

# Global United Technology Services Co., Ltd.

Report No.: GTS201607000259E01

# **FCC REPORT**

Applicant: Bellabeat, Inc.

Address of Applicant: 2 Mini Plaza, San Francisco, CA 94103, US

**Equipment Under Test (EUT)** 

Product Name: Tracker with wooden case LEAF Urban Silver

Model No.: LEAF, LFC

FCC ID: 2AELF-LF02

**Applicable standards:** FCC CFR Title 47 Part 15 Subpart C Section 15.249:2015

Date of sample receipt: August 03, 2016

Date of Test: August 04-09, 2016

Date of report issued: August 10, 2016

Test Result: PASS \*

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

Authorized Signature:

Robinson Lo Laboratory Manager

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 GTS product 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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# 2 Version

Version No.	Date	Description
00	August 10, 2016	Original

Prepared By:	Yang liu	Date:	August 10, 2016
	Project Engineer		
Check By:	Andy wa	Date:	August 10, 2016
	Reviewer		



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## **Test Summary**

Test Item	Section in CFR 47	Result
Antenna requirement	15.203	Pass
AC Power Line Conducted Emission	15.207	N/A
Field strength of the fundamental signal	15.249 (a)	Pass
Spurious emissions	15.249 (a) (d)/15.209	Pass
Band edge	15.249 (d)/15.205	Pass
20dB Occupied Bandwidth	15.215 (c)	Pass

Pass: The EUT complies with the essential requirements in the standard.

N/A: Not applicable

Remark: Test according to ANSI C63.10 2013 and ANSI C63.4: 2014

### 4.1 Measurement Uncertainty

Test Item	Frequency Range	Measurement Uncertainty	Notes	
Radiated Emission	9kHz ~ 30MHz	± 4.34dB	(1)	
Radiated Emission	30MHz ~ 1000MHz	± 4.24dB	(1)	
Radiated Emission	1GHz ~ 26.5GHz	± 4.68dB	(1)	
AC Power Line Conducted Emission	0.15MHz ~ 30MHz	± 3.45dB	(1)	
Note (1): The measurement unce	ertainty is for coverage factor of k	=2 and a level of confidence of 9	95%.	



### **5** General Information

### 5.1 Client Information

Applicant:	Bellabeat, Inc.
Address of Applicant:	2 Mini Plaza, San Francisco, CA 94103, US
Manufacturer:	Join Idea Ltd
Address of Manufacturer:	Unit B, 10/F, Valiant Industrial Center, 2-12 Au Pui Wan Street, Fo Tan, NT, HK
Factory:	Dongguan Join Power Electronic Technology Limited
Address of Factory:	No.55, Xinmin Road, Chang an Town, Dongguan city, China

# 5.2 General Description of EUT

Product Name:	Tracker with wooden case LEAF Urban Silver
Model No.:	LEAF, LFC
Operation Frequency:	2402MHz~2480MHz
Channel numbers:	40
Channel separation:	2MHz
Modulation type:	GFSK
Antenna Type:	PCB Antenna
Antenna gain:	0dBi (declare by Applicant)
Power supply:	DC 3V 1*CR2032



Operation Frequency each of channel							
Channel	nannel Frequency (		Frequency	Channel	Frequency	Channel	Frequency
1	2402MHz	11	2422MHz	21	2442MHz	31	2462MHz
2	2404MHz	12	2424MHz	22	2444MHz	32	2464MHz
			. !	• !	• !		. !
9	2418MHz	19	2438MHz	29	2458MHz	39	2478MHz
10	2420MHz	20	2440MHz	30	2460MHz	40	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, and the selected channel see below:

Channel	Frequency
The lowest channel	2402MHz
The middle channel	2440MHz
The Highest channel	2480MHz



### 5.3 Test mode

Transmitting mode	Keep the EUT in continuously transmitting mode
-------------------	--

Note: New battery is used during all test

#### Per-test mode.

We have verified the construction and function in typical operation, The EUT was placed on three different polar directions; i.e. X axis, Y axis, Z axis. which was shown in this test report and defined as follows:

Axis X		Y	Z
Field Strength(dBuV/m)	87.67	89.99	87.54

### 5.4 Description of Support Units

None.

