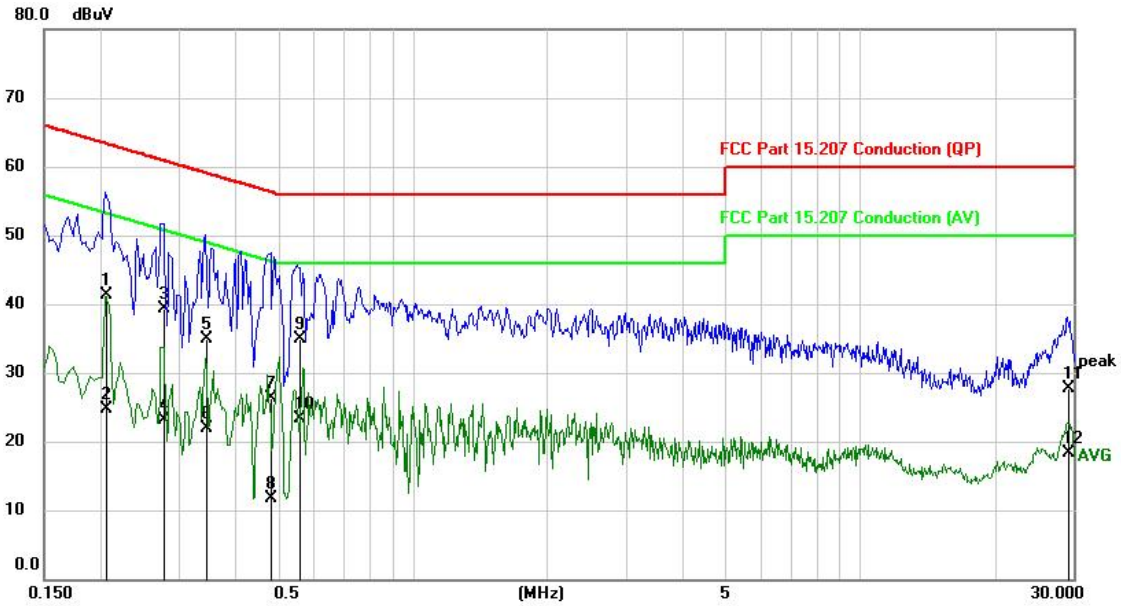
(Plot A:N Phase)

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector
1		0.1741	39.00	9.74	48.74	64.76	-16.02	QP
2		0.1741	17.83	9.74	27.57	54.76	-27.19	AVG
3	*	0.2070	43.53	9.74	53.27	63.32	-10.05	QP
4		0.2070	28.39	9.74	38.13	53.32	-15.19	AVG
5		0.2765	37.38	9.77	47.15	60.92	-13.77	QP
6		0.2765	20.46	9.77	30.23	50.92	-20.69	AVG
7		0.4097	31.60	9.72	41.32	57.65	-16.33	QP
8		0.4097	11.00	9.72	20.72	47.65	-26.93	AVG
9		0.8283	24.57	10.05	34.62	56.00	-21.38	QP
10		0.8283	9.44	10.05	19.49	46.00	-26.51	AVG
11		29.1046	20.66	15.33	35.99	60.00	-24.01	QP
12		29.1046	8.03	15.33	23.36	50.00	-26.64	AVG

Notes:

1. *An initial pre-scan was performed on the line and neutral lines with peak detector.*
2. *Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.*
3. *Final Level =Receiver Read level + LISN Factor + Cable Loss.*

Product model:	ER201A	Test result:	pass
Test by:	Leo Zhang	Test mode:	Charging + BLE Link
Test voltage:	AC 120V/60Hz	Phase:	Line (L)
Environment:	Temp.: 20.9℃ Humi.: 43%		



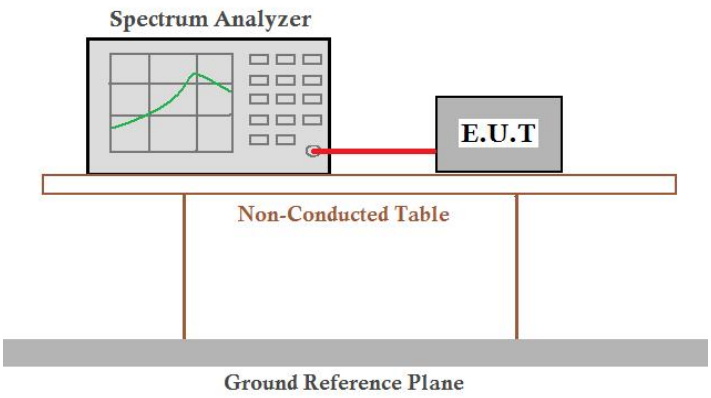
(Plot B:L Phase)

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector
1		0.2069	31.65	9.71	41.36	63.33	-21.97	QP
2		0.2069	15.00	9.71	24.71	53.33	-28.62	AVG
3		0.2769	29.63	9.65	39.28	60.91	-21.63	QP
4		0.2769	13.55	9.65	23.20	50.91	-27.71	AVG
5		0.3460	25.34	9.65	34.99	59.06	-24.07	QP
6		0.3460	12.22	9.65	21.87	49.06	-27.19	AVG
7		0.4820	16.55	9.74	26.29	56.30	-30.01	QP
8		0.4820	1.88	9.74	11.62	46.30	-34.68	AVG
9	*	0.5555	25.15	9.85	35.00	56.00	-21.00	QP
10		0.5555	13.42	9.85	23.27	46.00	-22.73	AVG
11		29.2127	13.53	14.26	27.79	60.00	-32.21	QP
12		29.2127	4.07	14.26	18.33	50.00	-31.67	AVG

Notes:

1. *An initial pre-scan was performed on the line and neutral lines with peak detector.*
2. *Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.*
3. *Final Level =Receiver Read level + LISN Factor + Cable Loss.*

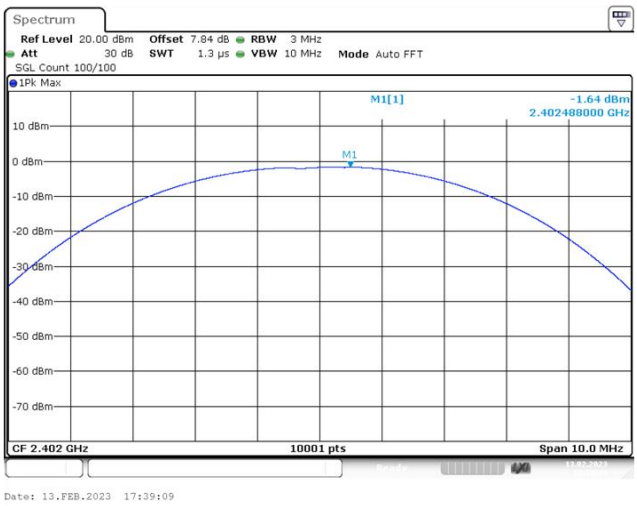
5.3 Conducted Output Power

Test Requirement:	FCC Part15 C Section 15.247 (b)(3)
Limit:	30dBm
Test setup:	
Test Instruments:	Refer to section 4.9 for details
Test mode:	Refer to section 4.3 for details
Test results:	Pass

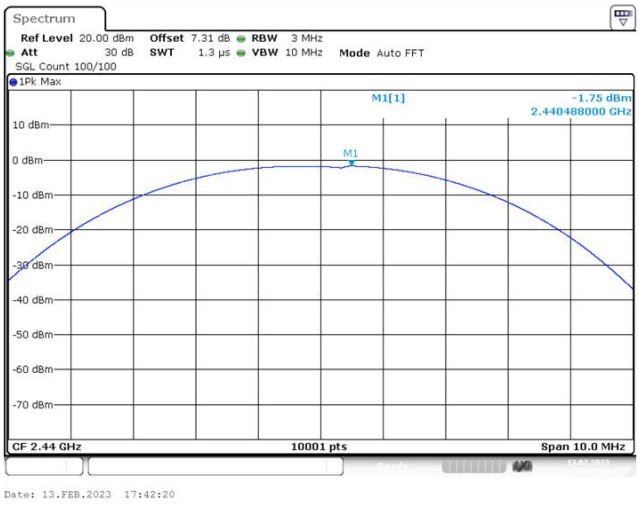
Measurement Data:

