Test Report

Applicant:	Kintec Digital Co., Ltd.
Product Name:	Wireless Charging
Brand Name:	N/A
Model No.:	KQI-U02, QIFAST1COIL-RO
Date of Receipt :	Aug. 4, 2016
Date of Test:	Aug. 4-Sept.7, 2016
Date of Report:	Sept.8, 2016
Prepared by:	Most Technology Service Co., Limited

The testing has been performed on the submitted samples and found in compliance with the council FCC Rules and Regulations Part 15 Subpart C.

Most Technology Service Co., Limited
No.5, 2nd Langshan Road, North District, Hi-tech Industry Park,
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TEST REPORT VERIFICATION

Report Number	MTE/TYW/S16091945	
Applicant	Kintec Digital Co., Ltd.	
	10F., No.191, Fusing N. Rd., Songshan Dist., Taipei City 10596, Taiwan.	
Manufacturer	DONGGUAN KINTEC DIGITAL TECHNOLOGY CO.,LIMITED	
	8F,JINYE BUILDING,NO.306,CHANGQING SOUTH ROAD,CHANG'AN,DONGGUANG CITY,GUANGDONG,CHINA	
Product	Product Name	Wireless Charging
	Model No.	KQI-U02
	Power Supply	DC 5V by Adapter
Test Result	The EUT was found compliant with the requirement(s) of the standards.	
Standard	FCC Rules and Regulations Part 15 Subpart C	

*Note

The above device has been tested by Most Technology Service Co., 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 test record, data evaluation & Equipment Under Test (EUT) configurations represented are contained in this test report and Most Technology Service Co., Limited Is assumed full responsibility for the accuracy and completeness of test. Also, this report shows that the EUT is technically compliant with the requirement of the above standards.

This report applies to above tested sample only. This report shall not be reproduced except in full, without written approval of Most Technology Service Co., Limited, this document may be altered or revised by Most Technology Service Co., Limited, personal only, and shall be noted in the revision of the document.

Prepared by	Tammy
	Tammy Wang
Reviewed by	John
	John Lin
Approved by	
	Yvette Zhou(Manager)

MOST TECHNOLOGY SERVICE CO., LTD. APPROVED EMC & SAFETY

Product Information

Product	Wireless Charging
Brand Name	N/A
Model Number	KQI-U02
Series Model Name:	KQI-U02, QIFAST1COIL-RO
Series Model Difference description:	Only different in model name.
Frequency Range	110 KHz to 205 KHz
Coil Current	Maximum 2A
Coil number of turns	10 turns
Antenna Type	Internal type(Coil antenna)

NOTE:

1. For a more detailed features description about the EUT, please refer to User's Manual.

1. GENERAL INFORMATION

1.1. Description of Device (EUT)

Description	:	Wireless Charging
Model Number	:	KQI-U02 ,QIFAST1COIL-RO
Remark	:	Used KQI-U02 does all tests.

1.2. Operational Mode(s) of EUT

Order Number	:	Test Mode(s)
1	:	Running

1.3. Test Voltage(s) of EUT

Order Number	:	Test Voltage(s)
1	:	DC 5V by Adapter

2. LABORATORY INFORMATION

2.1. Laboratory Name

Most Technology Service Co., Limited

2.2. Location

No.5, 2nd Langshan Road, North District, Hi-tech Industrial Park, Nanshan, Shenzhen, Guangdong, China

2.3. Test facility

3m Anechoic Chamber	:	Nov. 28, 2012 File on Federal Communication Commission Registration Number:490827
Shielding Room	:	Nov. 28, 2012 File on Federal Communication Commission Registration Number:490827
EMC Lab.	:	Accredited by TUV Rheinland Shenzhen Audit Report: UA 50149851 Mar. 12, 2009 Accredited by Industry Canada Registration Number: 7103A-1 Oct. 22, 2012 Accredited by TIMCO Registration Number: Q1460 March 28, 2010

2.4. Measurement Uncertainty

No.	Item	Uncertainty
1.	Uncertainty for Conducted Disturbance Test	1.25dB
2.	Uncertainty for Radiated Disturbance Test	3.15dB

3. SUMMARY OF TEST RESULTS

ELECTROMAGNETIC INTERFERENCE (EMI)				
Test	**Test Requirement**	**Test Method**	**Class / Severity**	**Result**
Radiated Emission (9 kHz to30MHz)	FCC PART 15 C section 15.209	ANSI C 63.10: Clause 6.4	Section 15.209	PASS
Radiated Emission (30MHz to 1GHz)	FCC PART 15 C section 15.209	ANSI C 63.10: Clause 6.4	section 15.209	PASS
Conducted Emission (150 KHz to 30 MHz)	FCC PART 15C section 15.207	ANSI C63.10: 2013 Clause 6.2	section 15.207	PASS

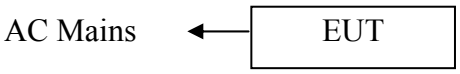
Remark:
EUT: In this whole report EUT means Equipment Under Test.
N/A: not applicable. Refer to the relative section for the details.
Tx: In this whole report Tx (or tx) means Transmitter.
Rx: In this whole report Rx (or rx) means Receiver.
RF: In this whole report RF means Radio Frequency.

♣ Model No.: KQI-U02, QIFAST1COIL-RO
According to the declaration from the applicant, the electrical circuit design, layout, components used and internal wiring were identical for all models, Only different in model name.
Therefore only one model **KQI-U02** was tested in this report.

4. BLOCK DIAGRAM OF TEST SETUP

The equipments are installed test to meet ANSI C63.4:2009 requirement and operating in a manner which tends to maximize its emission characteristics in a normal application. EUT was tested in normal configuration (Please See following Block diagrams)

4.1. Block Diagram of connection between EUT and simulation-EMI



(EUT: Wireless Charging)

5. TEST INSTRUMENT USED

5.1. For Conducted Disturbance at Mains Terminals Emission Test

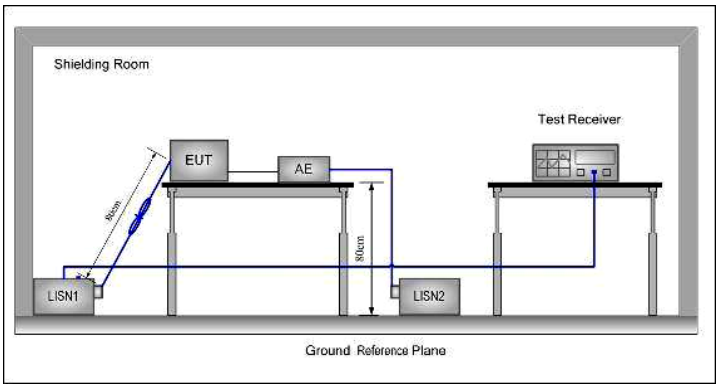
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Test Receiver	Rohde & Schwarz	ESCI	100492	Mar. 10, 16	1 Year
2.	L.I.S.N.	Rohde & Schwarz	ENV216	100093	Mar. 10, 16	1 Year
3.	Coaxial Switch	Anritsu Corp	MP59B	6200283933	Mar. 07, 16	1 Year
4.	Terminator	Hubersuhner	50Ω	No.1	Mar. 07, 16	1 Year
5.	RF Cable	SchwarzBeck	N/A	No.1	Mar. 07, 16	1 Year