### 5.5 Test Facility

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

#### • FCC —Registration No.: 600491

Global United Technology Services Co., Ltd., Shenzhen EMC Laboratory has been registered and fuly described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in files. Registration 600491, June 22, 2016.

### • Industry Canada (IC) —Registration No.: 9079A-2

The 3m Semi-anechoic chamber of Global United Technology Services Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 9079A-2, June 26, 2013.

### 5.6 Test Location

All tests were performed at:

Global United Technology Services Co., Ltd.

Address: No. 301-309, 3/F., Jinyuan Business Building, No.2, Laodong Industrrial Zone, Xixiang Road, Baoan District, Shenzhen, Guangdong, China 518102

Tel: 0755-27798480 Fax: 0755-27798960

### 5.7 Other Information Requested by the Customer

None.

Global United Technology Services Co., Ltd.

No. 301-309, 3/F., Jinyuan Business Building, No.2, Laodong Industrial Zone, Xixiang Road, Baoan District, Shenzhen, Guangdong, China 518102

Telephone: +86 (0) 755 2779 8480 Fax: +86 (0) 755 2779 8960

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## 6 Test Instruments list

Rad	Radiated Emission:							
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)		
1	3m Semi- Anechoic Chamber	ZhongYu Electron	9.0(L)*6.0(W)* 6.0(H)	GTS250	July. 03 2015	July. 02 2020		
2	Control Room	ZhongYu Electron	6.2(L)*2.5(W)* 2.4(H)	GTS251	N/A	N/A		
3	Spectrum Analyzer	Agilent	E4440A	GTS533	Jun. 29 2016	Jun. 28 2017		
4	EMI Test Receiver	Rohde & Schwarz	ESU26	GTS203	Jun. 29 2016	Jun. 28 2017		
5	BiConiLog Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB9163	GTS214	Jun. 29 2016	Jun. 28 2017		
6	Double -ridged waveguide horn	SCHWARZBECK MESS-ELEKTRONIK	9120D-829	GTS208	Jun. 25 2016	Jun. 24 2017		
7	Horn Antenna	ETS-LINDGREN	3160	GTS217	Mar. 26 2016	Mar. 25 2017		
8	EMI Test Software	AUDIX	E3	N/A	N/A	N/A		
9	Coaxial Cable	GTS	N/A	GTS213	Mar. 26 2016	Mar. 25 2017		
10	Coaxial Cable	GTS	N/A	GTS211	Mar. 26 2016	Mar. 25 2017		
11	Coaxial cable	GTS	N/A	GTS210	Mar. 26 2016	Mar. 25 2017		
12	Coaxial Cable	GTS	N/A	GTS212	Mar. 26 2016	Mar. 25 2017		
13	Amplifier(100kHz-3GHz)	HP	8347A	GTS204	Jun. 29 2016	Jun. 28 2017		
14	Amplifier(2GHz-20GHz)	HP	8349B	GTS206	Jun. 29 2016	Jun. 28 2017		
15	Amplifier (18-26GHz)	Rohde & Schwarz	AFS33-18002 650-30-8P-44	GTS218	Jun. 25 2016	Jun. 24 2017		
16	Band filter	Amindeon	82346	GTS219	Mar. 26 2016	Mar. 25 2017		

Gen	eral used equipment:					
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	Barometer	ChangChun	DYM3	GTS257	July 06 2016	July 05 2017



### 7 Test results and Measurement Data

### 7.1 Antenna requirement

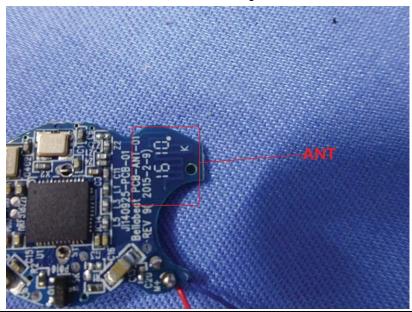
Standard requirement: FCC Part15 C Section 15.203

