

# FCC TEST REPORT

For

Guangzhou Xianxu Cultural and Creative Co., Ltd.

Wireless Charging Power Bank

Model No.: XXDY01WS

Prepared For : Guangzhou Xianxu Cultural and Creative Co., Ltd.  
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Date of Test : Jan. 02, 2018 ~ Jan.10, 2018  
Date of Report : Jan.10, 2018

Table of Contents	Page
1. TEST SUMMARY.....	4
2. GENERAL INFORMATION .....	5
2.1 General Description of EUT .....	5
2.2 Operation of EUT during testing.....	6
2.3 Description of Test Setup.....	6
2.4 Measurement Instruments List.....	7
3. CONDUCTED EMISSION TEST.....	7
3.1 Block Diagram of Test Setup .....	8
3.2 Conducted Power Line Emission Limit.....	8
4. Occupied Bandwidth.....	11
4.1 Block Diagram of Test Setup .....	11
4.2 Rules and specifications .....	11
5. RADIA TED EMISSIONS .....	13
5.1 Block Diagram of Test Setup .....	13
5.2 Rules and specifications .....	14
6 ANTENNA REQUIREMENT.....	18
7. PHOTOGRAPH OF TEST.....	19
7.1 Radiated Emission .....	19
7.2 Conducted Emission .....	20
7.3 External photos .....	21
7.4 Internal photos .....	24

## TEST REPORT

Applicant : Guangzhou Xianxu Cultural and Creative Co., Ltd.  
Manufacturer : Guangzhou Xianxu Cultural and Creative Co., Ltd.  
Product Name : Wireless Charging Power Bank  
Model No. : XXDY01WS  
Trade Mark : N/A  
Rating(s) : Input: DC 5V, 1A (with DC 3.7V Battery inside)

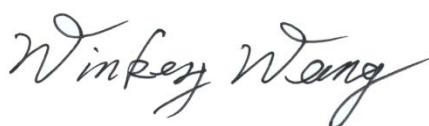
**Test Standard(s) : FCC Rules and Regulations Part 15 Subpart C (Section 15.209),**

**Test Method(s) : ANSI C63.10: 2013**

The device described above is tested by Shenzhen Anbotek Compliance Laboratory Limited to determine the maximum emission levels emanating from the device and the severe levels of the device can endure and its performance criterion. The measurement results are contained in this test report and Shenzhen Anbotek Compliance Laboratory Limited is assumed full of responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT (Equipment Under Test) is technically compliant with the FCC Part 15 Subpart C requirements.

This report applies to above tested sample only and shall not be reproduced in part without written approval of Shenzhen Anbotek Compliance Laboratory Limited.

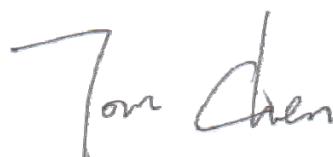
Date of Test : : Jan. 02, 2018 ~ Jan.10, 2018



Prepared by :  (Tested Engineer / Winkey Wang)



Reviewer : (Project Manager / Tangcy. T)



Approved & Authorized  
Signer : (Manager / Tom Chen)

## 11. TEST SUMMARY

### 1.1 Description of Test

Description of Test	Result
CONDUCTED EMISSIONS TEST	Compliant
Occupied Bandwidth	Compliant
RADIATED EMISSIONS	Compliant

### 1.2 Measurement Uncertainty

#### Measurement Uncertainty

Conducted Emission Expanded Uncertainty	= 2.23dB, k=2
Radiated emission expanded uncertainty(9kHz-30MHz)	= 3.08dB, k=2
Radiated emission expanded uncertainty(30MHz-1000MHz)	= 4.42dB, k=2
Radiated emission expanded uncertainty(Above 1GHz)	= 4.06dB, k=2

### Description of Test Facility

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

### FCC-Registration No.: 184111

Shenzhen Anbotek Compliance Laboratory Limited, 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 our files. Registration No. 184111, July 31, 2017.

### ISED-Registration No.: 8058A-1

Shenzhen Anbotek Compliance Laboratory Limited, EMC Laboratory has been registered and fully described in a report filed with the (ISED) Innovation, Science and Economic Development Canada. The acceptance letter from the ISED is maintained in our files. Registration 8058A-1, June 13, 2016.

### Test Location

All Emissions tests were performed at

Shenzhen Anbotek Compliance Laboratory Limited.

at 1/F, Building D, Sogood Science and Technology Park, Sanwei community, Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China.518102

## 22. GENERAL INFORMATION

### 2.1 2.1 General Description of EUT

Equipment : Wireless Charging Power Bank  
Model No. : XXDY01WS  
Series Model : N/A  
FCC ID : **2AOVH-XXDY01WS**  
Model Difference : N/A  
Modulation Type : ASK  
Antenna Type : Coil Antenna  
Antenna Gain : 1.0dBi  
Operation frequency : 125KHz  
Number of Channels : 1  
Data Rate : /

Power Source : DC voltage  
Power Rating : Input voltage: DC5V 2A From adapter (with DC 3.7V Battery inside)  
Output voltage: DC5V 1A  
Manufacturer: ZTE  
M/N: STC-A2050I2000USBA-C  
Adapter Model : S/N: 201202102100877  
Input: 100-240V~50/60Hz 0.45A  
Output: DC 5V, 2000mA

### 2.1.1 Carrier Frequency of Channels

Operation Frequency each of channel	
Channel	Frequency
1	125KHz

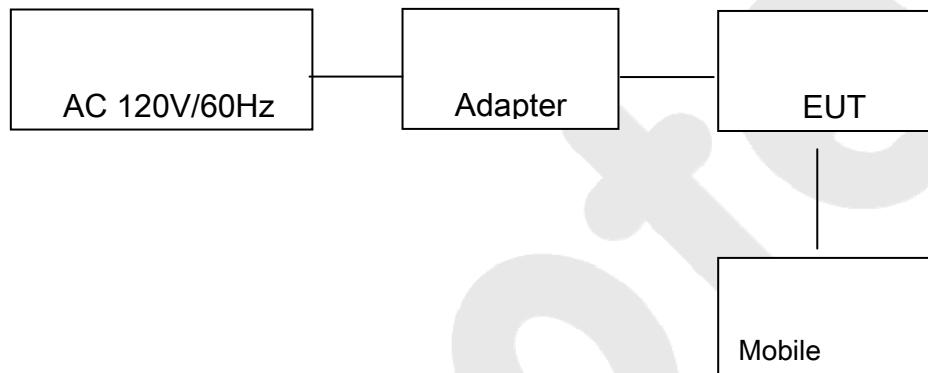
### 2.2 2.2 Operation of EUT during testing

