FCC REPORT

Applicant:	DONGGUAN EPROPULSION INTELLIGENCE TECHNOLOGY LIMITED
Address of Applicant:	Room 202, Bldg. 17A, Headquater NO.1, 4th Xinzhu Rd, Songshan Lake District, Dongguan City China

Equipment Under Test (EUT)

Product Name:	LAGOON
Model No.:	LAGOON, LAGOONS
Trade Mark:	EPROPULSION
FCC ID:	2AKHE-LAGOON
Applicable standards:	FCC CFR Title 47 Part 15 Subpart C Section 15.249:2015
Date of sample receipt:	December 01, 2016
Date of Test:	December 02-08, 2016
Date of report issued:	December 09, 2016
Test Result :	PASS *

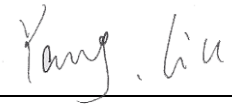
* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:

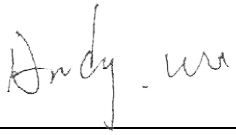
Robinson Lo
Laboratory Manager

2 Version

Version No.	Date	Description
00	*December 09, 2016*	*Original*

Prepared By:  ***Date:*** *December 09, 2016*

Project Engineer

Check By:  ***Date:*** *December 09, 2016*

Reviewer

3 Contents

Page

4 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.

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

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 uncertainty is for coverage factor of k=2 and a level of confidence of 95%.			

5 General Information

5.1 Client Information

Applicant:	DONGGUAN EPROPULSION INTELLIGENCE TECHNOLOGY LIMITED
Address of Applicant:	Room 202, Bldg. 17A, Headquater NO.1, 4th Xinzhu Rd, Songshan Lake District, Dongguan City China

5.2 General Description of EUT

Product Name:	LAGOON
Model No.:	LAGOON, LAGOONS
Operation Frequency:	2402MHz~2477MHz
Channel numbers:	76
Channel separation:	1MHz
Modulation type:	GFSK
Antenna Type:	PCB antenna
Antenna gain:	0.8 dBi(declare by Applicant)
Power supply:	DC 3.0V, “CR 2032” Lithium Battery

Remark: The system works in the frequency range of 2402MHz to 2477MHz. This band has been divided to 76 independent channels. Each radio system uses 3 different channels, the minimum channel separation is ≥1MHz. By using various switch-on times, hopping scheme and channel frequencies, the system can guarantee a jamming free radio transmission. The channel list is below.

Operation Frequency each of channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
1	2402MHz	20	2421MHz	40	2443MHz	60	2461MHz
2	2403MHz	21	2422MHz	41	2444MHz	61	2462MHz
⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮
18	2419MHz	38	2441MHz	58	2459MHz	76	2477MHz
19	2420MHz	39	2442MHz	59	2460MHz		

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	2442MHz
The highest channel	2477MHz

5.3 Test mode

Transmitting mode	Keep the EUT in continuously transmitting mode
Remark: During the test, the dutycycle >98%, the test voltage was tuned from 85% to 115% of the nominal rated supply voltage, and found that the worst case was under the nominal rated supply condition. New battery is used during all test.	

Pre-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)	88.90	89.12	88.89

Final Test Mode:

According to ANSI C63.4 standards, the test results are both the “worst case” and “worst setup”:

Y axis (see the test setup photo)

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 fully 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, August 15, 2016

5.6 Test Location

All tests were performed at:

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

Tel: 0755-27798480

Fax: 0755-27798960

5.7 Other Information Requested by the Customer

None.

6 Test Instruments list

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	9.2(L)*6.2(W)* 6.4(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	June 29 2016	June 28 2017
4	EMI Test Receiver	Rohde & Schwarz	ESU26	GTS203	June 29 2016	June 28 2017
5	BiConiLog Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB9163	GTS214	June 29 2016	June 28 2017
6	Double -ridged waveguide horn	SCHWARZBECK MESS-ELEKTRONIK	9120D-829	GTS208	June 29 2016	June 28 2017
7	Horn Antenna	ETS-LINDGREN	3160	GTS217	June 29 2016	June 28 2017
8	EMI Test Software	AUDIX	E3	N/A	N/A	N/A
9	Coaxial Cable	GTS	N/A	GTS213	June 29 2016	June 28 2017
10	Coaxial Cable	GTS	N/A	GTS211	June 29 2016	June 28 2017
11	Coaxial cable	GTS	N/A	GTS210	June 29 2016	June 28 2017
12	Coaxial Cable	GTS	N/A	GTS212	June 29 2016	June 28 2017
13	Amplifier(100kHz-3GHz)	HP	8347A	GTS204	June 29 2016	June 28 2017
14	Amplifier(2GHz-20GHz)	HP	8349B	GTS206	June 29 2016	June 28 2017
15	Amplifier (18-26GHz)	Rohde & Schwarz	AFS33-18002 650-30-8P-44	GTS218	June 29 2016	June 28 2017
16	Band filter	Amindeon	82346	GTS219	June 29 2016	June 28 2017
17	Power Meter	Anritsu	ML2495A	GTS540	June 29 2016	June 28 2017
18	Power Sensor	Anritsu	MA2411B	GTS541	June 29 2016	June 28 2017

