FCC TEST REPORT
for
Anker Technology Co., Limited

PowerTouch 5
Model No.: A2516

Prepared for	:	Anker Technology Co., Limited
Address	:	Room 1318-19, Hollywood Plaza, 610 Nathan Road, Mongkok, Kowloon, Hong Kong

Prepared By	:	Shenzhen Anbotek Compliance Laboratory Limited
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Report Number	:	R011612006I
Date of Test	:	Dec. 01~ 27, 2016
Date of Report	:	Dec. 28, 2016

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TEST REPORT

Applicant	:	Anker Technology Co., Limited
Manufacturer	:	Anker Technology Co., Limited
EUT	:	PowerTouch 5
Model No.	:	A2516
Serial No.	:	N.A.
Trade Mark	:	ANKER
Rating	:	Input DC 5V, 2A, Output DC 5V, 0.95A

Measurement Procedure Used:
FCC Part15 Subpart C 2016, Paragraph 15.209

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 : Dec. 01~ 27, 2016

Prepared by : Baron Wen

(Tested Engineer / Baron Wen)

Reviewer : Amy Ding

(Project Manager / Amy Ding)

Approved & Authorized Signer : Tom Chen

(Manager / Tom Chen)

1. GENERAL INFORMATION

1.1. Description of Device (EUT)

EUT	:	PowerTouch 5
Model Number	:	A2516
Test Power Supply	:	DC 5V
Frequency	:	110~ 205kHz
Antenna Type	:	Loop Antenna
Antenna Gain	:	2dBi
Applicant	:	Anker Technology Co., Limited
Address	:	Room 1318-19, Hollywood Plaza, 610 Nathan Road, Mongkok, Kowloon, Hong Kong
Manufacturer	:	Anker Technology Co., Limited
Address	:	Room 1318-19, Hollywood Plaza, 610 Nathan Road, Mongkok, Kowloon, Hong Kong
Factory	:	SHENZHEN RUIJING INDUSTRIAL CO., LTD.
Address	:	5-6 Floor, Building 3, Minqi Industrial Area, Lishan Road, Nanshan Shenzhen, Guangdong, 518055 China
Date of receiver	:	Dec. 01, 2016
Date of Test	:	Dec. 01~ 27, 2016

1.2. Auxiliary Equipment Used during Test

Adapter	:	Model No.: ETA-U90CBC Manufacturer: SAMSUNG Input: AC 100-240V, 50-60Hz, 0.35A Output: DC 5V, 2A
Mobile Phone	:	Model No.: GALAXY S7 Edge G9350 Manufacturer: SAMSUNG

1.3. Description of Test Facility

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

FCC-Registration No.: 752021
Shenzhen Anbotek Compliance Laboratory Limited, EMC Laboratory has been registed 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 752021, July 06, 2016.

IC-Registration No.: 8058A-1
Shenzhen Anbotek Compliance Laboratory Limited., EMC Laboratory has been registered and fully described in a report filed with the (IC) Industry Canada. The acceptance letter from the IC is maintained in our files. Registration 8058A, Jun. 13, 2016.

Test Location
All Emissions tests were performed at
Shenzhen Anbotek Compliance Laboratory Limited. at 1/F., Building 1, SEC Industrial Park, No.0409 Qianhai Road, Nanshan District, Shenzhen, Guangdong, China

1.4. Measurement Uncertainty

Radiation Uncertainty	:	Ur = 4.1 dB (Horizontal) Ur = 4.3 dB (Vertical)
Conduction Uncertainty	:	Uc = 3.4dB

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.10: 2013 and FCC Part 15, Paragraph 15.209.

2.1. Summary of Test Results

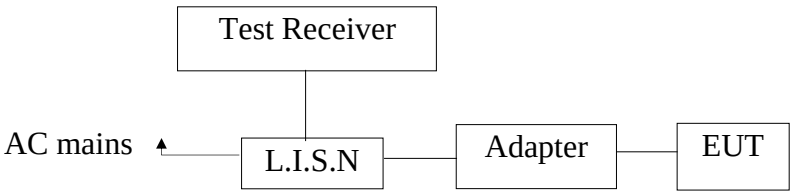
The EUT has been tested according to the following specifications:

Standard	Test Type	Result	Notes
FCC Part 15, Paragraph 15.207	Conducted Emission Test	PASS	Complies
FCC Part 15, Paragraph 15.209(a)(f)	Spurious Emission	PASS	Complies

3. Conducted Emission Test

3.1. Block Diagram of Test Setup

3.1.1. Block diagram of connection between the EUT and simulators



3.2. Power Line Conducted Emission Measurement Limits (15.207)

Frequency MHz	Limits dB(μV)	
	Quasi-peak Level	Average Level
0.15 ~ 0.50	66 ~ 56*	56 ~ 46*
0.50 ~ 5.00	56	46
5.00 ~ 30.00	60	50

Notes: 1. *Decreasing linearly with logarithm of frequency.
2. The lower limit shall apply at the transition frequencies.

3.3. Configuration of EUT on Measurement

The following equipments are installed on Power Line Conducted Emission Measurement to meet the commission requirement and operating regulations in a manner which tends to maximize its emission characteristics in a normal application.

3.4. Operating Condition of EUT

3.4.1. Setup the EUT and simulator as shown as Section 3.1.

3.4.2. Turn on the power of all equipment.

3.4.3. Let the EUT work in test mode (Charging) and measure it.

3.5. Test Procedure

The EUT system is connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm coupling impedance for the EUT system. Please refer the block diagram of the test setup and photographs. Both sides of AC line are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to FCC ANSI C63.10-2013 on Conducted Emission Measurement.

The bandwidth of test receiver (ESCI) set at 9KHz.

The frequency range from 150KHz to 30MHz is checked.

The test results are reported on Section 3.7.

3.6. Test equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Two-Line V-network	Rohde & Schwarz	ENV216	100055	Jul. 19, 2016	1 Year
2.	EMI Test Receiver	Rohde & Schwarz	ESCI	100627	Jun. 17, 2016	1 Year
3.	RF Switching Unit	Compliance Direction	RSU-M2	38303	Jun. 17, 2016	1 Year

3.7. Power Line Conducted Emission Measurement Results

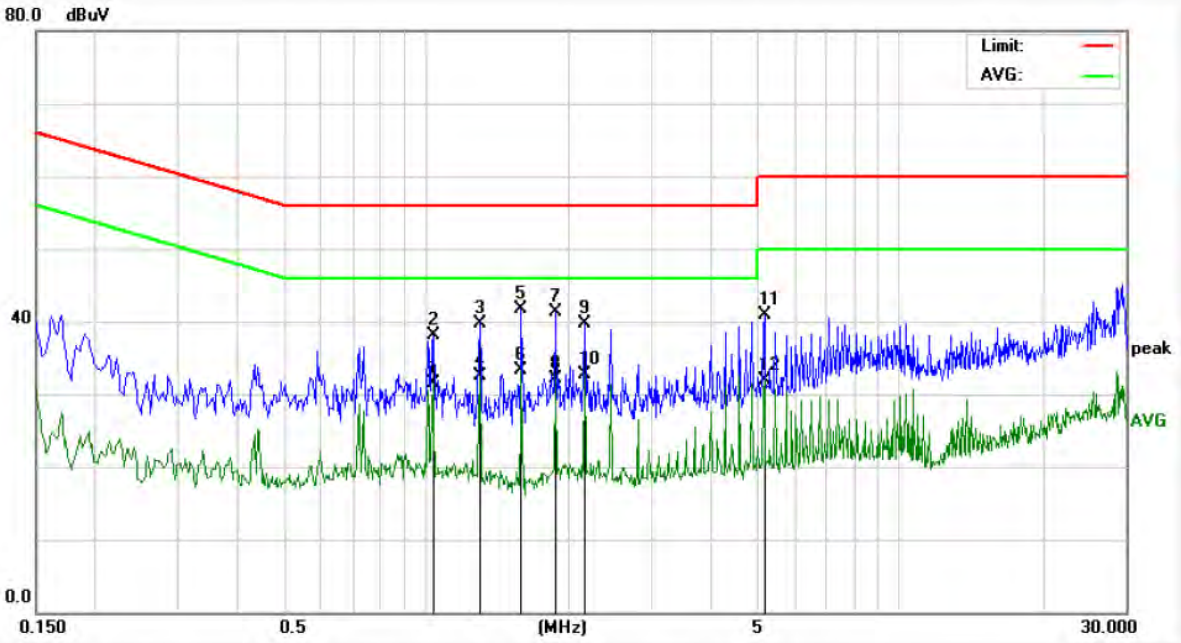
PASS.

The frequency range from 150KHz to 30 MHz is investigated.

Please refer the following pages.