Operating Mode

The mode is used: Transmitting mode

### 2.3 2.3 Description of Test Setup

Operation of EUT during testing



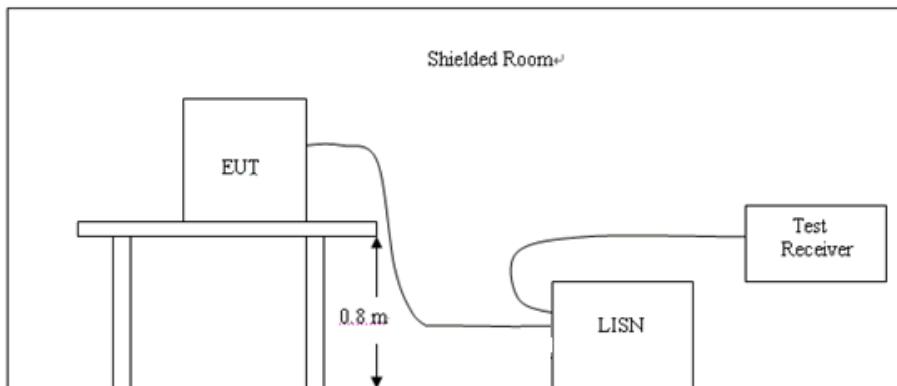
Setup:Transmission mode

2.4 2.4 Measurement Instruments List

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	L.I.S.N. Artificial Mains Network	Rohde & Schwarz	ENV216	100055	May 27, 2017	1 Year
2.	EMI Test Receiver	Rohde & Schwarz	ESCI	100627	May 27, 2017	1 Year
3.	RF Switching Unit	Compliance Direction	RSU-M2	38303	May 27, 2017	1 Year
4.	Spectrum Analysis	Agilent	E4407B	US39390582	May 27, 2017	1 Year
5.	Spectrum Analysis	Agilent	N9038A	MY53227295	May 27, 2017	1 Year
6.	Preamplifier	SKET Electronic	BK1G18G30D	KD17503	May 27, 2017	1 Year
7.	EMI Test Receiver	Rohde & Schwarz	ESPI	101604	May 27, 2017	1 Year
8.	Double Ridged Horn Antenna	Instruments corporation	GTH-0118	351600	May 31, 2017	1 Year
9.	Bilog Broadband Antenna	Schwarzbeck	VULB9163	VULB 9163-289	May 31, 2017	1 Year
10.	Loop Antenna	Schwarzbeck	HFH2-Z2	100047	Apr. 03, 2017	1 Year
11.	Horn Antenna	Schwarzbeck	BBHA9170	9170-375	May 27, 2017	1 Year
12.	Pre-amplifier	SONOMA	310N	186860	May 27, 2017	1 Year
13.	Pre-amplifier	SKET Electronic	BK1G40G50A	KD25352	May 27, 2017	1 Year
14.	EMI Test Software EZ-EMC	SHURPLE	N/A	N/A	N/A	N/A
15.	Power Sensor	DAER	RPR3006W	15I00041SN045	May 27, 2017	1 Year
16.	Power Sensor	DAER	RPR3006W	15I00041SN046	May 27, 2017	1 Year
17.	MXA Spectrum Analysis	Agilent	N9020A	MY51170037	May 27, 2017	1 Year
18.	MXG RF Vector Signal Generator	Agilent	N5182A	MY48180656	May 27, 2017	1 Year
19.	Signal Generator	Agilent	E4421B	MY41000743	May 27, 2017	1 Year
20.	DC Power supply	IVYTECH	IV6003	1601D6030007	May 26, 2017	1 Year
21.	TEMP&HUMI PROGRAMMABLE CHAMBER	Sertep	ZJ-HWHS80B	ZJ-17042804	Mar. 03, 2017	1 Year

### 33. CONDUCTED EMISSION TEST

#### 3.1 3.1 Block Diagram of Test Setup



#### 3.2 3.2 Conducted Power Line Emission Limit

For unintentional device, according to § 15.207 Line Conducted Emission Limits is as following

Frequency (MHz)	Maximum RF Line Voltage (dB $\mu$ V)			
	CLASS A		CLASS B	
	Q.P.	Ave.	Q.P.	Ave.
0.15 - 0.50	79	66	66-56*	56-46*
0.50 - 5.00	73	60	56	46
5.00 - 30.0	73	60	60	50

\* Decreasing linearly with the logarithm of the frequency

For intentional device, according to §15.207 Line Conducted Emission Limit is same as above table.