#### 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.

#### **EUT Antenna:**

The antenna is PCB antenna, the best case gain of the antenna is 0dBi





### 7.2 Radiated Emission Method

1.2	Radiated Ellission Method									
	Test Requirement:	FCC Part15 C Section 15.209								
	Test Method:	ANSI C63.10:20	013							
	Test Frequency Range:	30MHz to 25GH	Ηz							
	Test site:	Measurement D	Distance: 3m							
	Receiver setup:	Frequency	Detector		RBW	VBW	Remark			
		30MHz- 1GHz	Quasi-pea	k	120KHz	300KHz	Quasi-peak Value			
		Above 1GHz	Peak		1MHz	3MHz	Peak Value			
		Above IGHZ	Peak		1MHz 10Hz		Average Value			
	Limit:	Freque	Ĺ	imit (dBuV/	/m @3m)	Remark				
	(Field strength of the fundamental signal)	2400MHz-24	400MHz-2483.5MHz			0	Average Value			
	Limit:	Freque		L	imit (dBuV/	/m @3m)	Remark			
	(Spurious Emissions)	30MHz-8			40.0		Quasi-peak Value			
	,	88MHz-2			43.5		Quasi-peak Value			
		216MHz-960MHz 960MHz-1GHz			46.0		Quasi-peak Value			
		900101112-	- IGHZ		54.00 54.00		Quasi-peak Value Average Value			
		Above 1	IGHz		74.00		Peak Value			
	Limit: (band edge)	harmonics, sha	II be attenuat to the genera	ed l al ra	by at least a diated emi	50 dB belov	bands, except for w the level of the in Section 15.209,			
	Test setup:	Below 1GHz  EUT  Turn Table  Ground Plane	a lesser attended to the second secon	ruat	ion.	Anten Sea Ante RF Test Receiver				
		Above 1GHz								



Report No.: GTS201607000259E01 Antenna Tower Horn Antenna Spectrum Analyzer Turn 1m Amplifier Test Procedure: 1. The EUT was placed on the top of a rotating table (0.8m for below 1GHz and 1.5 meters for above 1GHz) above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation. 2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna 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 then the antenna was tuned to heights from 1 meter to 4 meters and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading. 5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. 6. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet. Test Instruments: Refer to section 6.0 for details Test mode: Refer to section 5.3 for details Test results: **Pass** 

### Measurement data:



### 7.2.1 Field Strength of The Fundamental Signal

### Peak value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
2402.00	90.80	27.58	5.39	34.01	89.76	114.00	-24.24	Vertical
2402.00	85.57	27.58	5.39	34.01	84.53	114.00	-29.47	Horizontal
2440.00	91.04	27.48	5.43	33.96	89.99	114.00	-24.01	Vertical
2440.00	85.10	27.48	5.43	33.96	84.05	114.00	-29.95	Horizontal
2480.00	90.01	27.52	5.47	33.92	89.08	114.00	-24.92	Vertical
2480.00	84.22	27.52	5.47	33.92	83.29	114.00	-30.71	Horizontal

### Average value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
2402.00	81.01	27.58	5.39	34.01	79.97	94.00	-14.03	Vertical
2402.00	75.94	27.58	5.39	34.01	74.90	94.00	-19.10	Horizontal
2440.00	81.12	27.48	5.43	33.96	80.07	94.00	-13.94	Vertical
2440.00	74.52	27.48	5.43	33.96	73.47	94.00	-20.53	Horizontal
2480.00	80.16	27.52	5.47	33.92	79.23	94.00	-14.77	Vertical
2480.00	74.72	27.52	5.47	33.92	73.79	94.00	-20.21	Horizontal

Note: RBW 3MHz VBW 10MHz peak detector is for pk value, RMS detector is for AV value



