FCC TEST REPORT

FCC ID: 2AFP2T-300

Product Name:	**Wireless charger**
Trademark:	**N/A**
Model Number:	**T-300** **T-100,Q-100,T-200,T-210,T-310,T-400,T-410,T-500,T-510,T-600,T-610, T-700,T-710,T-800,T-810,T-900,C3,C5,PQ100,PQ200**
Prepared For : Address :	**Shenzhen Powerqi Technology Co., Ltd.** 14F No.12 Building, Zhonghaixin Science and Technology Park, Bulan Road, Buji Street, Longgang District, Shenzhen, China
Prepared By : Address :	**Shenzhen BCTC Technology Co., Ltd.** No.101,Yousong Road,Longhua New District, Shenzhen,China Nanshan District, Shenzhen, China
Report No.:	**BCTC-15080218**

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TEST RESULT CERTIFICATION

Applicant's name	**Shenzhen Powerqi Technology Co., Ltd.**
Address	14F No.12 Building, Zhonghaixin Science and Technology Park, Bulan Road, Buj Street, Longgang District, Shenzhen, China
Manufacture's Name	**Shenzhen Powerqi Technology Co., Ltd.**
Address	14F No.12 Building, Zhonghaixin Science and Technology Park, Bulan Road, Buj Street, Longgang District, Shenzhen, China
Product description	
Product name	**Wireless charger**
Trademark	N/A
Model and/or type reference :	**T-300**
Serial Model :	T-100,Q-100,T-200,T-210,T-310,T-400,T-410,T-500,T-510,T-600,T-610, T-700,T-710,T-800,T-810,T-900,C3,C5,PQ100,PQ200
Standards	FCC Part 15 C: 2014
Test Date:	Aug. 13 - Aug. 20, 2015
Date of Report :	Aug. 22, 2015

This device described above has been tested by BCTC, and the test results show that the equipment under And it is applicable only to the tested sample identified in the report.

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Prepared by(Engineer): Eric Yang

Reviewer(Quality Manager): Sophie Lee

Approved & Authorized Signer(Manager): Casey Wang

SHENZHEN BCTC TECHNOLOGY CO., LTD. APPROVED

1. GENERAL INFORMATION

1.1.Report information

1.1.1.This report is not a certificate of quality; it only applies to the sample of the specific product/equipment given at the time of its testing. The results are not used to indicate or imply that they are application to the similar items. In addition, such results must not be used to indicate or imply that BCTC approves recommends or endorses the manufacture, supplier or use of such product/equipment, or that BCTC in any way guarantees the later performance of the product/equipment.

1.1.2.The sample/s mentioned in this report is/are supplied by Applicant, BCTC therefore assumes no responsibility for the accuracy of information on the brand name, model number, origin of manufacture or any information supplied.

1.1.3.Additional copies of the report are available to the Applicant at an additional fee. No third part can obtain a copy of this report through BCTC, unless the applicant has authorized BCTC in writing to do so.

1.2.Measurement Uncertainty

Available upon request.

1.3.Test Facility

Site Description

Name of Firm	:	Shenzhen BCTC Technology Co., Ltd.
Site Location	:	A. Floor 3, 44 Building, Tanglang Industrial Park B, Taoyuan Street, Nanshan District, Shenzhen, China

1.4.Test Uncertainty

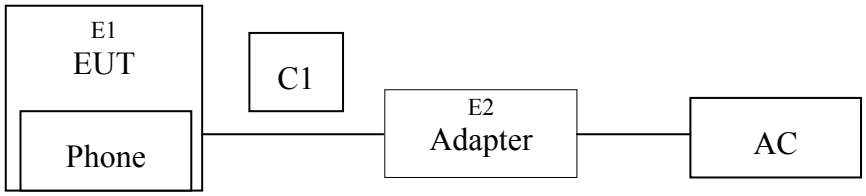
Conducted Emission Uncertainty	=	±2.66dB
Radiated Emission Uncertainty	=	±4.15dB