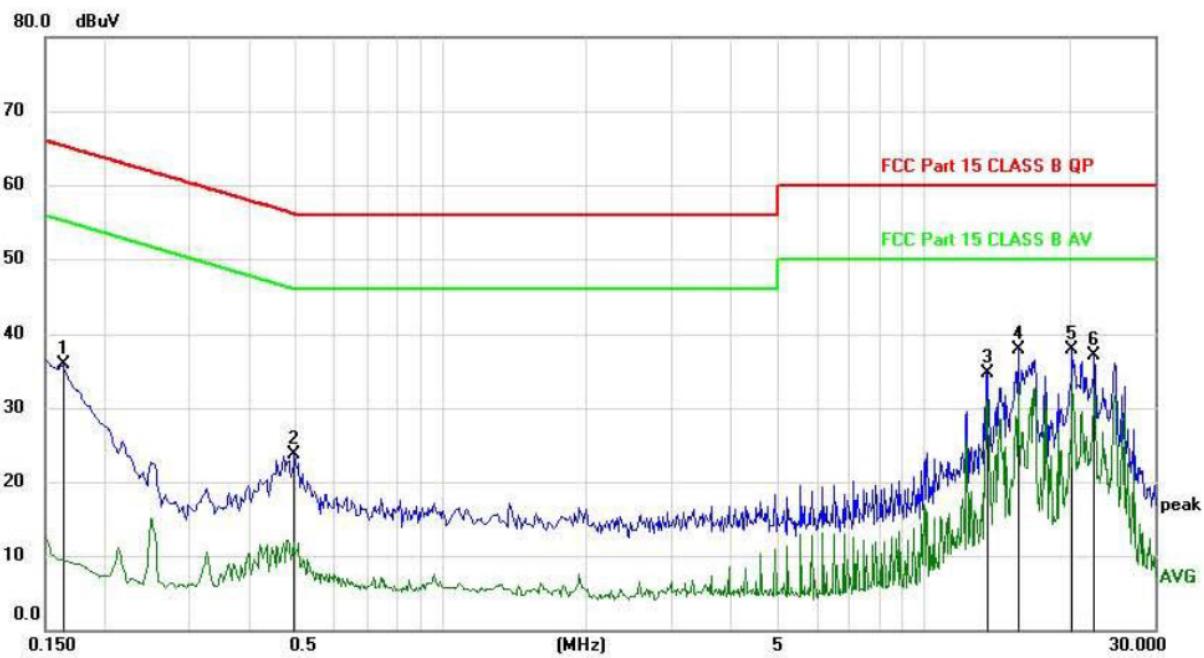
#### 3.3 Test Procedure

- 1, The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. The EUT is a tabletop system, a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.10.
- 2, Support equipment, if needed, was placed as per ANSI C63.10.
- 3, All I/O cables were positioned to simulate typical actual usage as per ANSI C63.10.
- 4, If a EUT received DC power from the USB Port of Notebook PC, the PC's adapter received AC120V/60Hz power through a Line Impedance Stabilization Network (LISN) which supplied power source and was grounded to the ground plane.
- 5, All support equipments received AC power from a second LISN, if any.
- 6, The EUT test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50 ohm load; the second scan had Line 1 connected to a 50 ohm load and Line 2 connected to the Analyzer / Receiver.
- 7, Analyzer / Receiver scanned from 150 KHz to 30MHz for emissions in each of the test modes

#### 3.4 Test Result

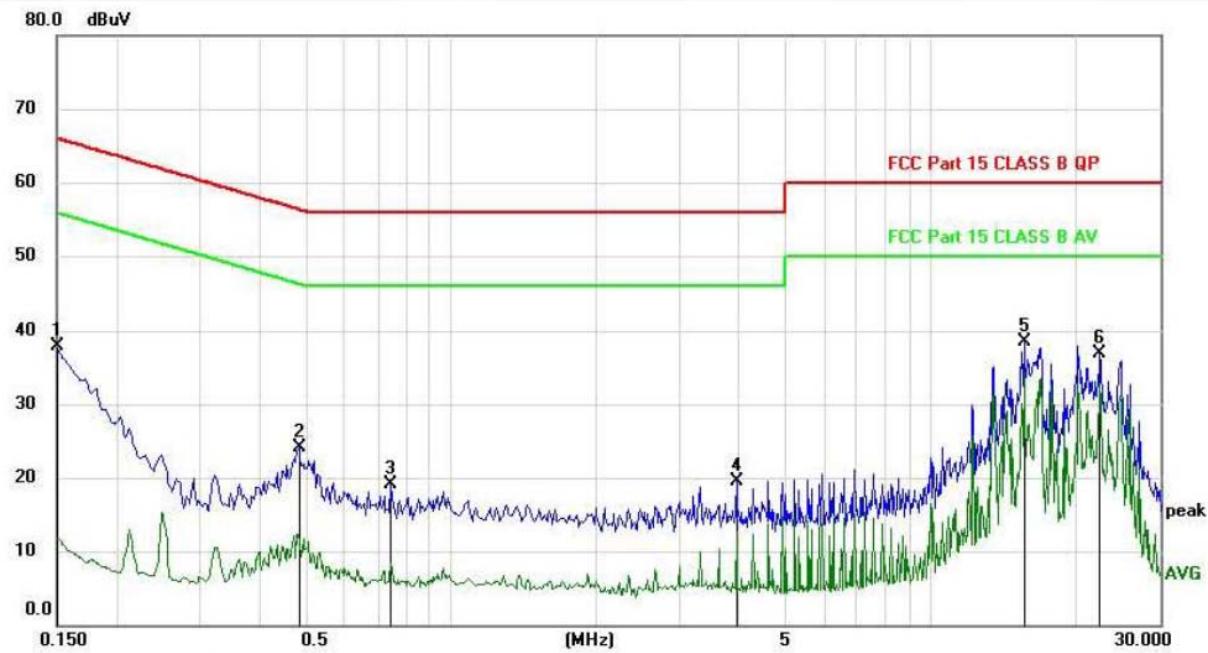
PASS

Test Specification: Line



No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Margin	Comment
			Level	Factor	ment			
		MHz	dBuV	dB	dBuV	dB	Detector	
1		0.1635	26.27	9.66	35.93	65.28	-29.35	peak
2		0.4965	13.92	9.71	23.63	56.06	-32.43	peak
3		13.4205	24.42	10.35	34.77	60.00	-25.23	peak
4	*	15.6205	27.41	10.43	37.84	60.00	-22.16	peak
5		20.2605	27.34	10.48	37.82	60.00	-22.18	peak
6		22.4605	26.40	10.61	37.01	60.00	-22.99	peak

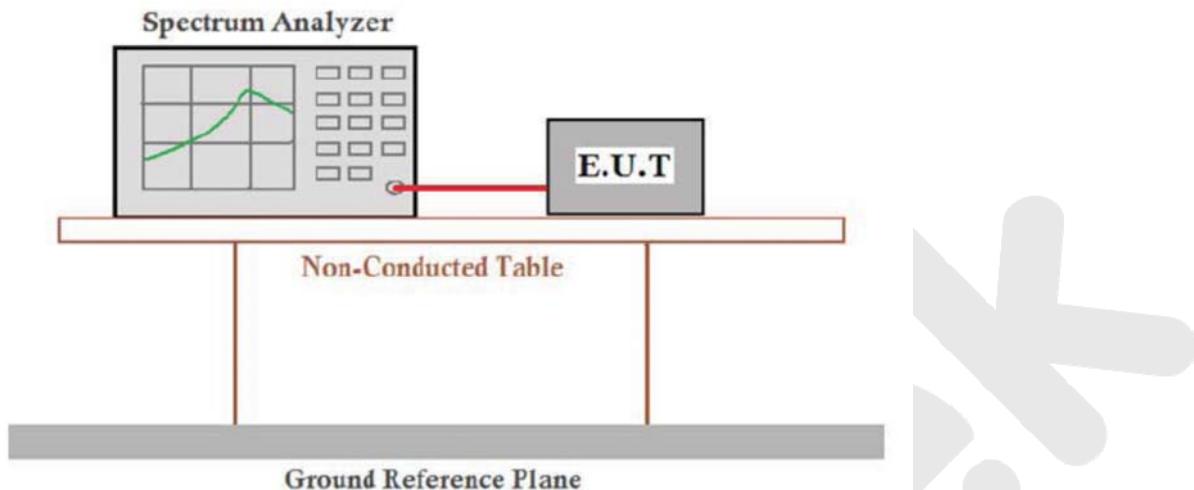
Test Specification: Neutral



No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor	Measure- ment dBuV	Limit dB	Margin	
						Detector	Comment
1	0.1500	28.20	9.66	37.86	66.00	-28.14	peak
2	0.4830	14.35	9.71	24.06	56.29	-32.23	peak
3	0.7440	9.41	9.74	19.15	56.00	-36.85	peak
4	3.9405	9.52	10.08	19.60	56.00	-36.40	peak
5 *	15.6205	28.09	10.43	38.52	60.00	-21.48	peak
6	22.4605	26.37	10.61	36.98	60.00	-23.02	peak