### 7.2.2 Spurious emissions

### ■ Below 1GHz

Below 1G112										
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization		
48.16	24.36	15.36	0.75	30.01	10.46	40.00	-29.54	Vertical		
93.11	26.76	14.50	1.14	29.73	12.67	43.50	-30.83	Vertical		
140.84	28.31	10.20	1.51	29.45	10.57	43.50	-32.93	Vertical		
197.89	25.77	12.57	1.83	29.21	10.96	43.50	-32.54	Vertical		
317.70	27.57	15.31	2.45	29.90	15.43	46.00	-30.57	Vertical		
645.12	25.72	20.61	3.89	29.25	20.97	46.00	-25.03	Vertical		
39.02	25.93	15.34	0.65	30.05	11.87	40.00	-28.13	Horizontal		
100.23	25.58	15.11	1.19	29.70	12.18	43.50	-31.32	Horizontal		
190.41	24.59	12.56	1.79	29.23	9.71	43.50	-33.79	Horizontal		
291.04	24.03	14.89	2.32	29.94	11.30	46.00	-34.70	Horizontal		
543.27	22.35	19.46	3.50	29.30	16.01	46.00	-29.99	Horizontal		
787.85	23.92	21.92	4.41	29.20	21.05	46.00	-24.95	Horizontal		



### Above 1GHz

#### Peak value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4804.00	36.03	31.78	8.60	32.09	44.32	74.00	-29.68	Vertical
7206.00	30.98	36.15	11.65	32.00	46.78	74.00	-27.22	Vertical
9608.00	30.71	37.95	14.14	31.62	51.18	74.00	-22.82	Vertical
12010.00	*					74.00		Vertical
14412.00	*					74.00		Vertical
4804.00	40.05	31.78	8.60	32.09	48.34	74.00	-25.66	Horizontal
7206.00	32.62	36.15	11.65	32.00	48.42	74.00	-25.58	Horizontal
9608.00	30.01	37.95	14.14	31.62	50.48	74.00	-23.52	Horizontal
12010.00	*					74.00		Horizontal
14412.00	*					74.00		Horizontal

### Average value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4804.00	25.08	31.78	8.60	32.09	33.37	54.00	-20.63	Vertical
7206.00	19.81	36.15	11.65	32.00	35.61	54.00	-18.39	Vertical
9608.00	18.97	37.95	14.14	31.62	39.44	54.00	-14.56	Vertical
12010.00	*					54.00		Vertical
14412.00	*					54.00		Vertical
4804.00	29.17	31.78	8.60	32.09	37.46	54.00	-16.54	Horizontal
7206.00	21.90	36.15	11.65	32.00	37.70	54.00	-16.30	Horizontal
9608.00	18.59	37.95	14.14	31.62	39.06	54.00	-14.94	Horizontal
12010.00	*					54.00		Horizontal
14412.00	*					54.00		Horizontal

### Remark:

<sup>1.</sup> Final Level =Receiver Read level + Antenna Factor + Cable Loss - Preamplifier Factor

<sup>2. &</sup>quot;\*", means this data is the too weak instrument of signal is unable to test.



Test channel	l:			Mid	dle			
Peak value:								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4880.00	36.63	31.85	8.67	32.12	45.03	74.00	-28.97	Vertical
7320.00	31.38	36.37	11.72	31.89	47.58	74.00	-26.42	Vertical
9760.00	31.07	38.35	14.25	31.62	52.05	74.00	-21.95	Vertical
12200.00	*					74.00		Vertical
14640.00	*					74.00		Vertical
4880.00	40.78	31.85	8.67	32.12	49.18	74.00	-24.82	Horizontal
7320.00	33.08	36.37	11.72	31.89	49.28	74.00	-24.72	Horizontal
9760.00	30.43	38.35	14.25	31.62	51.41	74.00	-22.59	Horizontal
12200.00	*					74.00		Horizontal
14640.00	*					74.00		Horizontal
Average val	ue:						•	•
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4880.00	25.58	31.85	8.67	32.12	33.98	54.00	-20.02	Vertical
7320.00	20.15	36.37	11.72	31.89	36.35	54.00	-17.65	Vertical
9760.00	19.27	38.35	14.25	31.62	40.25	54.00	-13.75	Vertical
12200.00	*					54.00		Vertical
14640.00	*					54.00		Vertical
4880.00	29.74	31.85	8.67	32.12	38.14	54.00	-15.86	Horizontal
7320.00	22.28	36.37	11.72	31.89	38.48	54.00	-15.52	Horizontal
9760.00	18.95	38.35	14.25	31.62	39.93	54.00	-14.07	Horizontal