5.2. For Radiation Test (In Anechoic Chamber)

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Test Receiver	Rohde & Schwarz	ESPI	101202	Mar. 10, 16	1 Year
2.	Bilog Antenna	Sunol	JB3	A121206	Mar. 14, 16	1 Year
3.	Cable	Resenberger	N/A	NO.1	Mar. 07, 16	1 Year
4.	Cable	SchwarzBeck	N/A	NO.2	Mar. 07, 16	1 Year
5.	Cable	SchwarzBeck	N/A	NO.3	Mar. 07, 16	1 Year
6.	DC Power Filter	DuoJi	DL2×30B	N/A	N/A	N/A
7.	Single Phase Power Line Filter	DuoJi	FNF 202B30	N/A	N/A	N/A
8.	3 Phase Power Line Filter	DuoJi	FNF 402B30	N/A	N/A	N/A
9.	Passive Loop	N/A	00165355	6512	Jun.29,16	1 Year

6. CONDUCTED DISTURBANCE AT MAINS TERMINALS TEST

6.1. Configuration of Test System



6.2. Test Standard: FCC Part 15 C section 15.207

Test Method: ANSI C63.10:2013 Clause 6.2
Frequency Range: 150 kHz to 30 MHz
Detector: Peak for pre-scan (9 kHz Resolution Bandwidth)

6.3. Power Line Conducted Disturbance at Mains Terminals Limit

Frequency (MHz)	Maximum RF Line Voltage	
	Quasi-Peak Level dB(μV)	Average Level dB(μV)
0.15 to 0.50	66 to 56	56 to 46
0.50 to 5.00	56	46
5.00 to 30.00	60	50

Notes: 1. The limit decreases linearly with the logarithm of the frequency in the range 0,15 MHz to 0,50 MHz.

EUT Operation: Test the EUT in charging mode with max, medium and min power and standby mode..

For intentional radiators, measurements of the variation of the input power or the radiated signal level of the fundamental frequency component of the emission, as appropriate, shall be performed with the supply voltage varied between 85% and 115% of the nominal rated supply voltage.

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)

6.4. Test Procedure

1.The mains terminal disturbance voltage test was conducted in a shielded room.
2.The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a 50Ω/50μH + 5Ω linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded.
3.The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane, but separated from metallic contact with the ground reference plane by 0.1m of insulation.
4.The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0,4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0,8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0,8 m from the LISN 2.

6.5. Conducted Disturbance at Mains Terminals Test Results

6.5.1. Test Results: **PASS**

6.5.2. If the average limit is met when using a quasi-peak detector, the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.

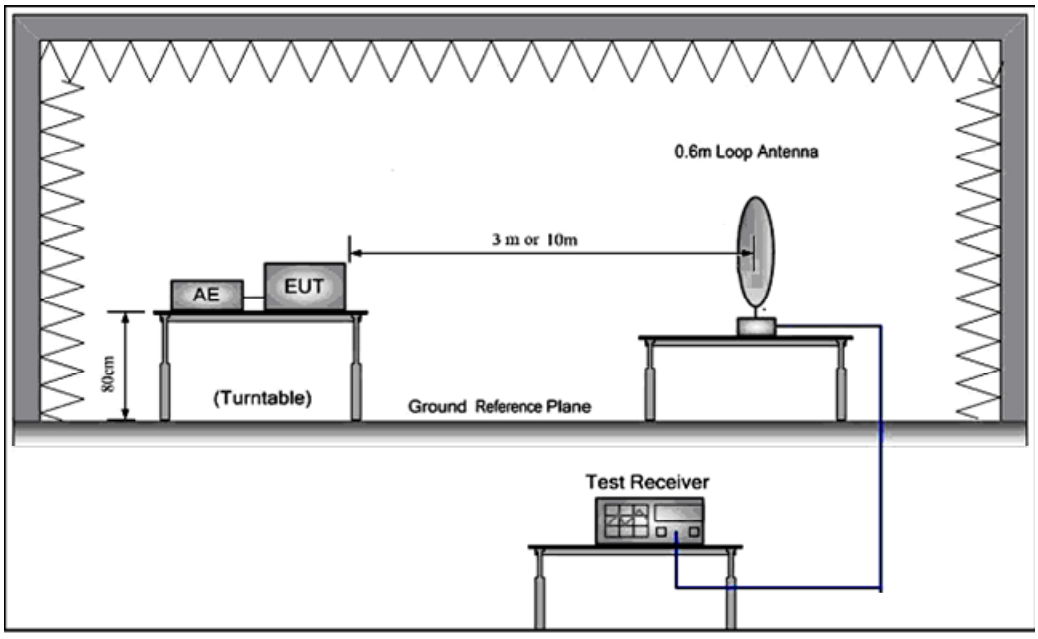
6.5.3. Emission Level= Correct Factor + Reading Level.

6.5.4. The test data and the scanning waveform are attached within Appendix I.

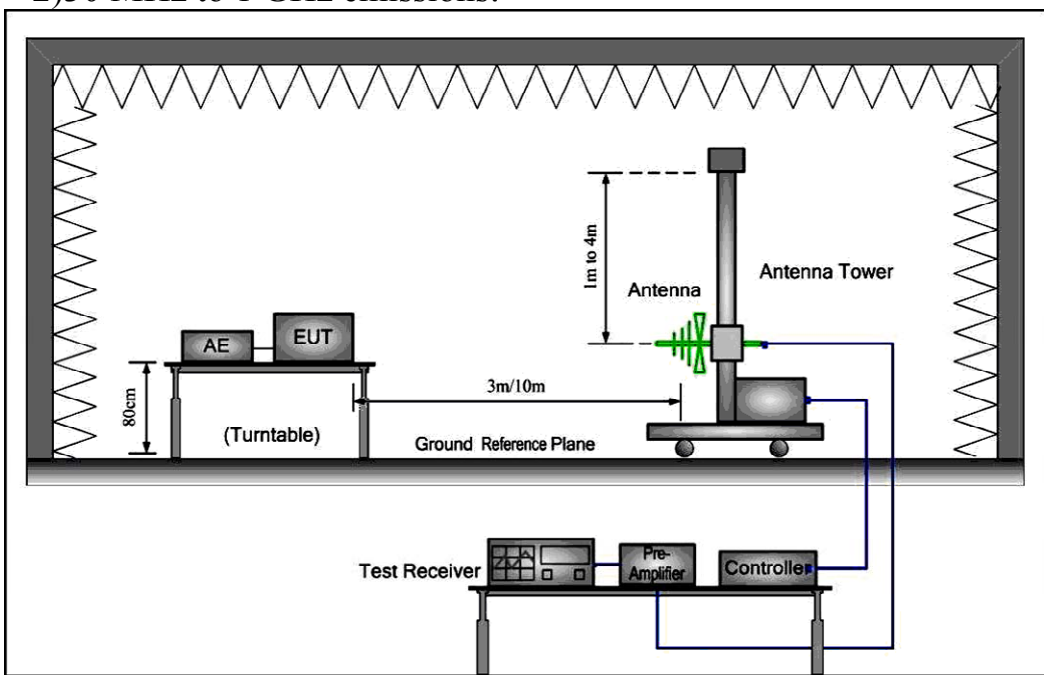
7. RADIATED DISTURBANCE TEST

7.1. Configuration of Test System

1)9 kHz to 30 MHz emissions:



2)30 MHz to 1 GHz emissions:



7.2. Test Requirement: FCC Part15 C

Test Method: ANSI C63.10:2013
Frequency Range: 9 kHz to1GHz
Measurement Distance: 3 m
Detector: peak and average for pre-scan

7.3. Radiated Disturbance Limit

Frequency range MHz	Field strength (uV/m)	Measurement Distance (meters)
0.009 to 0.490	2400/F(kHz)	300
0.490 to 1.705	2400/F(kHz)	30
1.705 to 30.0	30	30
30 to 88	100	3
88 to 216	150	3
216 to 960	200	3
Above 960	500	3

Correction factor used due to measurement distance of 3m:

Frequency range MHz	Field strength (uV/m)	Measurement Distance (meters)
0.009 to 0.490	67.6-20log(f)(kHz)+40	3
0.490 to 1.705	87.6-20log(f)(kHz)+20	3
1.705 to 30.0	49.5	3
30 to 88	40.0	3
88 to 216	43.5	3
216 to 960	46.0	3
Above 960	49.0	3

7.4. Test Procedure

1) 9 kHz to 30 MHz emissions:

For testing performed with the loop antenna. The center of the loop was positioned 1 m above the ground and positioned with its plane vertical at the specied distance from the EUT.During testing the loop was rotated about its vertical axis for maximum response at each azimuth and also investigated with the loop positioned in the horizontal plane.

2) 30 MHz to 1 GHz emissions:

For testing perfomed with the bi-log type antenna. The measurement is performed with the EUT rotated 360º, the antenna height scaned between 1m and 4m, and the antenna rotated to repeat the measurement for both the horizontal and vertical antenna polarizations.

Detector Peak for pre-scan

Test Receiver test setup	Detector		
	9 kHz-150 kHz	150 kHz-30 MHz	30 MHz-1000 MHz
RBW	200 Hz	9 kHz	120 kHz
VBW	≥ RBW	≥ RBW	≥ RBW
Sweep	auto	auto	auto
Detector function	QP	QP	QP
Trace	max hold	max hold	max hold

7.5. Radiated Disturbance Test Results

7.5.1. Test Results: **PASS**

7.5.2. For radiated emissions from 9kHz to 30MHz, Test results show that the margin of over -20db.

7.5.3. Emission Level= Correct Factor + Reading Level.

7.5.4. All reading are Quasi-Peak values.

7.5.5. The test data and the scanning waveform are attached within Appendix II.

9 kHz to 30 MHz emissions:

EUT:	Wireless Charging	M/N:	KQI-U02
Mode:	Running	Polarization:	Horizontal
Test by:	sunny	Power:	DC 5V by Adapter
Temperature: / Humidity	24.0℃/ 50.5%	Test date:	2016-08-17

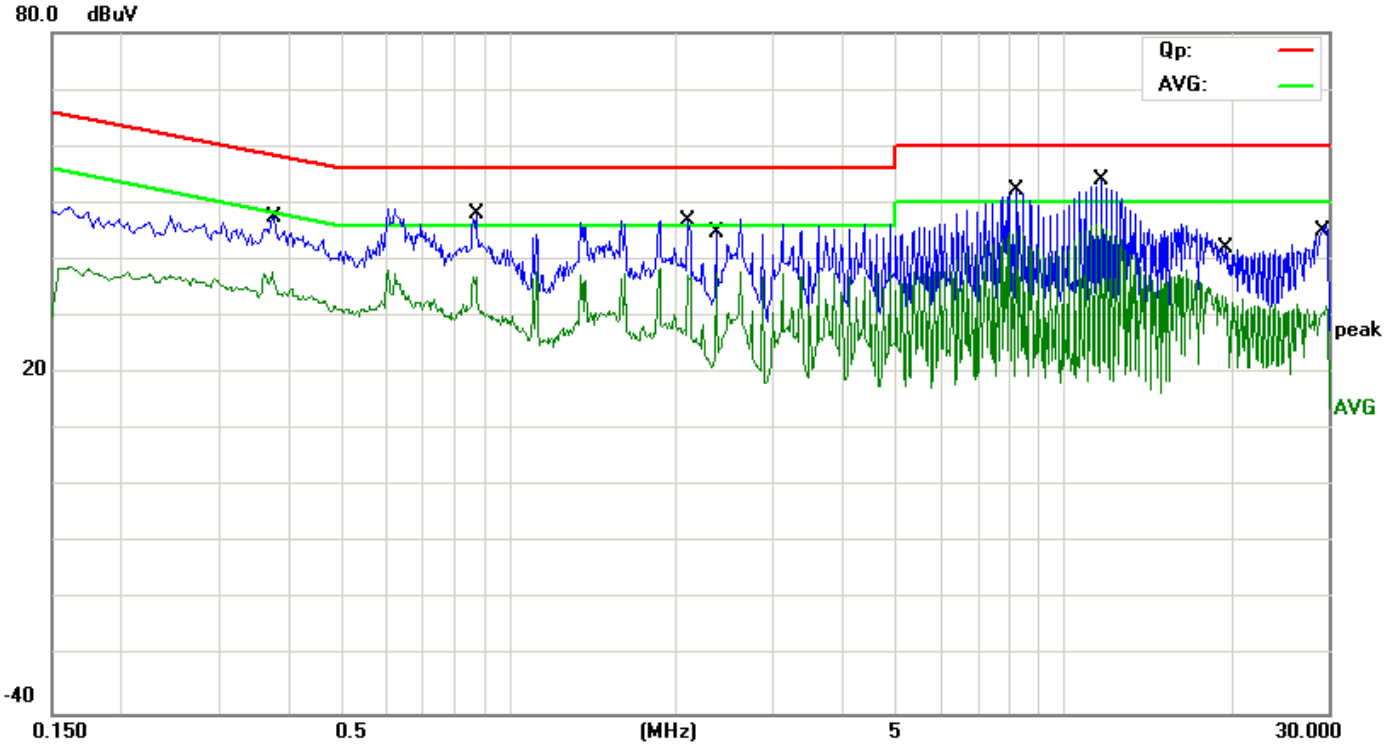
No	Frequency (KHZ)	Reading Level	Correct Factor	Measure -ment	Limit	Over
1	150	-19.24	7.92	-11.32	16	-27.32
2	360	-29.17	8.73	-20.44	6.67	-27.11
3	914	-30.34	8.92	-21.42	2.63	-24.05
4	12456	-31.8	10.17	-21.63	0.19	-21.82
5	20743	-33.08	12.38	-20.7	0.12	-20.82
6	22856	-33.17	12.55	-20.62	0.11	-20.73