## 44. Occupied Bandwidth

## 4.1 4.1 Block Diagram of Test Setup



## 4.2 4.2 Rules and specifications

CFR 47 Part 15.215(c)

ANSI C63.10-2013

## 4.3 Test Procedure

Intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§15.217 through 15.257 and in subpart E of this part, must be designed to ensure that 20dB bandwidth of

the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment complies with the 20dB attenuation specification may base on measurement at the intentional radiator's antenna output terminal unless the intentional radiator uses a permanently attached antenna, in which case compliance shall be demonstrated by measuring the radiated emissions.

## 4.4 Test Result

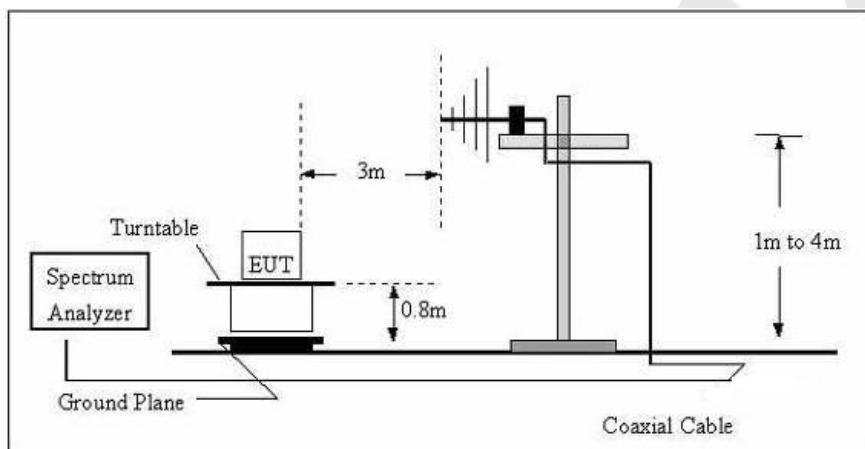
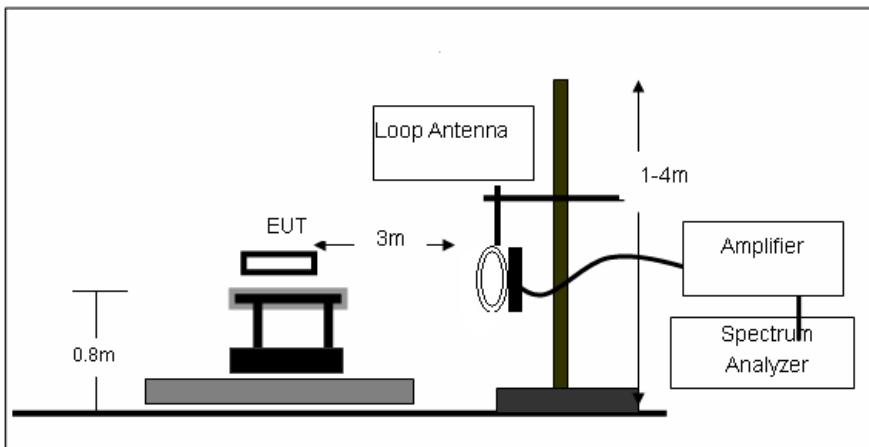
PASS

Mode	Freq (KHz)	20dB Bandwidth (KHz)	Limit (kHz)	Conclusion
Tx Mode	125	13.48	/	PASS



## 55. RADIA TED EMISSIONS

### 5.1 5.1 Block Diagram of Test Setup



## 5.2 5.2 Rules and specifications

### CFR 47 Part 15, section 15.205

Only spurious emissions are permitted in any of the frequency bands listed the tables in these sections.

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
\1 0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293.	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	(\2)
13.36-13.41			

### CFR 47 Part 15, section 15.209

The emissions from an intentional radiator shall not exceed the limits in the tables in these sections using an average detector

Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100**	3
88-216	150**	3
216-960	200**	3
Above 960	500	3

Limit calculation and transfer to 3m distance as showed in the following table:

Frequency (MHz)	Limit (dBuV/m)	Distance (m)
0.009-0.490	20log(2400/F(KHz))+40log(300/3)	3
0.490-1.705	20log(2400/F(KHz))+40log(300/3)	3
1.705-30.0	69.5	3
30-88	40.0	3
88-216	43.5	3
216-960	46.0	3
Above 960	54.0	3

### CFR 47 Part 15, section 15.35

When average radiated emission measurements are specified, the limit on the peak level of the radio Frequency emission is 20dB above the maximum permitted average emission limit.

Transmitter Spurious Emissions 9KHz-30MHz			
	9-150KHz	150-490KHz	490KHz-30MHz
Resolution Bandwidth	200Hz	9KHz	9KHz
Video Bandwidth	2KHz	100KHz	100KHz
Detector	Peak	Peak	Peak
Trace Mode	Max Hold	Max Hold	Max Hold
Sweep Time	Auto	Auto	Auto

### 5.3 Test Procedure

Measurement distance 3m

For the measurement range up to 30MHz in the following plots the field strength result from 3m Distance measurement are extrapolated to 300m and 30m distance respectively, by 40dB/decade, According to part 15.31(f)(2), per antenna factor scaling.

Measurements below 1000MHz are performed with a peak detector and compared to average limits, Measurements with an average detector are not required.

Note:

For battery operated equipment, the equipment tests shall be performed using a new battery.

