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TEST REPORT

Report No.: CQASZ20180800066E-02
Applicant: Dongguan Jiasheng Lighting Technology Co., Ltd.
Address of Applicant: Shutian Village, Humen Town, Dongguan City, Guangdong Province, P.R. China
Manufacturer: Dongguan Jiasheng Lighting Technology Co., Ltd.
Address of Manufacturer: Shutian Village, Humen Town, Dongguan City, Guangdong Province, P.R. China
Factory: Dongguan Jiasheng Lighting Technology Co., Ltd.
Address of Factory: Shutian Village, Humen Town, Dongguan City, Guangdong Province, P.R. China
Equipment Under Test (EUT):
Product: LED Lighting speaker
All Model No.: FWS-17, FLM-17
Test Model No.: FWS-17
Brand Name: MoriMori
Standards: Item 19 of Article 2 Paragraph 1
Date of Test: 2018-08-17 to 2018-08-23
Date of Issue: 2018-08-23
Test Result : PASS

Tested By:

Martin Lee

(Martin Lee)

Reviewed By:

Aaron Ma

(Aaron Ma)

Approved By:

Jack Ai

(Jack Ai)



1 Version

Revision Record				
Version	Chapter	Date	Modifier	Remark
00		2018-08-23		Original

2 Test Summary

Test	Test Requirement	Limit/Severity	Result
Antenna Requirement	Item 19 of Article 2-1	Notice 88 Appendix 43,B-1 (1)&(2)	PASS
Test frequency	Item 19 of Article 2-1	Notice 88 Appendix 43, A-3	PASS
Frequency Error	Item 19 of Article 2-1	±50 PPM or less	PASS
Occupied Bandwidth	Item 19 of Article 2-1	26 MHz or less	PASS
Antenna Power	Item 19 of Article 2-1	10 mW or less Error +20% -80%	PASS
Spurious Emission of Tx	Item 19 of Article 2-1	(1) Below 2387 MHz: 2.5μW (2) 2387 to 2400 MHz: 25μW (3) 2483.5 through 2496.5 MHz: 25μW (4) Over 2496.5 MHz: 2.5μW	PASS
Interference prevention capability	Item 19 of Article 2-1	Notice 88 Appendix 43, 44, 45	PASS
RF accessibility	Item 19 of Article 2-1	Article 49-20, paragraph 1 (a)	PASS
Spurious Emission of Rx	Item 19 of Article 2-1	(1) Below 1 GHz: 4nW (2) 1 GHz or higher: 20nW	PASS
Remark: EUT: In this whole report EUT means Equipment Under Test. Tx: In this whole report Tx (or tx) means Transmitter. Rx: In this whole report Rx (or rx) means Receiver. RF: In this whole report RF means Radio Frequency.			

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4 General Information

4.1 Client Information

Applicant:	Dongguan Jiasheng Lighting Technology Co., Ltd.
Address of Applicant:	Shutian Village, Humen Town, Dongguan City, Guangdong Province, P.R. China
Manufacturer:	Dongguan Jiasheng Lighting Technology Co., Ltd.
Address of Manufacturer:	Shutian Village, Humen Town, Dongguan City, Guangdong Province, P.R. China
Factory:	Dongguan Jiasheng Lighting Technology Co., Ltd.
Address of Factory:	Shutian Village, Humen Town, Dongguan City, Guangdong Province, P.R. China

4.2 General Description of E.U.T.

Product Name:	LED Lighting speaker
All Model No.:	FWS-17, FLM-17
Test Model No.:	FWS-17
Trade Mark:	MoriMori

4.3 Details of E.U.T.

Operating Frequency:	2402 MHZ to 2480 MHZ
Type of Modulation:	GFSK
Number of Channels:	40 Channels
Antenna Type:	PCB Antenna
Antenna gain:	-0.58dBi
Normal antenna power:	1mW
Speciality:	V4.0 BLE
Sample Type:	Portable production
Power Supply:	lithium battery:DC3.7V, 1700mAh, Charge by DC5.0V

All model: FWS-17, FLM-17

Only the model FWS-17 was tested, since the electrical circuit design, layout, components used and internal wiring were identical for the above models, with difference being color of appearance and model name.

4.4 Description of Support Units

The EUT has been tested independently.

Description	Manufacturer	Model No.	Remark
PC	Lenovo	ThinkPad E450c	Provide by lab

4.5 Deviation from Standards

None.

4.6 Abnormalities from Standard Conditions

None.

4.7 Other Information Requested by the Customer

None.

4.8 Test Location

All tests were performed at:

Shenzhen Huaxia Testing Technology Co., Ltd.

1F., Block A of Tongsheng Technology Building, Huahui Road, Dalang Street, Longhua District,
Shenzhen, China

4.9 Test Facility

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

- **CNAS (No. CNAS L5785)**

CNAS has accredited Shenzhen Huaxia Testing Technology Co., Ltd. Shenzhen Branch EMC Lab to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration Laboratories (CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing.

- **ISED Registration No.: 22984-1**

The 3m Semi-anechoic chamber of Shenzhen Huaxia Testing Technology Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing

- **A2LA (Certificate No. 4742.01)**

Shenzhen Huaxia Testing Technology Co., Ltd., Shenzhen EMC Laboratory is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 4742.01.

5 Equipment List

Test Equipment List						
Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. date (yyyy-mm-dd)	Calibration body	Classification
Humi/ Temp Indicator	VICTOR	VC330	CQA-TH1	2017-9-28	SMQ	(c)
Spectrum Analyzer	Rohde & Schwarz	FSU	CQA-038	2017-9-28	SMQ	(c)
DC Power Supply	KEYSIGHT	E3631A	CQA-028	2017-9-28	SMQ	(c)
Multi Meter	Fluke	15B	CQA-DM2	2017-9-28	SMQ	(c)
iPhone 6s	Apple	A1688	FK1QJUUSGRYD		TBL certificate number: [T] ADF15009 9003 [R]003-1501 32	(c)
BLUETOOTH TESTER	Rohde & Schwarz	CBT	CQA-023	2017-9-28	SMQ	(c)
Signal generator	ANRITSU	MG3692B	CQA-019	2017-10-9	SMQ	(c)

Remark:

- (a) Calibration conducted by the National Institute of Information and Communications Technology (NICT) in Japan (hereinafter referred to as "NICT") or a designated calibration agency under Article 102-18 paragraph (1) in JRL.
- (b) Correction conducted pursuant to the provisions of Article 135 or Article 144 of the Measurement Act (Act No. 51 of 1992) .
- (c) Calibration conducted in countries except Japan, which shall be equivalent to the calibration conducted by the NICT or a designated calibration agency under Article 102-18 paragraph (1).
- (d) Calibration, etc. conducted by using measuring instruments and other equipment listed in the right column of appended table No. 3, which shall have been given any type of calibration, etc. listed above from (a) to (c).

From JRL Article 24-2, paragraph 4, Item 2

Notice: Calibration duration for above equipments is 1 year.

6 Test Results

6.1 Radio Technical Requirements Specification

Table 1: Radio Technical Requirements Specification for 2.4 GHz band wide-band low-power data communication system (Item 19 of Article 2-1)

Items	Technical standard
Assigned frequency or designated frequency	2400-2483.5MHz
Communication method	One-way communication, simplex, semi-duplex, or duplex operation of digital signal transmission including spread spectrum
Tolerance of frequency ($\times 10^{-6}$)	± 50
Tolerance of occupied bandwidth	FH: 83.5MHz or less FH + DS: 83.5MHz or less FH + OFDM: 83.5MHz or less OFDM: 38MHz or less Others: 26MHz or less
Antenna power	Designated value (1) FH, FH+DS, FH+OFDM: 3mW/MHz (used in the range of 2427 - 2470.75 MHz) (2) OFDM, DS other than (1) 10mW/MHz (3) Other than (1) & (2) 10mW (4) OFDM OBW 26 - 38MHz: 5mW/MHz Tolerance: +20%, -80%
Antenna gain	1) 12.14 dBi or less in principle 2) In case of directional antenna (1) FH, FH+DS or FH+OFDM using 2427-2470.75 MHz EIRP $\leq$ 16.91 dBm/MHz (2) OFDM or DS other than (1) EIRP $\leq$ 22.14 dBm/MHz (3) Other than (1) and (2): 22.14 dBm or less (4) OFDM OBW 26 - 38MHz: 19.14dBm/MHz (5) Half-power angle of directional antenna (e) in case of the item 2): $e \leq 360/A$ (The A is 10 in maximum.)
Tolerance of spurious emission intensity	(1) Below 2387 MHz: 2.5 μ W (2) 2387 to 2400 MHz: 25 μ W (3) 2483.5 through 2496.5 MHz: 25 μ W (4) Over 2496.5 MHz: 2.5 μ W
Spreading bandwidth	DS, FH, FH+DS, FH+OFDM: 500kHz or more
Spreading rate of spectrum	For DS system; (Spreading bandwidth) / (Frequency corresponding to transmission rate) ≥ 5
Limit of secondary radiated	(1) Below 1 GHz: 4nW

emissions	(2) 1 GHz or higher: 20nW
Interference prevention function	Shall have the function of automatic transmission and reception of identification sign.
Structure	Shall be of the structure that the RF and modulator sections excluding antenna cannot easily be opened.
Note	DS: Direct spread FH: Frequency hopping OFDM: Orthogonal frequency division multiplexing

6.2 E.U.T. Test Conditions

Power Supply: Lithium ion batteries: DC3.7V, Charging by USB: DC5.0V

The RF unit is supplied DC5.0V . The fluctuation of input voltage to the circuit of RF unit of test equipment is under $\pm 1\%$, when input voltage from DC3.7V to the test equipment is fluctuated by $\pm 10\%$, So, all measurement has been conducted by only rated voltage.

The mesurement result of the voltage fluctation at RF circuit when DC3.7V +/- 10%.	
DC Input	DC3V3
4.07V	3.30V
3.7V	3.29V
3.33V	3.29V

Temperature: 5 -35.0 °C

Humidity: 45-85 % RH

Atmospheric Pressure: 1000 -1010 mbar

Test Frequencies: If the EUT can be set to 3 of more different (carrier) frequencies in 1 allocated band, testing shall be performed using the Lowest, Middle and the Highest frequency (L, M and H). If there are 2 or fewer frequencies, testing shall be performed with the available frequencies.

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

Test frequencies are the lowest channel: 0 channel(2402MHz), middle channel: 19 channel(2440MHz) and the highest channel:39 channel(2480 MHz).