EUT:	Wireless Charging	M/N:	KQI-U02
Mode:	Running	Polarization:	Vertical
Test by:	sunny	Power:	DC 5V by Adapter
Temperature: / Humidity	24.0℃/ 50.5%	Test date:	2016-08-17

No	Frequency (KHZ)	Reading Level	Correct Factor	Measure -ment	Limit	Over
1	168	-20.62	7.88	-12.74	14.29	-27.03
2	425	-28.7	8.53	-20.17	5.65	-25.82
3	1042	-29.33	8.89	-20.44	2.30	-22.74
4	13800	-29.97	10.05	-19.92	0.17	-20.09
5	22050	-33.65	11.95	-21.7	0.11	-21.81
6	23725	-33.16	12.31	20.85	0.11	-20.95

APPENDIX I

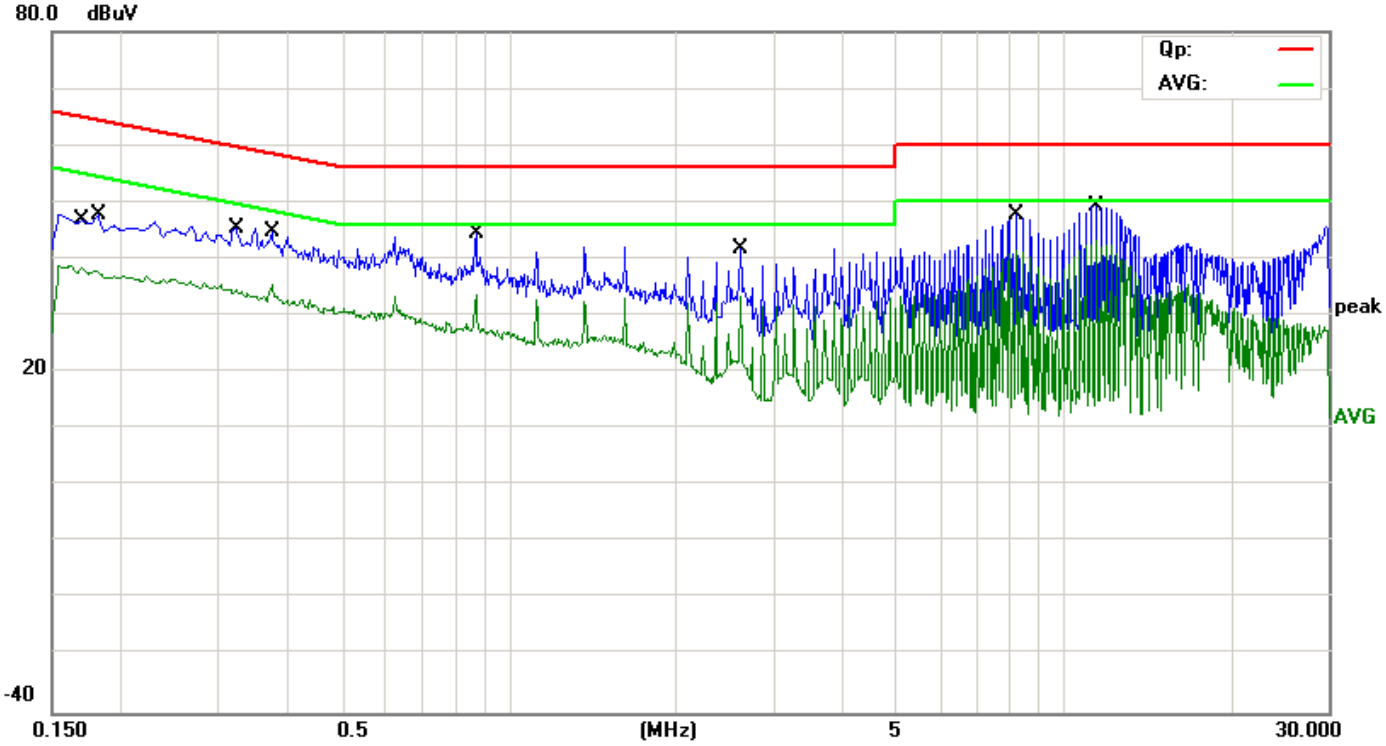
EUT:	**Wireless Charging**	**M/N:**	**KQI-U02**
Mode:	**Running**	**Phase:**	**L**
Test by:	**Sunny**	**Power:**	**DC 5V by Adapter**
Temperature: / Humidity	**23.5℃/ 51.7%**	**Test date:**	**2016-08-17**



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.3740	28.35	9.59	37.94	48.41	-10.47	AVG	
2		0.3780	37.98	9.59	47.57	58.32	-10.75	QP	
3		0.8620	27.37	9.60	36.97	46.00	-9.03	AVG	
4		0.8740	38.54	9.60	48.14	56.00	-7.86	QP	
5		2.1100	37.14	9.60	46.74	56.00	-9.26	QP	
6		2.3700	27.84	9.61	37.45	46.00	-8.55	AVG	
7		8.2300	42.65	9.67	52.32	60.00	-7.68	QP	
8		8.2300	35.25	9.67	44.92	50.00	-5.08	AVG	
9		11.7220	44.25	9.69	53.94	60.00	-6.06	QP	
10	*	11.7220	36.57	9.69	46.26	50.00	-3.74	AVG	
11		19.3260	24.03	9.73	33.76	50.00	-16.24	AVG	
12		28.8180	34.40	9.77	44.17	60.00	-15.83	QP	

*:Maximum data x:Over limit !:over margin

EUT:	**Wireless Charging**	**M/N:**	**KQI-U02**
Mode:	**Running**	**Phase:**	**N**
Test by:	**Sunny**	**Power:**	**DC 5V by Adapter**
Temperature: / Humidity	**23.5℃/ 51.7%**	**Test date:**	**2016-08-17**