### 5.4 Test Result

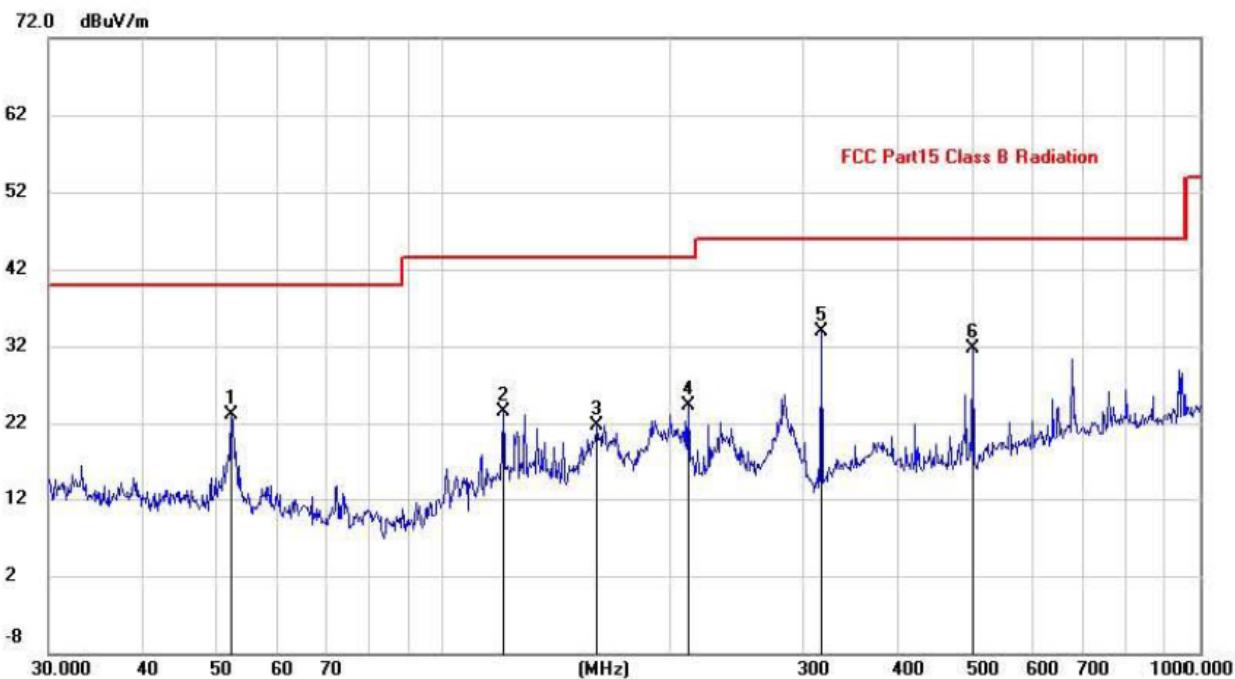
PASS

For 9KHz-30MHz

Freq. (MHz)	Position H/V	Detector Mode (PK/QP)	Reading (dBuV)	Factor (dB)	Actual FS (dBuV/m)	Limits 3m (dBuV/m)	Margin (dBuV/m)
0.110	H	Peak	25.73	24.8	50.53	126.77	76.24
0.125	H	Peak	46.47	24.8	71.27	125.67	54.4
0.484	H	Peak	23.91	25.03	48.94	113.71	64.77
0.500	H	Peak	27.04	25.03	52.07	113.62	61.55
N/A							
Freq. (MHz)	Position H/V	Detector Mode (PK/QP)	Reading (dBuV)	Factor (dB)	Actual FS (dBuV/m)	Limits 3m (dBuV/m)	Margin (dBuV/m)
0.110	V	Peak	24.51	24.8	49.31	126.77	77.46
0.125	V	Peak	43.91	24.8	68.71	125.67	56.96
0.495	V	Peak	22.53	25.03	47.56	113.71	66.15
0.500	V	Peak	25.49	25.03	50.52	113.62	63.1
N/A							

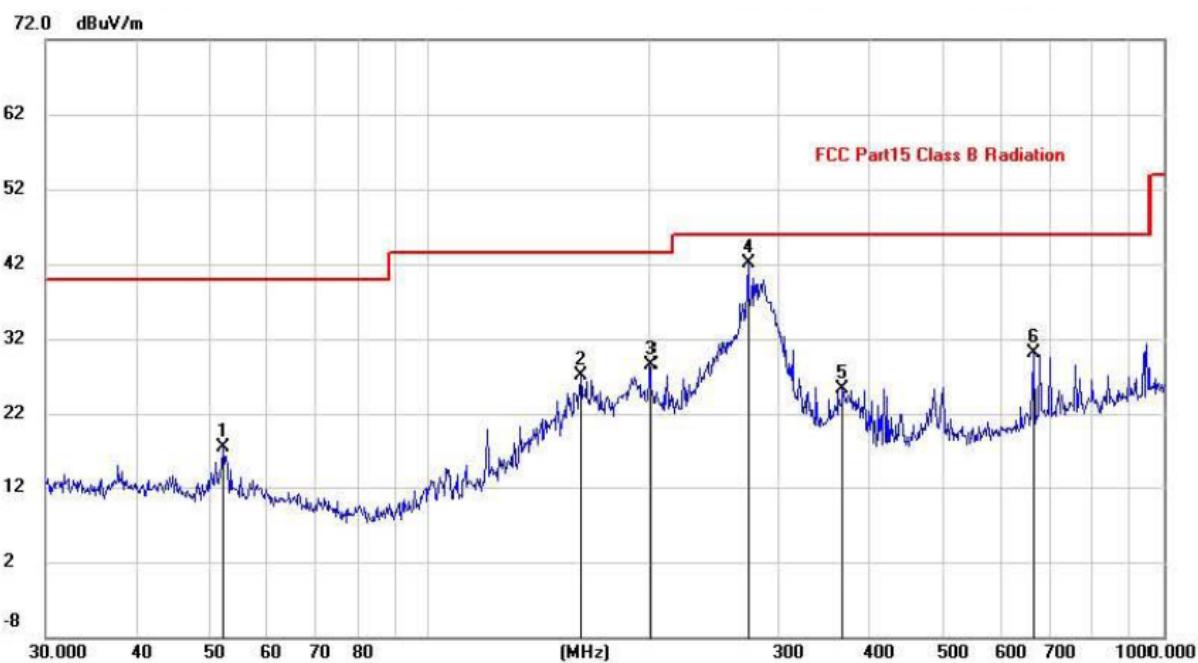
Antenna polarity: H

For 30MHz-1GHz



No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Margin	Antenna	Table		
			Level								
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		52.3912	9.50	13.55	23.05	40.00	-16.95	peak			
2		119.8556	10.93	12.58	23.51	43.50	-19.99	peak			
3		159.7844	7.12	14.58	21.70	43.50	-21.80	peak			
4		210.0482	13.56	10.69	24.25	43.50	-19.25	peak			
5	*	316.5890	20.13	13.79	33.92	46.00	-12.08	peak			
6		501.1790	14.39	17.22	31.61	46.00	-14.39	peak			

Antenna polarity: V



No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Margin	Antenna	Table	
			Level							
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree
1		52.3912	3.86	13.55	17.41	40.00	-22.59	peak		
2		160.9089	12.61	14.50	27.11	43.50	-16.39	peak		
3		200.6881	18.07	10.35	28.42	43.50	-15.08	peak		
4	*	271.3246	29.34	12.81	42.15	46.00	-3.85	peak		
5		365.5391	10.35	14.89	25.24	46.00	-20.76	peak		
6		670.4893	9.58	20.51	30.09	46.00	-15.91	peak		

## 6 ANTENNA REQUIREMENT

### **Standard Applicable**

For intentional device, according to FCC 47 CFR Section 15.203, 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.