6.3 Test Environment

Operating Environment:	
Temperature:	25.0 °C
Humidity:	53 % RH
Atmospheric Pressure:	1010 mbar

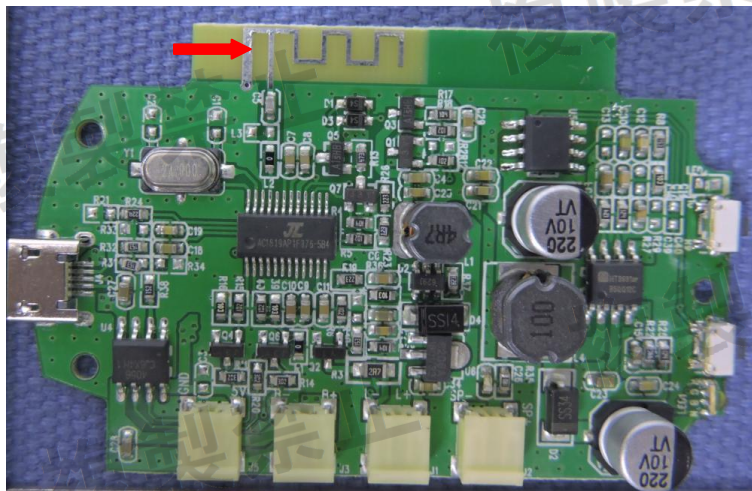
6.4 Antenna Requirement

Standard requirement

Applicable for equipment with an antenna terminal, including testing terminals) If an antenna connector is available, all relevant tests will be carried out conducted. If not, tests will be carried out in an anechoic room or with a suitable test-fixture.

EUT Antenna

The antenna is integrated on the main PCB and no consideration of replacement. The best case gain of the antenna is -0.58dBi.



Result: An antenna connector is available, all relevant tests will be carried out conducted.

6.5 Interference Prevention Function

The device consists of the the integral antenna and 2.4 GHz BT module; Component BT module also can use the protocol function to protect interference come from outside.

1) Test Equipment

iPhone 6s

2) Test Software

S2 Terminal for Bluetooth

3) Test Procedure

1:Open the software

2:Search the Bluetooth device

We can use software to detect Bluetooth ID information is as follows:

W Speaker

1C:B3:F2:7D:C7:D1

Test result: The unit does meet the requirements.

PASS

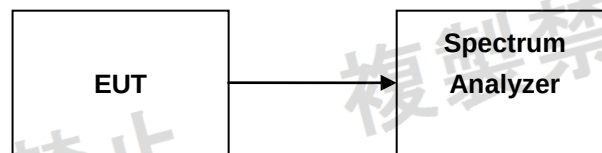
6.6 Frequency Error

Test Requirement: Item 19 of Article 2-1
Tolerance of frequency: $\pm 50 \times 10^{-6}$

Text Method: MIC Notice No.88 Appendix No.43

Test Status: Test the EUT in transmitting mode without modulation.

Test Configuration:



Test Procedure:

1. Test Conditions:
Spectrum Analyzer is used for measurement.
2. EUT conditions:
Modulation/Spread/Hopping OFF, CW Tx
3. Spectrum Analyzer conditions:
Frequency: Test Frequency
Span 1MHz
RBW 10 kHz (Modulation OFF),
VBW 10 kHz (Modulation OFF),
Sweep Time Auto
Detector mode Positive peak
Indication mode Max hold

Test Result:

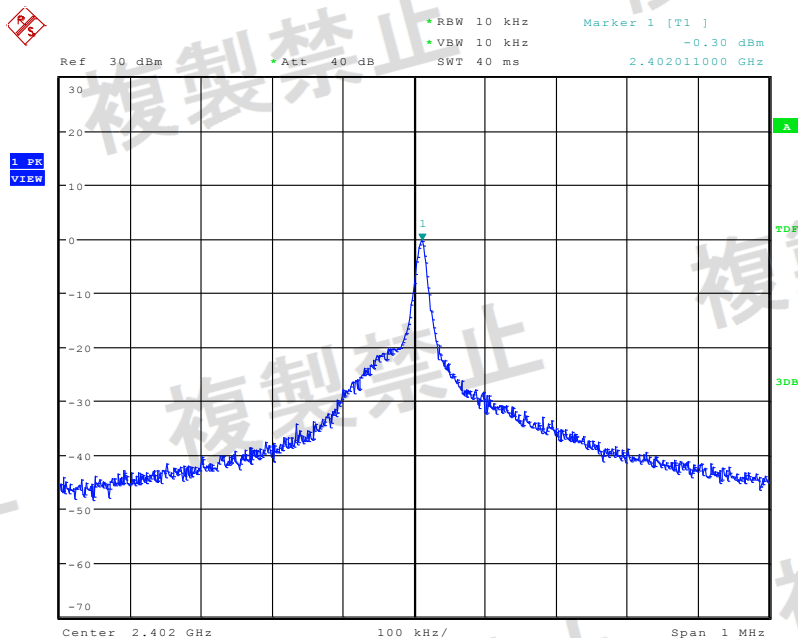
Test channel	Test Frequency (MHz)	Test Result			Unit	Limit
		Normal Voltage	High Voltage	Low Voltage		
		3.7V DC	4.07V DC	3.33V DC		
Lowest	2402.0	2402.011	N/A	N/A	MHz	±50 PPM or less
		4.580	N/A	N/A	PPM	
Middle	2440.0	2440.011	N/A	N/A	MHz	
		4.508	N/A	N/A	PPM	
Highest	2480.0	2480.011	N/A	N/A	MHz	
		4.435	N/A	N/A	PPM	

Note: The nominal frequency shall be confirmed by the applicant and test lab.

Result plot as follows:

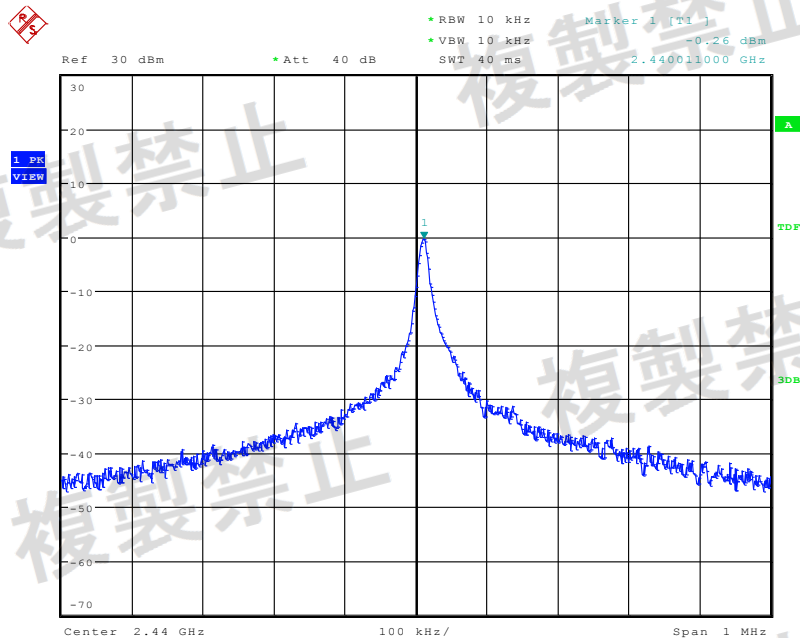
Normal Voltage:DC3.7V

Channel 0: 2.402 GHz:



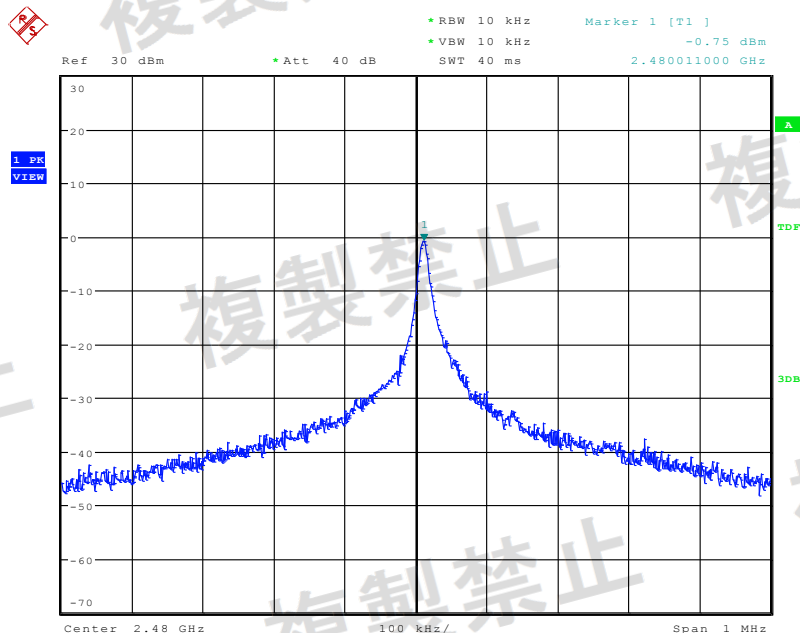
Date: 22.AUG.2018 17:21:54

Channel 19: 2.440 GHz:



Date: 22.AUG.2018 17:23:15

Channel 39: 2.480 GHz



Date: 22.AUG.2018 17:25:04

Test Result: The unit does meet the requirements.