CONDUCTED EMISSION TEST DATA

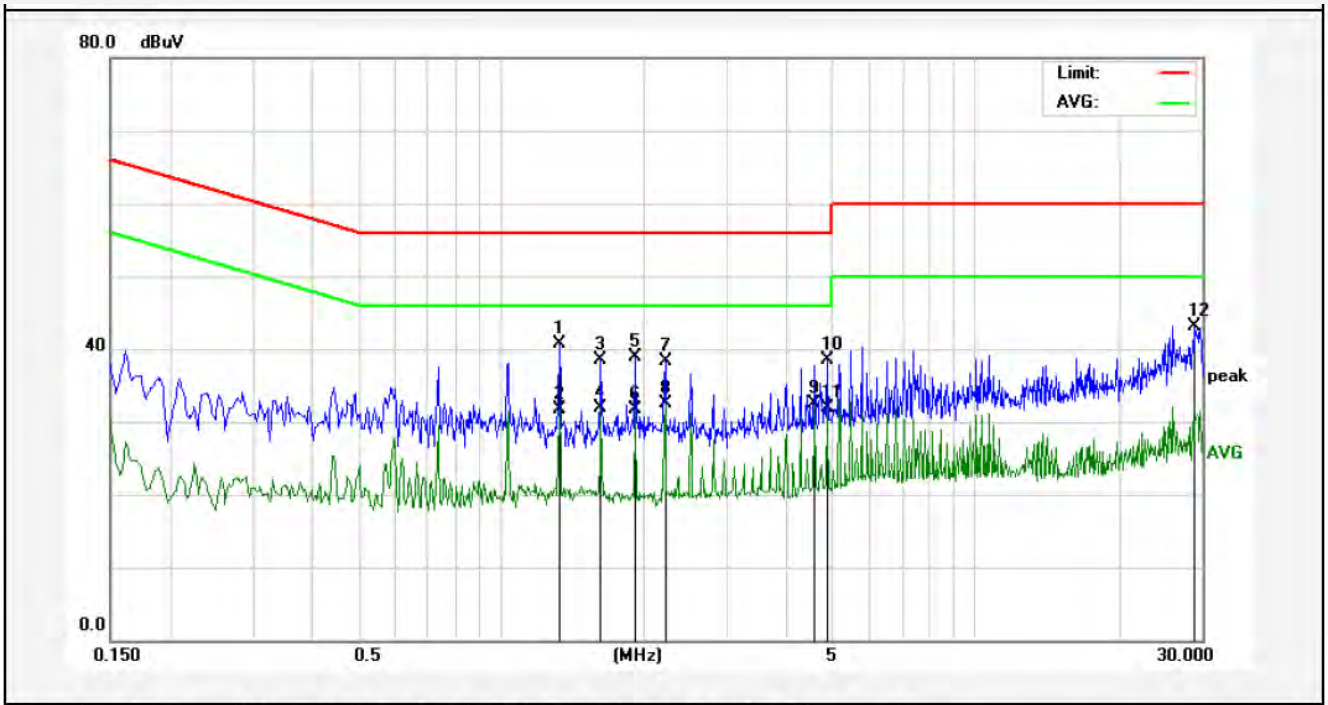
Test Site:	1# Shielded Room
Operating Condition:	Charging
Test Specification:	AC 120V, 60Hz for adapter
Comment:	Live Line
	Tem.:24℃ Hum.:49%



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit dBuV	Over Limit (dB)	Detector	Remark
1	1.0339	11.33	20.12	31.45	46.00	-14.55	AVG	
2	1.0380	17.97	20.12	38.09	56.00	-17.91	QP	
3	1.2980	19.55	20.13	39.68	56.00	-16.32	QP	
4	1.2980	12.34	20.13	32.47	46.00	-13.53	AVG	
5	1.5859	21.53	20.13	41.66	56.00	-14.34	QP	
6	1.5859	13.12	20.13	33.25	46.00	-12.75	AVG	
7	1.8740	21.19	20.14	41.33	56.00	-14.67	QP	
8	1.8740	11.92	20.14	32.06	46.00	-13.94	AVG	
9	2.1619	19.50	20.14	39.64	56.00	-16.36	QP	
10	2.1619	12.50	20.14	32.64	46.00	-13.36	AVG	
11	5.1698	20.63	20.21	40.84	60.00	-19.16	QP	
12	5.1698	11.71	20.21	31.92	50.00	-18.08	AVG	

CONDUCTED EMISSION TEST DATA

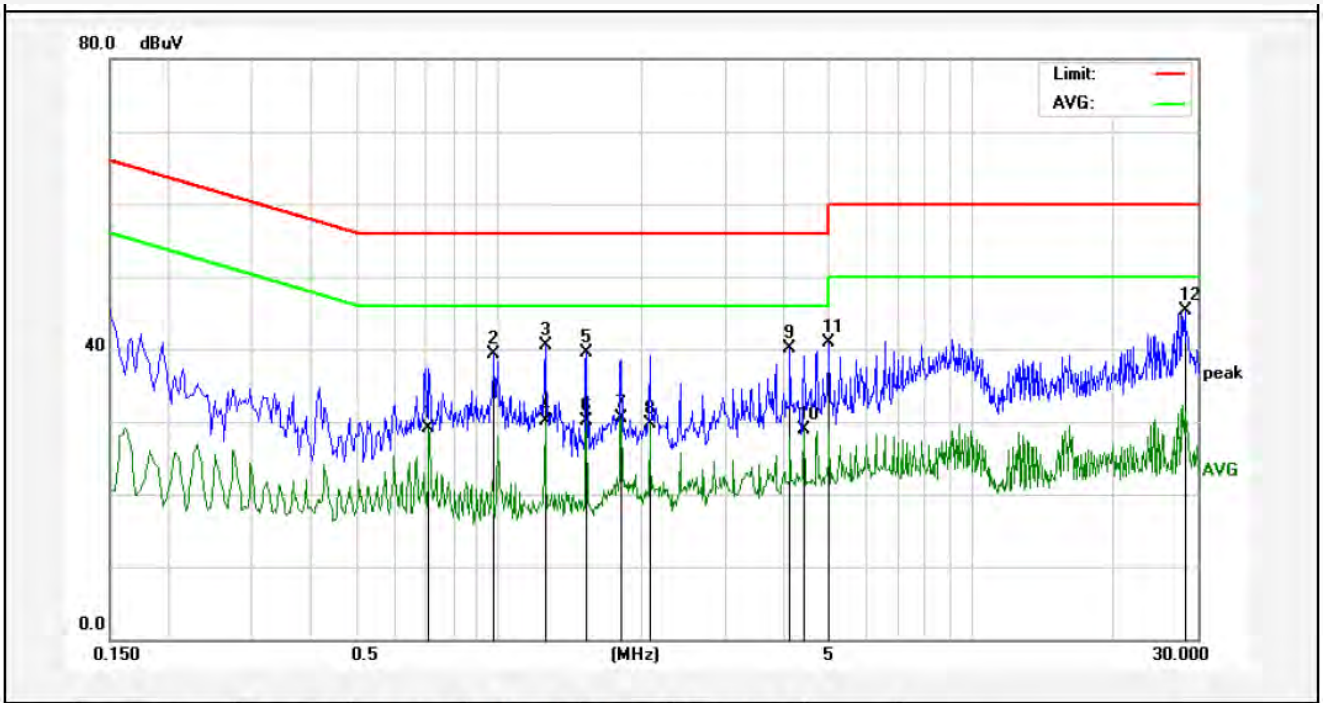
Test Site:	1# Shielded Room
Operating Condition:	Charging
Test Specification:	AC 120V, 60Hz for adapter
Comment:	Neutral Line
	Tem.:24℃ Hum.:49%



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit dBuV	Over Limit (dB)	Detector	Remark
1	1.3300	20.57	20.13	40.70	56.00	-15.30	QP	
2	1.3300	11.48	20.13	31.61	46.00	-14.39	AVG	
3	1.6258	18.32	20.13	38.45	56.00	-17.55	QP	
4	1.6258	11.84	20.13	31.97	46.00	-14.03	AVG	
5	1.9178	18.70	20.14	38.84	56.00	-17.16	QP	
6	1.9178	11.59	20.14	31.73	46.00	-14.27	AVG	
7	2.2139	18.15	20.14	38.29	56.00	-17.71	QP	
8	2.2139	12.41	20.14	32.55	46.00	-13.45	AVG	
9	4.5739	12.30	20.20	32.50	46.00	-13.50	AVG	
10	4.8699	18.38	20.20	38.58	56.00	-17.42	QP	
11	4.8699	11.71	20.20	31.91	46.00	-14.09	AVG	
12	28.9258	22.80	20.27	43.07	60.00	-16.93	QP	