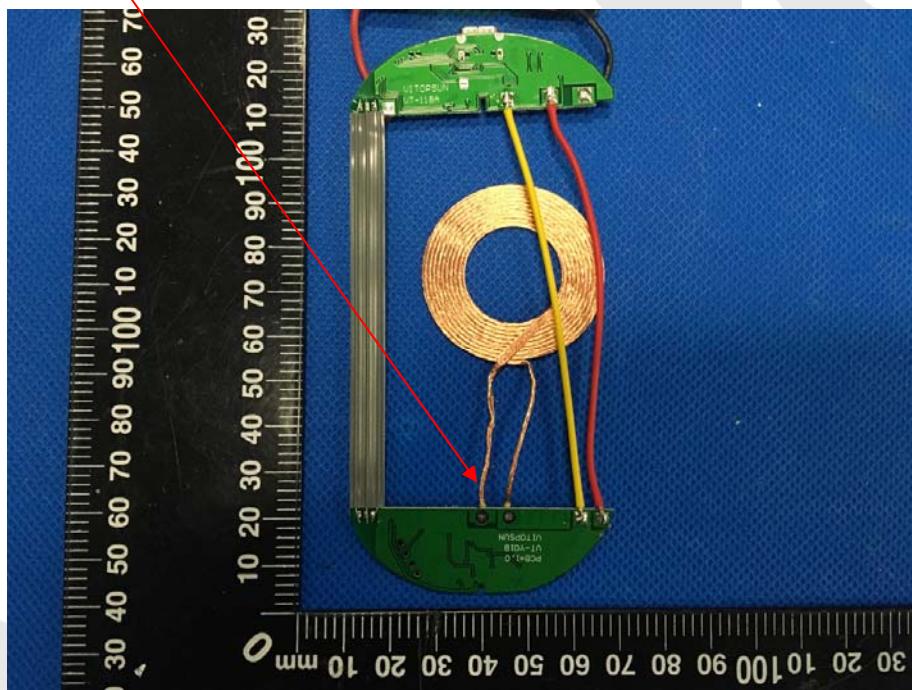
### **Refer to statement below for compliance.**

The manufacturer may design the unit so that the user can replace a broken antenna, but the use of a standard antenna jack or electrical connector is prohibited. Further, this requirement does not apply to intentional radiators that must be professionally installed.

### **Antenna Connected Construction**

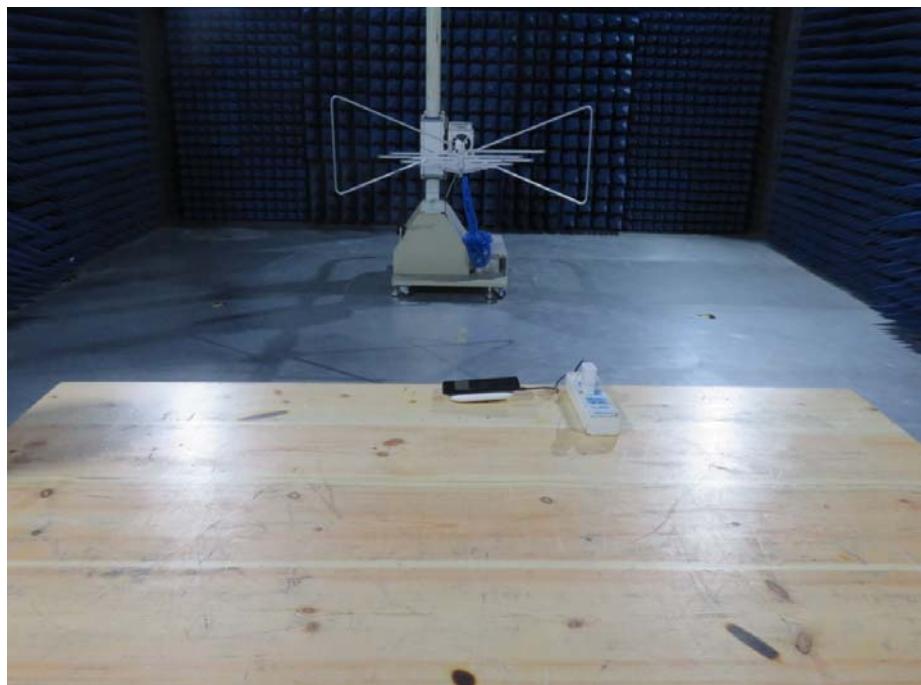
The antenna used in this product is a Coil Antenna, The directional gains of antenna used for transmitting is 1dBi.