6.7 Occupied Bandwidth (99%)

Test Requirement:	Item 19 of Article 2-1 26MHz or less
Text Method:	MIC Notice No.88 Appendix No.43
Test Status:	Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture). Following channel(s) was (were) selected for the final test as listed below.
Test Configuration:	



Test Procedure:

1. Test Conditions:
Spectrum Analyzer is used for measurement.
2. EUT conditions:
Modulation/Spread/Hopping ON, Modulation Tx
For equipment using diffusion code, set to the test diffusion code and modulate with standard coding test signal.
3. Spectrum Analyzer conditions:
Frequency: Lowest, Middle and Highest Test Frequency
Span 10 MHz
RBW 300 KHz
VBW 300 KHz
Sweep Time Auto
detector mode Positive peak
Indication mode Max hold
OBW 99%

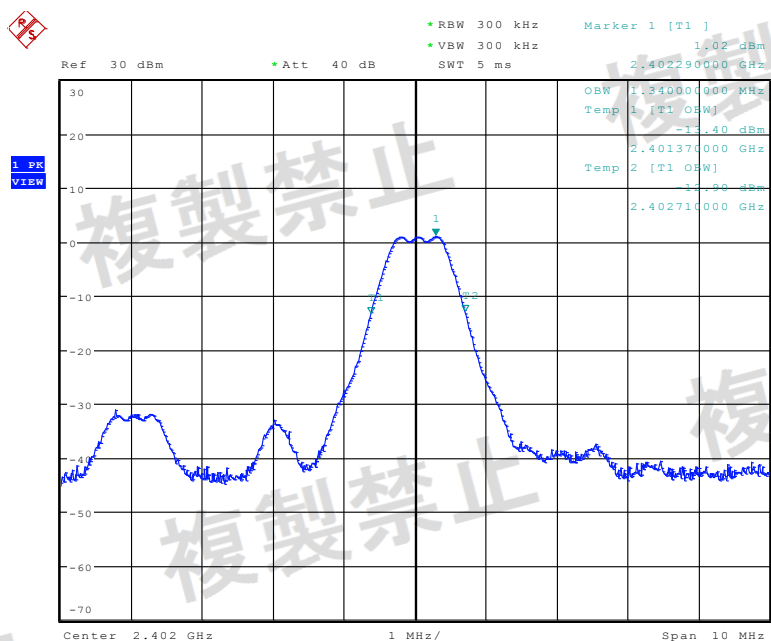
Test Result:

Test channel	Test Frequency (MHz)	Test Result			Unit	Limit
		Normal Voltage	High Voltage	Low Voltage		
		3.7V DC	4.07V DC	3.33V DC		
Lowest	2402	1.340	N/A	N/A	MHz	26 MHz or less
Middle	2440	1.320	N/A	N/A	MHz	26 MHz or less
Highest	2480	1.340	N/A	N/A	MHz	26 MHz or less

Result plot as follows:

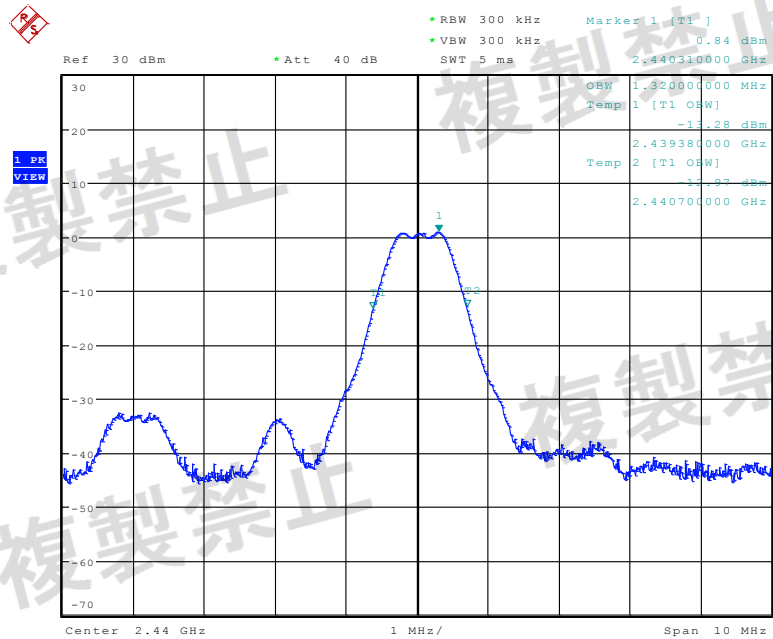
Normal Voltage:DC3.7V

Channel 0 (2.402 GHz)



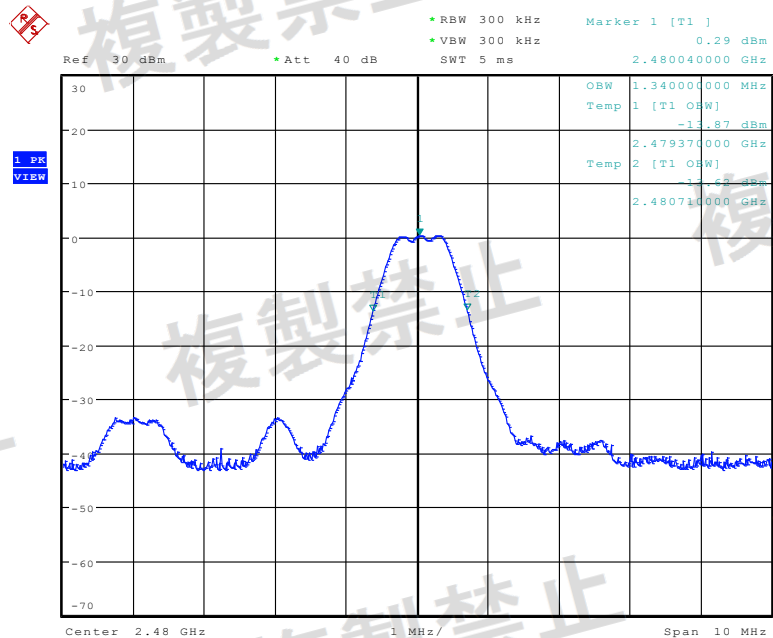
Date: 22.AUG.2018 16:31:40

Channel 19 (2.440GHz)



Date: 22.AUG.2018 16:32:54

Channel 39 (2.480GHz)



Date: 22.AUG.2018 16:35:26

Test Result: The unit does meet the requirements.

6.8 Antenna Power

Test Requirement:	Item 19 of Article 2-1
Text Method:	MIC Notice No.88 Appendix No.43
Test Status:	Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture). Following channel(s) was (were) selected for the final test as listed below.

Test Configuration:



Test Procedure:

1. Test Conditions:
Spectrum Analyzer is used for measurement.
2. EUT conditions:
Modulation/Spread/Hopping ON, Modulation Tx
For equipment using diffusion code, set to the test diffusion code and modulate with standard coding test signal.
3. Spectrum Analyzer conditions:
Frequency: Test Frequency
Span 25 MHz
RBW 3 MHz
VBW 3 MHz
Sweep Time Auto
detector mode Positive peak
Indication mode Max hold

Test Result:

Test channel	Test Frequency (MHz)	Test Result			Unit	Limit
		Normal Voltage	High Voltage	Low Voltage		
		3.7V DC	4.07V DC	3.33V DC		
Lowest	2402	1.219	N/A	N/A	mW	10 mW or less
		-18.734	N/A	N/A	%	Error +20% -80%
Middle	2440	1.178	N/A	N/A	mW	10 mW or less
		-21.493	N/A	N/A	%	Error +20% -80%
Highest	2480	1.023	N/A	N/A	mW	10 mW or less
		-31.780	N/A	N/A	%	Error +20% -80%

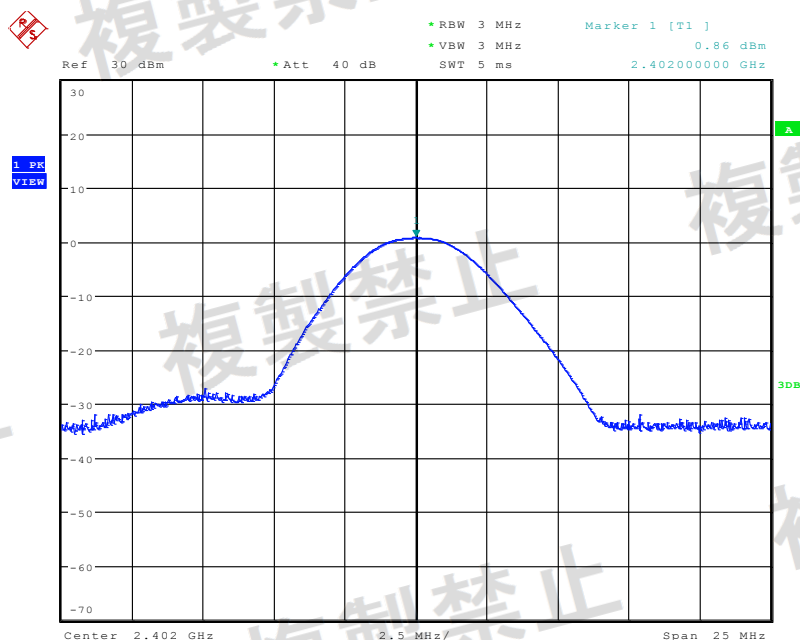
Remark:

Normal antenna power: 1.5mW

Result plot as follows:

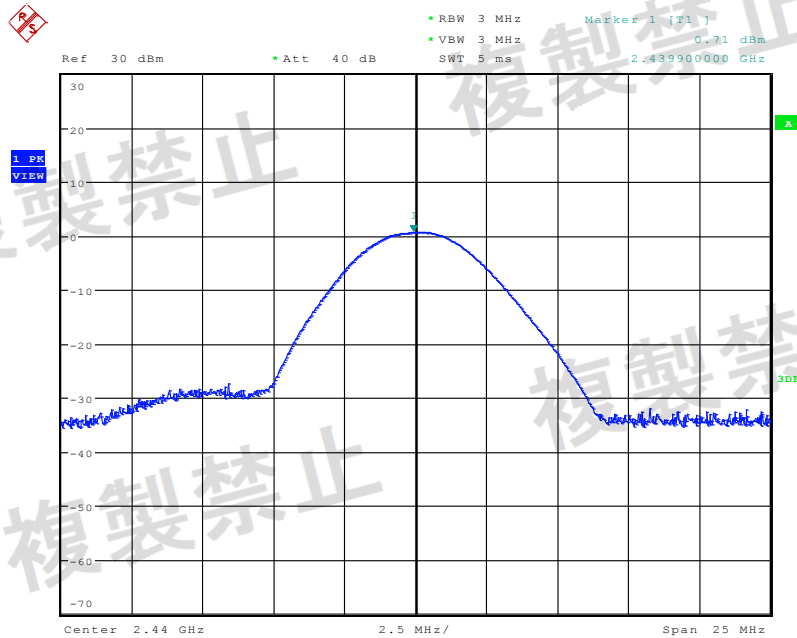
Normal Voltage:DC3.7V

Channel 0 (2.402 GHz)



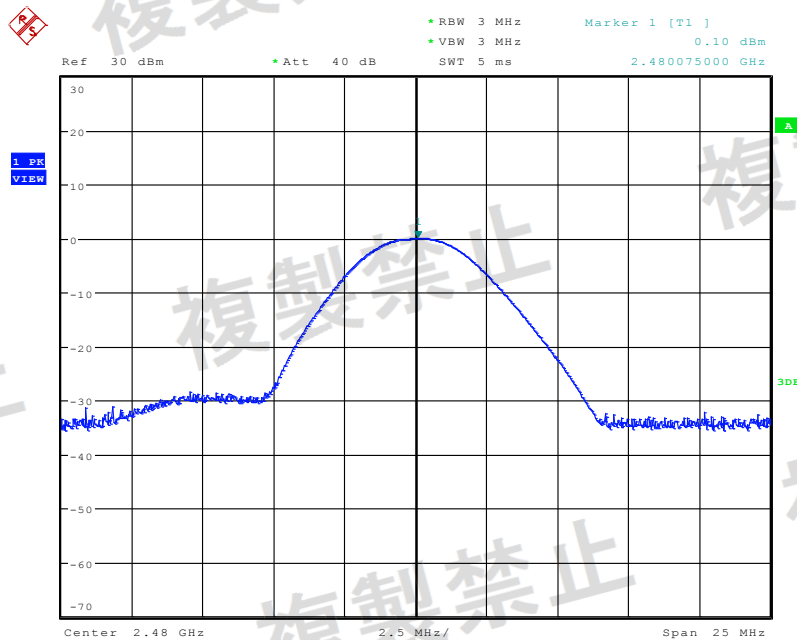
Date: 22.AUG.2018 16:20:02

Channel 19 (2.440GHz)



Date: 22.AUG.2018 16:21:36

Channel 39 (2.480GHz)

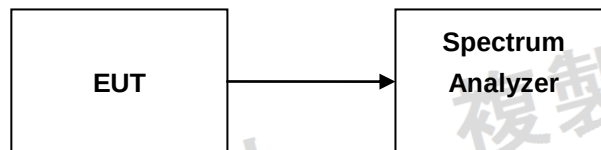


Date: 22.AUG.2018 16:25:07

Test result: The unit does meet the requirements.