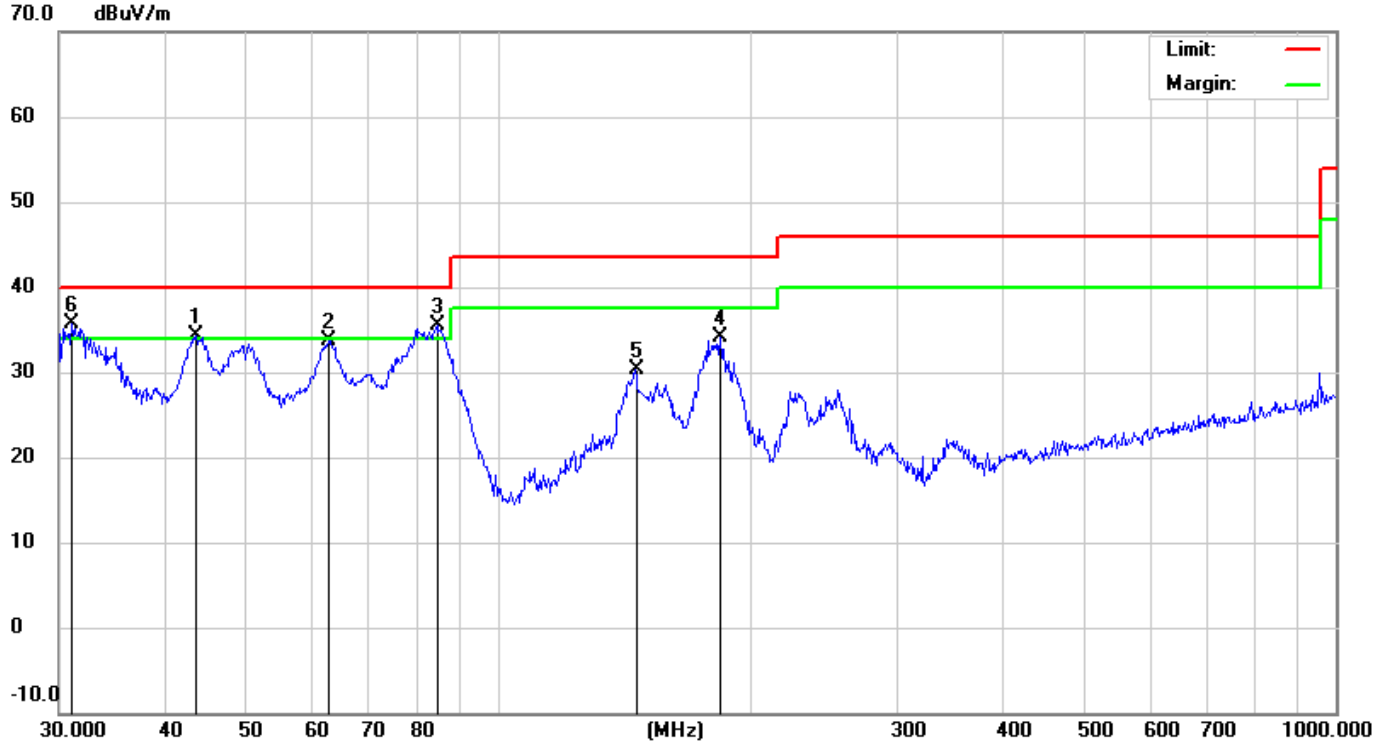


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1700	28.73	9.61	38.34	54.96	-16.62	AVG	
2		0.1820	38.21	9.61	47.82	64.39	-16.57	QP	
3		0.3220	35.80	9.59	45.39	59.66	-14.27	QP	
4		0.3740	25.99	9.59	35.58	48.41	-12.83	AVG	
5		0.8740	34.80	9.60	44.40	56.00	-11.60	QP	
6		0.8740	24.18	9.60	33.78	46.00	-12.22	AVG	
7		2.6180	32.15	9.61	41.76	56.00	-14.24	QP	
8		2.6180	23.79	9.61	33.40	46.00	-12.60	AVG	
9		8.2260	37.96	9.67	47.63	60.00	-12.37	QP	
10		8.2260	31.72	9.67	41.39	50.00	-8.61	AVG	
11		11.4740	39.65	9.69	49.34	60.00	-10.66	QP	
12	*	11.4740	33.50	9.69	43.19	50.00	-6.81	AVG	

*:Maximum data x:Over limit !:over margin

APPENDIX II

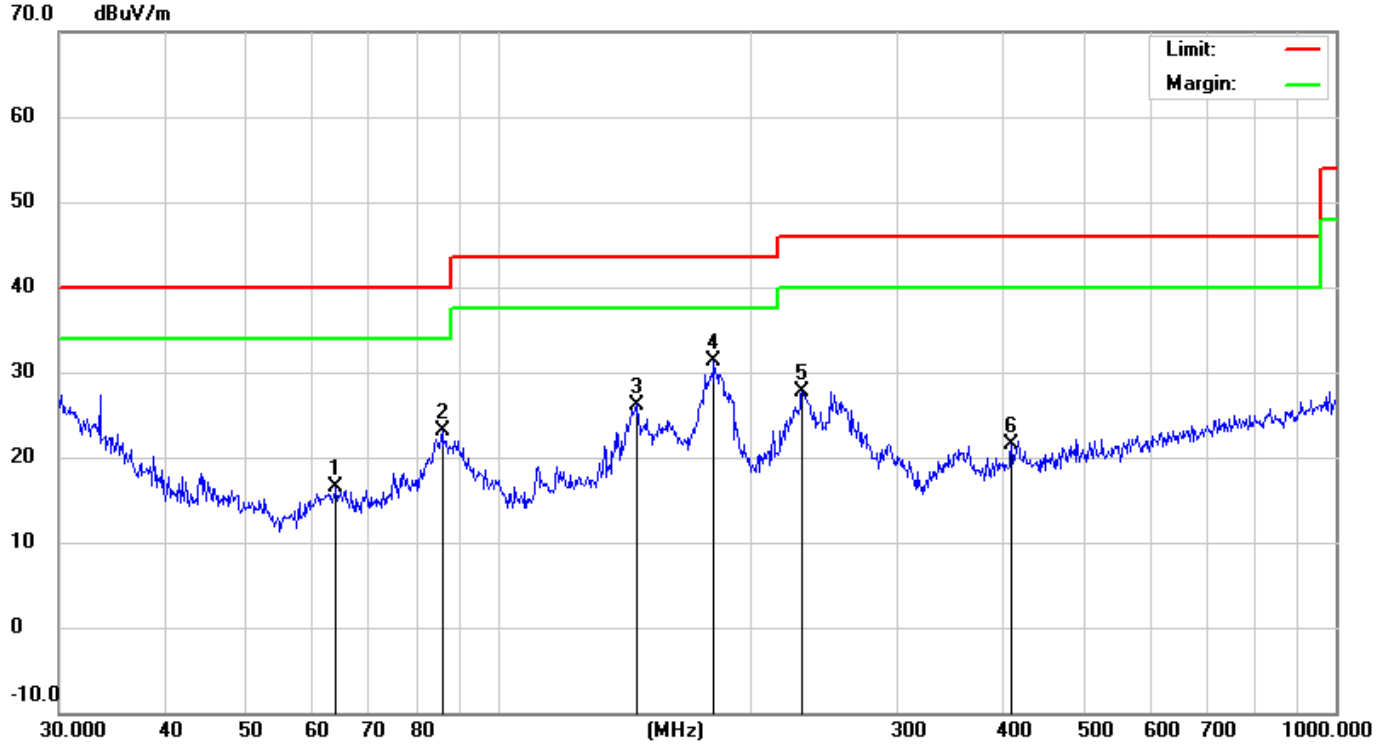
EUT:	**Wireless Charging**	**M/N:**	**KQI-U02**
Mode:	**Running**	**Polarization:**	**Horizontal**
Test by:	**sunny**	**Power:**	**DC 5V by Adapter**
Temperature: / Humidity	**24.0℃/ 50.5%**	**Test date:**	**2016-08-17**