CONDUCTED EMISSION TEST DATA

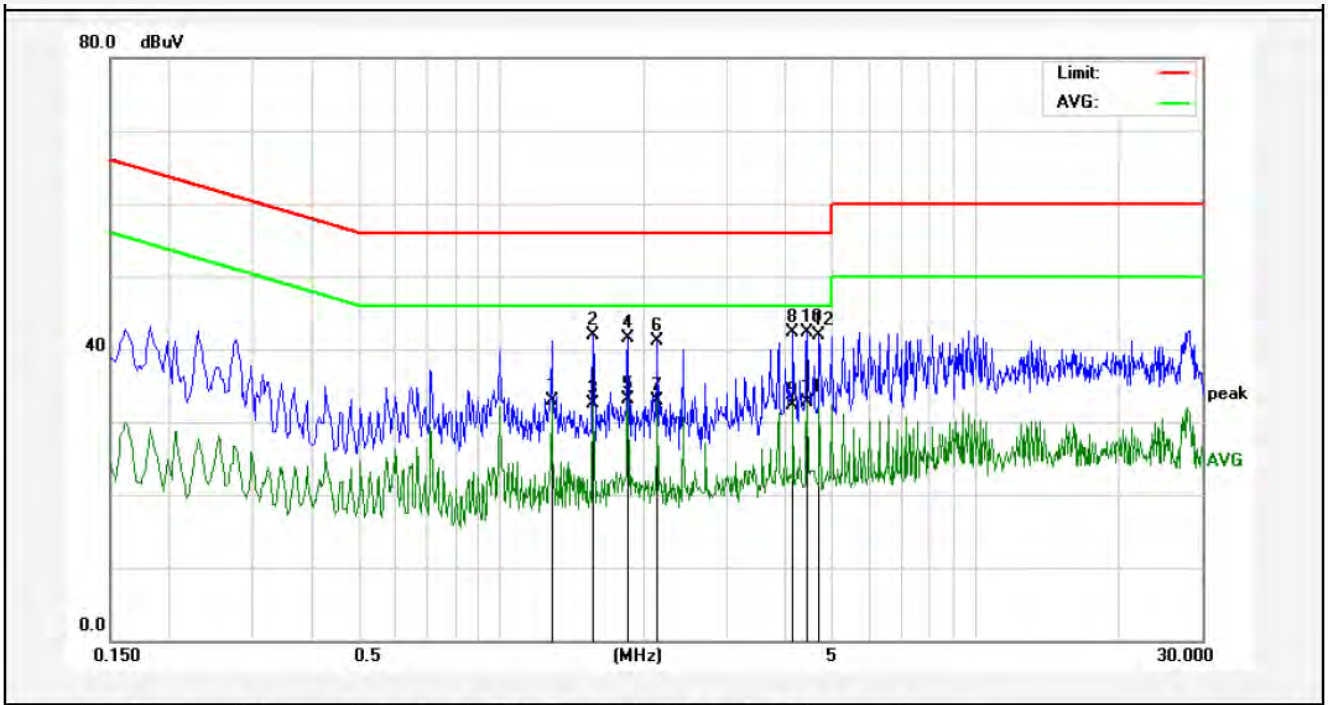
Test Site:	1# Shielded Room
Operating Condition:	Charging
Test Specification:	AC 240V, 60Hz for adapter
Comment:	Live Line
	Tem.:24℃ Hum.:49%



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit dBuV	Over Limit (dB)	Detector	Remark
1	0.7096	9.01	20.04	29.05	46.00	-16.95	AVG	
2	0.9737	19.12	20.11	39.23	56.00	-16.77	QP	
3	1.2500	20.31	20.12	40.43	56.00	-15.57	QP	
4	1.2500	9.89	20.12	30.01	46.00	-15.99	AVG	
5	1.5300	19.43	20.13	39.56	56.00	-16.44	QP	
6	1.5300	10.05	20.13	30.18	46.00	-15.82	AVG	
7	1.8100	10.28	20.14	30.42	46.00	-15.58	AVG	
8	2.0859	9.60	20.14	29.74	46.00	-16.26	AVG	
9	4.1299	20.01	20.18	40.19	56.00	-15.81	QP	
10	4.4138	8.66	20.19	28.85	46.00	-17.15	AVG	
11	4.9818	20.61	20.21	40.82	56.00	-15.18	QP	
12	28.1700	25.01	20.27	45.28	60.00	-14.72	QP	

CONDUCTED EMISSION TEST DATA

Test Site:	1# Shielded Room
Operating Condition:	Charging
Test Specification:	AC 240V, 60Hz for adapter
Comment:	Neutral Line
	Tem.:24℃ Hum.:49%



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit dBuV	Over Limit (dB)	Detector	Remark
1	1.2820	12.71	20.13	32.84	46.00	-13.16	AVG	
2	1.5660	21.77	20.13	41.90	56.00	-14.10	QP	
3	1.5660	12.37	20.13	32.50	46.00	-13.50	AVG	
4	1.8500	21.42	20.14	41.56	56.00	-14.44	QP	
5	1.8500	12.87	20.14	33.01	46.00	-12.99	AVG	
6	2.1339	20.96	20.14	41.10	56.00	-14.90	QP	
7	2.1339	12.75	20.14	32.89	46.00	-13.11	AVG	
8	4.1257	22.08	20.18	42.26	56.00	-13.74	QP	
9	4.1257	12.21	20.18	32.39	46.00	-13.61	AVG	
10	4.4099	22.14	20.19	42.33	56.00	-13.67	QP	
11	4.4099	12.48	20.19	32.67	46.00	-13.33	AVG	
12	4.6939	21.78	20.20	41.98	56.00	-14.02	QP	

4. RADIATED EMISSIONS

4.6.1.1. Test Limits (< 30 MHZ)

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meter)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30

4.6.1.2. Test Limits (≥ 30 MHz)

FIELD STRENGTH of Fundamental: @3M	FIELD STRENGTH of Harmonics	S15.209	
902-928 MHZ		88 - 216 MHz	43.5
2.4-2.4835 GHz		216 - 960 MHz	46
94 dBμV/m @3m	54 dBμV/m @3m	ABOVE 960 MHz	54dBuV/m

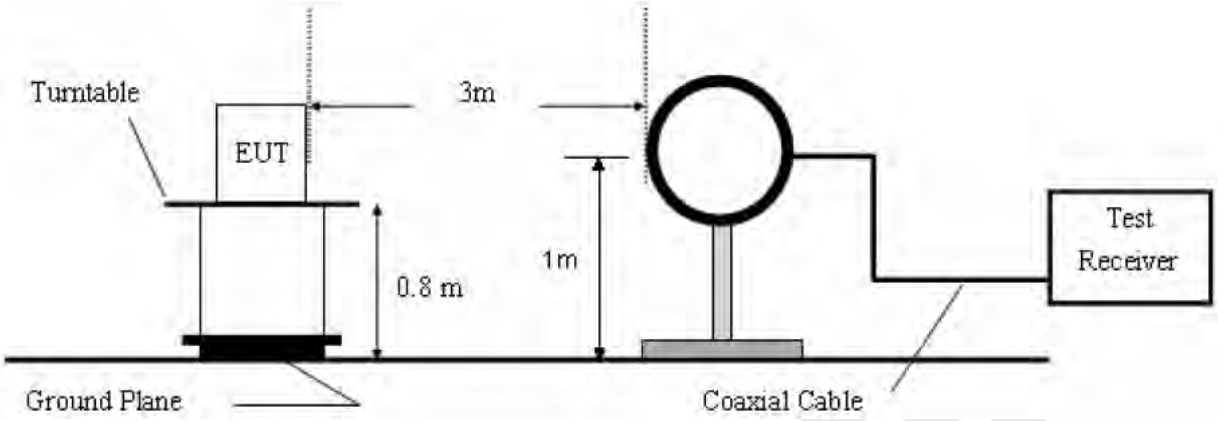
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

Test Equipment

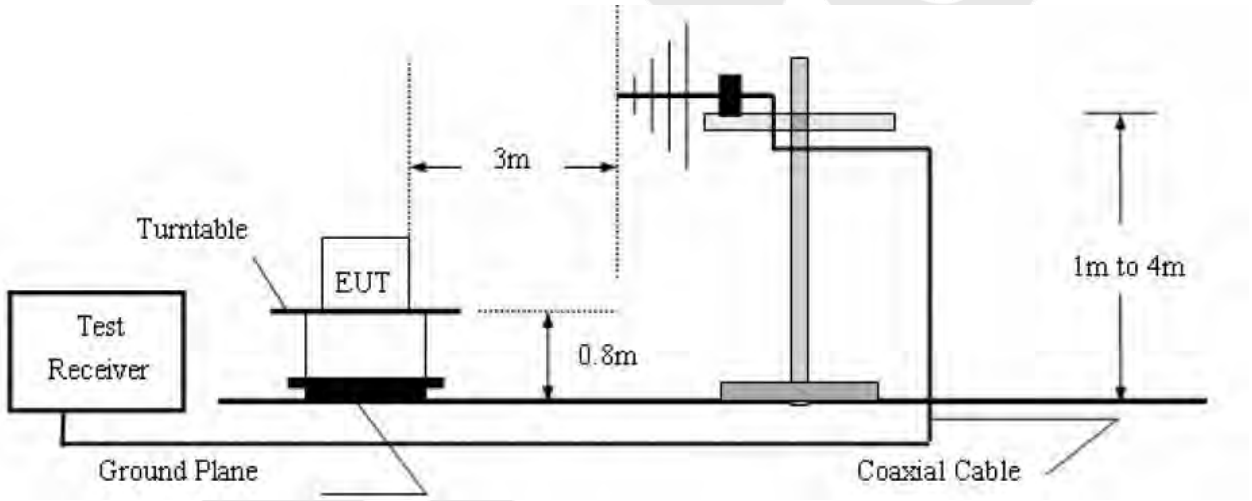
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum Analysis	Agilent	E4407B	US39390582	Jul. 12, 2016	1 Year
2.	Preamplifier	Instruments corporation	EMC011830	980100	Jun. 17, 2016	1 Year
3.	EMI Test Receiver	Rohde & Schwarz	ESPI	101604	Jun. 17, 2016	1 Year
4.	Double Ridged Horn Antenna	Instruments corporation	GTH-0118	351600	May 06, 2016	1 Year
5.	Bilog Broadband Antenna	Schwarzbeck	VULB9163	VULB 9163-289	May 06, 2016	1 Year
6.	Pre-amplifier	SONOMA	310N	186860	Jun. 17, 2016	1 Year
7.	EMI Test Software EZ-EMC	SHURPLE	N/A	N/A	N/A	N/A
8	Power Sensor	Agilent	KFSW150502	15I00041SN045	Jun. 17, 2016	1 Year
9	MXA Spectrum Analysis	Agilent	N9020A	MY51170037	Jun. 17, 2016	1 Year
10	MXG RF Vector Signal Generator	Agilent	N5182A	MY48180656	Jun. 17, 2016	1 Year
11	Signal Generator	Agilent	E4421B	MY41000743	Jun. 17, 2016	1 Year
12	DC Power supply	IV	IV-8080	YQSB0096	Jun. 17, 2016	1 Year
13	TEMP&HUMI PROGRAMMABLE CHAMBER	Bell Group	BE-THK-150M8	SE-0137	Jun. 17, 2016	1 Year
14.	Loop Antenna	Schwarzbeck	FMZB 1519	012	May 11, 2016	1 Year