6.9 Spurious Emissions of Tx

Test Requirement:	Item 19 of Article 2-1
Text Method:	MIC Notice No.88 Appendix No.43
	(1) Below 2387 MHz: 2.5 μ W/MHz (2) 2387 to 2400 MHz: 25 μ W/MHz (3) 2483.5 through 2496.5 MHz: 25 μ W/MHz (4) Over 2496.5 MHz: 2.5 μ W/MHz
Test Status:	Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture). Following channel(s) was (were) selected for the final test as listed below.
Test Configuration:	



Test Procedure:

1. Test Conditions:
Spectrum Analyzer is used for measurement.
2. EUT conditions:
Modulation/Spread/Hopping ON, , Modulation Tx
For equipment using diffusion code, set to the test diffusion code and modulate with standard coding test signal.
3. Spectrum Analyzer conditions:
Step 1
All spurious are measured from 30 MHz to 13 GHz by peak mode.
Step 2
IF the value measured by Step1 is 2 dB or less, measure in average mode.

Test setup for Step 1:

Frequency: 30 MHz – 2400 MHz , 2483.5 MHz –13 GHz

RBW 1 MHz

VBW 1 MHz

Sweep Time Auto

detector mode Positive peak

Indication mode Max hold

Test setup for Step 2:

Frequency: Spurious Frequency

RBW 1 MHz

VBW 1 MHz

Sweep Time Auto

detector mode Sample

Indication mode Max hold

Test Result:

Test channel	Test Result						Unit	Limit
	Normal Voltage		High Voltage		Low Voltage			
	3.7V DC		4.07V DC		3.33V DC			
Channel (2402MHz)	Frequency (MHz)	Level (μW)	Frequency (MHz)	Level (μW)	Frequency (MHz)	Level (μW)	μW	(1) Below 2387 MHz: 2.5μW/MHz
	2379.446	0.047	N/A	N/A	N/A	N/A		(2) 2387 to 2400 MHz :
	2399.997	5.297	N/A	N/A	N/A	N/A		25μW/MHz
	2496.178	0.019	N/A	N/A	N/A	N/A		(3) 2483.5 through 2496.5 MHz :
	4804.469	0.081	N/A	N/A	N/A	N/A		25μW/MHz
								(4)Over 2496.5 MHz: 2.5μW/MHz

Test channel	Test Result						Unit	Limit
	Normal Voltage		High Voltage		Low Voltage			
	3.7V DC		4.07V DC		3.33V DC			
Channel (2440MHz)	Frequency (MHz)	Level (μW)	Frequency (MHz)	Level (μW)	Frequency (MHz)	Level (μW)	μW	(1) Below 2387 MHz: 2.5μW/MHz (2) 2387 to 2400 MHz : 25μW/MHz (3) 2483.5 through 2496.5 MHz : 25μW/MHz (4)Over 2496.5 MHz: 2.5μW/MHz
	2379.446	0.034	N/A	N/A	N/A	N/A		
	2399.477	0.035	N/A	N/A	N/A	N/A		
	2483.813	0.020	N/A	N/A	N/A	N/A		
	4879.394	0.106	N/A	N/A	N/A	N/A		

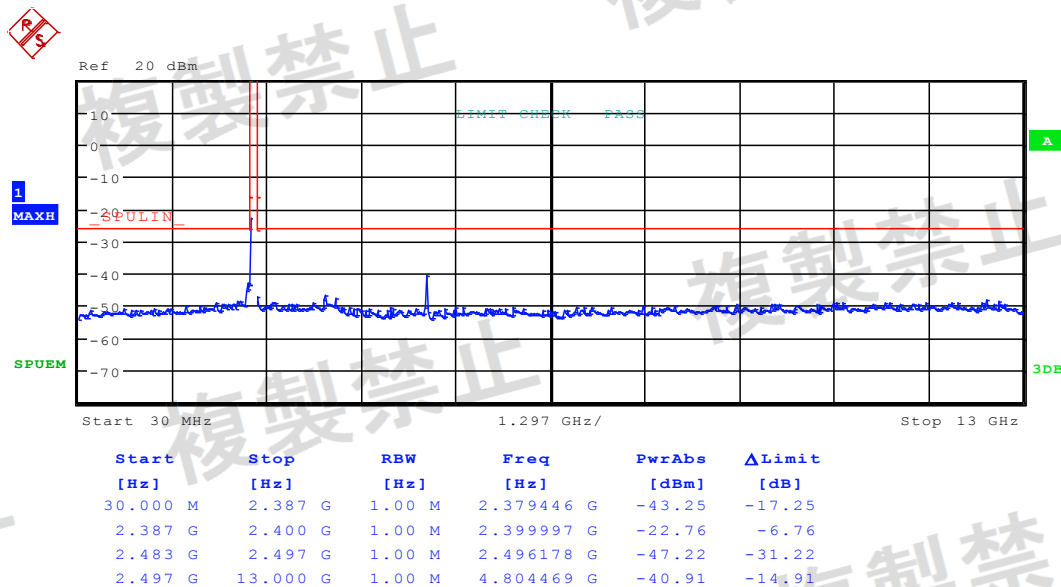
Test channel	Test Result						Unit	Limit
	Normal Voltage		High Voltage		Low Voltage			
	3.7V DC		4.07V DC		3.33V DC			
Channel (2480MHz)	Frequency (MHz)	Level (μW)	Frequency (MHz)	Level (μW)	Frequency (MHz)	Level (μW)	μW	(1) Below 2387 MHz: 2.5μW/MHz (2) 2387 to 2400 MHz : 25μW/MHz (3) 2483.5 through 2496.5 MHz : 25μW/MHz (4)Over 2496.5 MHz: 2.5μW/MHz
	2239.688	0.014	N/A	N/A	N/A	N/A		
	2395.528	0.019	N/A	N/A	N/A	N/A		
	2483.506	0.077	N/A	N/A	N/A	N/A		
	4959.571	0.077	N/A	N/A	N/A	N/A		

Result plot as follows:

Normal Voltage DC3.7V

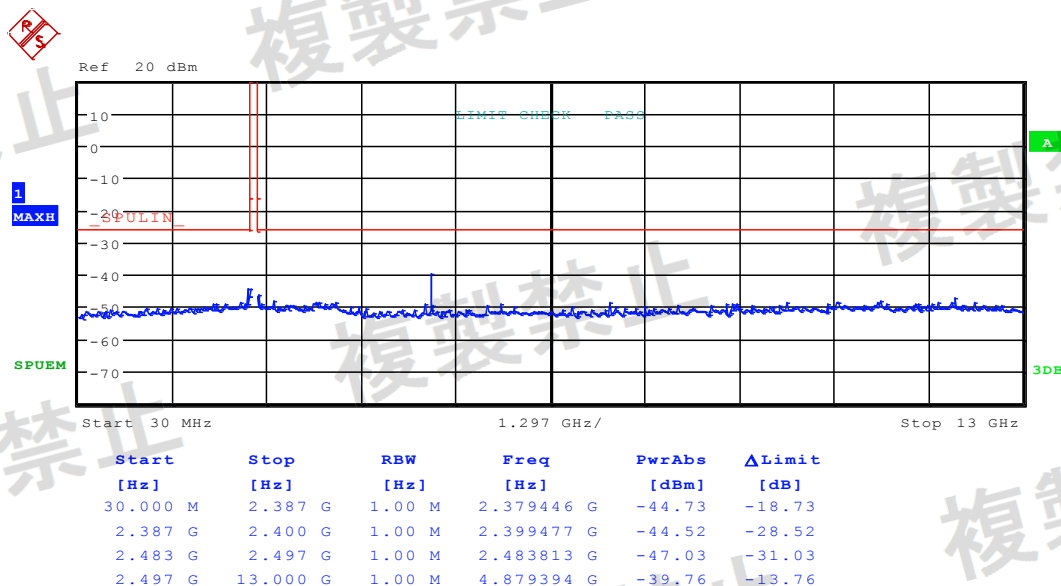
Channel 0 (2.402 GHz)

30MHz-13GHz:



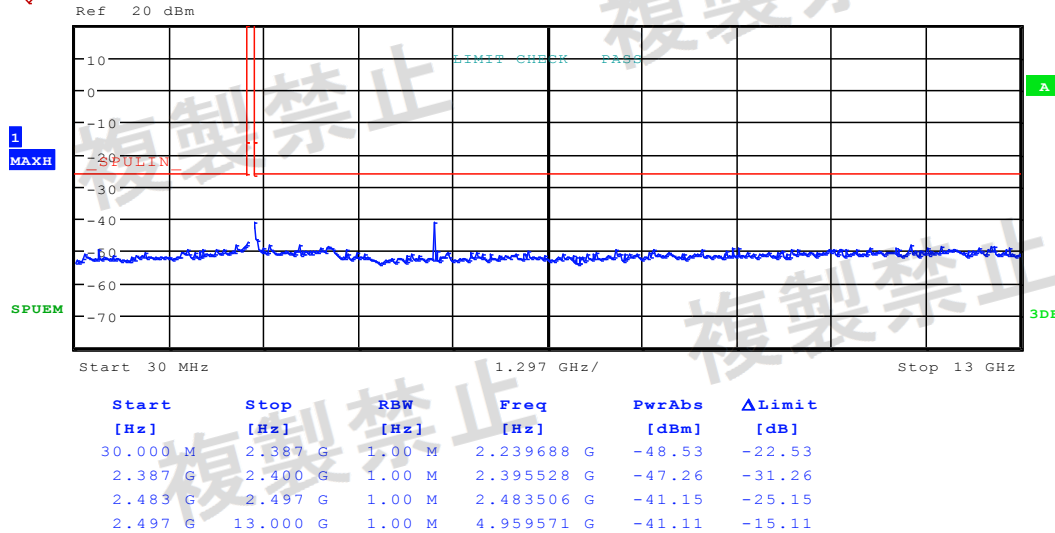
Channel 19 (2.440 GHz)

30MHz-13GHz:



Channel 39 (2.480 GHz)

30MHz-13GHz:



Test Result: The unit does meet the requirements.