General 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	June 29 2016	June 28 2017

7 Test results and Measurement Data

7.1 Antenna requirement

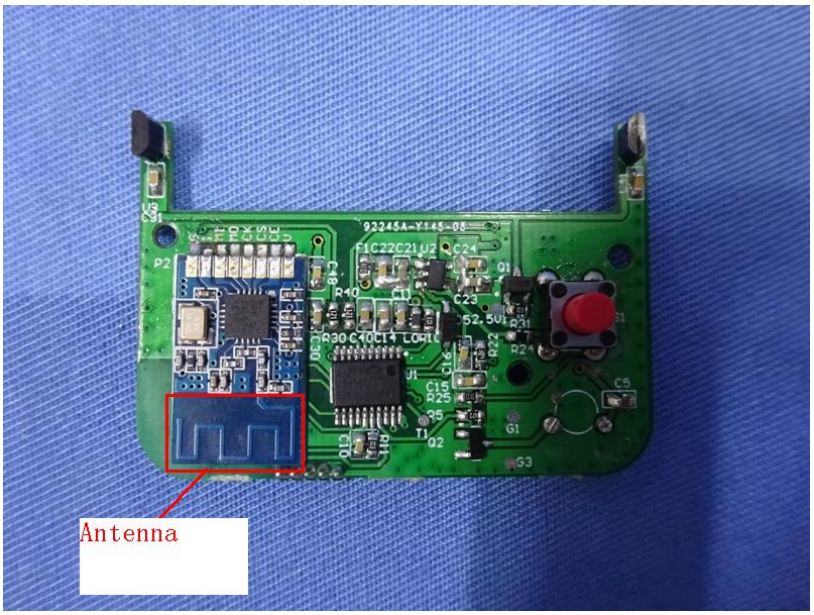
Standard requirement:	FCC Part15 C Section 15.203

15.203 requirement:

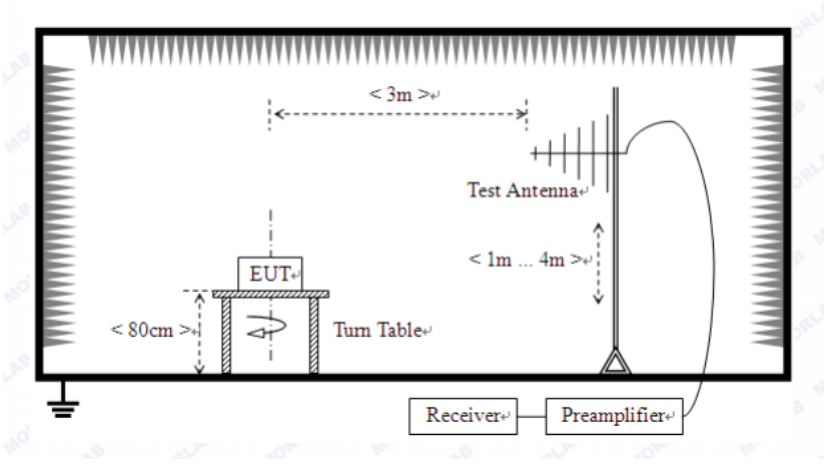
An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit 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:

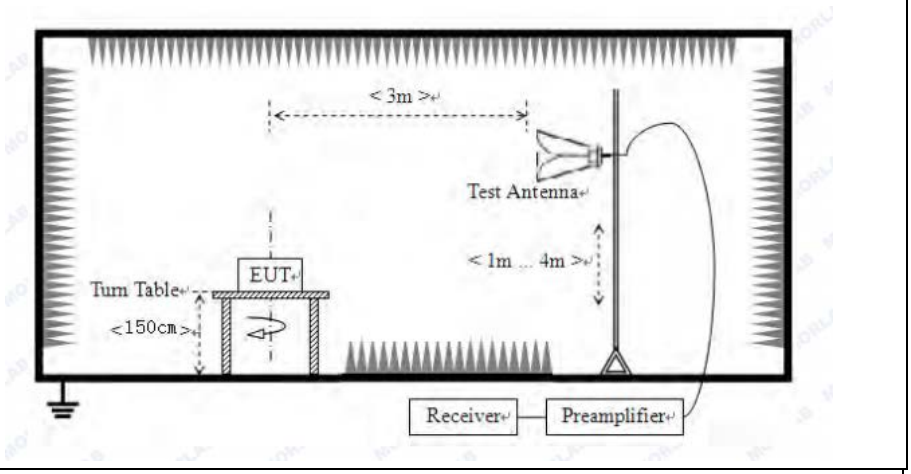
The antenna is PCB antenna, the best case gain of the antenna is 0.8dBi