2. PRODUCT DESCRIPTION

2.1.EUT Description

Description	:	Wireless charger
Applicant	:	**Shenzhen Powerqi Technology Co., Ltd.** 14F No.12 Building, Zhonghaixin Science and Technology Park, Bulan Road, Buji Street, Longgang District, Shenzhen, China
Manufacturer	:	**Shenzhen Powerqi Technology Co., Ltd.** 14F No.12 Building, Zhonghaixin Science and Technology Park, Bulan Road, Buji Street, Longgang District, Shenzhen, China
Modulation Type:	:	MSK
Operation Frequency:	:	110K~205K
Channel number	:	2 channels
Model Number	:	T-300
Serial Model	:	T-100,Q-100,T-200,T-210,T-310,T-400,T-410,T-500,T-510,T-600, T-610,T-700,T-710,T-800,T-810,T-900,C3,C5,PQ100,PQ200
Model Difference	:	All the same, only model name is different.

2.2.Block Diagram of EUT Configuration



2.3.Test Conditions

Temperature: 23~25℃

Relative Humidity: 55~63 %

2.4.Description Of Support Units (Conducted Mode)

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Mfr/Brand	Model/Type No.	Series No.	Note
E-1	Wireless charger	N/A	T-300	N/A	EUT
E-2	Adapter	N/A	ODL-28850100	N/A	
	Mobile phone	N/A	HUAWEI G620-L75	N/A	
	Battery model	N/A	G620	N/A	electric quantity:0%,50%,90%

Item	Shielded Type	Ferrite Core	Length	Note
C1	NO	NO	0.5M	

Note:

(1) The support equipment was authorized by Declaration of Confirmation.
(2) For detachable type I/O cable should be specified the length in cm in『Length』column.
(3) “YES” is means “shielded” “with core”; “NO” is means “unshielded” “without core”.

2.5.TEST Results Summary

Table 1 Test Results Summary

Test Items	Test Results
Conducted disturbance	Pass
Radiated disturbance	Pass

Remark: “N/A” means “Not applicable.”

DESCRIPTION OF TEST MODES

For Conducted & Radiated Emission	
Final Test Mode	Description
Mode 1	TX Low Channel 110kHz
Mode 2	TX High channel 205kHz
Mode 3	RX Mode
Mode 4	Transfer mode(Battery's electric quantity reference item2.4)

we pretest all mode, the report only show the worst mode.

3. TEST EQUIPMENT USED

3.1.For Conducted Emission Test

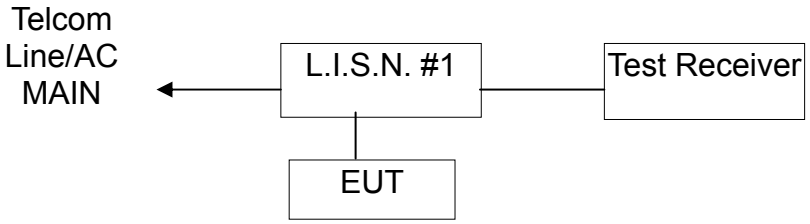
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	Test Receiver	Rohde & Schwarz	ESHS30	828985/018	Aug. 24 15	1 Year
2	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100006	Aug. 24 15	1 Year
3	L.I.S.N.	Rohde & Schwarz	ESH2-Z5	834549/005	Aug. 24 15	1 Year