4.6.2. Test Configuration:

4.6.2.1. 9k to 30MHz emissions:



4.6.2.2. 30M to 1GHz emissions:



4.6.3. Test Procedure

For below 1GHz: The EUT is placed on a turntable, which is 0.8m above the ground plane. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT is set 3 meters away from the receiving antenna which is mounted on a antenna tower. The antenna can be moved up and down from 1 to 4 meters to find out the maximum emission level. Both horizontal and vertical polarization of the antenna are set on test.

All readings from 30MHz to 1GHz are quasi-peak values with a resolution bandwidth of 120kHz.

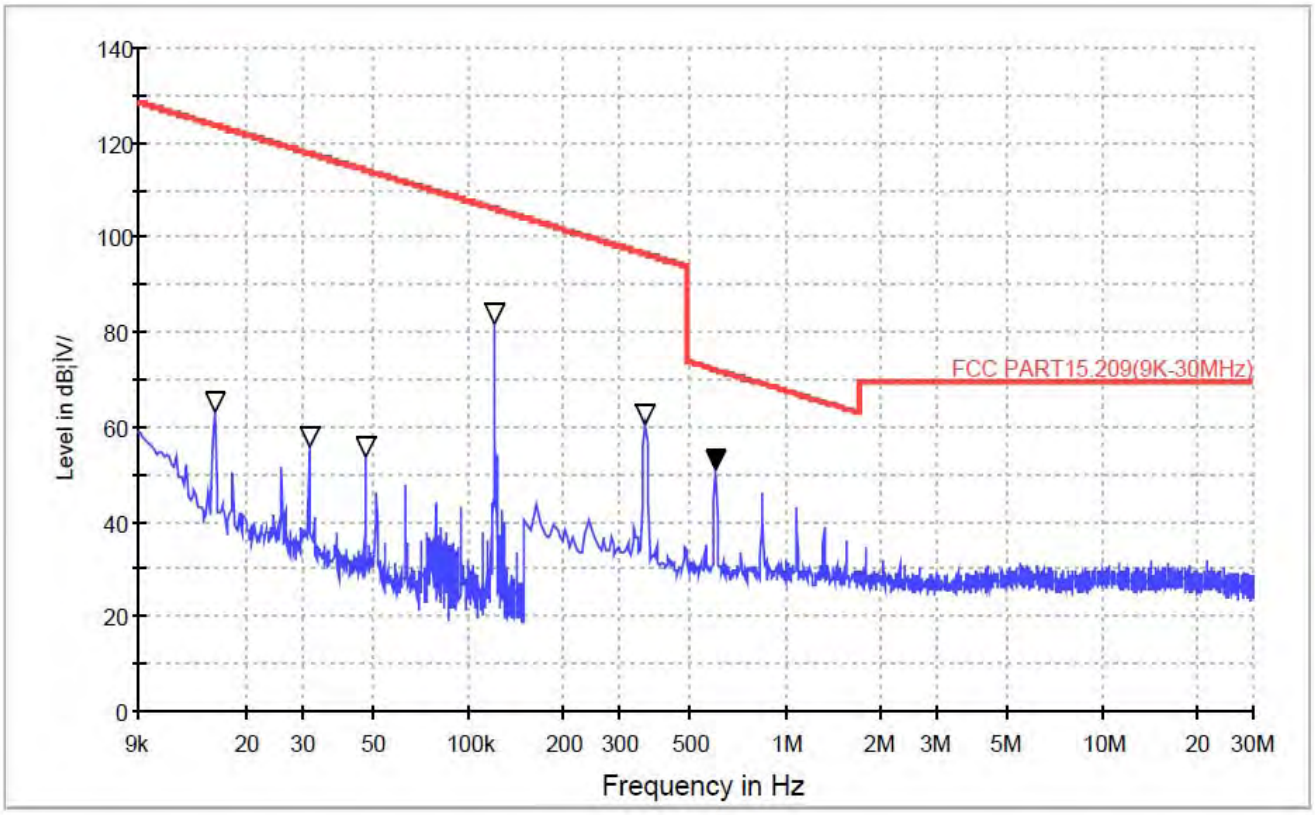
The EUT is tested in 9*6*6 Chamber. The device is evaluated in xyz orientation.

The test results are listed in Section 4.6.4.

4.6.4. Test Results

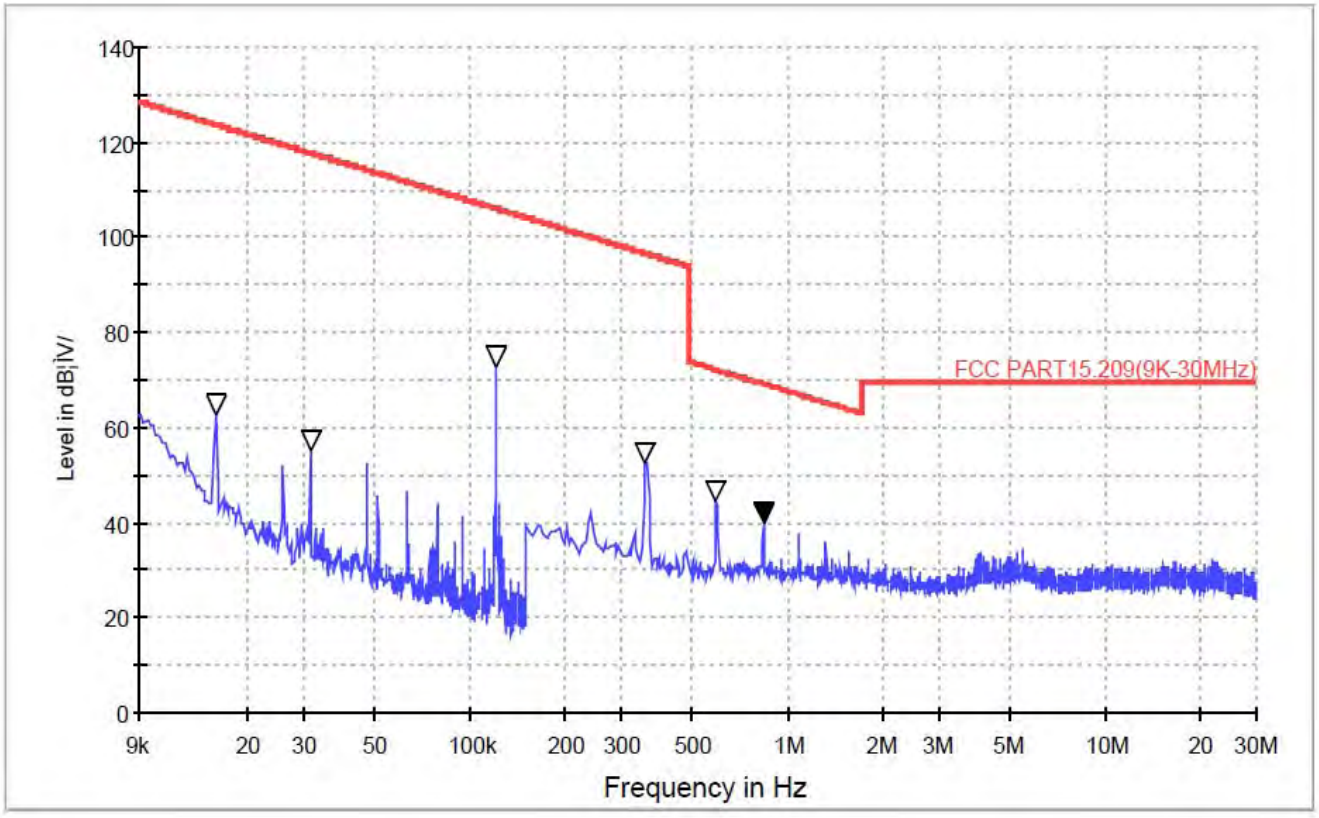
(Between 9KHz – 30 MHz)

Job No.:	**011612006I**	**Plarization:**	**Horizontal**
Standard:	**FCC PART15 C _3m**	**Power Source:**	**AC 120V, 60Hz for adapter**
Test item:	**Radiation Test**	**Temp.(C)/Hum.(%RH):**	**24.4(C)/50%RH**
Test Mode:	**Charging**	**Distance:**	**3m**



Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Remark
0.0152	41.866	18.57	2.37	0	62.806	Pass
0.0323	34.724	18.71	2.38	0	55.814	Pass
0.0470	31.776	19.40	2.39	0	53.566	Pass
0.1211	58.677	20.55	2.39	0	81.617	Pass
0.3614	36.060	21.61	2.74	0	60.410	Pass
0.6023	25.653	22.90	2.52	0	51.073	Pass

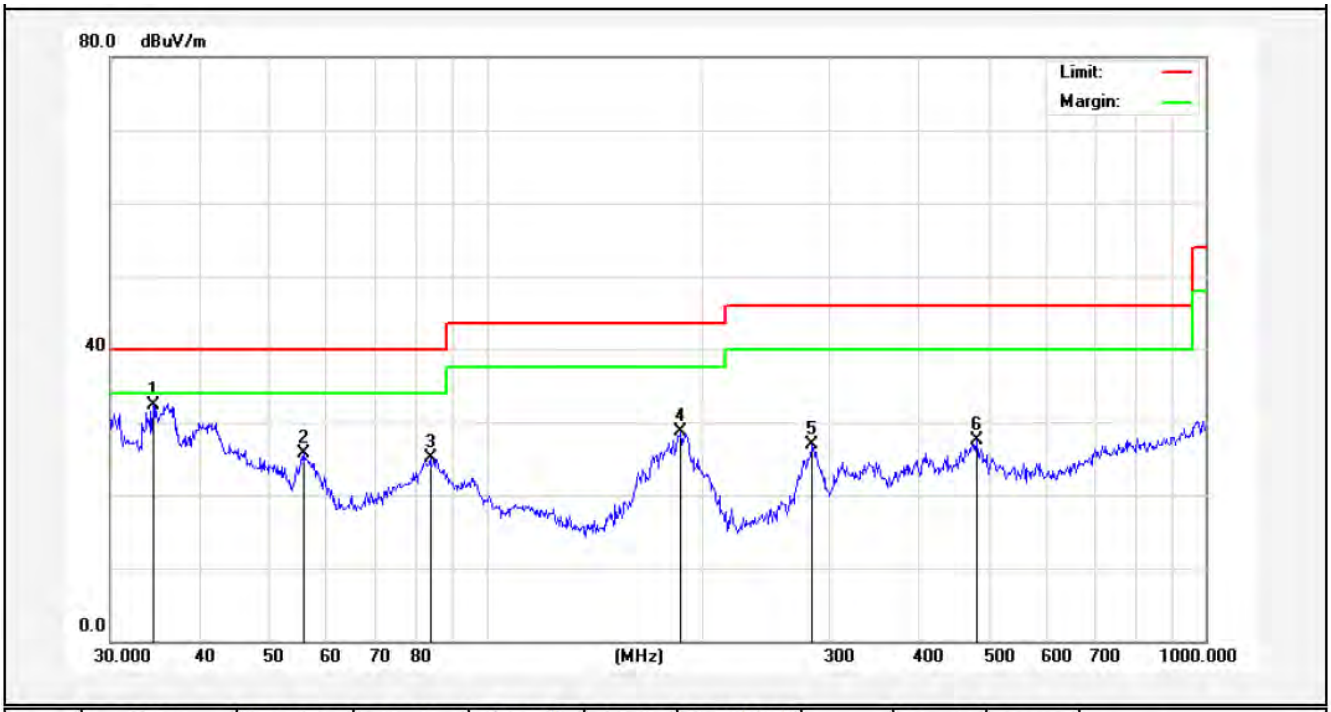
Job No.:	**011612006I**	**Plarization:**	**Vertical**
Standard:	**FCC PART15 C _3m**	**Power Source:**	**AC 120V, 60Hz for adapter**
Test item:	**Radiation Test**	**Temp.(C)/Hum.(%RH):**	**24.4(C)/50%RH**
Test Mode:	**Charging**	**Distance:**	**3m**



Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Remark
0.0156	41.613	18.53	2.39	0	62.533	Pass
0.0322	34.159	18.69	2.38	0	55.229	Pass
0.1207	49.810	20.62	2.39	0	72.820	Pass
0.3581	27.891	21.50	2.77	0	52.161	Pass
0.5976	18.911	22.81	2.54	0	44.261	Pass
0.8411	14.675	22.80	2.52	0	39.995	Pass

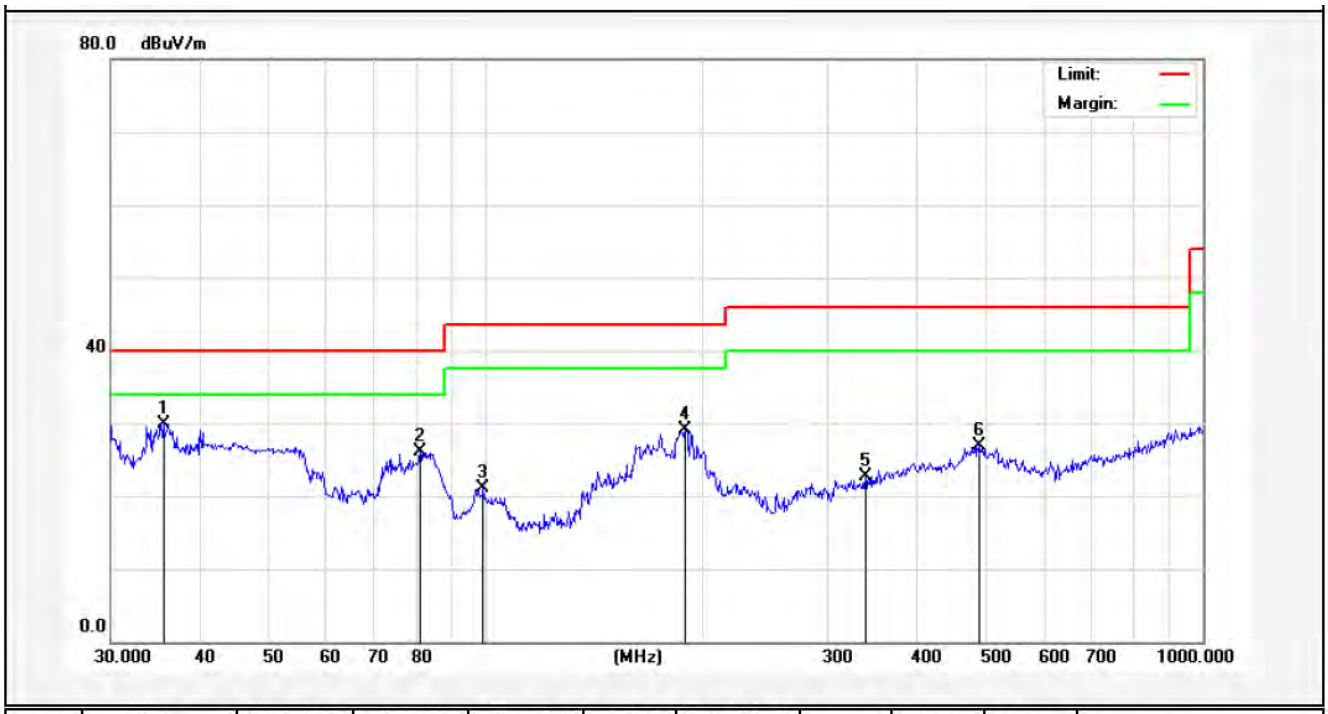
(Between 30MHz –1000 MHz)

Job No.:	**011612006I**	**Plarization:**	**Horizontal**
Standard:	**FCC PART15 C _3m**	**Power Source:**	**AC 120V, 60Hz for adapter**
Test item:	**Radiation Test**	**Temp.(C)/Hum.(%RH):**	**24.4(C)/50%RH**
Test Mode:	**Charging**	**Distance:**	**3m**



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	34.3962	46.98	-14.61	32.37	40.00	-7.63	peak			
2	55.8046	40.64	-15.00	25.64	40.00	-14.36	peak			
3	83.5220	46.00	-20.82	25.18	40.00	-14.82	peak			
4	186.4407	50.02	-21.25	28.77	43.50	-14.73	peak			
5	283.9791	45.08	-18.11	26.97	46.00	-19.03	peak			
6	480.5276	39.01	-11.53	27.48	46.00	-18.52	peak			

Job No.:	**011612006I**	**Plarization:**	**Vertical**
Standard:	**FCC PART15 C _3m**	**Power Source:**	**AC 120V, 60Hz for adapter**
Test item:	**Radiation Test**	**Temp.(C)/Hum.(%RH):**	**24.4(C)/50%RH**
Test Mode:	**Charging**	**Distance:**	**3m**