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	!	43.6584	22.89	11.39	34.28	40.00	-5.72	QP			
2		62.8707	25.96	7.80	33.76	40.00	-6.24	QP			
3	!	84.7019	27.42	8.01	35.43	40.00	-4.57	QP			
4		184.4898	22.29	11.73	34.02	43.50	-9.48	QP			
5		145.8611	17.25	12.99	30.24	43.50	-13.26	QP			
6	*	31.0706	15.49	20.17	35.66	40.00	-4.34	QP			

*:Maximum data x:Over limit !:over margin

EUT:	Wireless Charging	M/N:	KQI-U02
Mode:	Running	Polarization:	Vertical
Test by:	sunny	Power:	DC 5V by Adapter
Temperature: / Humidity	24.0℃/ 50.5%	Test date:	2016-08-17

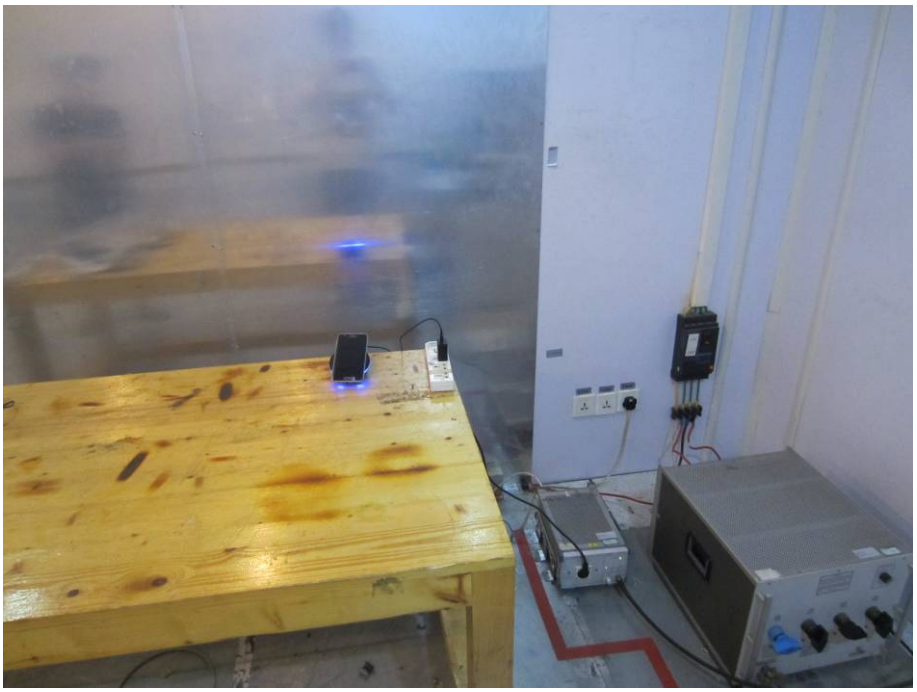


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		64.2074	8.55	7.89	16.44	40.00	-23.56	QP			
2		85.8983	15.14	7.98	23.12	40.00	-16.88	QP			
3		146.3734	13.25	12.95	26.20	43.50	-17.30	QP			
4	*	181.2834	19.63	11.64	31.27	43.50	-12.23	QP			
5		230.9067	15.82	11.95	27.77	46.00	-18.23	QP			
6		410.3824	5.79	15.64	21.43	46.00	-24.57	QP			

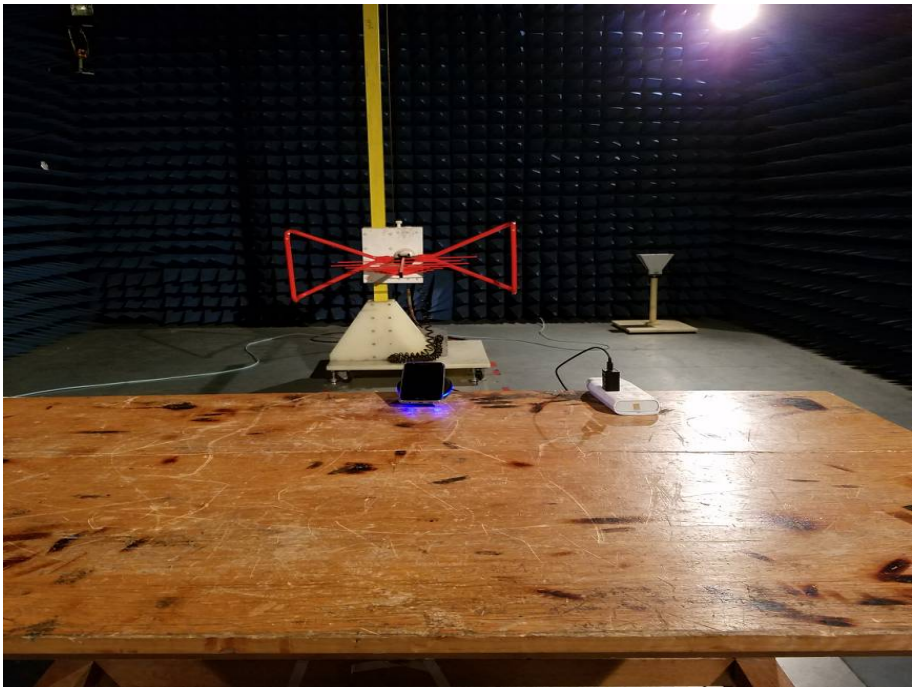
*:Maximum data x:Over limit !:over margin

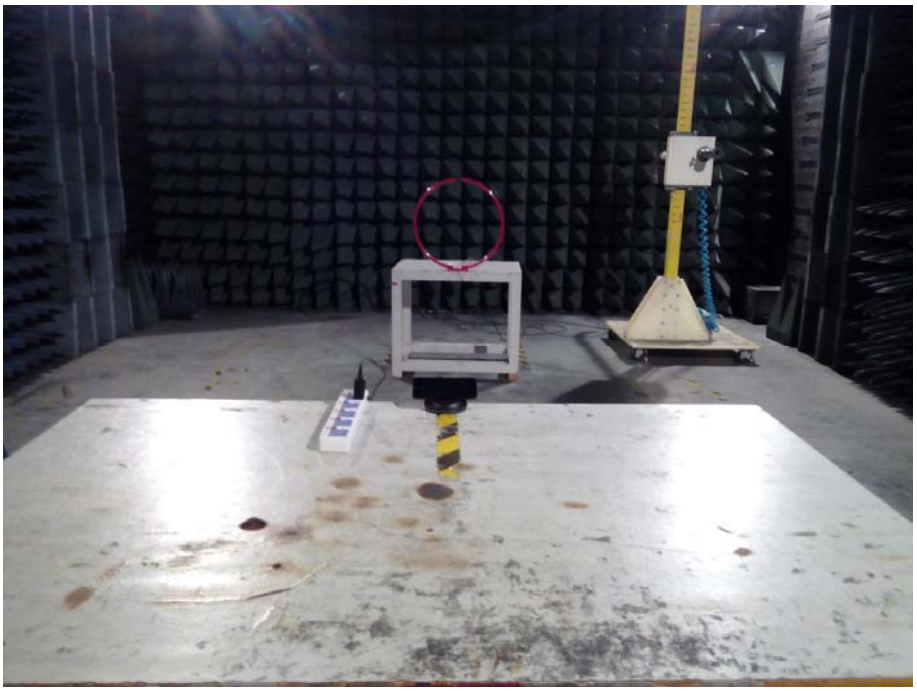
APPENDIX III
(Test Photos)