3.2.For Radiated Emission Measurement

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	Spectrum Analyzer	ANRITSU	MS2661C	6200140915	Aug. 24 15	1 Year
2	Test Receiver	Rohde&Schwarz	ESHS30	828985/018	Aug. 24 15	1 Year
3	Bilog Antenna	Schwarzbeck	VULB9163	142	Aug. 24 15	1 Year
4	50 Coaxial Switch	Anritsu Corp	MP59B	6100237248	Aug. 24 15	1 Year
5	Cable	Schwarzbeck	AK9513	ACRX1	Aug. 24 15	1 Year
6	Cable	Rosenberger	N/A	FR2RX2	Aug. 24 15	1 Year
7	Cable	Schwarzbeck	AK9513	CRRX2	Aug. 24 15	1 Year
8	Cable	Schwarzbeck	AK9513	CRRX2	Aug. 24 15	1 Year
9	Single Phase Power Line Filter	MPE	23332C	N/A	Aug. 24 15	1 Year
10	Single Phase Power Line Filter	MPE	23333C	N/A	Aug. 24 15	1 Year
11	Signal Generator	HP	864A	3625U00573	Aug. 24 15	1 Year
12	Loop Antenna	ARA	PLA-1030/B	1029	Aug. 24 15	1 Year

4. CONDUCTED EMISSION TEST

4.1.Block Diagram of Test Setup



(EUT: **Wireless charger**)

4.2.Test Standard

FCC Part 15 C: 2014

4.3.Conducted Emission Limit (Class B)

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.

4.4.EUT Configuration on Test

The following equipments are installed on conducted emission test to meet Part 15 B requirement and operating in a manner, which tends to maximize its emission characteristics in a normal application.

4.4.1.**Wireless charger**

Model Number: **T-300**

4.5.Operating Condition of EUT

4.5.1.Setup the EUT and simulators as shown in Section 5.1.

4.5.2.Turn on the power of all equipments.

4.5.3.Let the EUT work in test modes (energy transfer mode).

4.6.Test Procedure

The EUT is put on a table of non-conducting material that is 80cm high. The vertical conducting wall of shielding is located 40cm to the rear of the EUT. The power line of the EUT is connected to the AC mains through a Artificial Mains Network (A.M.N.). A EMI test receiver (R&S Test Receiver ESHS30) is used to test the emissions form both sides of AC line. The bandwidth of EMI test receiver is set at 9kHz.

The bandwidth of the test receiver (R&S Test Receiver ESHS30) is set at 10KHz.

4.7.Test Result

PASS

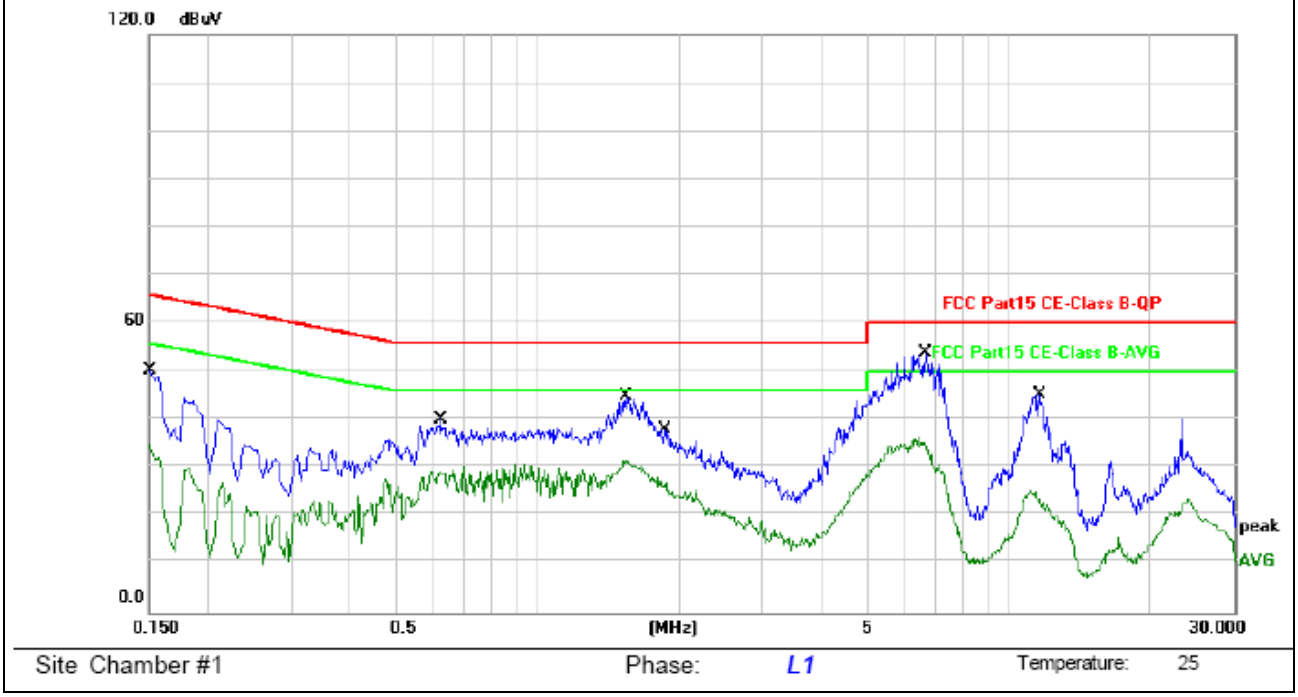
Please refer to the following pages.