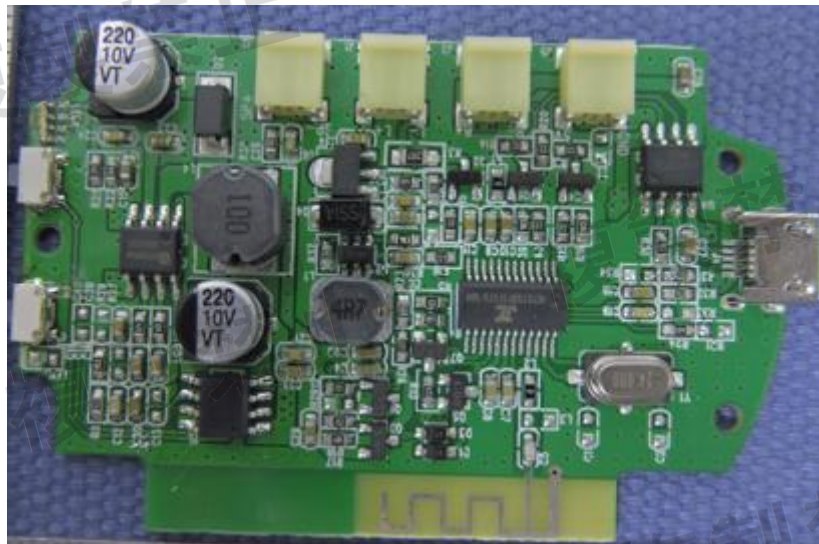
6.10 RF accessibility

Standard requirement

Article 49-20, paragraph 1 (a)

The EUT shall be constructed in such a way that sensitive RF parts, (like modulation and oscillator parts) cannot be reached easily by the user. These parts shall be covered by soldered metal caps or glue or by other mechanical covers. If the covers are fixed with screws, these shall be not the common type(s) like a Phillips, but special versions like Torx, so that the user cannot open the device with common tools.

RF and Modulation parts are mounted on PCB with surface mount technology, and there is no any adjustable parts on PCB or adjustable parts are not exposed.



6.11 Spurious Emissions of Rx

Test Requirement:	Item 19 of Article 2-1
Text Method:	MIC Notice No.88 Appendix No.43 (1) Below 1 GHz : 4 nW or less (2) 1 GHz and over : 20 nW or less
Test Status:	Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture). Following channel(s) was (were) selected for the final test as listed below.
Test Configuration:	



Test Procedure:

1. Test Conditions:
Spectrum Analyzer is used for measurement.
2. EUT conditions:
Modulation/Spread/Hopping ON
For equipment using diffusion code, set to the test diffusion code and modulate with standard coding test signal.
3. Spectrum Analyzer conditions:
Step 1
All spurious are measured from 30 MHz to 13 GHz by peak mode.
Step 2
IF the value measured by Step1 is 2 dB or less, measure in average mode.
Test setup for Step 1:
Frequency: 30 MHz – 2400 MHz , 2483.5 MHz –13 GHz
RBW 100 kHz (30 – 1GHz) , 1 MHz (over 1GHz)
VBW 100 kHz (30 – 1GHz) , 1 MHz (over 1GHz)
Sweep Time Auto
detector mode Positive peak
Indication mode Max hold
Test setup for Step 2:
Frequency: Spurious Frequency
Span 0 Hz
RBW 100 kHz (30 – 1GHz) , 1 MHz (over 1GHz)
VBW 100 kHz (30 – 1GHz) , 1 MHz (over 1GHz)
Sweep Time Auto
detector mode Sample
Indication mode Max hold

Test Result:

Test channel	Test Result						Unit	Limit
	Normal Voltage		High Voltage		Low Voltage			
	3.7V DC		4.07V DC		3.33V DC			
Channel 0: 2402MHz	Frequency (MHz)	Level (nW)	Frequency (MHz)	Level (nW)	Frequency (MHz)	Level (nW)	nW	(1) Below 1 GHz : 4 nW (2) 1 GHz to 13 GHz : 20 nW
	62.644	0.430	N/A	N/A	N/A	N/A		
	4800.400	1.524	N/A	N/A	N/A	N/A		

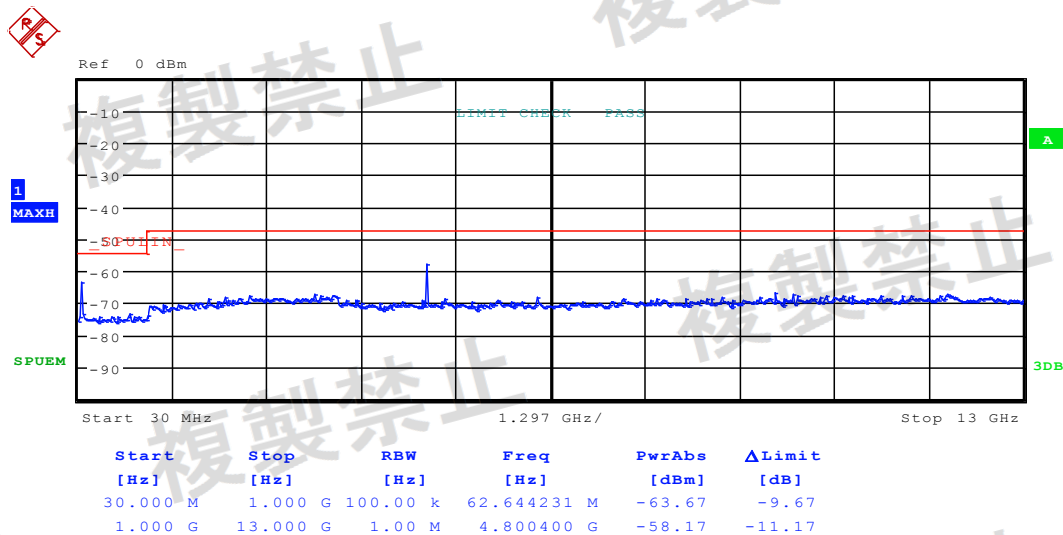
Test channel	Test Result						Unit	Limit
	Normal Voltage		High Voltage		Low Voltage			
	3.7V DC		4.07V DC		3.33V DC			
Channel 19: 2440MHz	Frequency (MHz)	Level (nW)	Frequency (MHz)	Level (nW)	Frequency (MHz)	Level (nW)	nW	(1) Below 1 GHz : 4 nW (2) 1 GHz to 13 GHz : 20 nW
	62.644	0.425	N/A	N/A	N/A	N/A		
	4876.000	1.782	N/A	N/A	N/A	N/A		

Test channel	Test Result						Unit	Limit
	Normal Voltage		High Voltage		Low Voltage			
	3.7V DC		4.07V DC		3.33V DC			
Channel 39: 2480MHz	Frequency (MHz)	Level (nW)	Frequency (MHz)	Level (nW)	Frequency (MHz)	Level (nW)	nW	(1) Below 1 GHz : 4 nW (2) 1 GHz to 13 GHz : 20 nW
	62.644	0.471	N/A	N/A	N/A	N/A		
	4956.400	1.824	N/A	N/A	N/A	N/A		

Result plot as follows:

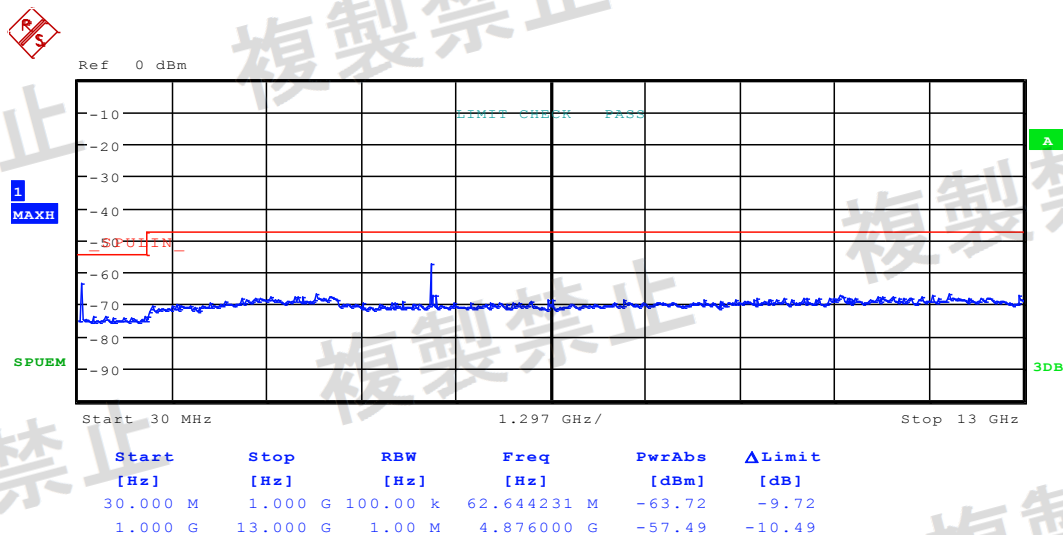
Channel 0: 2402MHz

30MHz-13GHz:



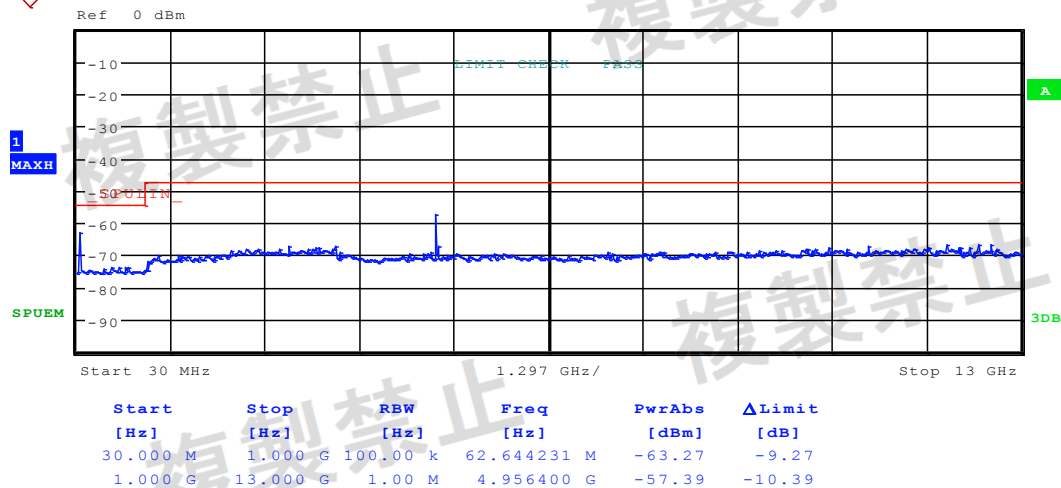
Channel 19: 2440MHz

30MHz-13GHz:



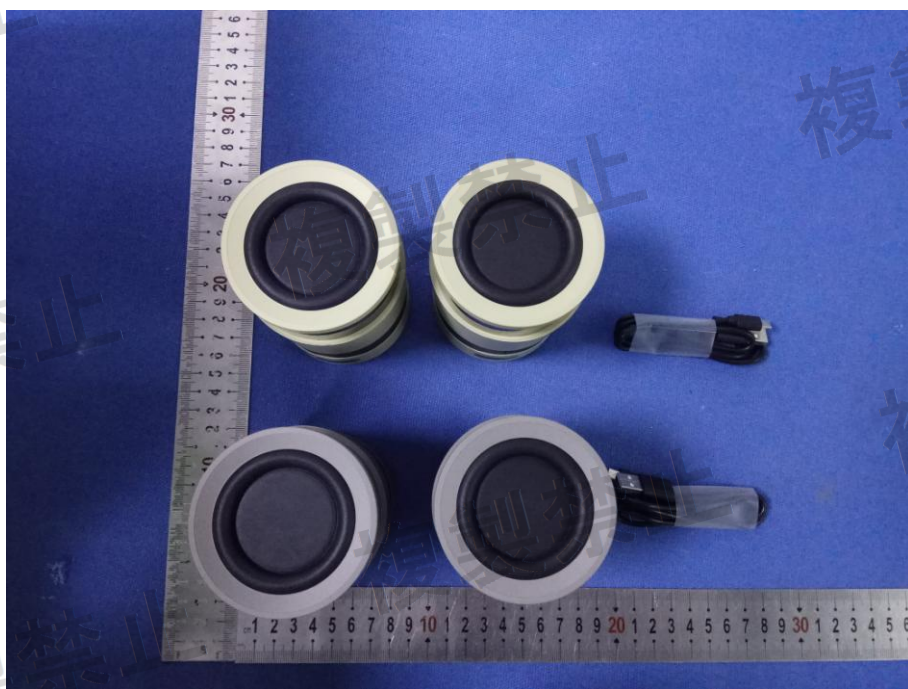
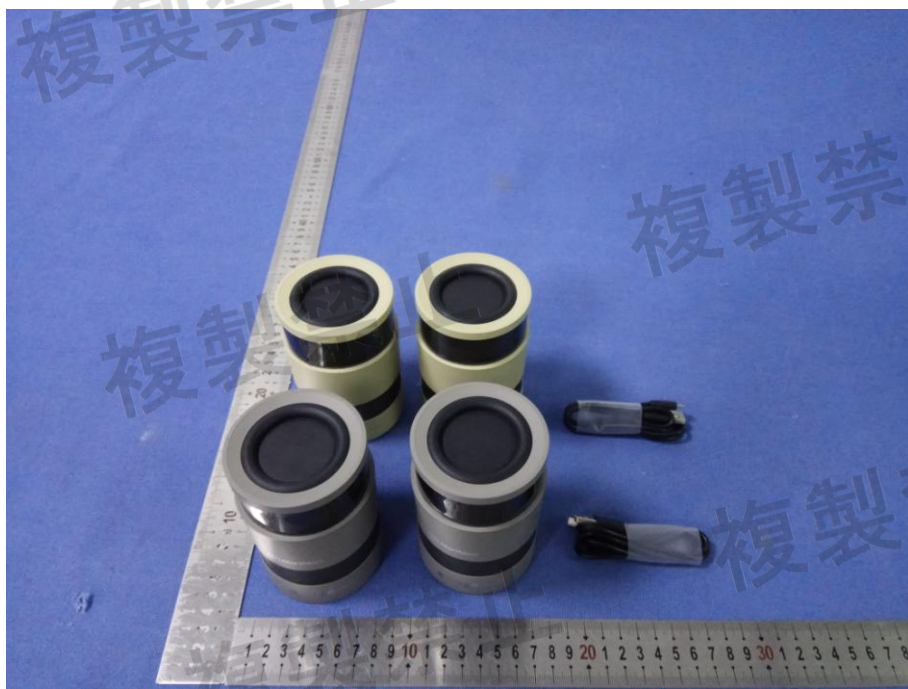
Channel 39: 2480MHz

30MHz-13GHz:

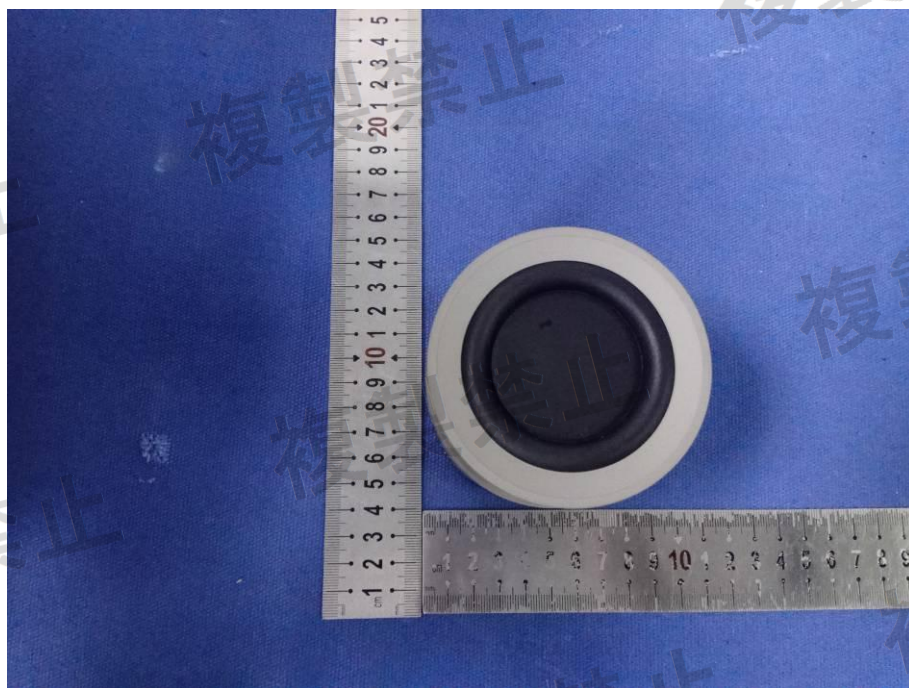
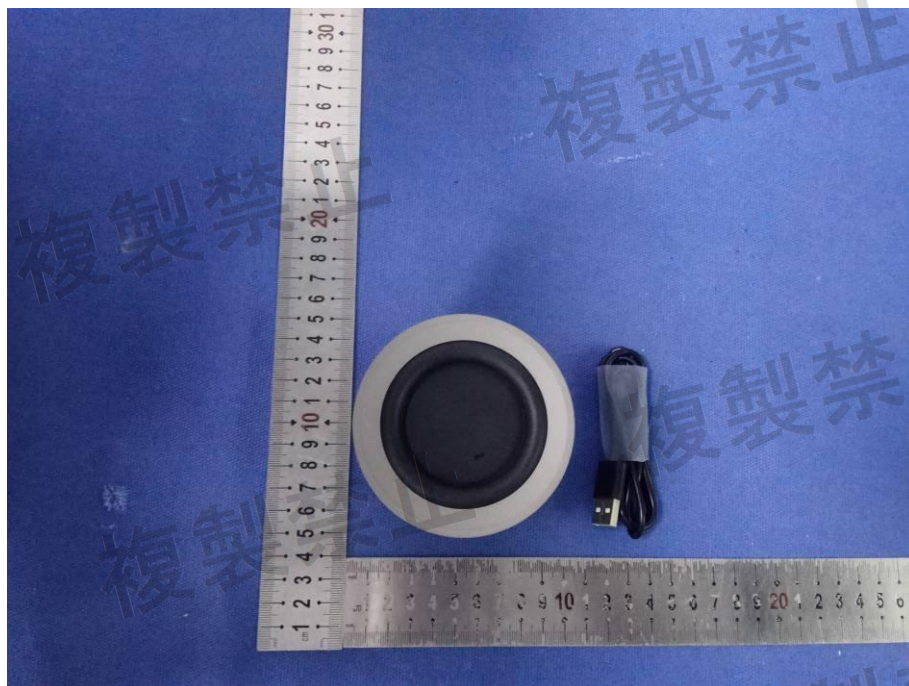