#### ANTENNA



## 7. PHOTOGRAPH OF TEST

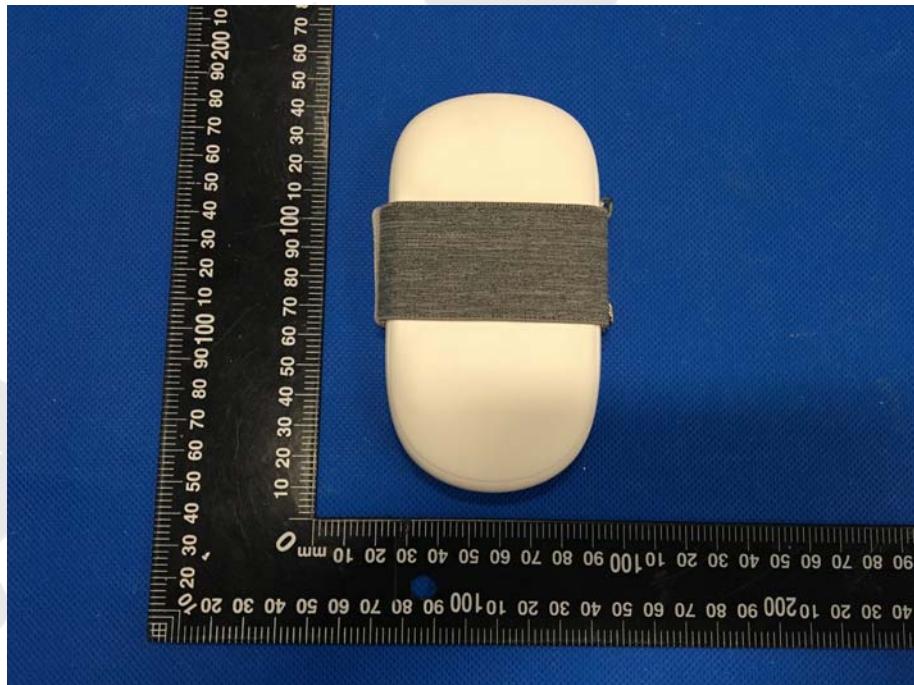
### 7.1 Radiated Emission



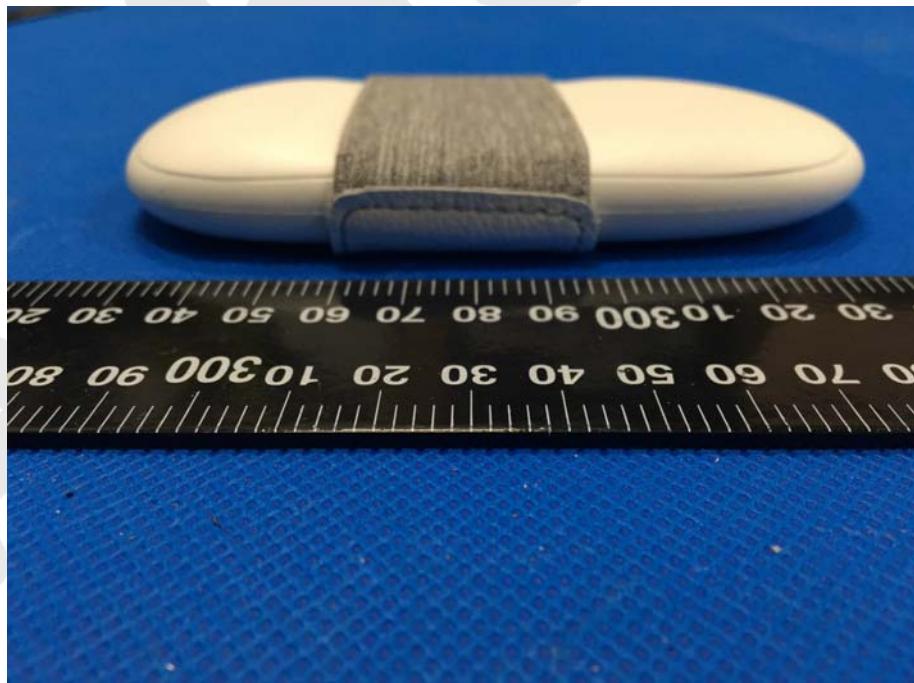
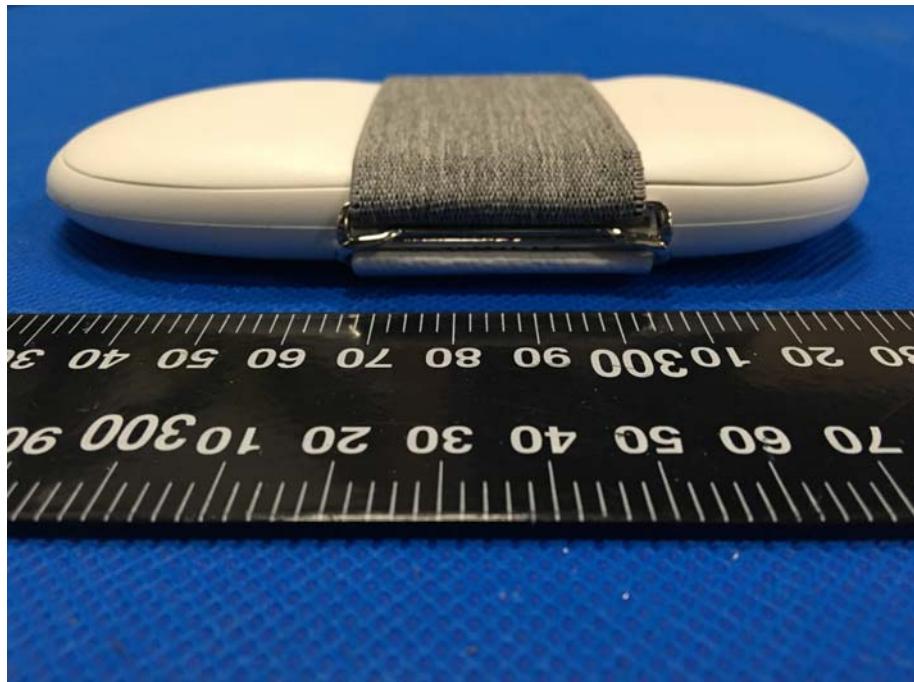
## 7.2 Conducted Emission