Test CH	Maximum Conducted Output Power (dBm)	Limit(dBm)	Result
Lowest	-1.64	30.00	Pass
Middle	-1.75		
Highest	-1.84		

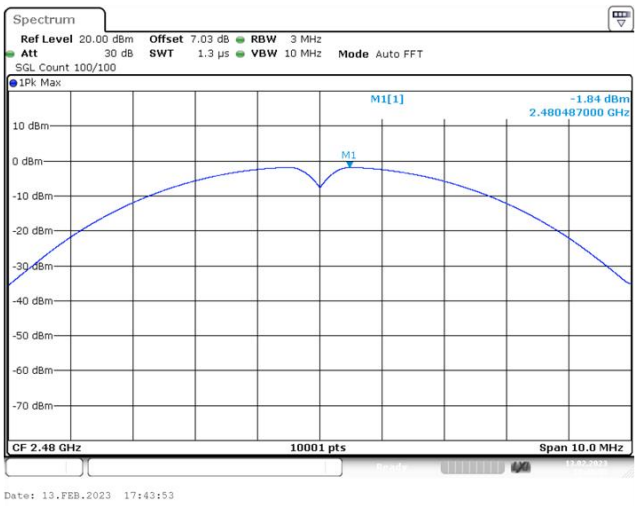
Test plot as follows:



Lowest channel

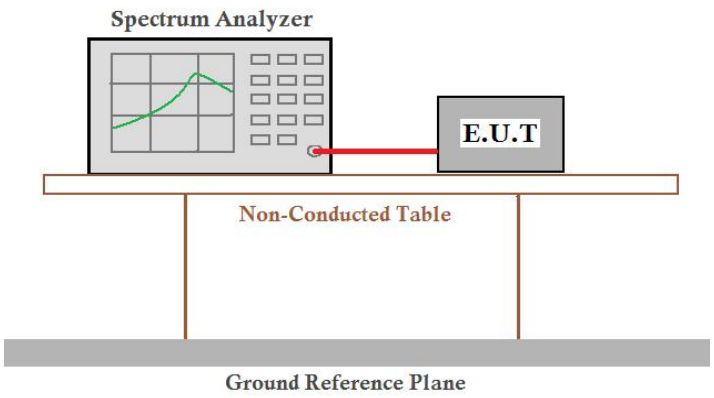


Middle channel



Highest channel

5.4 Occupy Bandwidth

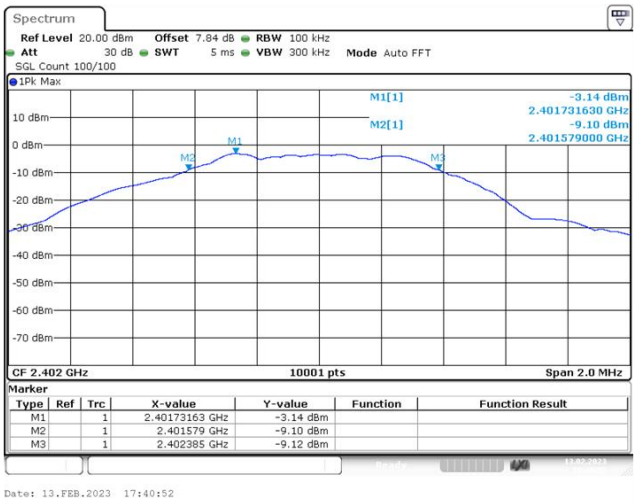
Test Requirement:	FCC Part15 C Section 15.247 (a)(2)
Limit:	>500kHz
Test setup:	
Test Instruments:	Refer to section 4.9 for details
Test mode:	Refer to section 4.3 for details
Test results:	Pass

Measurement Data:

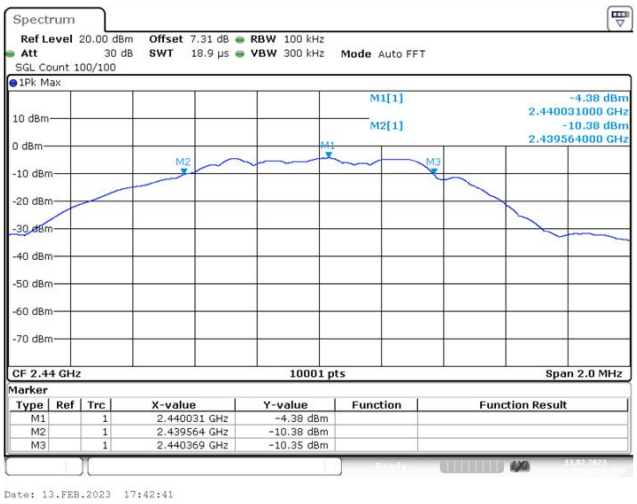
Test CH	6dB Emission Bandwidth (MHz)	Limit(kHz)	Result
Lowest	0.806	>500	Pass
Middle	0.805		
Highest	0.804		
Test CH	99% Occupy Bandwidth (MHz)	Limit(kHz)	Result
Lowest	1.153	N/A	N/A
Middle	1.154		
Highest	1.181		

Test plot as follows:

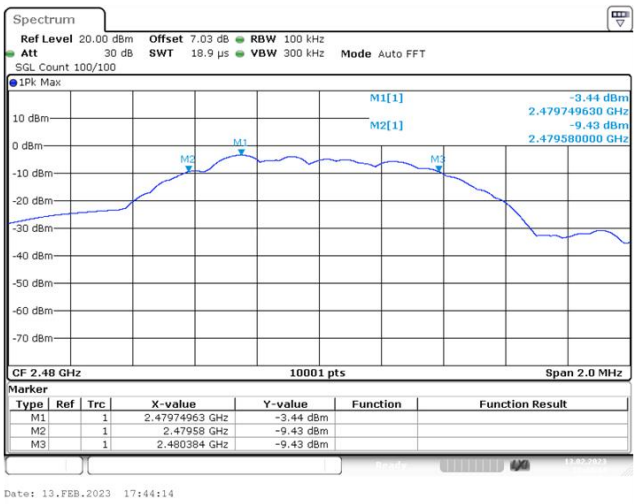
6dB EBW



Lowest channel

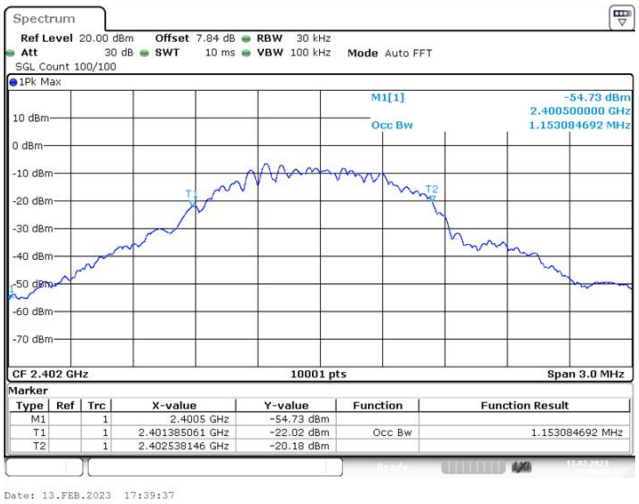


Middle channel

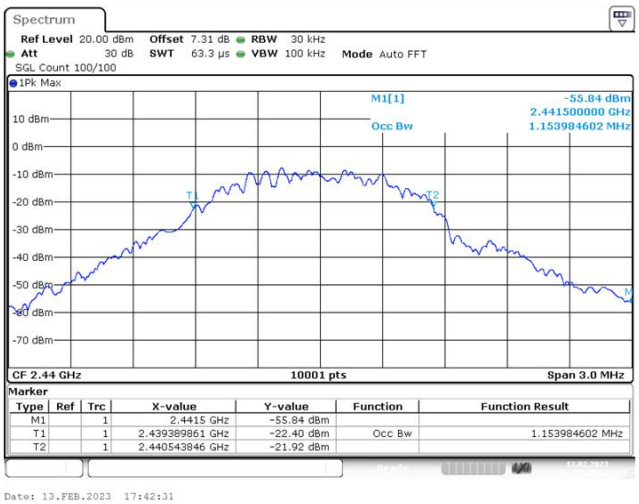


Highest channel

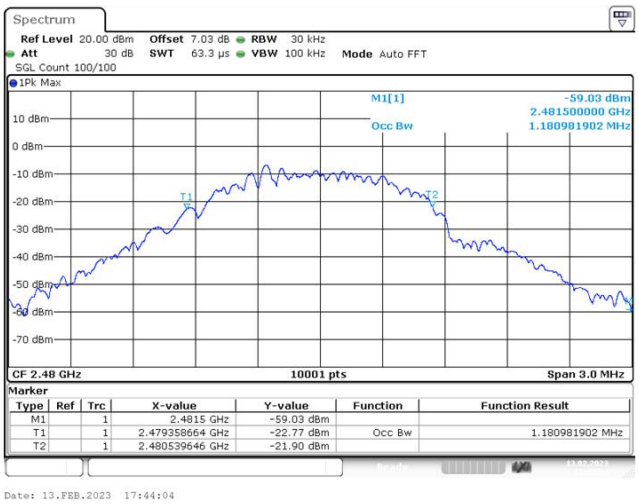
99% OBW



Lowest channel

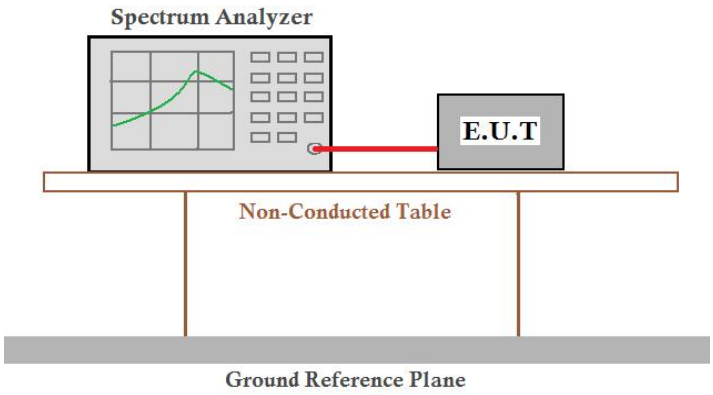


Middle channel



Highest channel

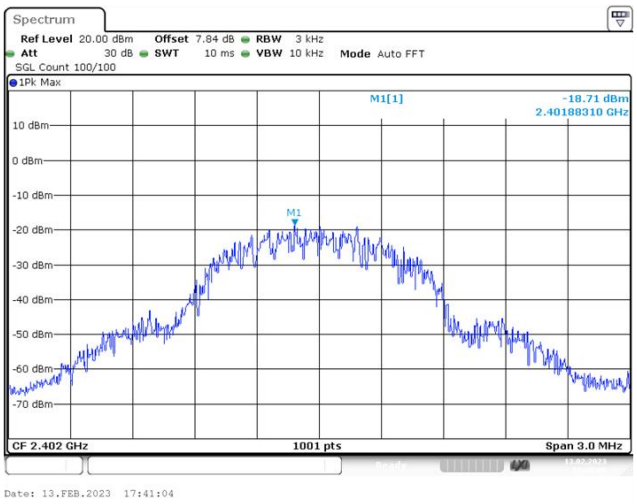
5.5 Power Spectral Density

Test Requirement:	FCC Part15 C Section 15.247 (e)
Limit:	8dBm/3kHz
Test setup:	
Test Instruments:	Refer to section 4.9 for details
Test mode:	Refer to section 4.3 for details
Test results:	Pass

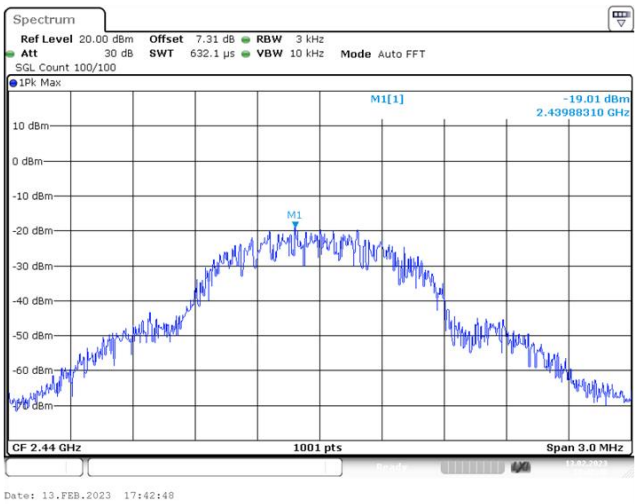
Measurement Data:

Test CH	Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)	Result
Lowest	-18.71	8.00	Pass
Middle	-19.01		
Highest	-19.37		

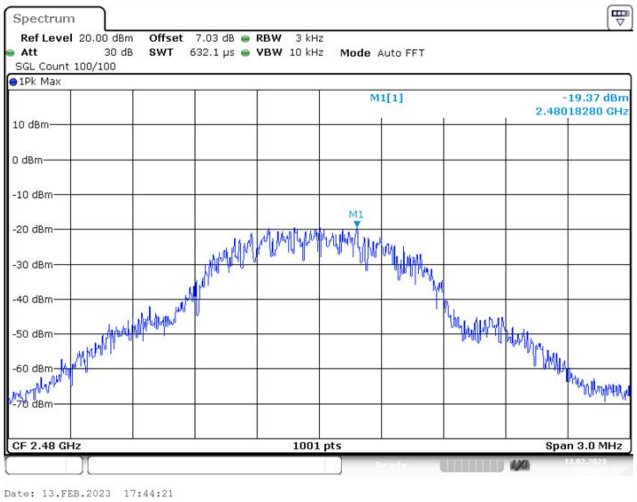
Test plots as follow:



Lowest channel



Middle channel

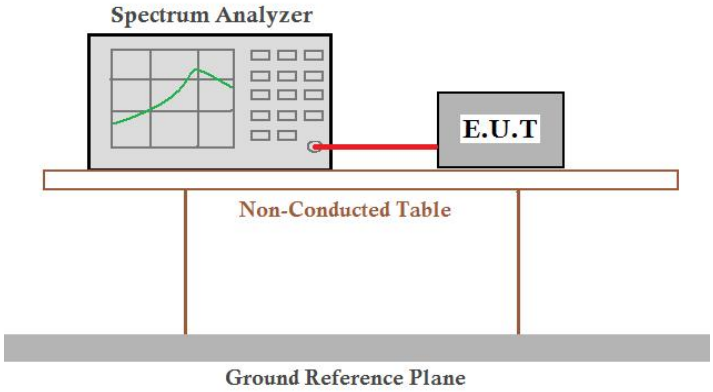


Highest channel

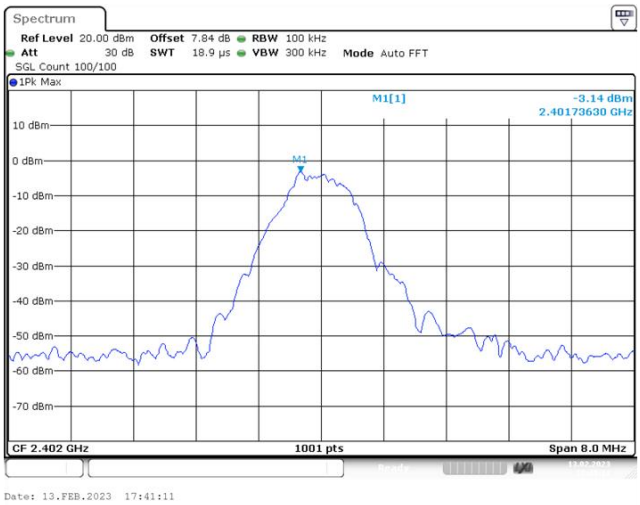
/

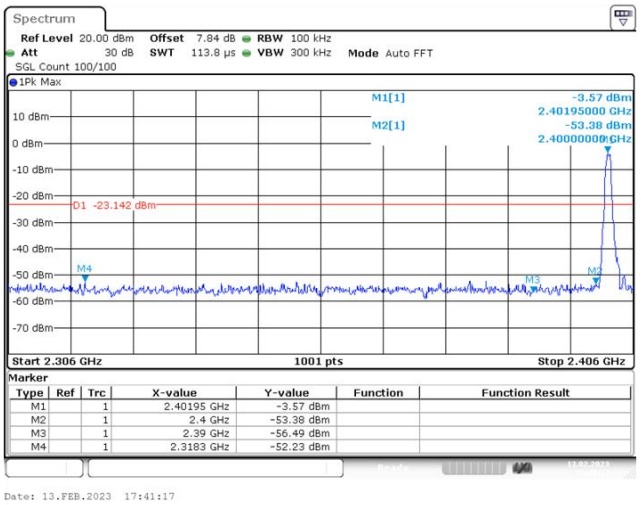
5.6 Band Edge

5.6.1 Conducted Emission Method

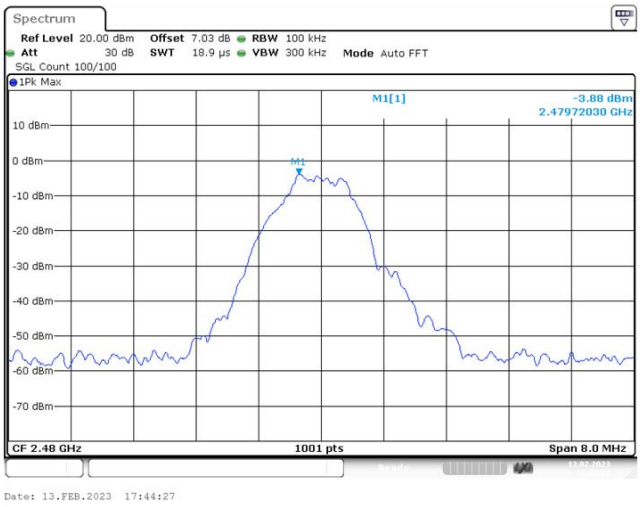
Test Requirement:	FCC Part15 C Section 15.247 (d)
Limit:	In any 100 kHz bandwidth outside the frequency band in which the spreadspectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.
Test setup:	
Test Instruments:	Refer to section 4.9 for details
Test mode:	Refer to section 4.3 for details
Test results:	Pass

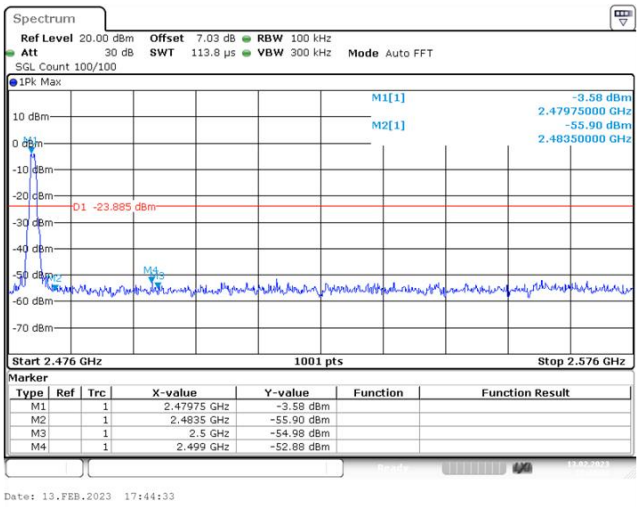
Test plots as follow:





Lowest channel





Highest channel

5.6.2 Radiated Emission Method

Test Requirement:	FCC Part15 C Section 15.205 and 15.209
Test Frequency Range:	2380 MHz to 2410 MHz and 2465MHz to 2520 MHz
TestDistance:	3m
Receiver setup:	

Frequency	Detector	RBW	VBW	Remark
Above 1GHz	Peak	1MHz	3MHz	Peak Value
	RMS	1MHz	3MHz	Average Value

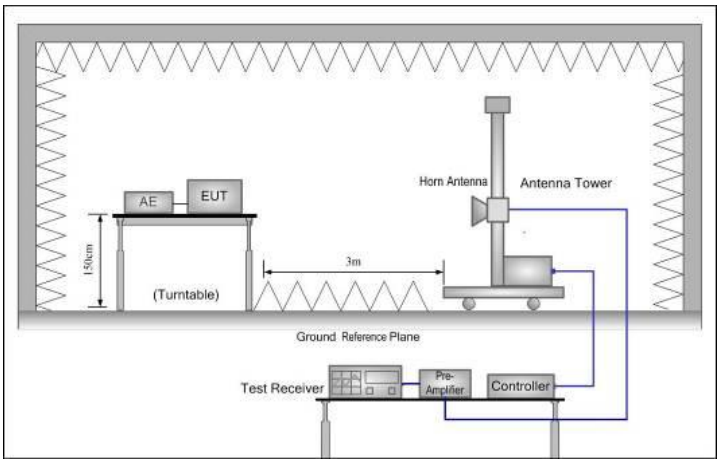
Limit:

Frequency	Limit (dBuV/m @3m)	Remark
Above 1GHz	54.00	Average Value
	74.00	Peak Value

Test Procedure:

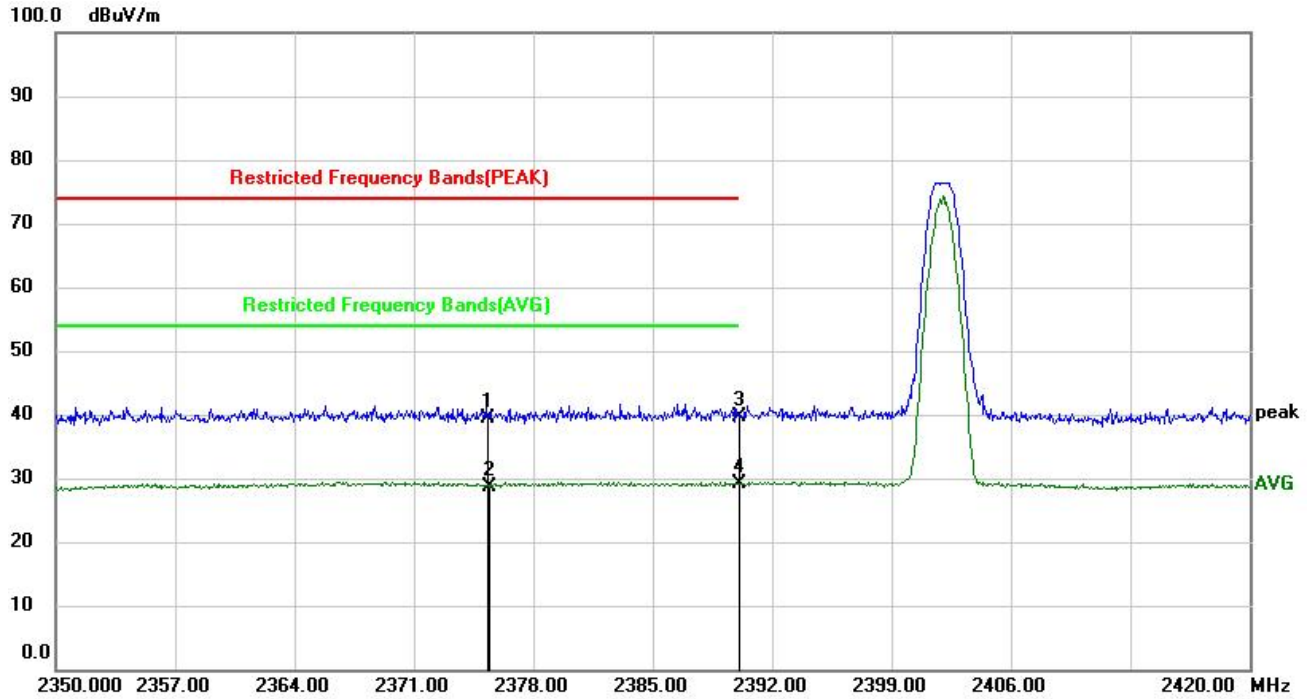
1. The EUT was placed on the top of a rotating table 1.5 meters above the groundat a 3 meter camber. The table was rotated 360 degrees todetermine the position of the highest radiation.
2. The EUT was set 3 meters away from the interference-receiving antenna, whichwas mounted on the top of a variable-height antenna tower.
3. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
4. For each suspected emission, the EUT was arranged to its worst case and thenthe antenna was tuned to heights from 1 meter to 4 meters and the rotatablewas turned from 0 degrees to 360 degrees to find the maximum reading.
5. The test-receiver system was set to Peak Detect Function and SpecifiedBandwidth with Maximum Hold Mode.
6. If the emission level of the EUT in peak mode was 10dB lower than the limitspecified, then testing could be stopped and the peak values of the EUT wouldbe reported. Otherwise the emissions that did not have 10dB margin would bere-tested one by one using peak, quasi-peak or average method as specified andthen reported in a data sheet.