### Remark:

12200.00

14640.00

\*

- 1. Final Level =Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor
- 2. "\*", means this data is the too weak instrument of signal is unable to test.

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54.00

54.00

Horizontal

Horizontal



Test channel	l:			Hig	hest			
Peak value:								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4960.00	36.63	31.93	8.73	32.16	45.13	74.00	-28.87	Vertical
7440.00	31.39	36.59	11.79	31.78	47.99	74.00	-26.01	Vertical
9920.00	31.07	38.81	14.38	31.88	52.38	74.00	-21.62	Vertical
12400.00	*					74.00		Vertical
14880.00	*					74.00		Vertical
4960.00	40.78	31.93	8.73	32.16	49.28	74.00	-24.72	Horizontal
7440.00	33.08	36.59	11.79	31.78	49.68	74.00	-24.32	Horizontal
9920.00	30.43	38.81	14.38	31.88	51.74	74.00	-22.26	Horizontal
12400.00	*					74.00		Horizontal
14880.00	*					74.00		Horizontal
Average val	ue:			•			•	
Frequency (MHz)	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit	polarization

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4960.00	25.64	31.93	8.73	32.16	34.14	54.00	-19.86	Vertical
7440.00	20.19	36.59	11.79	31.78	36.79	54.00	-17.21	Vertical
9920.00	19.31	38.81	14.38	31.88	40.62	54.00	-13.38	Vertical
12400.00	*					54.00		Vertical
14880.00	*					54.00		Vertical
4960.00	29.80	31.93	8.73	32.16	38.30	54.00	-15.70	Horizontal
7440.00	22.33	36.59	11.79	31.78	38.93	54.00	-15.07	Horizontal
9920.00	18.99	38.81	14.38	31.88	40.30	54.00	-13.70	Horizontal
12400.00	*					54.00		Horizontal
14880.00	*					54.00		Horizontal

### Remark:

- 1. Final Level =Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor
- 2. "\*", means this data is the too weak instrument of signal is unable to test.
- 3. The emission levels of other frequencies are very lower than the limit and not show in test report.



### 7.2.3 Bandedge emissions

All of the restriction bands were tested, and only the data of worst case was exhibited.

Test channe	el:			Lov	Lowest channel					
Peak value:	!									
Frequency	Read	Antenna	Cable	Preamp	Lovol	Limit Line	Over			

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2390.00	41.97	27.59	5.38	30.18	44.76	74.00	-29.24	Horizontal
2400.00	58.62	27.58	5.39	30.18	61.41	74.00	-12.59	Horizontal
2390.00	42.43	27.59	5.38	30.18	45.22	74.00	-28.78	Vertical
2400.00	60.56	27.58	5.39	30.18	63.35	74.00	-10.65	Vertical

### Average value:

- 11 01 mg - 1 m								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2390.00	32.72	27.59	5.38	30.18	35.51	54.00	-18.49	Horizontal
2400.00	43.91	27.58	5.39	30.18	46.70	54.00	-7.31	Horizontal
2390.00	32.60	27.59	5.38	30.18	35.39	54.00	-18.61	Vertical
2400.00	45.47	27.58	5.39	30.18	48.26	54.00	-5.74	Vertical

l est channel:
----------------

### Peak value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2483.50	43.96	27.53	5.47	29.93	47.03	74.00	-26.97	Horizontal
2500.00	43.31	27.55	5.49	29.93	46.42	74.00	-27.58	Horizontal
2483.50	44.65	27.53	5.47	29.93	47.72	74.00	-26.28	Vertical
2500.00	44.22	27.55	5.49	29.93	47.33	74.00	-26.67	Vertical