7.2 Radiated Emission Method

<table>
<tr><td>Test Requirement:</td><td>FCC Part15 C Section 15.209</td></tr>
<tr><td>Test Method:</td><td>ANSI C63.10:2013</td></tr>
<tr><td>Test Frequency Range:</td><td>30MHz to 25GHz</td></tr>
<tr><td>Test site:</td><td>Measurement Distance: 3m</td></tr>
<tr><td>Receiver setup:</td><td>
<table>
<tr><td>Frequency</td><td>Detector</td><td>RBW</td><td>VBW</td><td>Remark</td></tr>
<tr><td>30MHz-1GHz</td><td>Quasi-peak</td><td>120KHz</td><td>300KHz</td><td>Quasi-peak Value</td></tr>
<tr><td rowspan="2">Above 1GHz</td><td>Peak</td><td>1MHz</td><td>3MHz</td><td>Peak Value</td></tr>
<tr><td>Peak</td><td>1MHz</td><td>10Hz</td><td>Average Value</td></tr>
</table>
</td></tr>
<tr><td>Limit:
(Field strength of the fundamental signal)</td><td>
<table>
<tr><td>Frequency</td><td>Limit (dBuV/m @3m)</td><td>Remark</td></tr>
<tr><td rowspan="2">2400MHz-2483.5MHz</td><td>94.00</td><td>Average Value</td></tr>
<tr><td>114.00</td><td>Peak Value</td></tr>
</table>
</td></tr>
<tr><td>Limit:
(Spurious Emissions)</td><td>
<table>
<tr><td>Frequency</td><td>Limit (dBuV/m @3m)</td><td>Remark</td></tr>
<tr><td>30MHz-88MHz</td><td>40.00</td><td>Quasi-peak Value</td></tr>
<tr><td>88MHz-216MHz</td><td>43.50</td><td>Quasi-peak Value</td></tr>
<tr><td>216MHz-960MHz</td><td>46.00</td><td>Quasi-peak Value</td></tr>
<tr><td>960MHz-1GHz</td><td>54.00</td><td>Quasi-peak Value</td></tr>
<tr><td rowspan="2">Above 1GHz</td><td>54.00</td><td>Average Value</td></tr>
<tr><td>74.00</td><td>Peak Value</td></tr>
</table>
</td></tr>
<tr><td>Limit:
(band edge)</td><td>Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in Section 15.209, whichever is the lesser attenuation.</td></tr>
<tr><td>Test setup:</td><td>Below 1GHz
 

Above 1GHz</td></tr>
</table>

	
Test Procedure:	1. The EUT was placed on the top of a rotating table (0.8m for below 1G and 1.5m for above 1G) 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 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 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	89.86	27.58	5.39	34.01	88.82	114.00	-25.18	Vertical
2402.00	84.93	27.58	5.39	34.01	83.89	114.00	-30.11	Horizontal
2442.00	90.17	27.48	5.43	33.96	89.12	114.00	-24.88	Vertical
2442.00	84.29	27.48	5.43	33.96	83.24	114.00	-30.76	Horizontal
2477.00	89.34	27.52	5.47	33.92	88.41	114.00	-25.59	Vertical
2477.00	83.60	27.52	5.47	33.92	82.67	114.00	-31.33	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	80.23	27.58	5.39	34.01	79.19	94.00	-14.81	Vertical
2402.00	75.24	27.58	5.39	34.01	74.20	94.00	-19.80	Horizontal
2442.00	80.18	27.48	5.43	33.96	79.13	94.00	-14.87	Vertical
2442.00	73.69	27.48	5.43	33.96	72.64	94.00	-21.36	Horizontal
2477.00	79.19	27.52	5.47	33.92	78.26	94.00	-15.74	Vertical
2477.00	73.84	27.52	5.47	33.92	72.91	94.00	-21.09	Horizontal

Remark: RBW 3MHz, VBW 10MHz , peak detector for PK value, RBW 3MHz, VBW 10MHz AV detector for AV value

7.2.2 Spurious emissions

■ Below 1GHz

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
55.03	34.86	15.02	0.82	29.96	20.74	40.00	-19.26	Vertical
129.47	47.98	11.03	1.43	29.51	30.93	43.50	-12.57	Vertical
189.07	39.85	12.48	1.78	29.24	24.87	43.50	-18.63	Vertical
250.30	35.95	14.07	2.12	29.65	22.49	46.00	-23.51	Vertical
336.04	42.65	15.99	2.55	29.80	31.39	46.00	-14.61	Vertical
413.27	42.25	17.35	2.92	29.47	33.05	46.00	-12.95	Vertical
56.00	37.95	14.95	0.83	29.95	23.78	40.00	-16.22	Horizontal
129.02	41.46	11.12	1.43	29.52	24.49	43.50	-19.01	Horizontal
190.41	44.82	12.56	1.79	29.23	29.94	43.50	-13.56	Horizontal
251.18	41.26	14.07	2.13	29.65	27.81	46.00	-18.19	Horizontal
336.04	41.90	15.99	2.55	29.80	30.64	46.00	-15.36	Horizontal
414.72	41.48	17.35	2.92	29.47	32.28	46.00	-13.72	Horizontal