EUT：	Wireless charger	Model Name ：	T-300
Temperature：	26 ℃	Relative Humidity：	54%
Pressure：	1010hPa	Phase :	L
Test Voltage ：	AC 120V/60Hz	Test Mode：	Mode 4

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1500	40.28	10.05	50.33	65.99	-15.66	QP	
2		0.1500	24.80	10.05	34.85	55.99	-21.14	AVG	
3		0.6220	29.84	10.13	39.97	56.00	-16.03	QP	
4		0.6220	19.26	10.13	29.39	46.00	-16.61	AVG	
5		1.5420	34.54	10.18	44.72	56.00	-11.28	QP	
6		1.5420	21.39	10.18	31.57	46.00	-14.43	AVG	
7		1.8660	27.68	10.18	37.86	56.00	-18.14	QP	
8		1.8660	17.85	10.18	28.03	46.00	-17.97	AVG	
9	*	6.6340	43.63	10.10	53.73	60.00	-6.27	QP	
10		6.6340	25.02	10.10	35.12	50.00	-14.88	AVG	
11		11.5980	35.13	10.13	45.26	60.00	-14.74	QP	
12		11.5980	14.89	10.13	25.02	50.00	-24.98	AVG	

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

Remark:
1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.

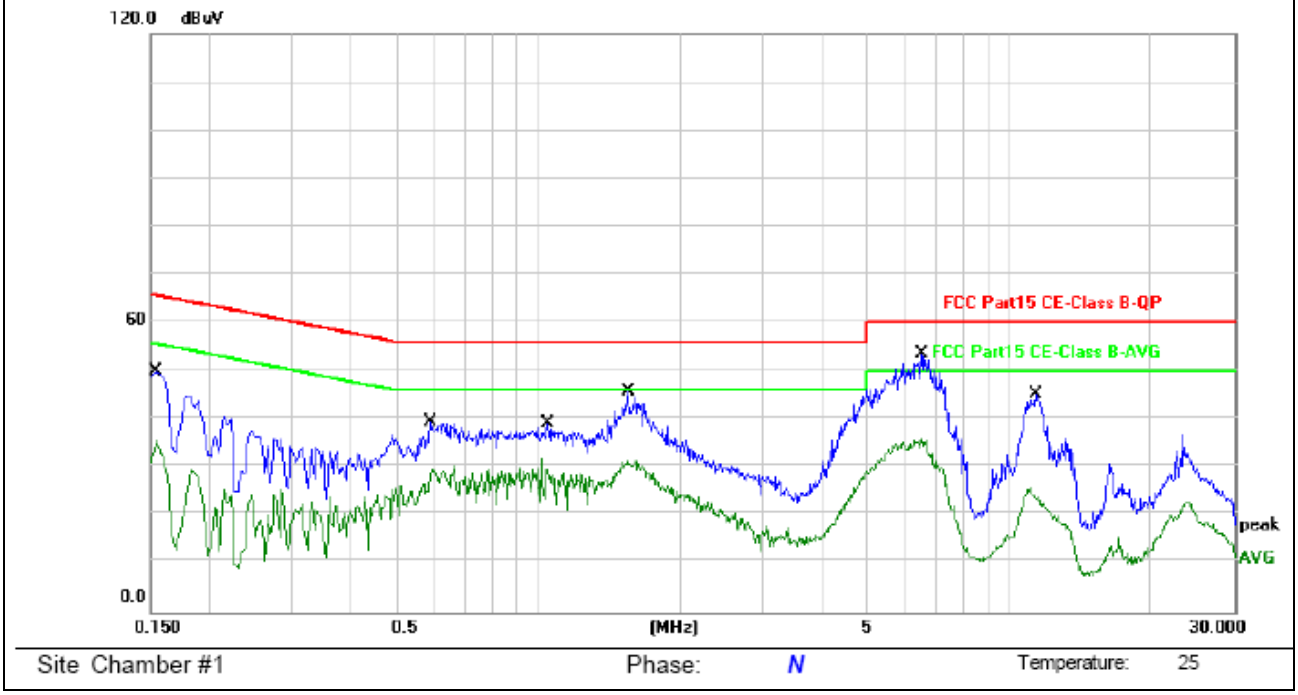