#### Average value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2483.50	35.54	27.53	5.47	29.93	38.61	54.00	-15.39	Horizontal
2500.00	33.67	27.55	5.49	29.93	36.78	54.00	-17.22	Horizontal
2483.50	36.67	27.53	5.47	29.93	39.74	54.00	-14.26	Vertical
2500.00	33.52	27.55	5.49	29.93	36.63	54.00	-17.37	Vertical

### Remark:

1. Final Level =Receiver Read level + Antenna Factor + Cable Loss - Preamplifier Factor



# 7.3 20dB Occupy Bandwidth

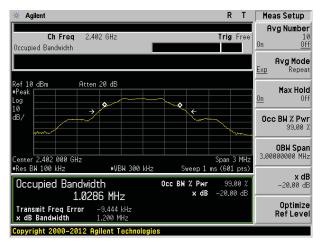
Test Requirement:	FCC Part15 C Section 15.249/15.215			
Test Method:	ANSI C63.10:2013			
Limit:	Operation Frequency range 2400MHz~2483.5MHz			
Test setup:	Spectrum Analyzer  E.U.T  Non-Conducted Table  Ground Reference Plane			
Test Instruments:	Refer to section 6.0 for details			
Test mode:	Refer to section 5.3 for details			
Test results:	Pass			

#### **Measurement Data**

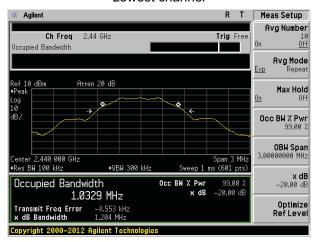
Test channel	20dB bandwidth(MHz)	Result
Lowest	1.200	Pass
Middle	1.204	Pass
Highest	1.204	Pass

Test plot as follows:

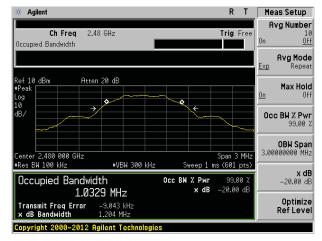




### Lowest channel



### Middle channel

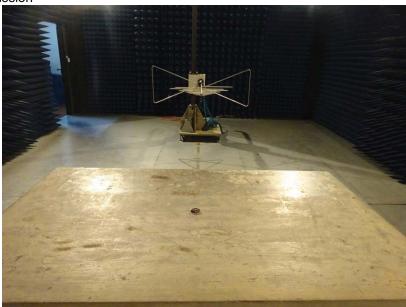


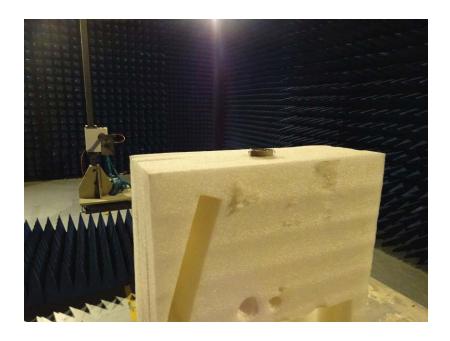
Highest channel



# 8 Test Setup Photo

Radiated Emission

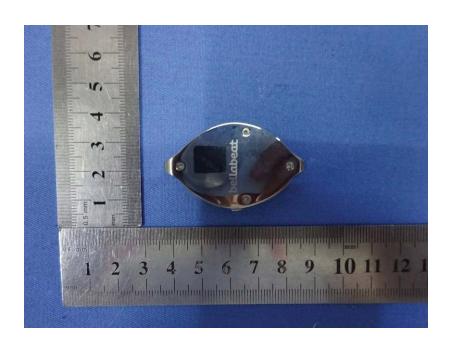






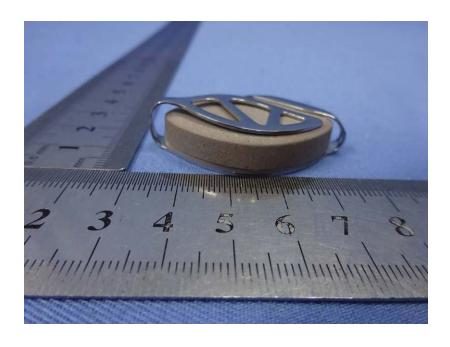
# 9 EUT Constructional Details



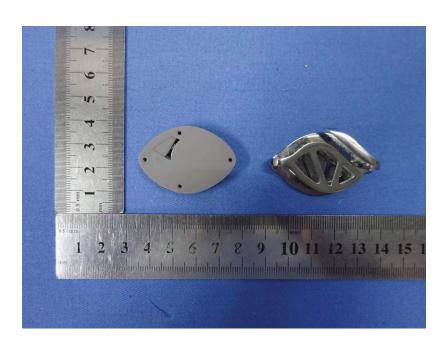


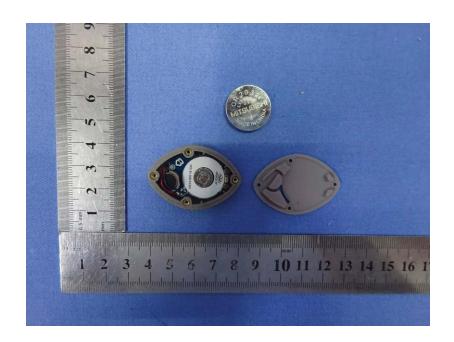




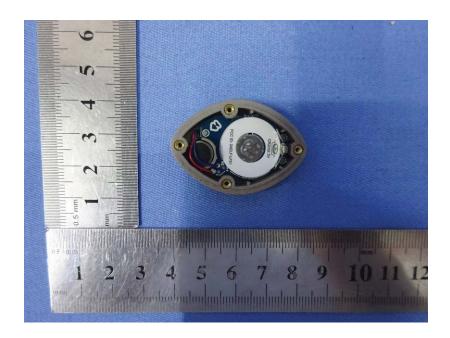


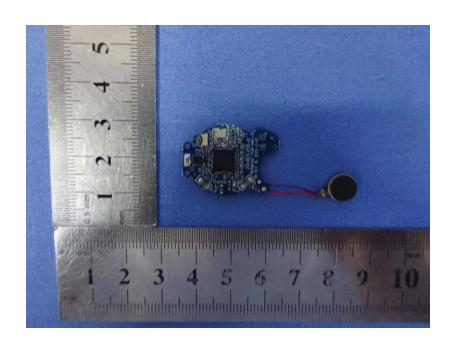




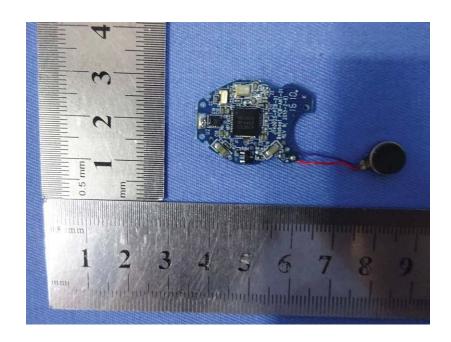


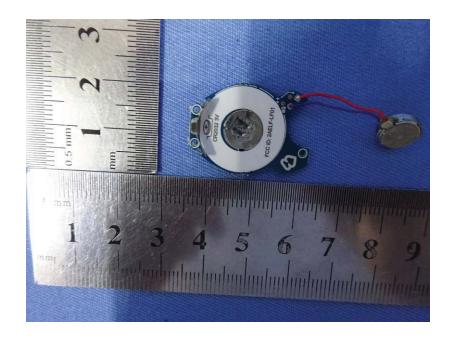
















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