Conducted Test Setup Photograph



Radiated Test Setup Photograph





APPENDIX IV
(Photos of the EUT)

Figure 1
General Appearance of the EUT

Figure 2
General Appearance of the EUT

Figure 3

General Appearance of the EUT

Figure 4
General Appearance of the EUT

Figure 5
Label of EUT

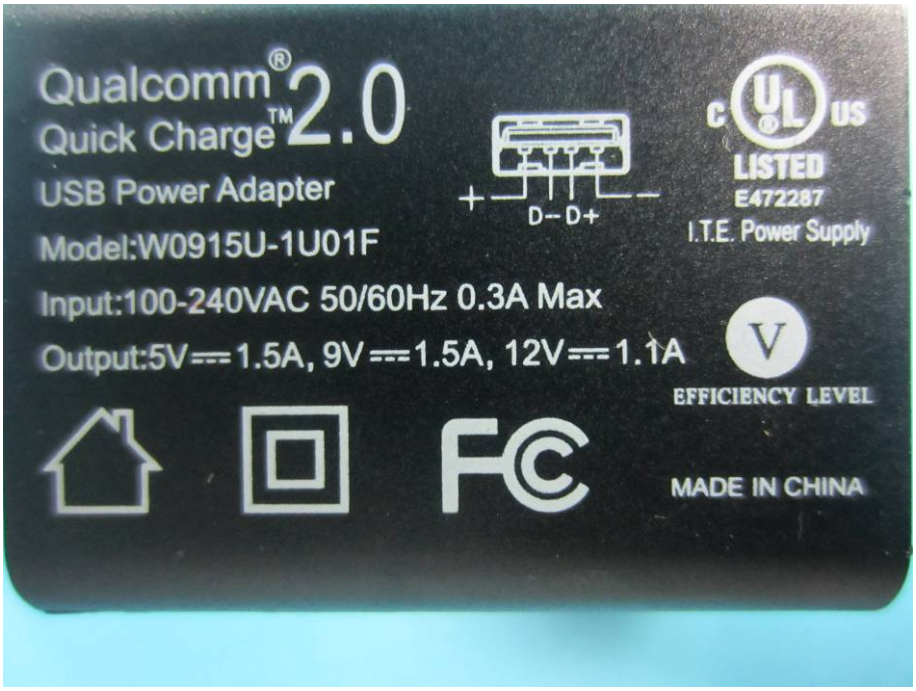


Figure 6
General Appearance of the EUT

Figure 7

General Appearance of the EUT

Figure 8