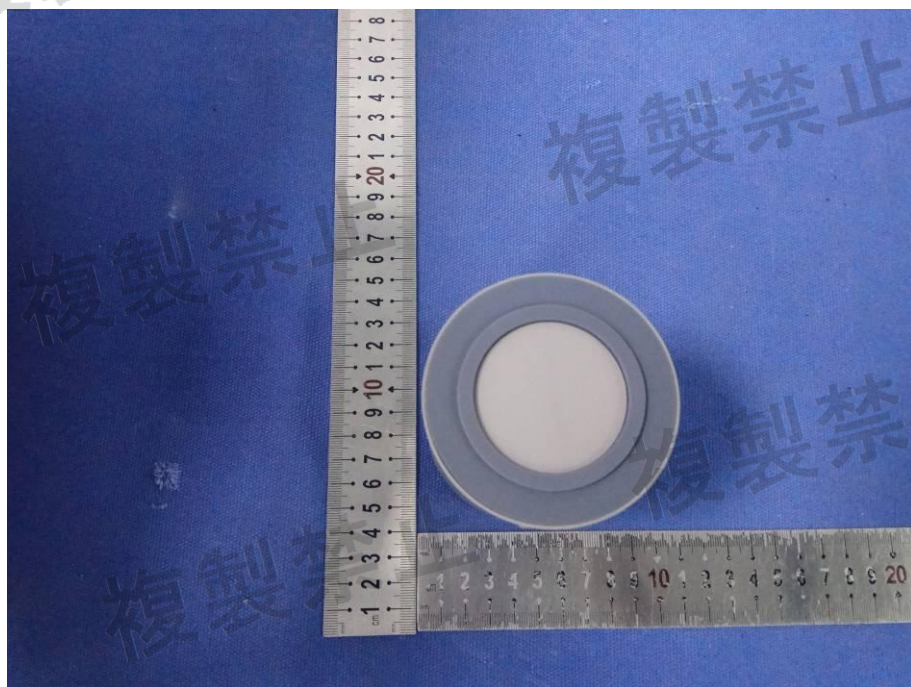
7 Photographs

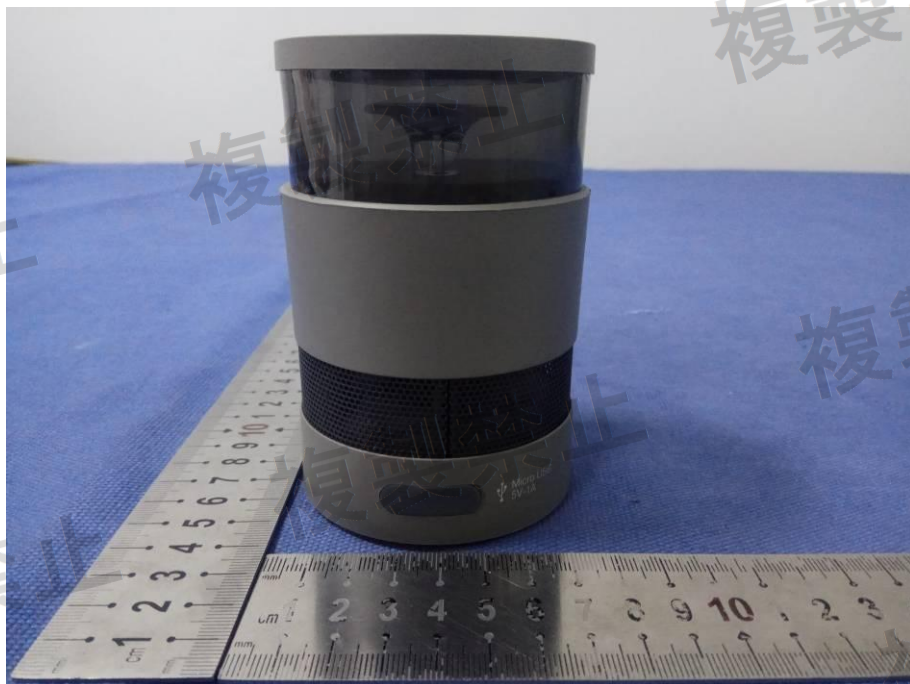
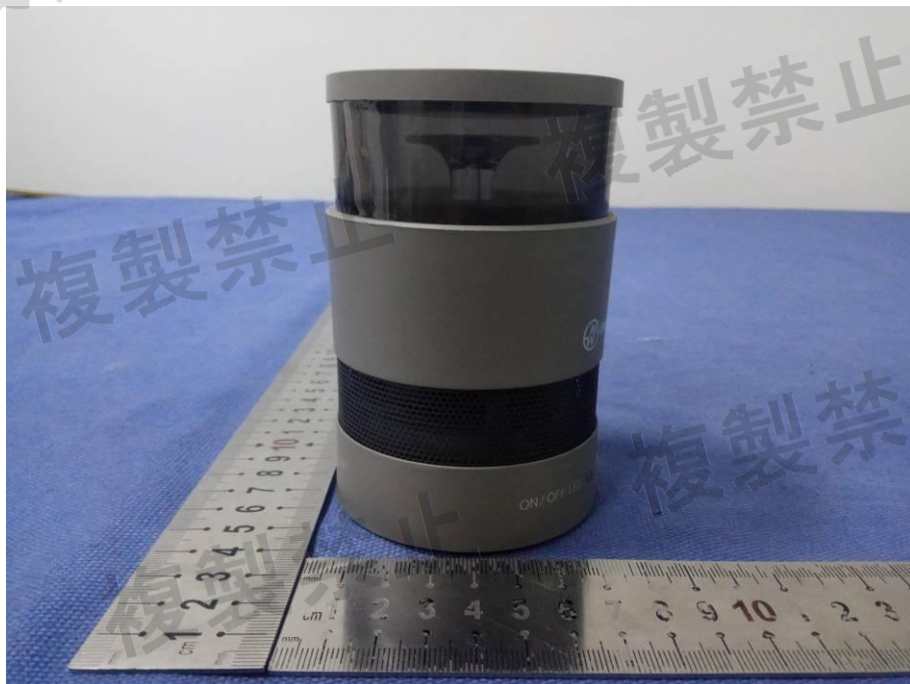
7.1 EUT Constructional Details

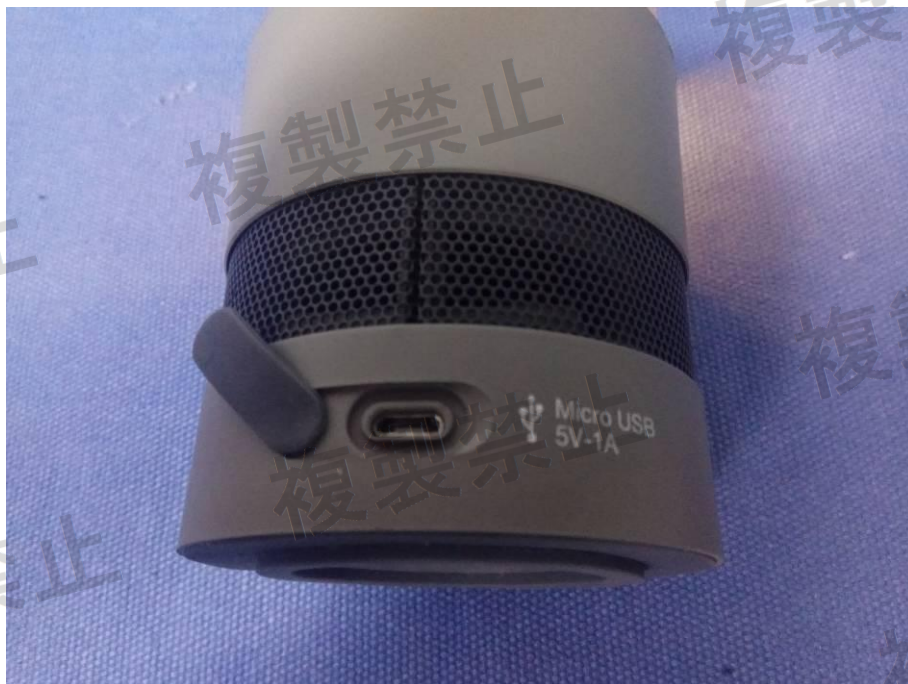
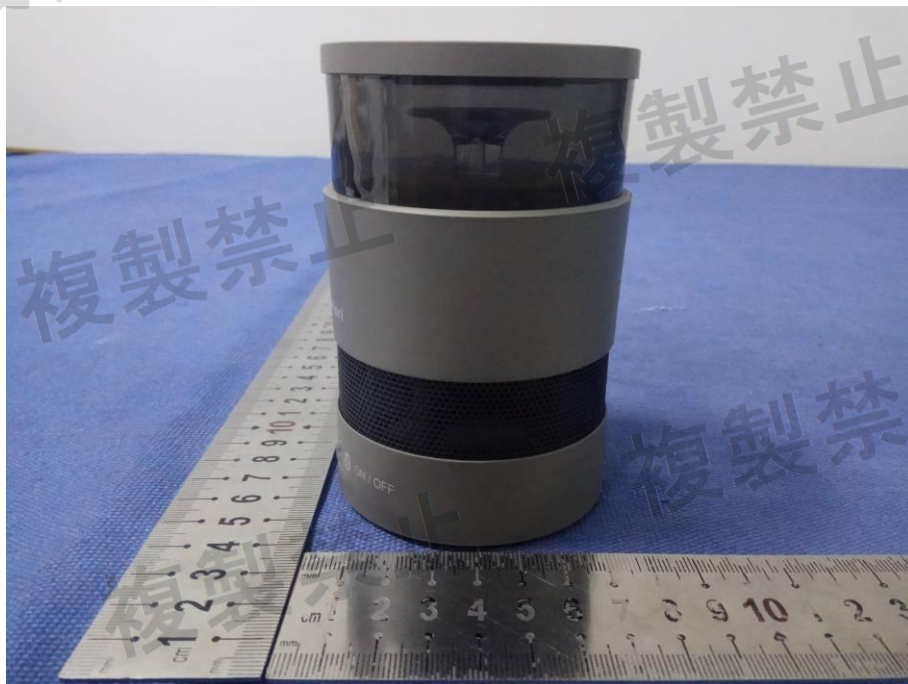