EUT：	Wireless charger	Model Name. ：	T-300
Temperature：	26 ℃	Relative Humidity：	54%
Pressure：	1010hPa	Phase :	N
Test Voltage ：	AC 120V/60Hz	Test Mode：	Mode 4

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1539	39.83	10.05	49.88	65.78	-15.90	QP	
2		0.1539	25.48	10.05	35.53	55.78	-20.25	AVG	
3		0.5899	29.25	10.12	39.37	56.00	-16.63	QP	
4		0.5899	19.58	10.12	29.70	46.00	-16.30	AVG	
5		1.0460	29.03	10.17	39.20	56.00	-16.80	QP	
6		1.0460	19.32	10.17	29.49	46.00	-16.51	AVG	
7		1.5500	35.43	10.18	45.61	56.00	-10.39	QP	
8		1.5500	20.67	10.18	30.85	46.00	-15.15	AVG	
9	*	6.5020	43.36	10.09	53.45	60.00	-6.55	QP	
10		6.5020	25.68	10.09	35.77	50.00	-14.23	AVG	
11		11.3620	35.16	10.13	45.29	60.00	-14.71	QP	
12		11.3620	14.95	10.13	25.08	50.00	-24.92	AVG	

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

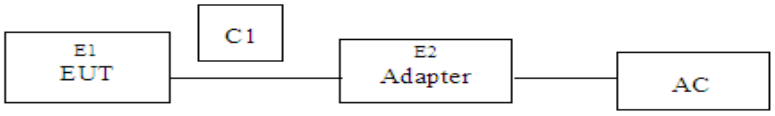
Remark:
1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.