■ Above 1GHz

Test channel:	Lowest 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
4804.00	37.14	31.78	8.60	32.09	45.43	74.00	-28.57	Vertical
7206.00	31.72	36.15	11.65	32.00	47.52	74.00	-26.48	Vertical
9608.00	31.37	37.95	14.14	31.62	51.84	74.00	-22.16	Vertical
12010.00	*					74.00		Vertical
14412.00	*					74.00		Vertical
4804.00	41.40	31.78	8.60	32.09	49.69	74.00	-24.31	Horizontal
7206.00	33.46	36.15	11.65	32.00	49.26	74.00	-24.74	Horizontal
9608.00	30.78	37.95	14.14	31.62	51.25	74.00	-22.75	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	25.99	31.78	8.60	32.09	34.28	54.00	-19.72	Vertical
7206.00	20.43	36.15	11.65	32.00	36.23	54.00	-17.77	Vertical
9608.00	19.51	37.95	14.14	31.62	39.98	54.00	-14.02	Vertical
12010.00	*					54.00		Vertical
14412.00	*					54.00		Vertical
4804.00	30.20	31.78	8.60	32.09	38.49	54.00	-15.51	Horizontal
7206.00	22.59	36.15	11.65	32.00	38.39	54.00	-15.61	Horizontal
9608.00	19.23	37.95	14.14	31.62	39.70	54.00	-14.30	Horizontal
12010.00	*					54.00		Horizontal
14412.00	*					54.00		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.*
3. *"*", means this data is the too weak instrument of signal is unable to test.*

Test channel:	Middle 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
4884.00	36.80	31.85	8.67	32.12	45.20	74.00	-28.80	Vertical
7326.00	31.50	36.37	11.72	31.89	47.70	74.00	-26.30	Vertical
9768.00	31.17	38.35	14.25	31.62	52.15	74.00	-21.85	Vertical
12210.00	*					74.00		Vertical
14652.00	*					74.00		Vertical
4884.00	40.98	31.85	8.67	32.12	49.38	74.00	-24.62	Horizontal
7326.00	33.21	36.37	11.72	31.89	49.41	74.00	-24.59	Horizontal
9768.00	30.55	38.35	14.25	31.62	51.53	74.00	-22.47	Horizontal
12210.00	*					74.00		Horizontal
14652.00	*					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
4884.00	25.72	31.85	8.67	32.12	34.12	54.00	-19.88	Vertical
7326.00	20.25	36.37	11.72	31.89	36.45	54.00	-17.55	Vertical
9768.00	19.35	38.35	14.25	31.62	40.33	54.00	-13.67	Vertical
12210.00	*					54.00		Vertical
14652.00	*					54.00		Vertical
4884.00	29.89	31.85	8.67	32.12	38.29	54.00	-15.71	Horizontal
7326.00	22.39	36.37	11.72	31.89	38.59	54.00	-15.41	Horizontal
9768.00	19.04	38.35	14.25	31.62	40.02	54.00	-13.98	Horizontal
12210.00	*					54.00		Horizontal
14652.00	*					54.00		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.*
3. *"*", means this data is the too weak instrument of signal is unable to test.*

Test channel:	Highest 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
4954.00	35.91	31.93	8.73	32.16	44.41	74.00	-29.59	Vertical
7431.00	30.91	36.59	11.79	31.78	47.51	74.00	-26.49	Vertical
9908.00	30.65	38.81	14.38	31.88	51.96	74.00	-22.04	Vertical
12385.00	*					74.00		Vertical
14862.00	*					74.00		Vertical
4954.00	39.91	31.93	8.73	32.16	48.41	74.00	-25.59	Horizontal
7431.00	32.54	36.59	11.79	31.78	49.14	74.00	-24.86	Horizontal
9908.00	29.94	38.81	14.38	31.88	51.25	74.00	-22.75	Horizontal
12385.00	*					74.00		Horizontal
14862.00	*					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
4954.00	25.03	31.93	8.73	32.16	33.53	54.00	-20.47	Vertical
7431.00	19.78	36.59	11.79	31.78	36.38	54.00	-17.62	Vertical
9908.00	18.94	38.81	14.38	31.88	40.25	54.00	-13.75	Vertical
12385.00	*					54.00		Vertical
14862.00	*					54.00		Vertical
4954.00	29.11	31.93	8.73	32.16	37.61	54.00	-16.39	Horizontal
7431.00	21.86	36.59	11.79	31.78	38.46	54.00	-15.54	Horizontal
9908.00	18.56	38.81	14.38	31.88	39.87	54.00	-14.13	Horizontal
12385.00	*					54.00		Horizontal
14862.00	*					54.00		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.*
3. *"*", means this data is the too weak instrument of signal is unable to test.*

7.2.3 Bandedge emissions

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

Test channel:	Lowest 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
2390.00	38.16	27.59	5.38	30.18	40.95	74.00	-33.05	Horizontal
2400.00	54.28	27.58	5.39	30.18	57.07	74.00	-16.93	Horizontal
2390.00	38.26	27.59	5.38	30.18	41.05	74.00	-32.95	Vertical
2400.00	55.81	27.58	5.39	30.18	58.60	74.00	-15.40	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
2390.00	29.78	27.59	5.38	30.18	32.57	54.00	-21.43	Horizontal
2400.00	40.73	27.58	5.39	30.18	43.52	54.00	-10.48	Horizontal
2390.00	29.39	27.59	5.38	30.18	32.18	54.00	-21.82	Vertical
2400.00	41.93	27.58	5.39	30.18	44.72	54.00	-9.28	Vertical