Test setup:



Test Instruments:	Refer to section 4.9 for details
Test mode:	Refer to section 4.3 for details
Test results:	Pass

Product Name:	Leg Massager	Product Model:	ER201A
Test By:	Leo Zhang	Test mode:	BLE Tx mode
Test Channel:	Lowest channel	Polarization:	Vertical
Test Voltage:	DC 3.7V	Environment:	Temp.:21.5℃ Humi.: 42%

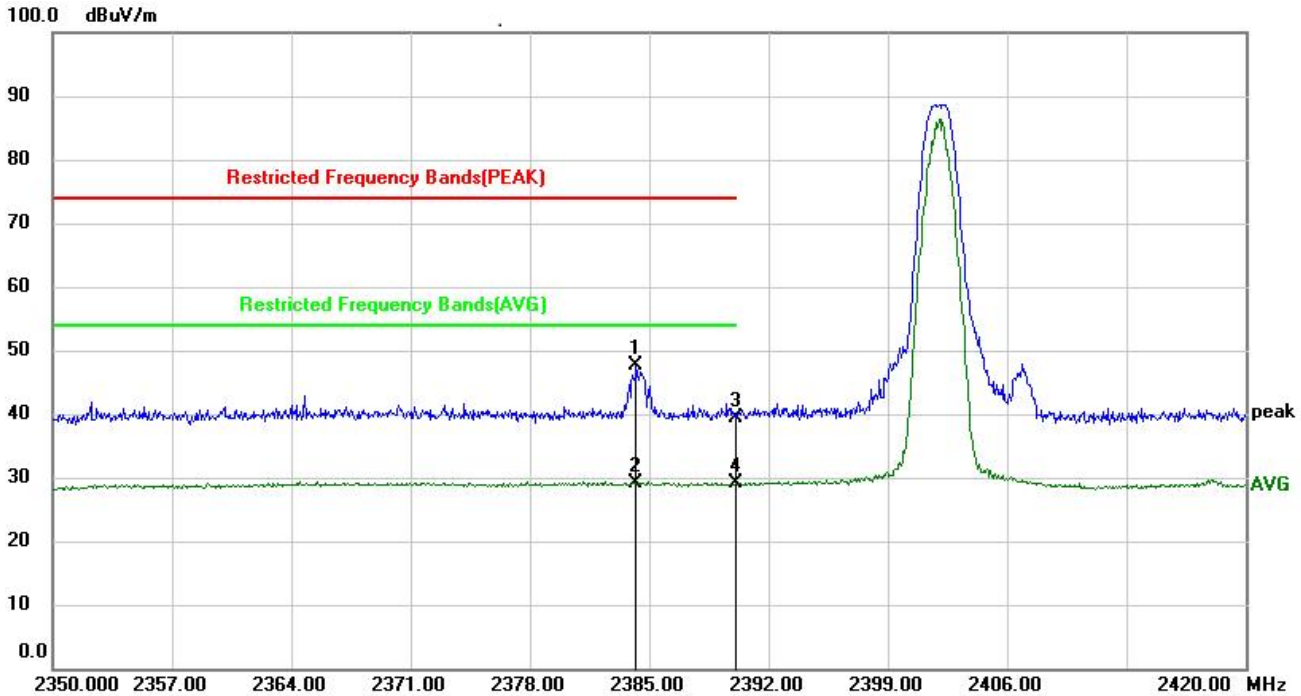


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		2375.340	39.61	-0.22	39.39	74.00	-34.61	peak
2		2375.410	28.96	-0.22	28.74	54.00	-25.26	AVG
3		2390.000	39.85	-0.25	39.60	74.00	-34.40	peak
4	*	2390.000	29.41	-0.25	29.16	54.00	-24.84	AVG

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

Product Name:	Leg Massager	Product Model:	ER201A
Test By:	Leo Zhang	Test mode:	BLE Tx mode
Test Channel:	Lowest channel	Polarization:	Horizontal
Test Voltage:	DC 3.7V	Environment:	Temp.:21.5℃ Humi.: 42%

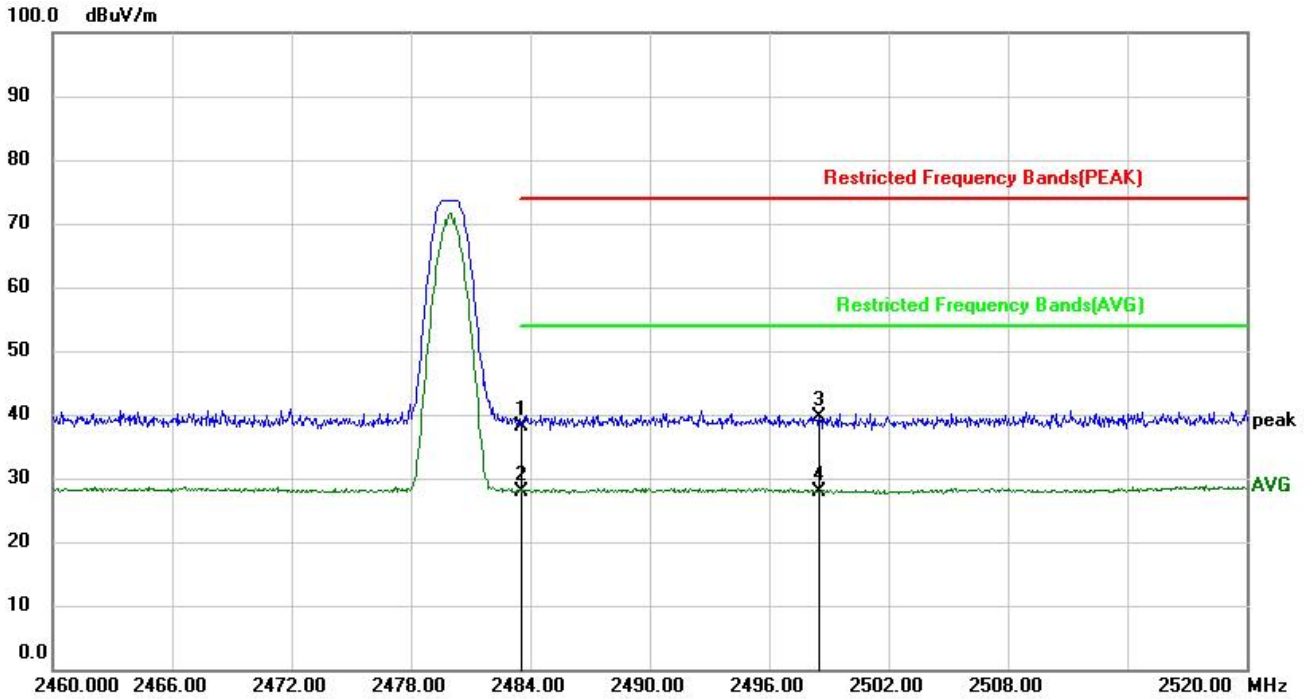


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		2384.230	47.89	-0.23	47.66	74.00	-26.34	peak
2	*	2384.230	29.31	-0.23	29.08	54.00	-24.92	AVG
3		2390.000	39.52	-0.25	39.27	74.00	-34.73	peak
4		2390.000	29.29	-0.25	29.04	54.00	-24.96	AVG

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

Product Name:	Leg Massager	**Product Model:**	ER201A
Test By:	Leo Zhang	**Test mode:**	BLE Tx mode
Test Channel:	Highest channel	**Polarization:**	Vertical
Test Voltage:	DC 3.7V	**Environment:**	Temp.:21.5℃ Humi.: 42%