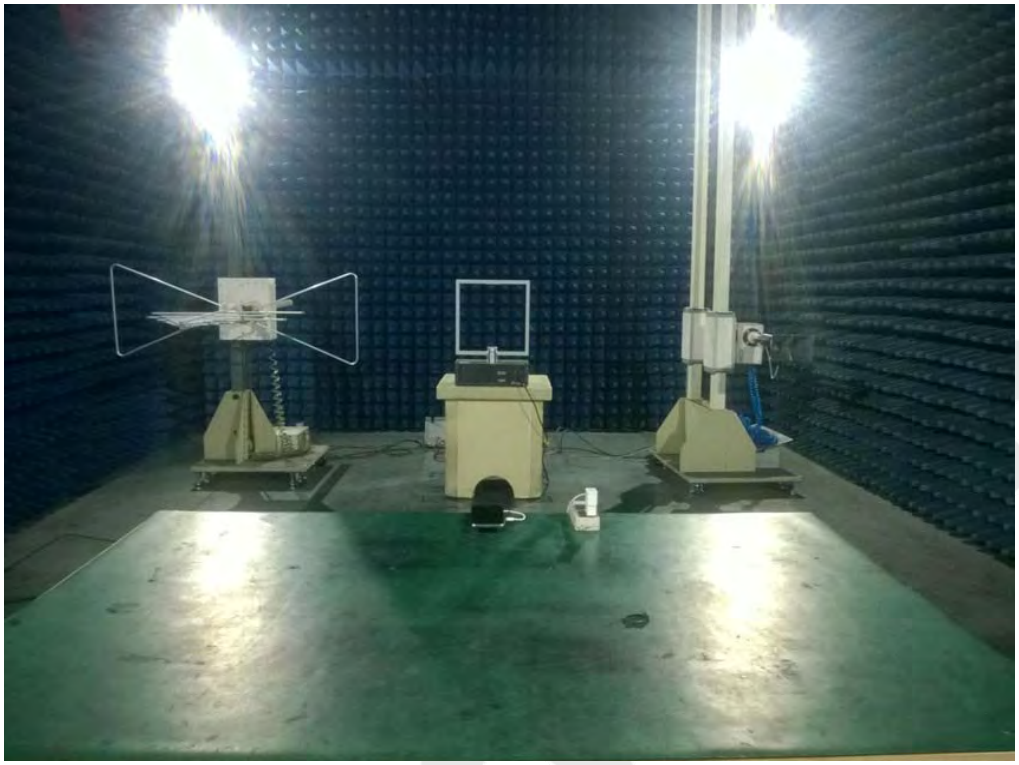


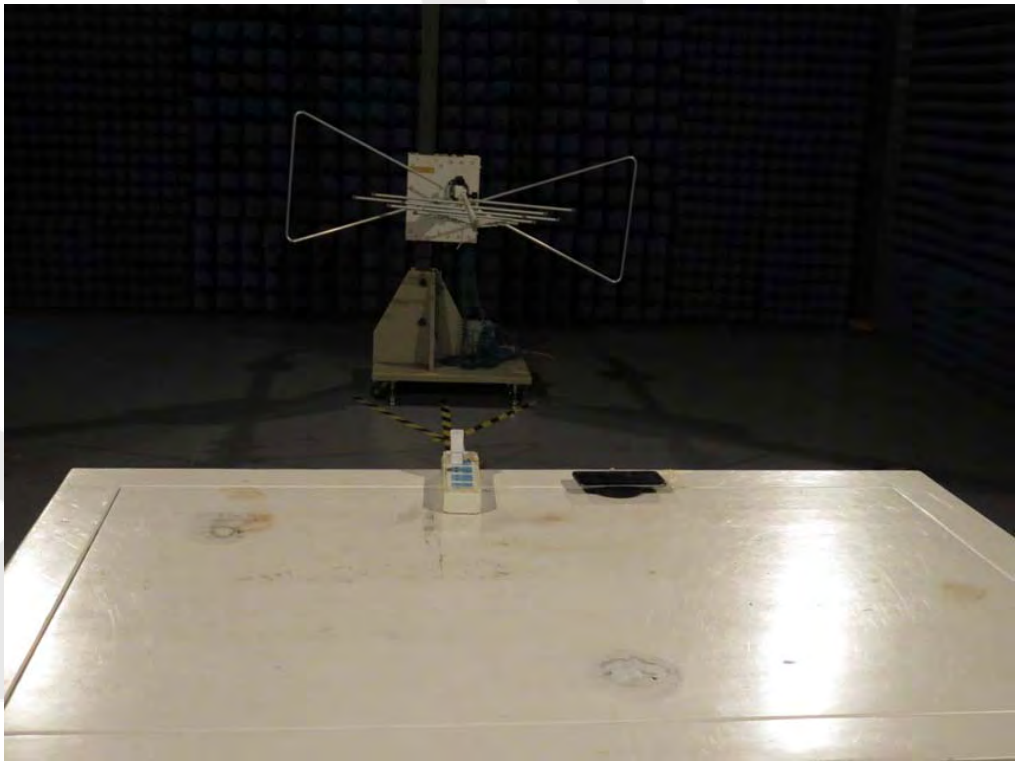
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	35.4992	43.90	-13.90	30.00	40.00	-10.00	peak			
2	80.9274	45.73	-19.68	26.05	40.00	-13.95	peak			
3	99.1795	36.88	-15.80	21.08	43.50	-22.42	peak			
4	189.7384	45.00	-15.95	29.05	43.50	-14.45	peak			
5	338.4001	36.17	-13.37	22.80	46.00	-23.20	peak			
6	487.3149	38.31	-11.32	26.99	46.00	-19.01	peak			

6. PHOTOGRAPH

6.1 Photo of Conducted Emission Test

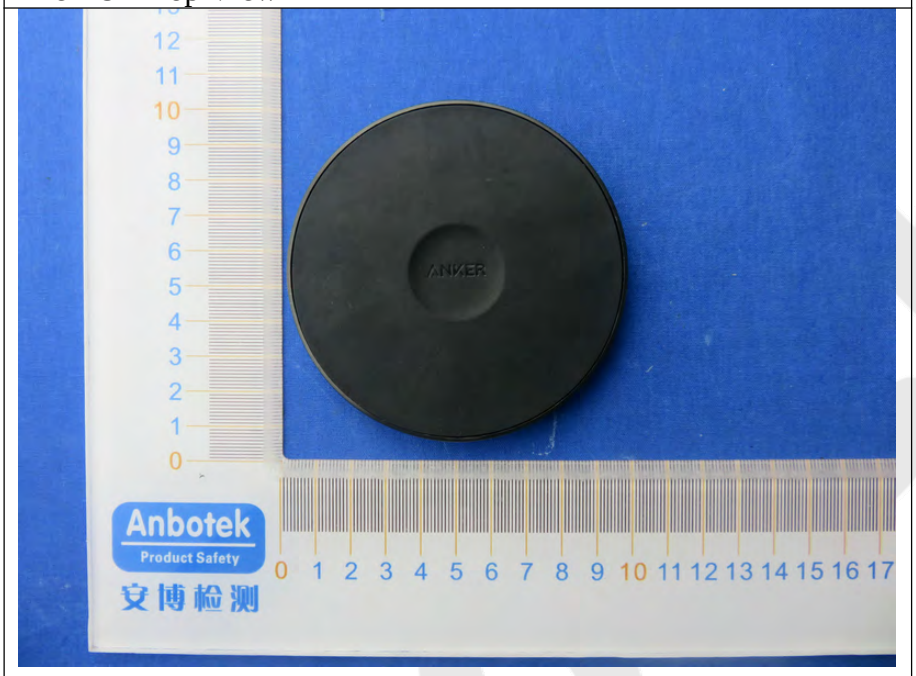
6.2 Photo of Radiation Emission Test



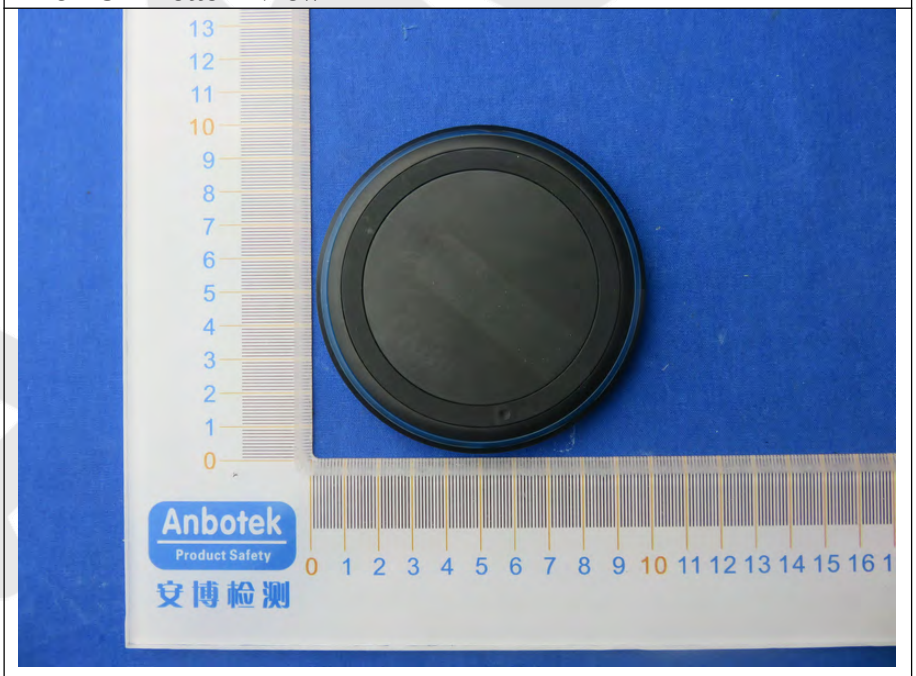


APPENDIX I (EXTERNAL PHOTOS)