Test channel:	Highest 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	39.70	27.53	5.47	29.93	42.77	74.00	-31.23	Horizontal
2500.00	39.77	27.55	5.49	29.93	42.88	74.00	-31.12	Horizontal
2483.50	39.76	27.53	5.47	29.93	42.83	74.00	-31.17	Vertical
2500.00	40.32	27.55	5.49	29.93	43.43	74.00	-30.57	Vertical

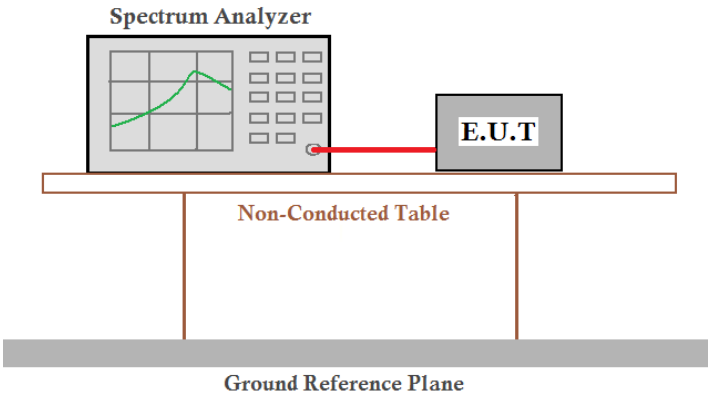
Average value:

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	32.55	27.53	5.47	29.93	35.62	54.00	-18.38	Horizontal
2500.00	31.22	27.55	5.49	29.93	34.33	54.00	-19.67	Horizontal
2483.50	33.37	27.53	5.47	29.93	36.44	54.00	-17.56	Vertical
2500.00	30.75	27.55	5.49	29.93	33.86	54.00	-20.14	Vertical

Remark:

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

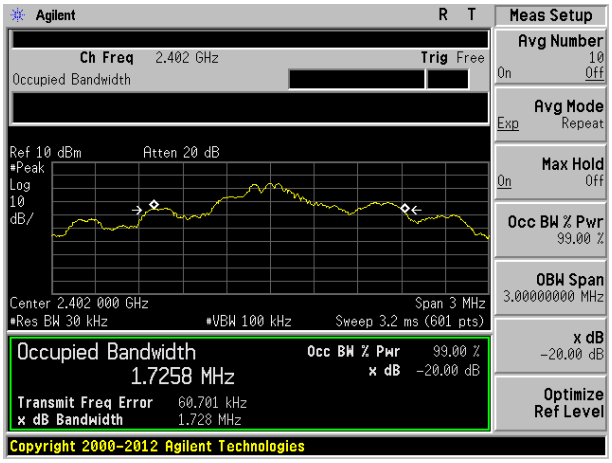
7.3 20dB Occupy Bandwidth

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:	
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.3 for details
Test results:	Pass

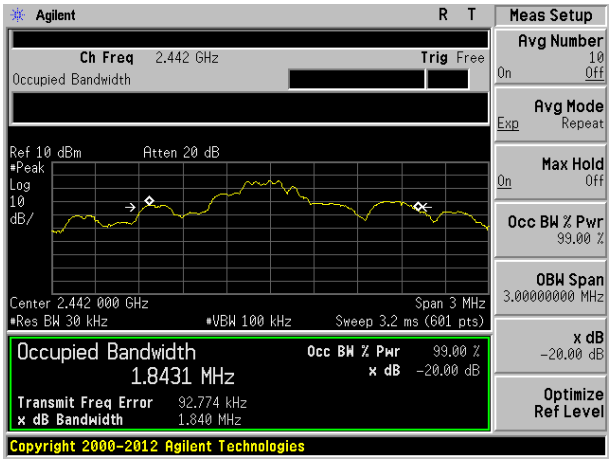
Measurement Data

Test channel	20dB bandwidth(MHz)	Result
Lowest	1.728	Pass
Middle	1.840	Pass
Highest	1.064	Pass

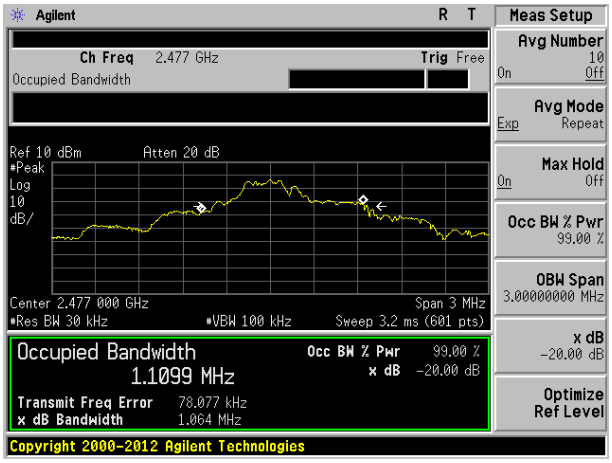
Test plot as follows:



Lowest channel



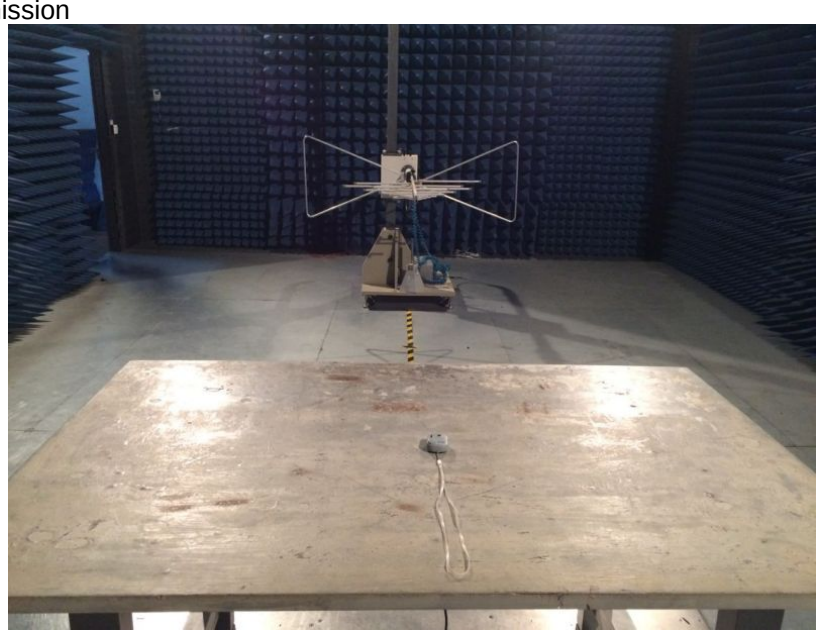
Middle channel

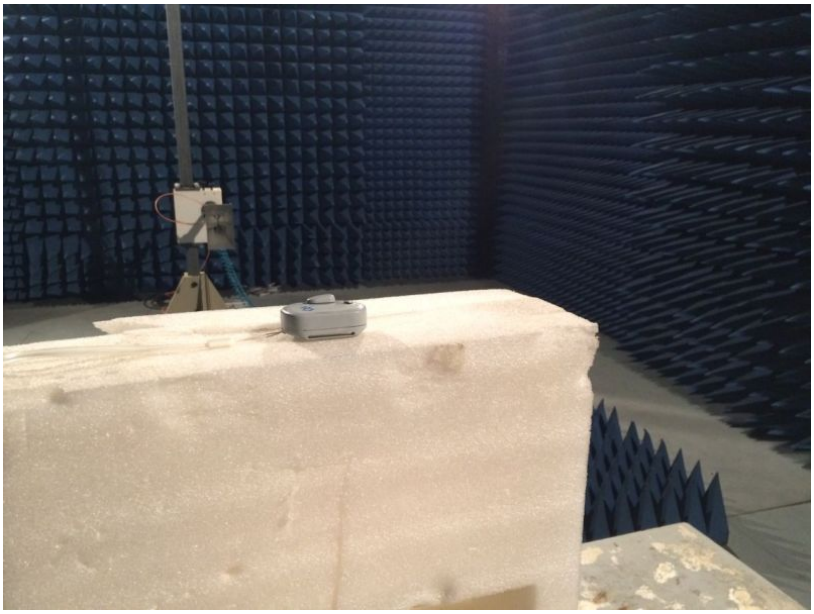


Highest channel

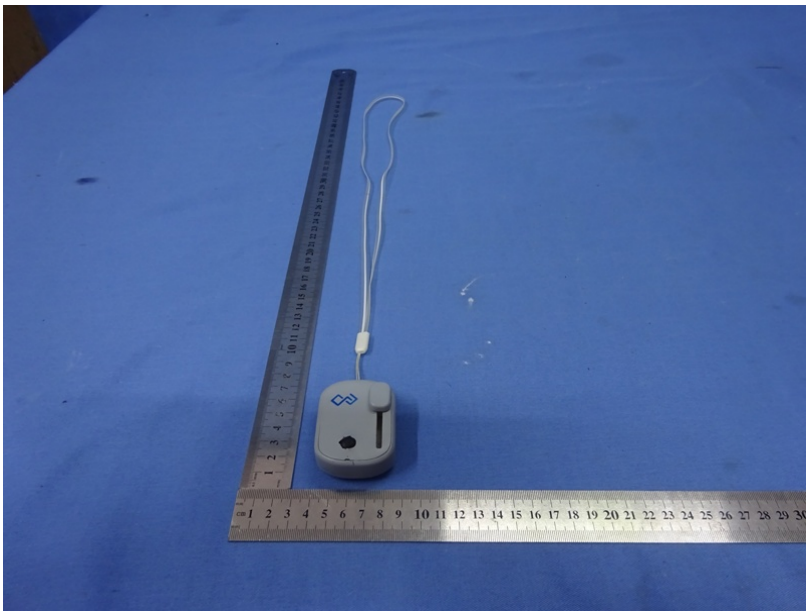