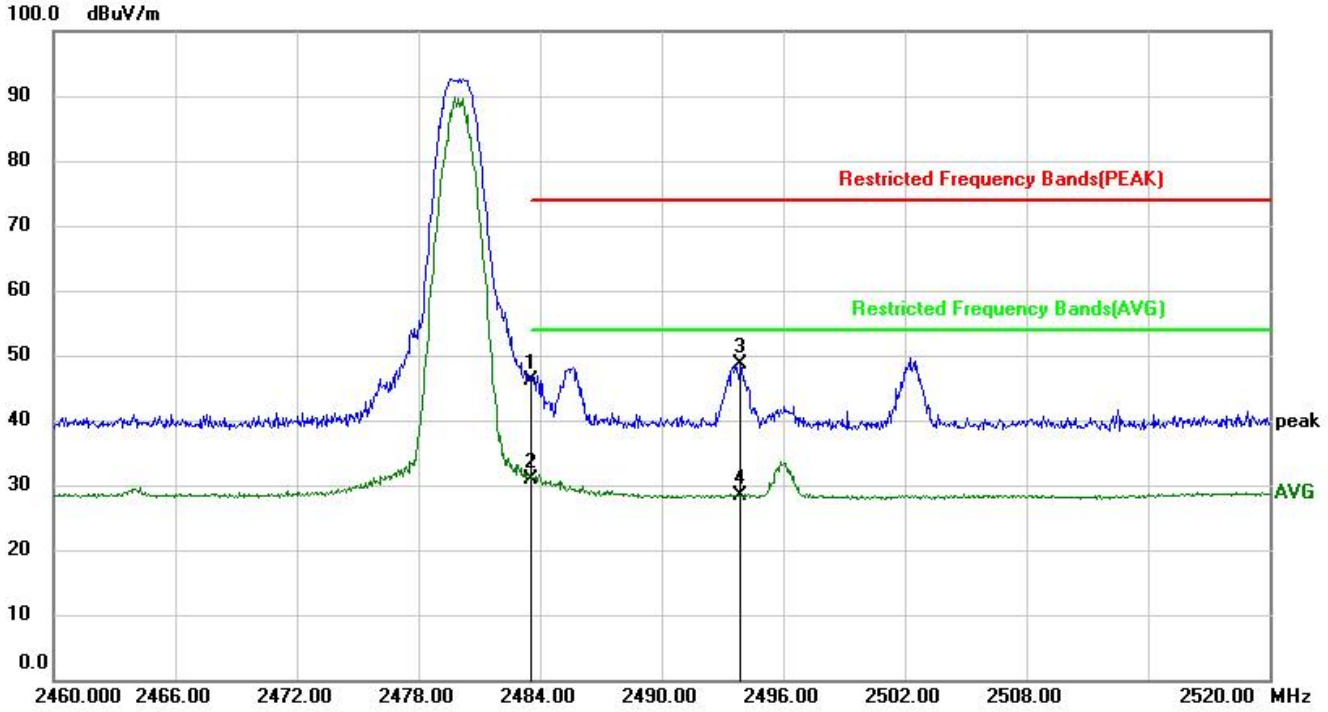


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		2483.500	38.48	-0.36	38.12	74.00	-35.88	peak
2	*	2483.500	28.24	-0.36	27.88	54.00	-26.12	AVG
3		2498.520	39.96	-0.37	39.59	74.00	-34.41	peak
4		2498.520	28.20	-0.37	27.83	54.00	-26.17	AVG

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

Product Name:	Leg Massager	**Product Model:**	ER201A
Test By:	Leo Zhang	**Test mode:**	BLE Tx mode
Test Channel:	Highest channel	**Polarization:**	Horizontal
Test Voltage:	DC 3.7V	**Environment:**	Temp.:21.5℃ Humi.: 42%



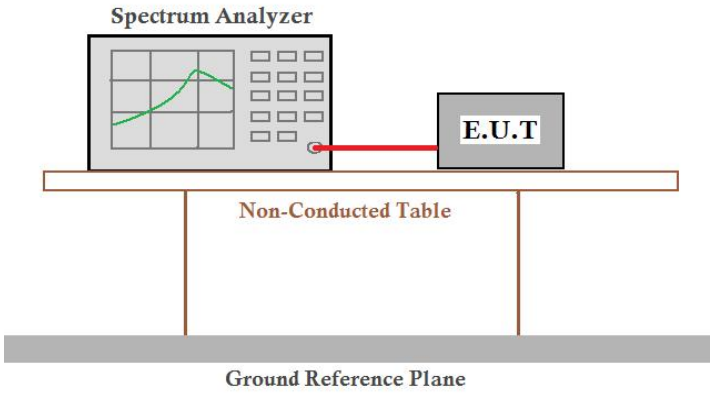
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		2483.500	46.61	-0.36	46.25	74.00	-27.75	peak
2	*	2483.500	31.32	-0.36	30.96	54.00	-23.04	AVG
3		2493.900	49.03	-0.37	48.66	74.00	-25.34	peak
4		2493.900	28.66	-0.37	28.29	54.00	-25.71	AVG

Remark:

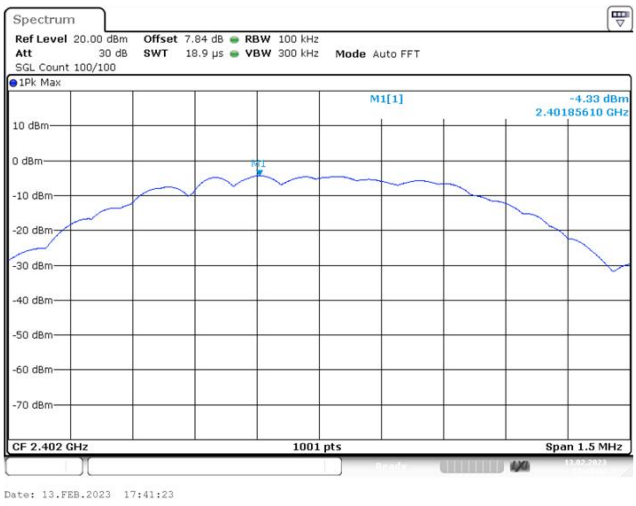
1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

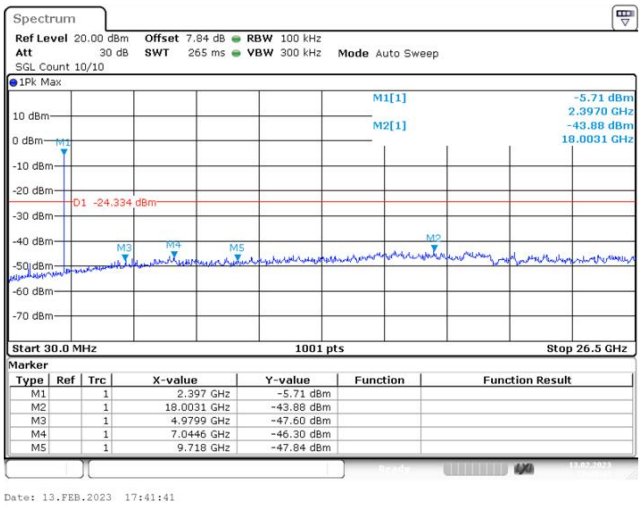
5.7 Spurious Emission

5.7.1 Conducted Emission Method

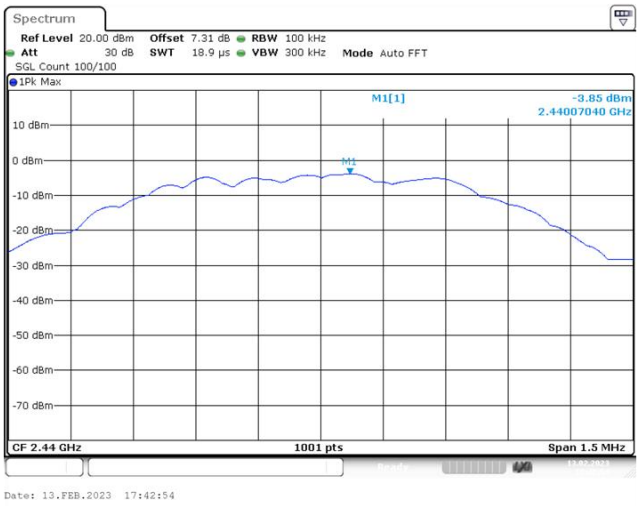
Test Requirement:	FCC Part15 C Section 15.247 (d)
Limit:	In any 100 kHz bandwidth outside the frequency band in which the spreadspectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.
Test setup:	
Test Instruments:	Refer to section 4.9 for details
Test mode:	Refer to section 4.3 for details
Test results:	Pass