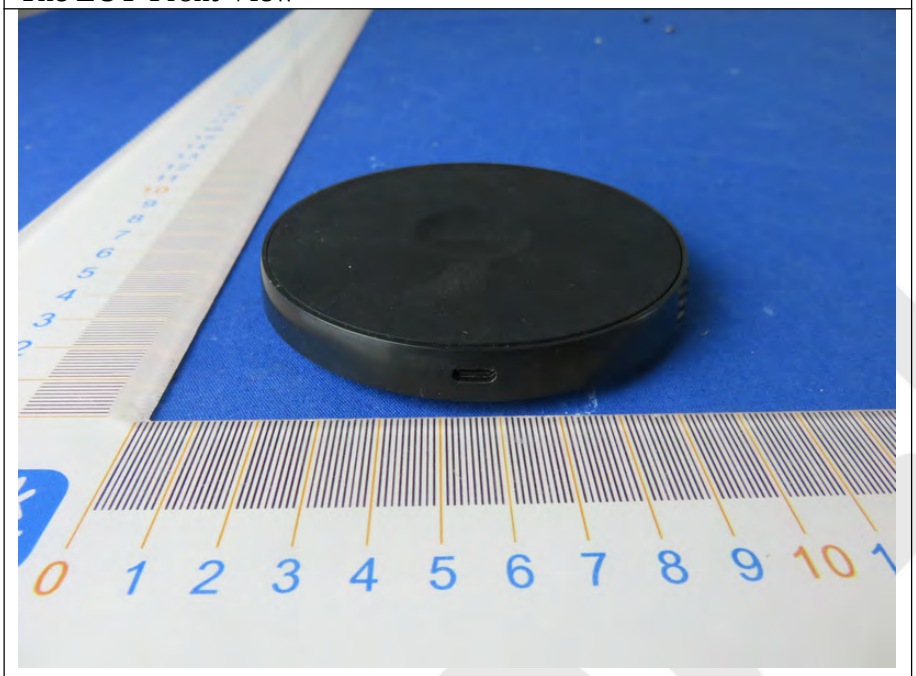
1. Figure
The EUT-Top View



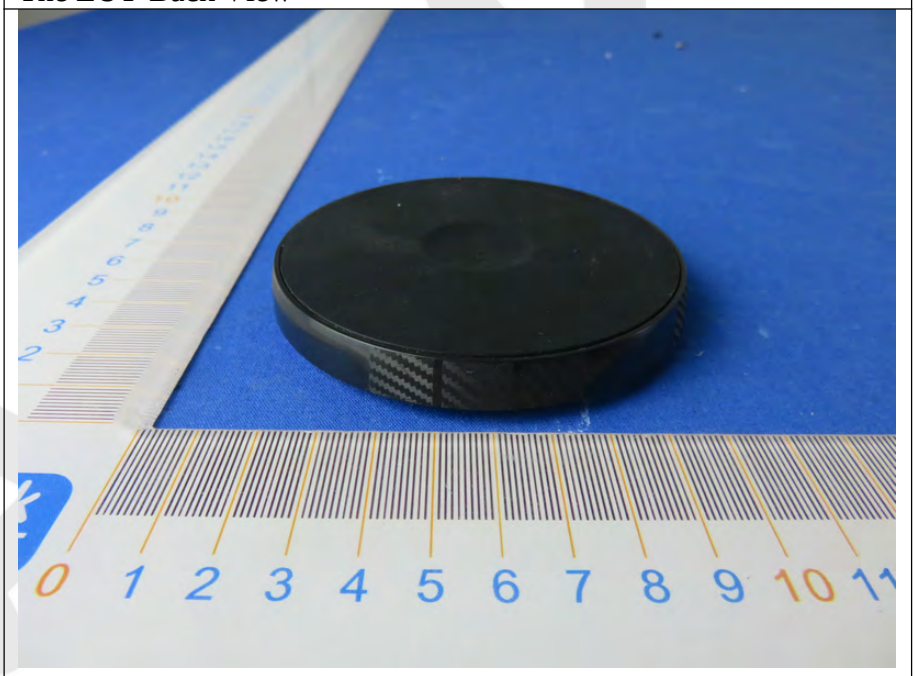
2. Figure
The EUT-Bottom View



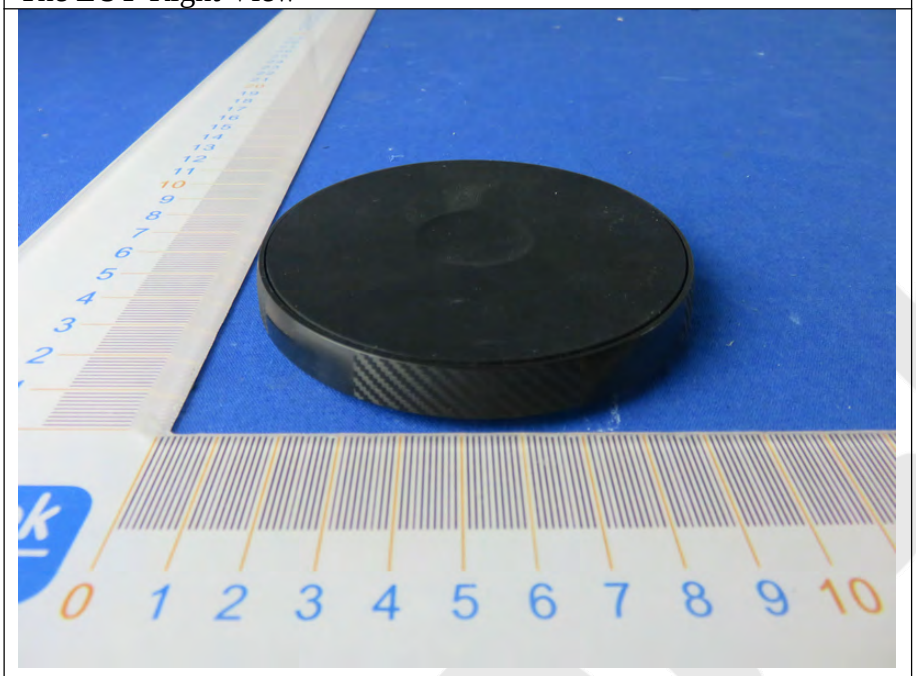
3. Figure
The EUT-Front View



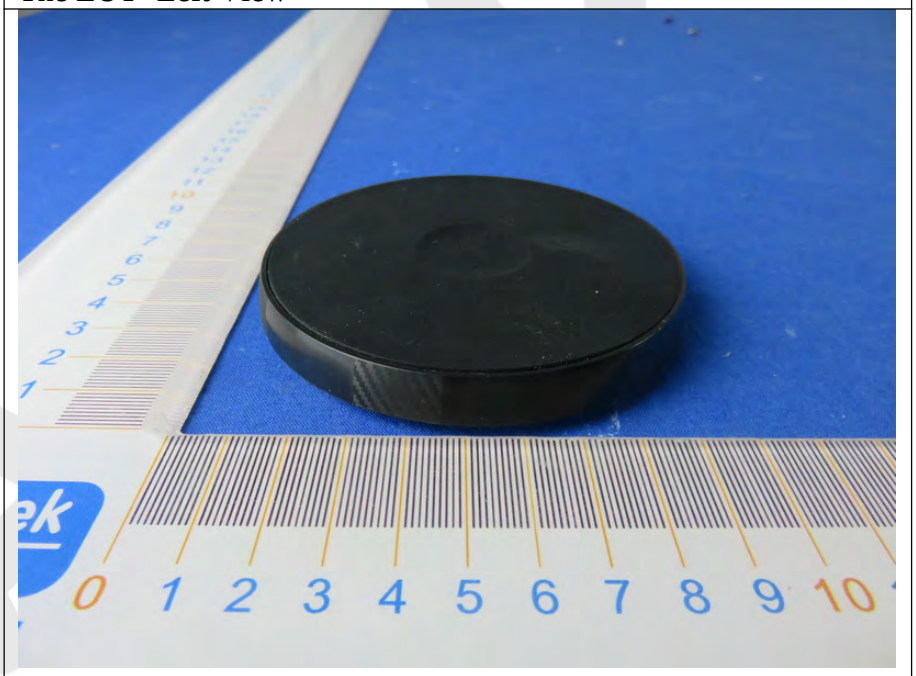
4. Figure
The EUT-Back View



5. Figure
The EUT-Right View

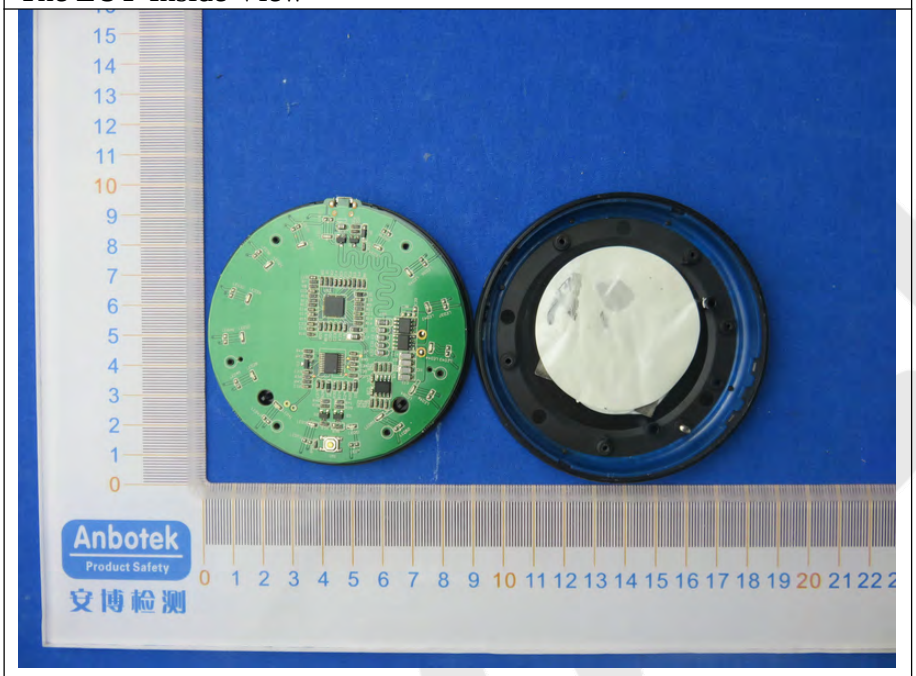


6. Figure
The EUT- Left View