8 Test Setup Photo

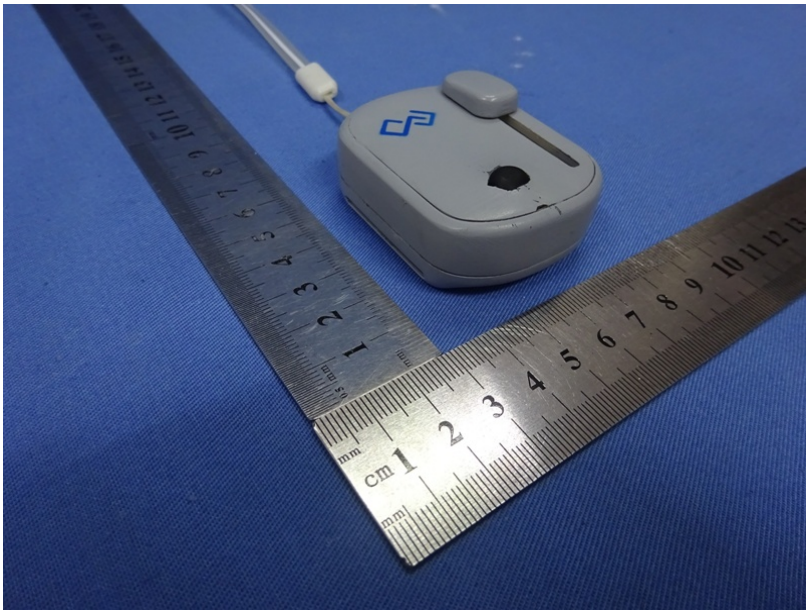
Radiated Emission

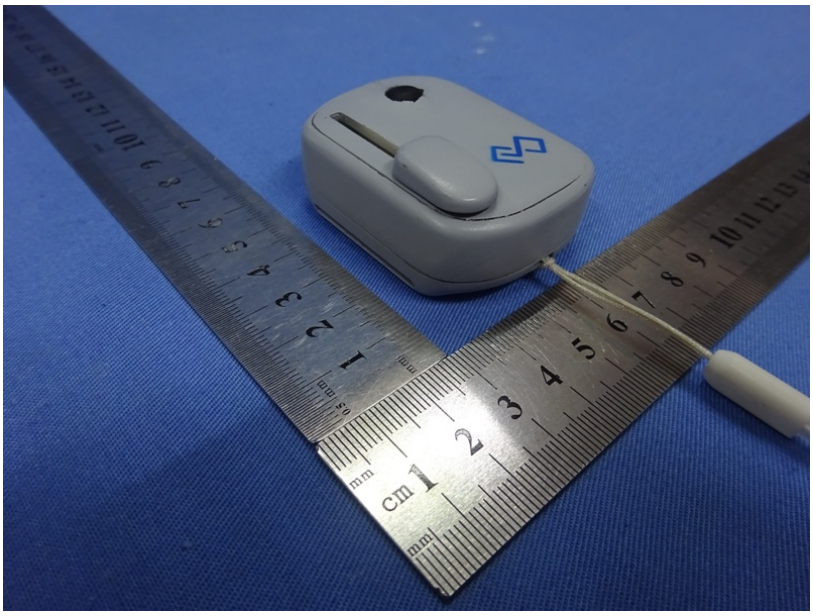


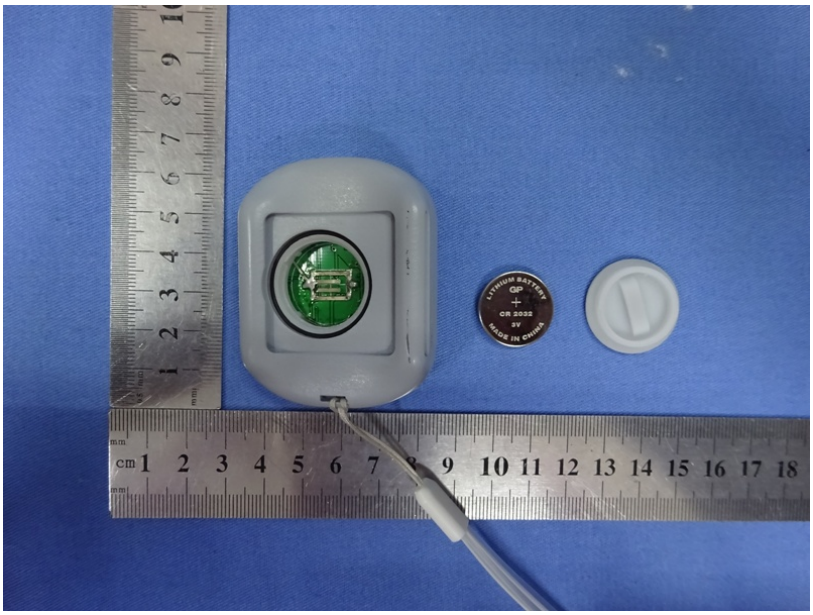