Inside of EUT

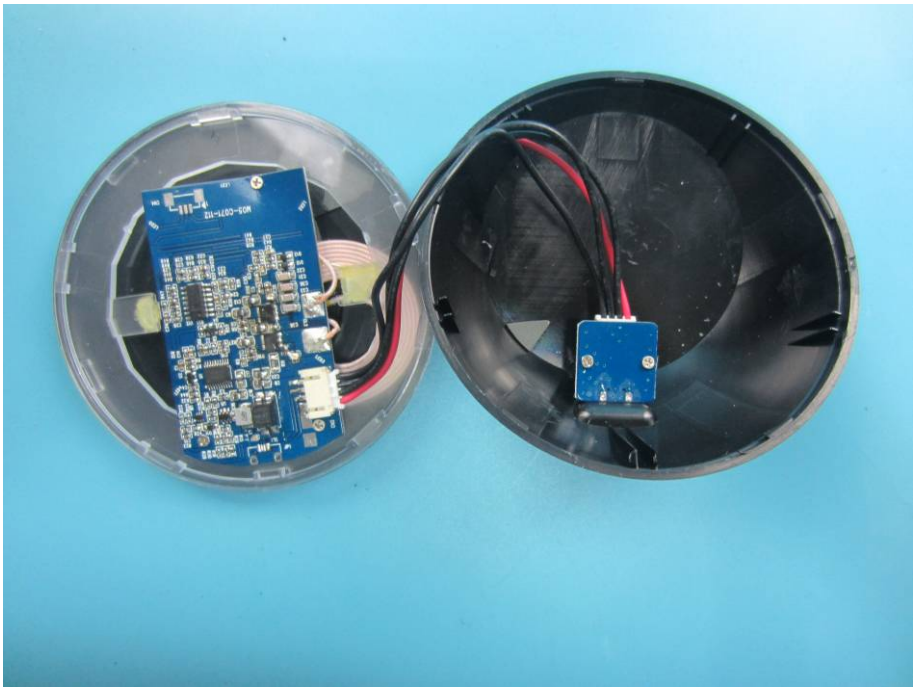


Figure 9

Components side of the PCB

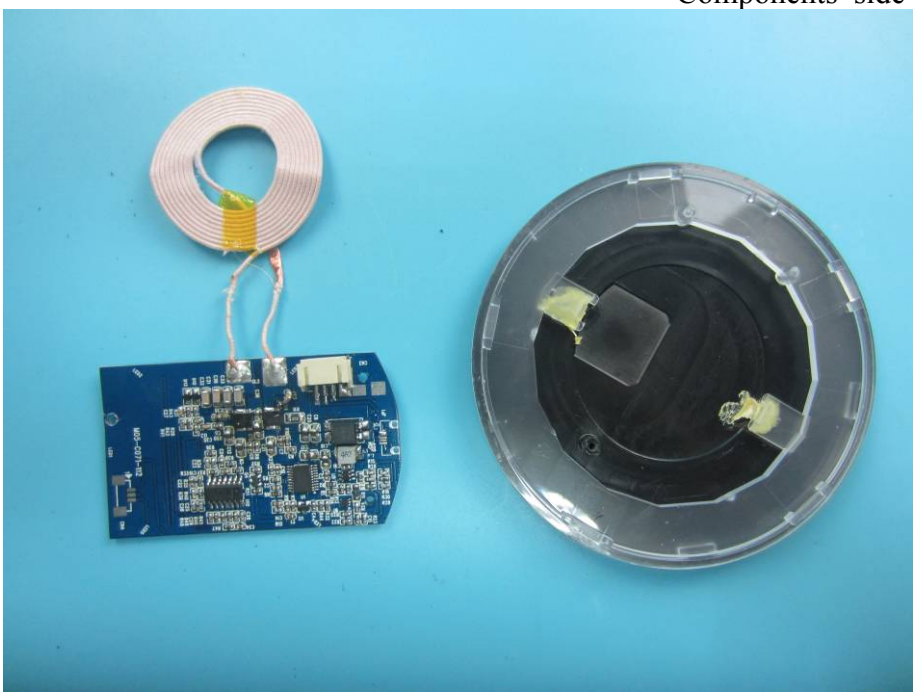


Figure 10

Components side of the PCB

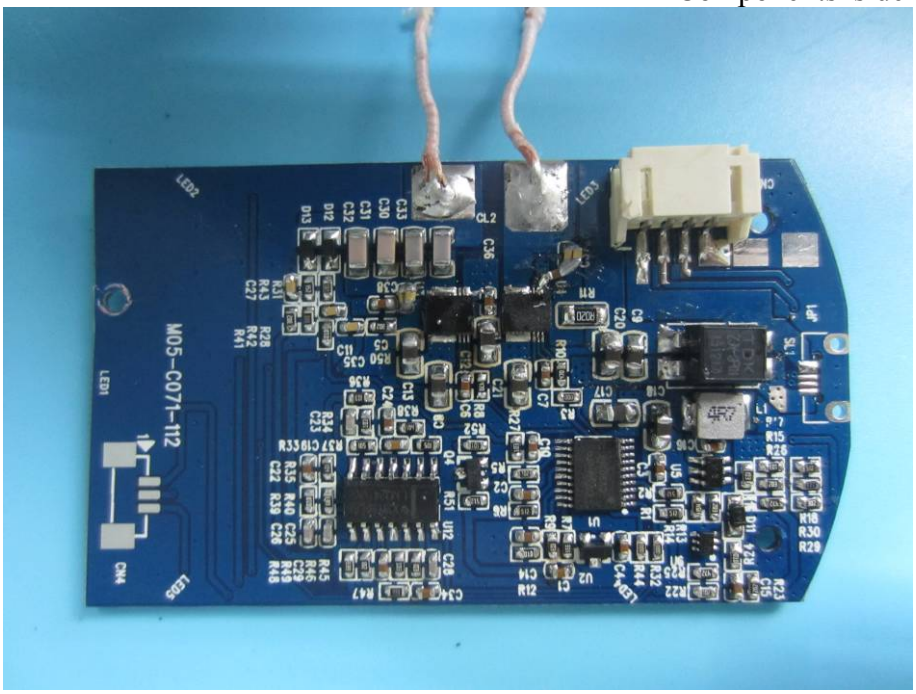


Figure 11

Components side of the PCB

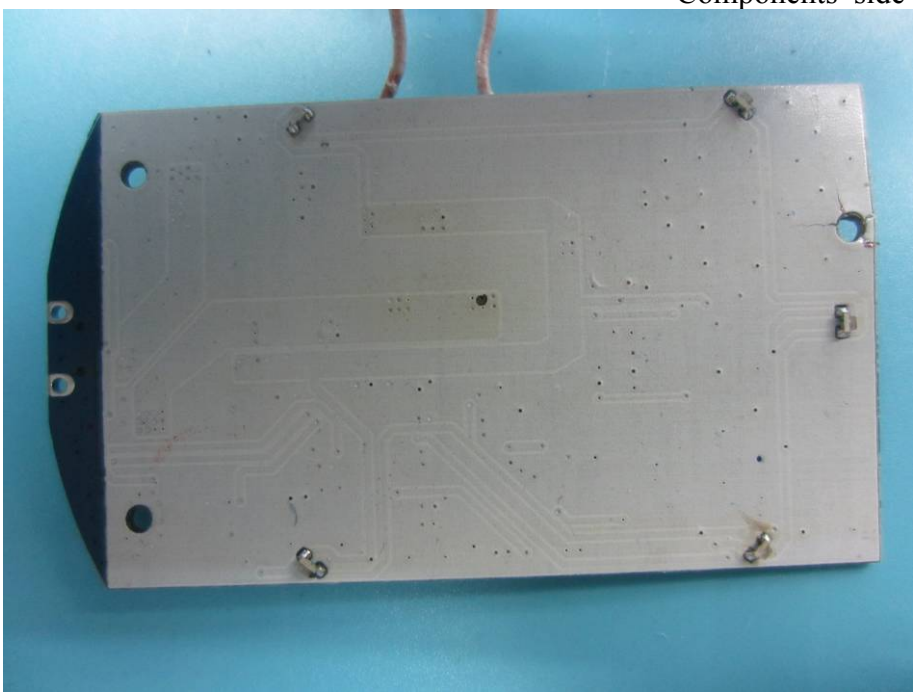


Figure 12
Components side of the PCB

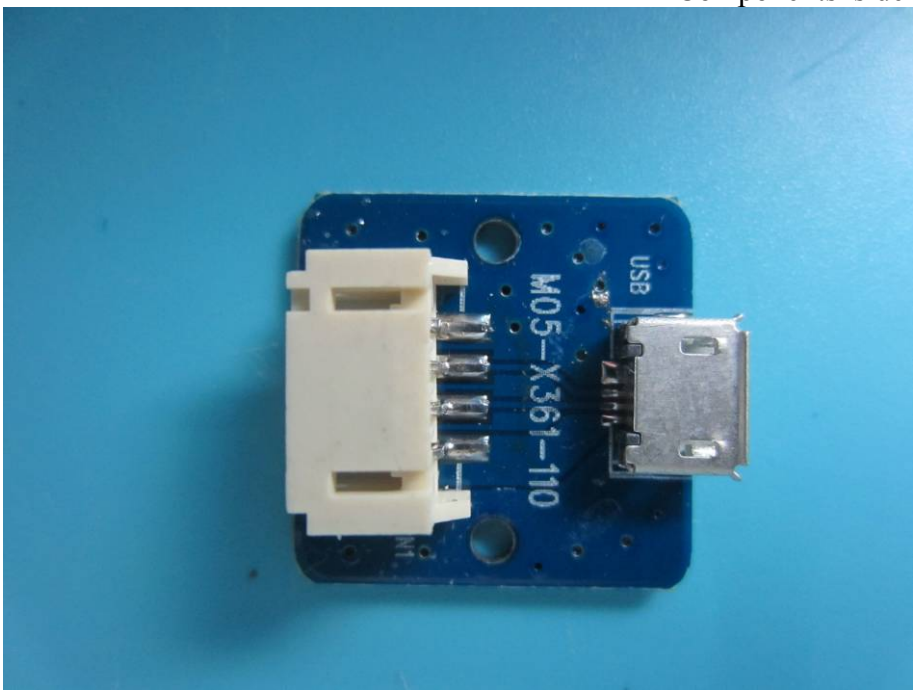


Figure 13
Components side of the PCB