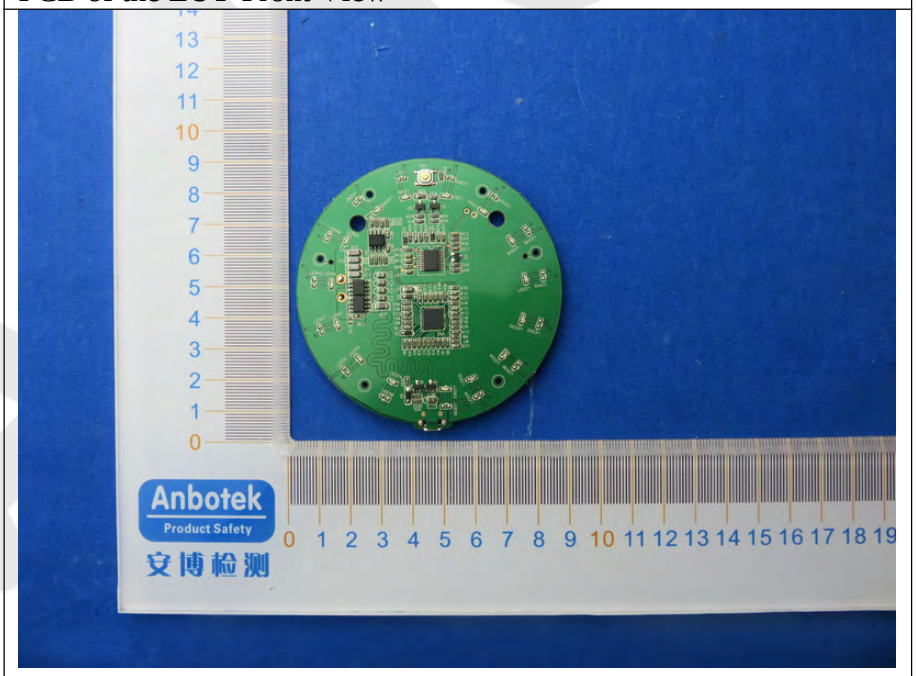


APPENDIX Ⅱ(INTERNAL PHOTOS)

1. Figure
The EUT-Inside View

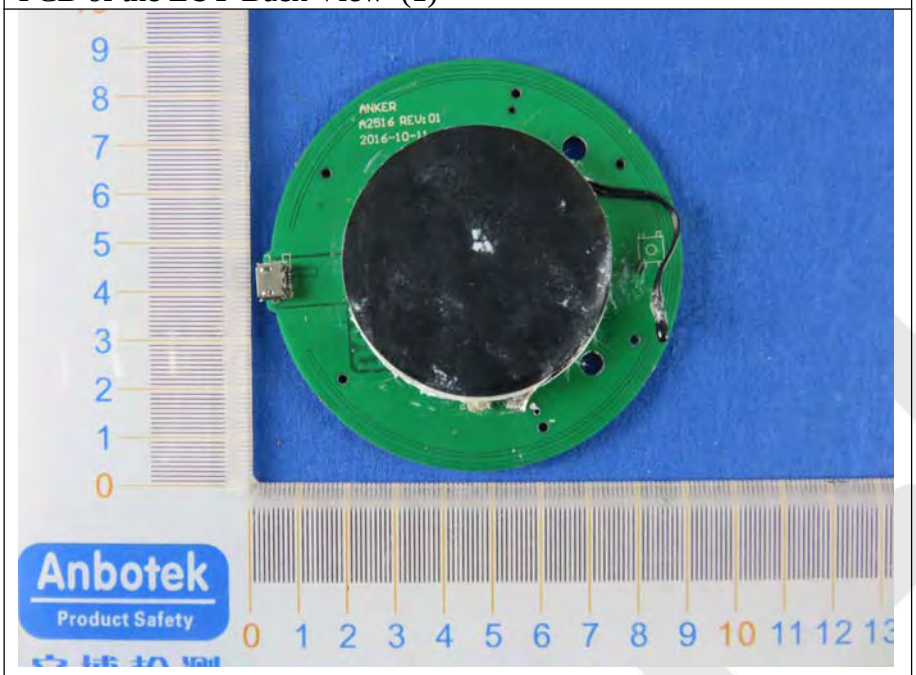


2. Figure
PCB of the EUT-Front View



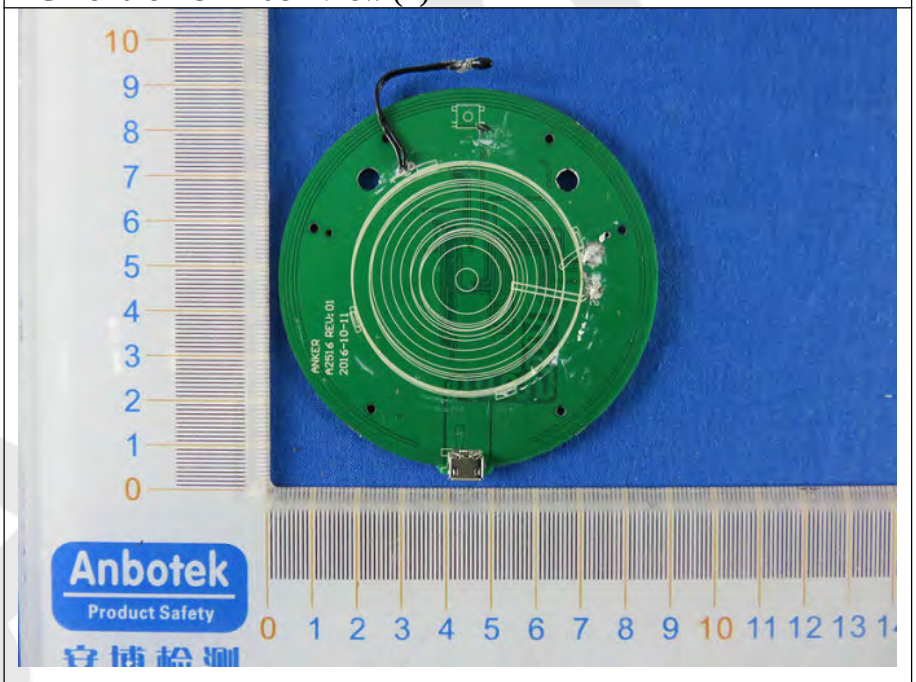
3. Figure

PCB of the EUT-Back View (1)

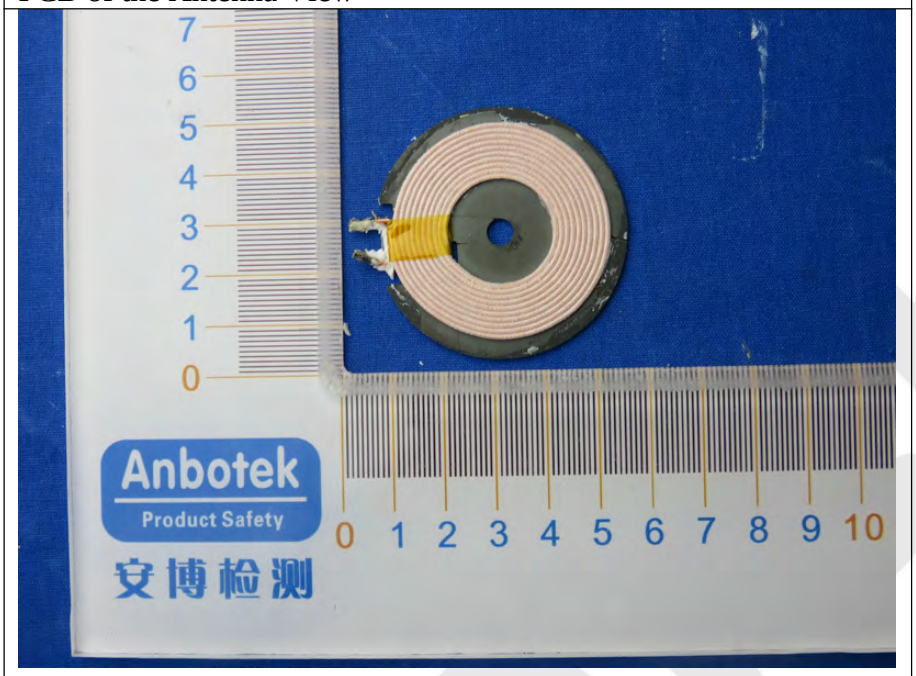


4. Figure

PCB of the EUT-Back View (2)



5. Figure
PCB of the Antenna View



6. Figure
PCB of the Antenna View