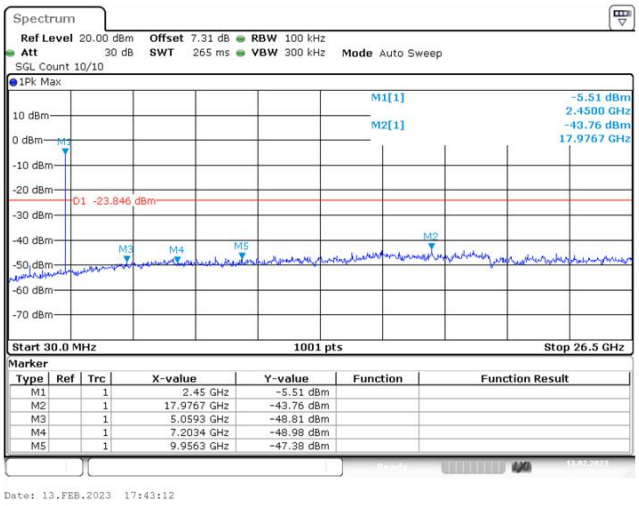
Test plot as follows:



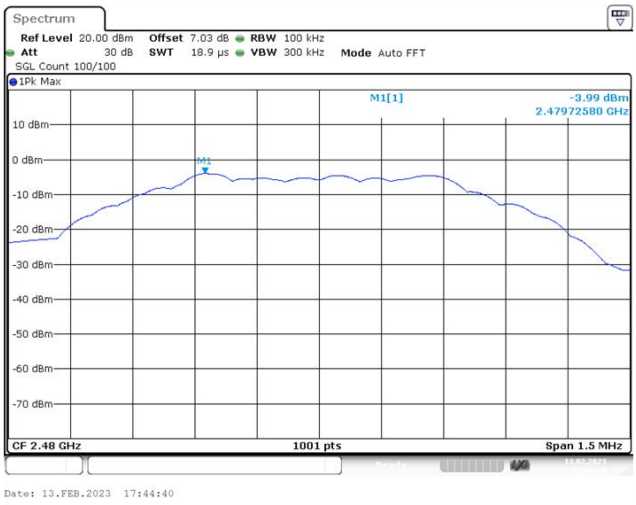


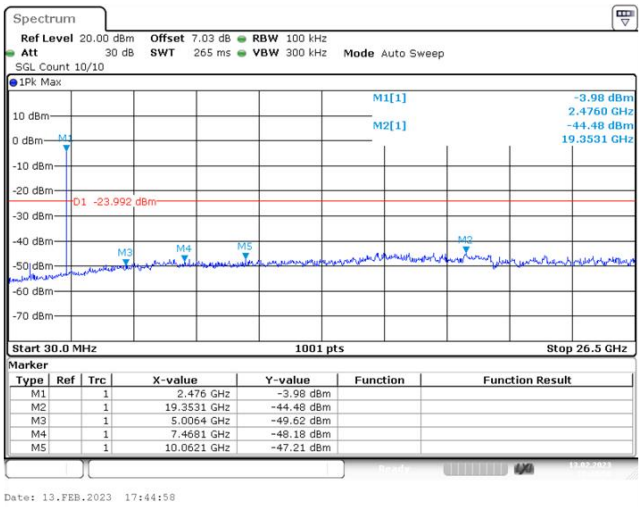
Lowest Channel





Middle channel





Highest Channel

5.7.2 Radiated Emission Method

Test Requirement:	FCC Part15 C Section 15.205 and15.209
Test Frequency Range:	9kHz to 25GHz
TestDistance:	3m

Receiver setup:

Frequency	Detector	RBW	VBW	Remark
30MHz-1GHz	Quasi-peak	120KHz	300KHz	Quasi-peak Value
Above 1GHz	Peak	1MHz	3MHz	Peak Value
	RMS	1MHz	3MHz	Average Value

Limit:

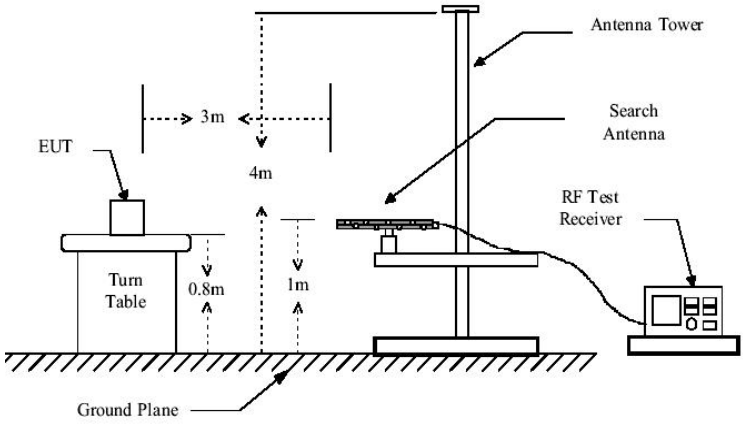
Frequency	Limit (dBuV/m @3m)	Remark
30MHz-88MHz	40.0	Quasi-peak Value
88MHz-216MHz	43.5	Quasi-peak Value
216MHz-960MHz	46.0	Quasi-peak Value
960MHz-1GHz	54.0	Quasi-peak Value
Above 1GHz	54.0	Average Value
	74.0	Peak Value

Test Procedure:

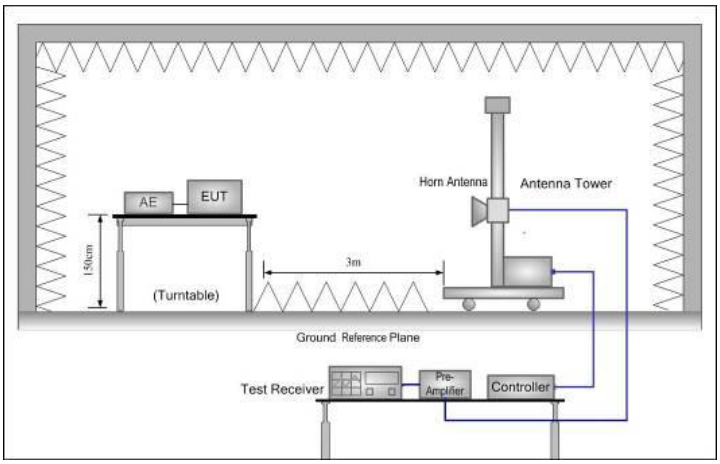
1. The EUT was placed on the top of a rotating table 0.8m(below 1GHz)/1.5m(above 1GHz) above the groundat a 3 meter camber. The table was rotated 360 degrees todetermine the position of the highest radiation.
2. The EUT was set 3 meters away from the interference-receiving antenna, whichwas mounted on the top of a variable-height antenna tower.
3. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
4. For each suspected emission, the EUT was arranged to its worst case and thenthe antenna was tuned to heights from 1 meter to 4 meters and the rotatablewas turned from 0 degrees to 360 degrees to find the maximum reading.
5. The test-receiver system was set to Peak Detect Function and SpecifiedBandwidth with Maximum Hold Mode.
6. If the emission level of the EUT in peak mode was 10dB lower than the limitspecified, then testing could be stopped and the peak values of the EUT wouldbe reported. Otherwise the emissions that did not have 10dB margin would bere-tested one by one using peak, quasi-peak or average method as specified andthen reported in a data sheet.

Test setup:

Below 1GHz



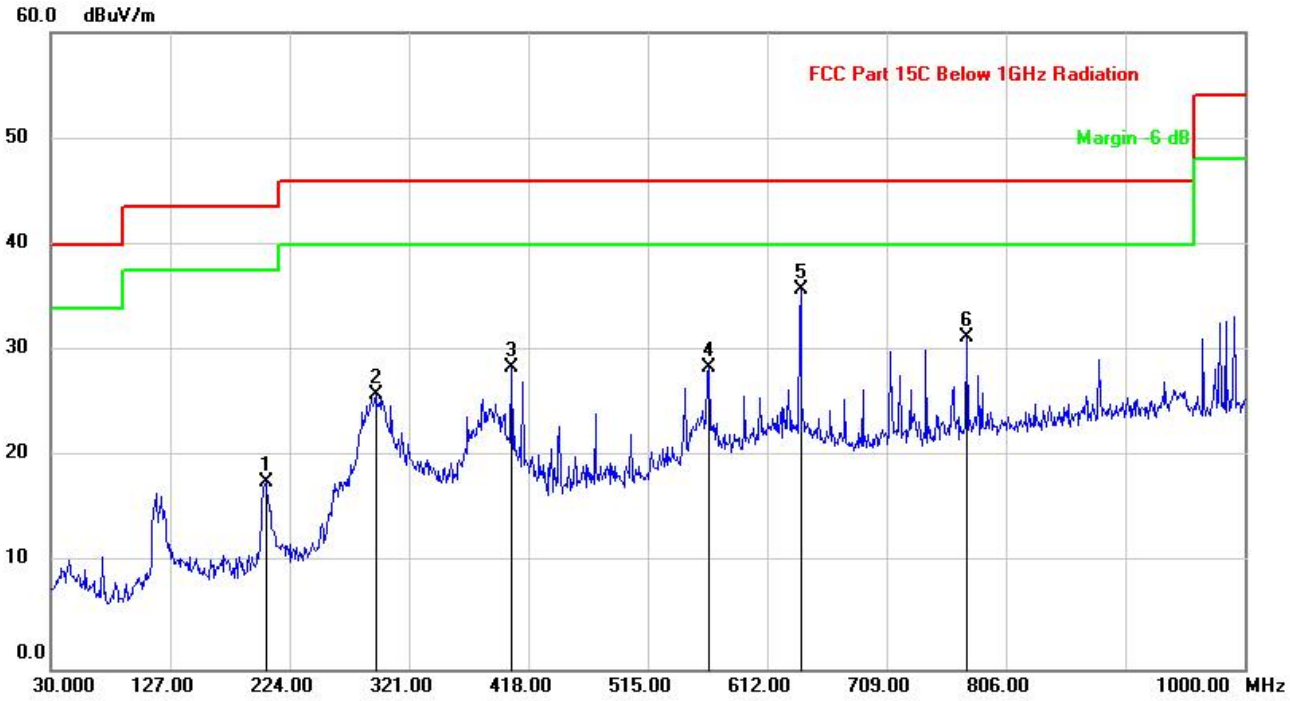
Above 1GHz

	
Test Instruments:	Refer to section 5.9 for details
Test mode:	Refer to section 4.3 for details
Test results:	Pass
Remark:	1. Pre-scan all kind of the place mode (X-axis, Y-axis, Z-axis), and found the Y-axis is the worst case. 2. 9 kHz to 30MHz is too low, so only shows the data of above 30MHz in this report.

Measurement Data(worst case):

Below 1GHz:

Product Name:	Leg Massager	**Product Model:**	ER201A
Test By:	Leo Zhang	**Test mode:**	BLE Tx mode
Test Frequency:	30 MHz ~ 1 GHz	**Polarization:**	Vertical
Test Voltage:	DC 3.7V	**Environment:**	Temp.: 20.6℃ Humi.: 46%

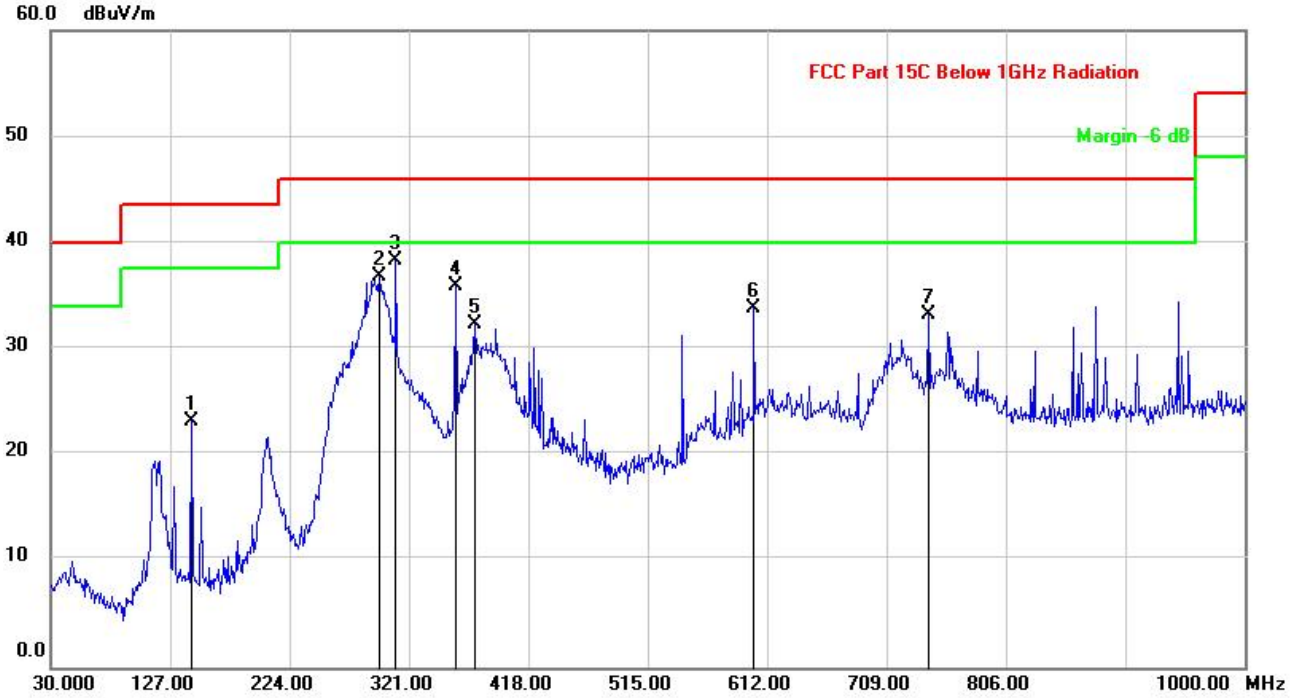


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		204.6000	31.78	-14.17	17.61	43.50	-25.89	peak
2		293.8400	37.22	-11.31	25.91	46.00	-20.09	peak
3		404.4200	36.79	-8.43	28.36	46.00	-17.64	peak
4		564.4699	33.58	-5.10	28.48	46.00	-17.52	peak
5	*	639.1599	39.57	-3.78	35.79	46.00	-10.21	peak
6		773.9900	32.93	-1.62	31.31	46.00	-14.69	peak

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

Product Name:	Leg Massager	**Product Model:**	ER201A
Test By:	Leo Zhang	**Test mode:**	BLE Tx mode
Test Frequency:	30 MHz ~ 1 GHz	**Polarization:**	Horizontal
Test Voltage:	DC 3.7V	**Environment:**	Temp.: 20.6℃ Humi.: 46%



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		144.4600	40.99	-17.83	23.16	43.50	-20.34	peak
2		296.7500	48.09	-11.21	36.88	46.00	-9.12	peak
3	*	310.3299	49.19	-10.84	38.35	46.00	-7.65	peak
4		358.8299	45.48	-9.60	35.88	46.00	-10.12	peak
5		374.3500	41.59	-9.19	32.40	46.00	-13.60	peak
6		601.3300	38.08	-4.20	33.88	46.00	-12.12	peak
7		742.9500	35.53	-2.23	33.30	46.00	-12.70	peak

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

Above 1GHz:

Test channel: Lowest channel						
Detector: PeakValue						
Frequency (MHz)	Read Level (dBuV)	Correct Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
4804.00	40.68	7.64	48.32	74.00	-25.68	Vertical
4804.00	42.44	7.64	50.08	74.00	-23.92	Horizontal
Detector: AverageValue						
Frequency (MHz)	Read Level (dBuV)	Correct Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
4804.00	27.37	7.64	35.01	54.00	-18.99	Vertical
4804.00	29.30	7.64	36.94	54.00	-17.06	Horizontal
Test channel: Middle channel						
Detector: PeakValue						
Frequency (MHz)	Read Level (dBuV)	Correct Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
4880.00	37.49	7.86	45.35	74.00	-28.65	Vertical
4880.00	38.65	7.86	46.51	74.00	-27.49	Horizontal
Detector: AverageValue						
Frequency (MHz)	Read Level (dBuV)	Correct Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
4880.00	26.86	7.86	34.72	54.00	-19.28	Vertical
4880.00	27.19	7.86	35.05	54.00	-18.95	Horizontal
Test channel: Highest channel						
Detector: PeakValue						
Frequency (MHz)	Read Level (dBuV)	Correct Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
4960.00	37.83	8.32	46.15	74.00	-27.85	Vertical
4960.00	40.14	8.32	48.46	74.00	-25.54	Horizontal
Detector: AverageValue						
Frequency (MHz)	Read Level (dBuV)	Correct Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
4960.00	26.96	8.32	35.28	54.00	-18.72	Vertical
4960.00	28.36	8.32	36.68	54.00	-17.32	Horizontal

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*