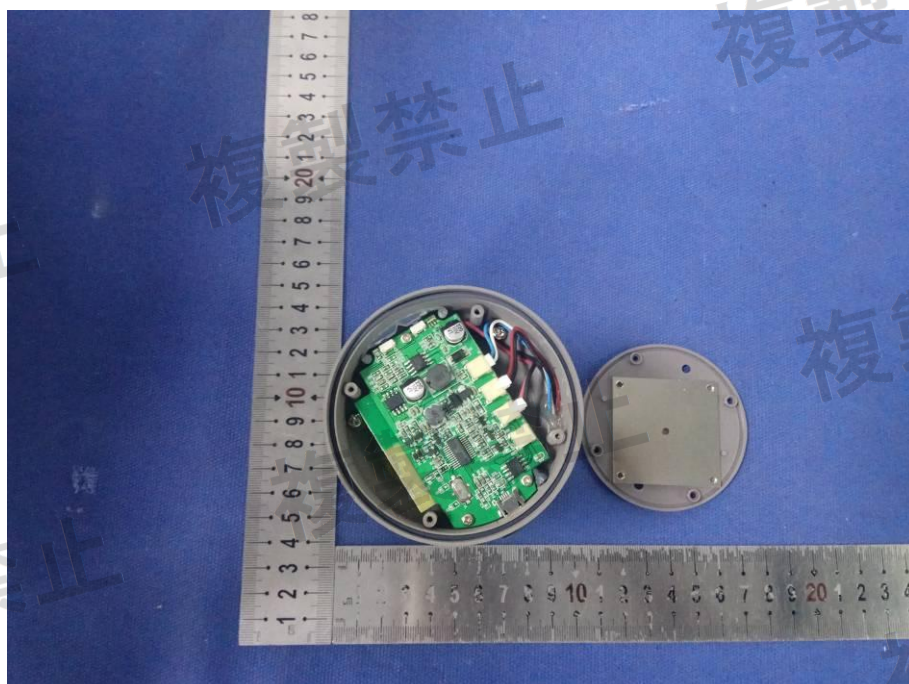
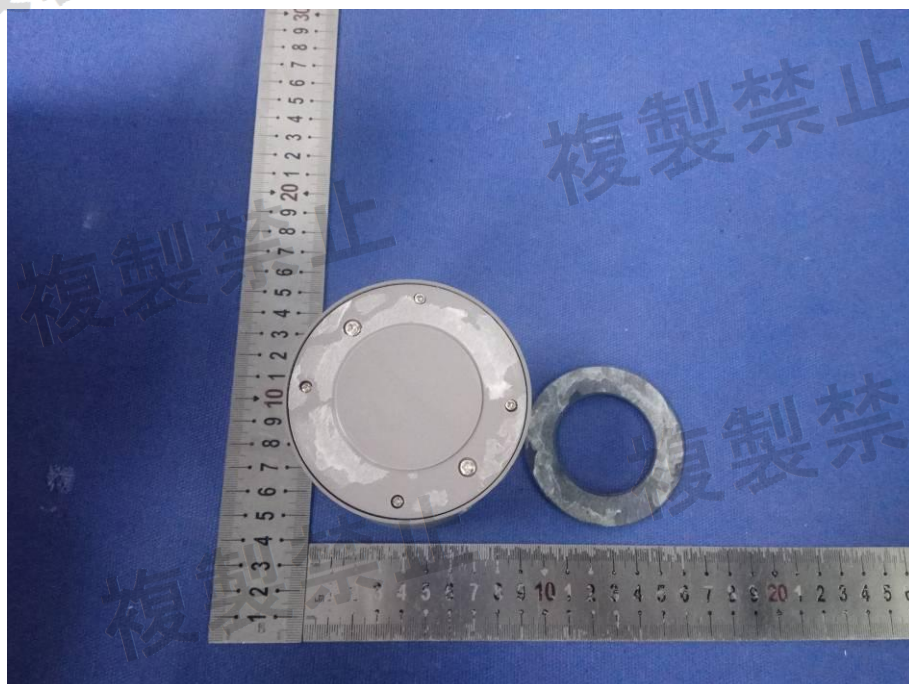
Test Model No.: FWS-17

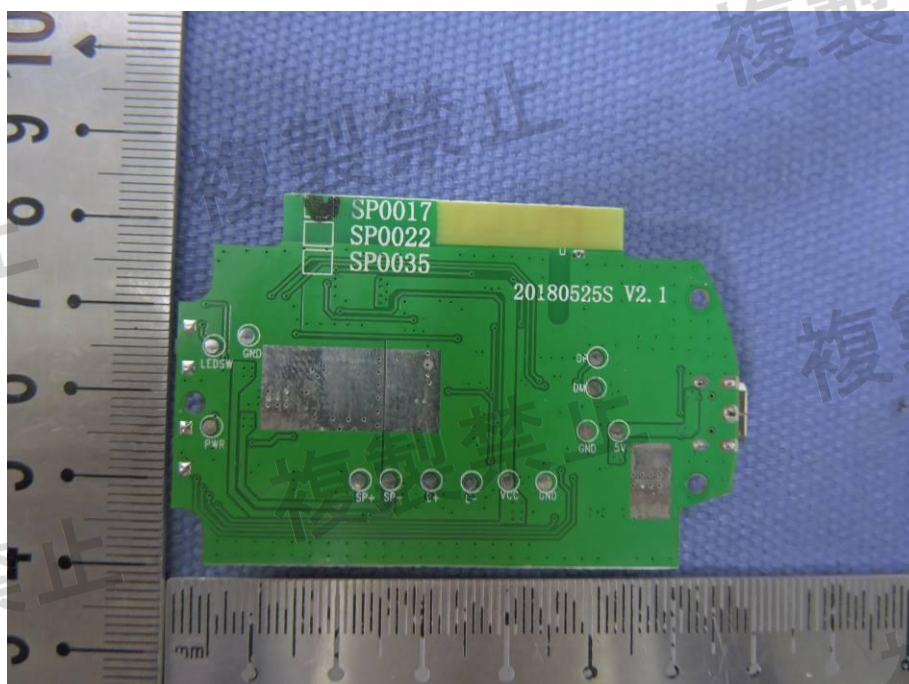
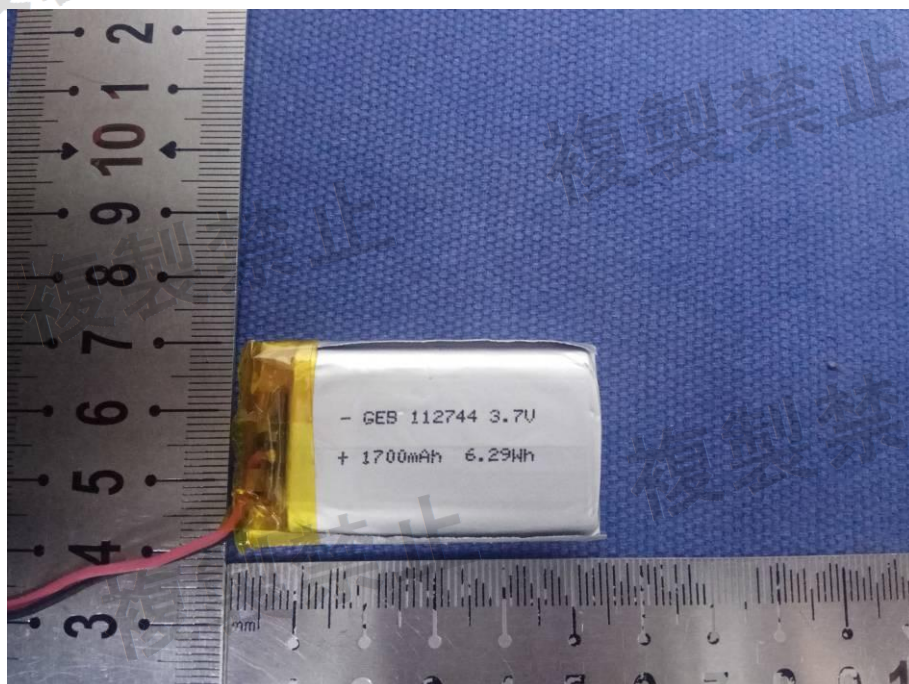


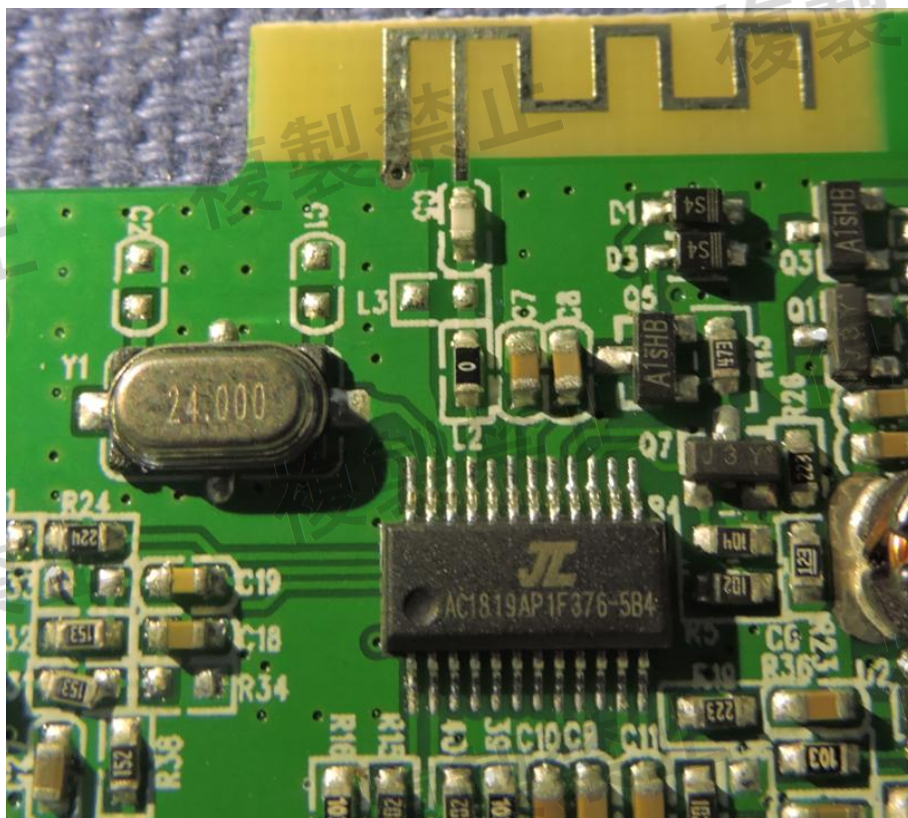
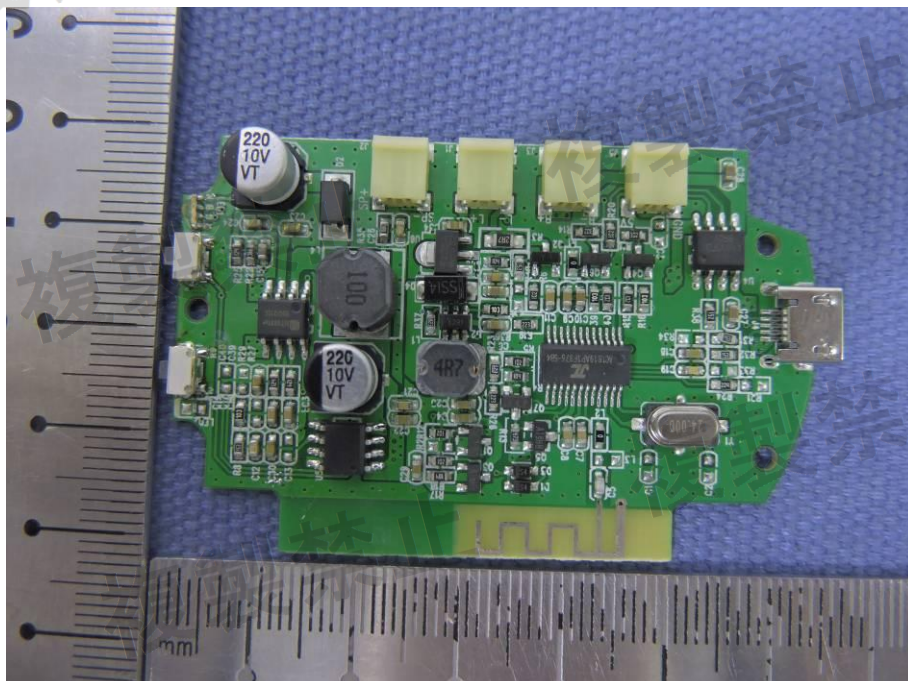












--End of Report--