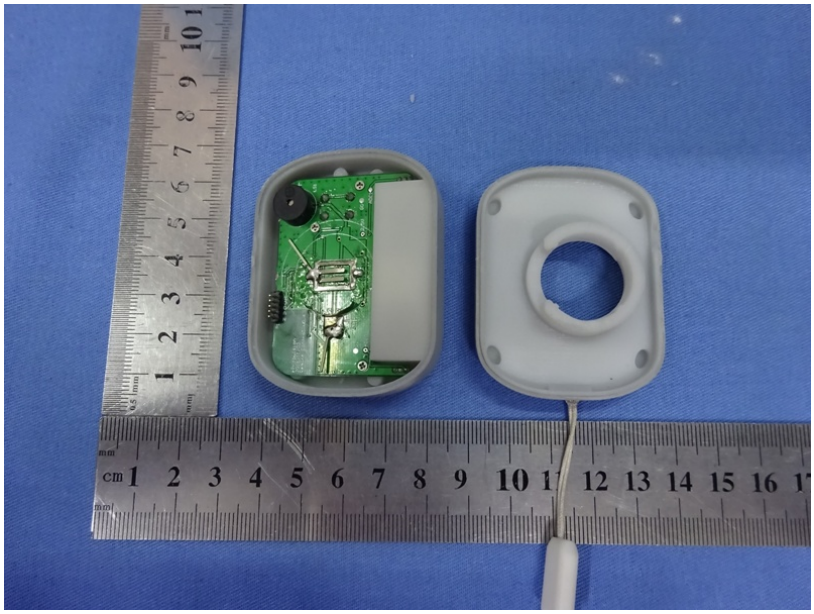
9 EUT Constructional Details

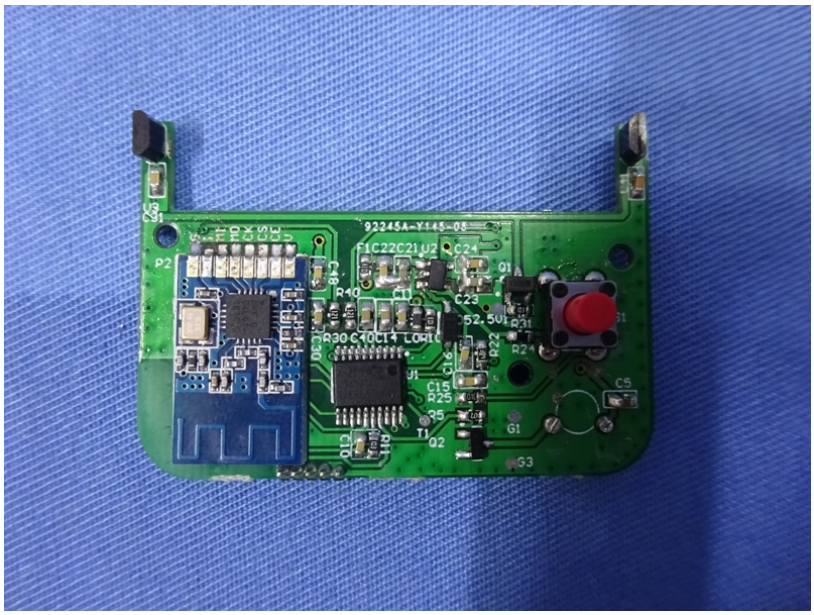


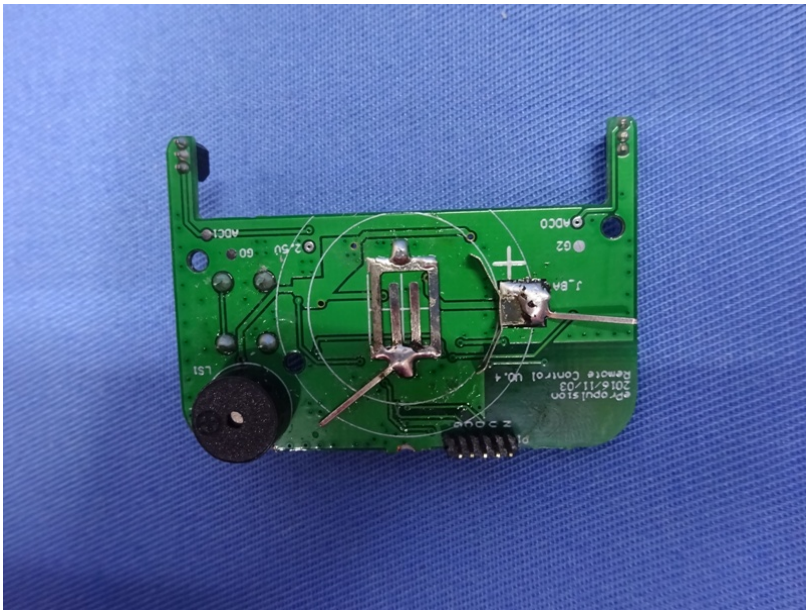












------End------