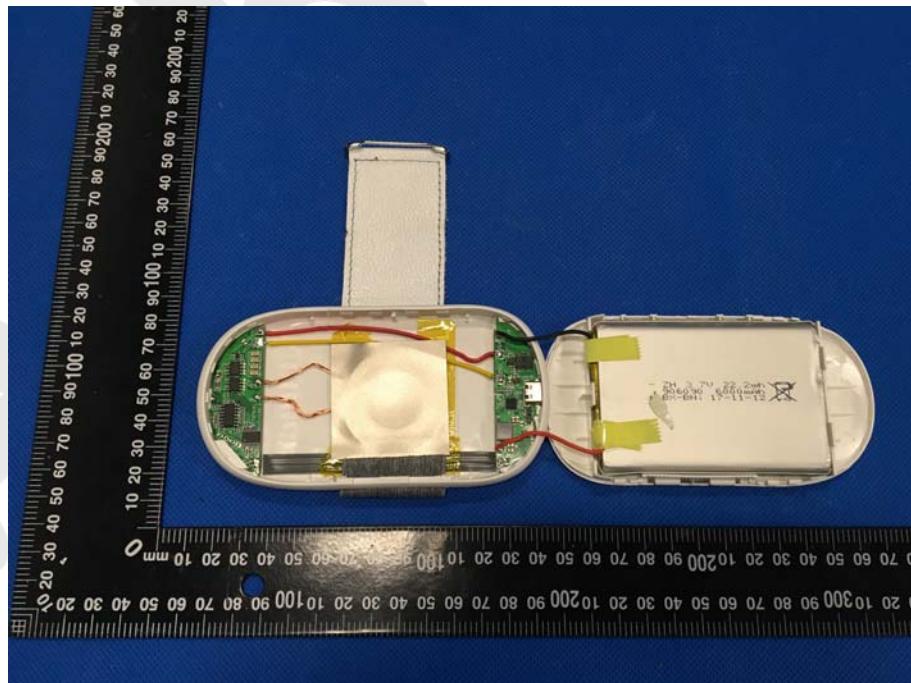
### 7.3 External photos

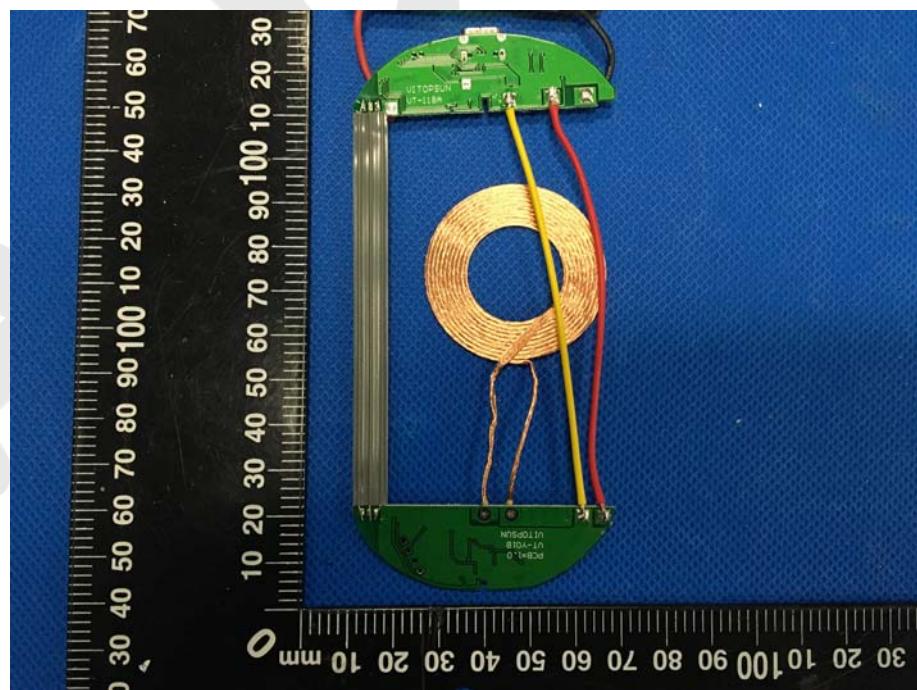
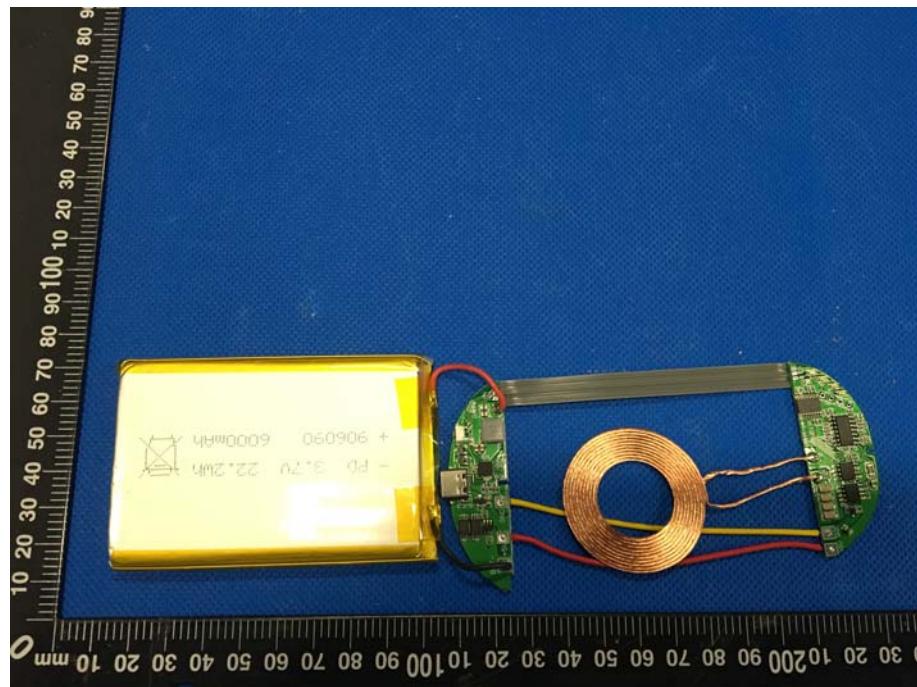


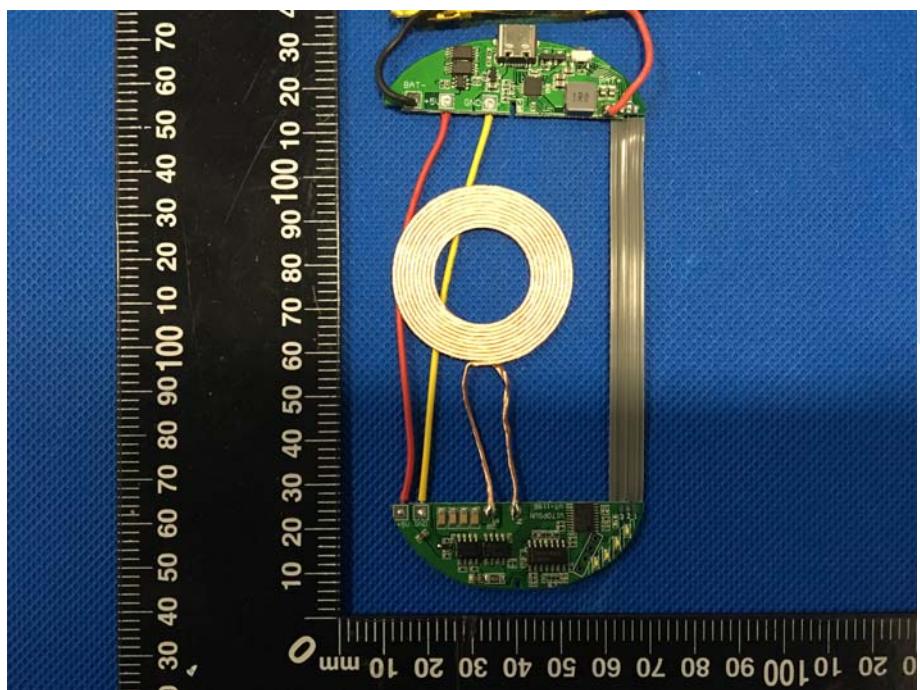




#### 7.4 Internal photos







End of Report

Anbotek