5. RADIATED EMISSION MEASUREMENT

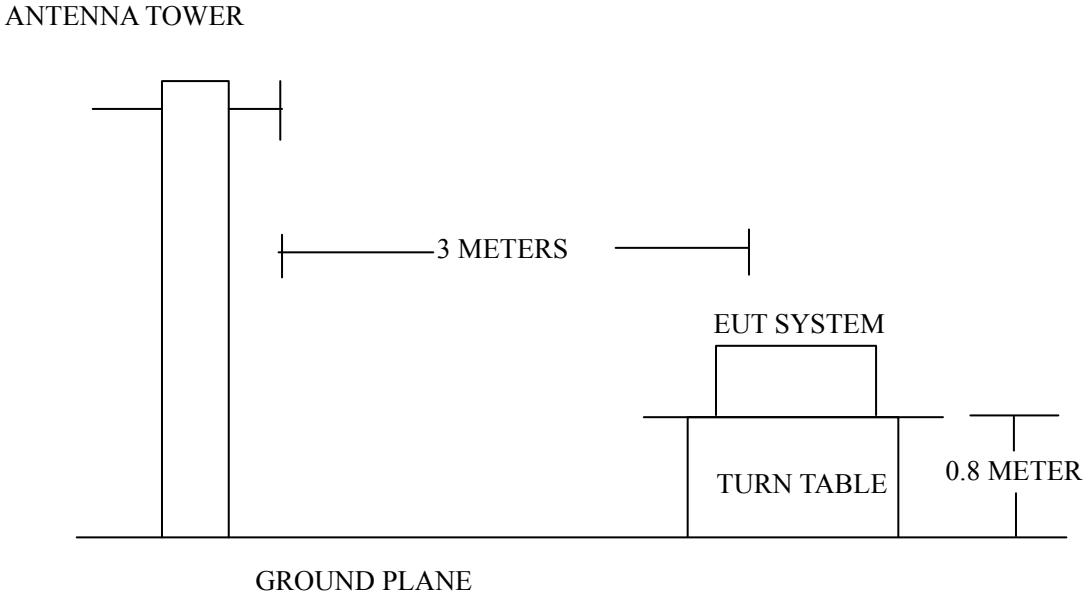
5.1.Block Diagram of Test Setup

5.1.1.Block Diagram of connection between the EUT and the simulators



(EUT: **Wireless charger**)

5.1.2.Anechoic Chamber Test Setup Diagram



5.2.Test Standard

FCC Part 15 C: 2014

5.3.Radiated Emission Limit(Class B)

FREQUENCY (MHz)	DISTANCE (Meters)	FIELD STRENGTHS LIMITS (dBμV/m)
30 ~ 88	3	40.0
88 ~ 216	3	43.5
216 ~ 960	3	46.0
960 ~ 1000	3	54.0

Note:(1) The smaller limit shall apply at the edge between two frequency bands.
(2) Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the EUT or system.

5.4.EUT Configuration on Test

The following equipment are installed on Radiated Emission Measurement to meet the

commission requirements and operating regulations in a manner which tends to maximize

Its emission characteristics in normal application.

Operating Condition of EUT

5.4.1.Setup the EUT as shown on Section 6.1

5.4.2.Turn on the power of all equipments.

5.4.3.Let the EUT work in test mode(communication mode).

5.5.Test Procedure

The EUT is placed on a turn table which is 0.8 meter above ground. 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 move up and down between 1 to 4 meters to find out the maximum emission level. Broadband antenna (calibrated by dipole antenna) are used as a receiving antenna. Both horizontal and vertical polarization of the antenna are set on measurement.

The bandwidth setting on the test receiver is 120 KHz.

The EUT is tested in Anechoic Chamber. The frequency range from 30MHz to 1000MHz is checked. All the test results are listed in Section 6.6.

5.6.Test Result

PASS

Please refer to the following pages.

9KHz-30MHz

EUT：	Wireless charger	Model Name ：	T-300
Temperature：	26 ℃	Relative Humidity：	54%
Pressure：	1010 hPa	Polarization :	Horizontal
Test Voltage ：	DC5V For Adapter		
Test Mode ：	Mode 4		

Freq.	Reading	Limit	Margin	State
(MHz)	(dBuV/m)	(dBuV/m)	(dB)	P/F
--	--	--	--	PASS
--	--	--	--	PASS

NOTE:

The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.
Distance extrapolation factor =40 log (specific distance/test distance)(dB);
Limit line = specific limits(dBuv) + distance extrapolation factor.

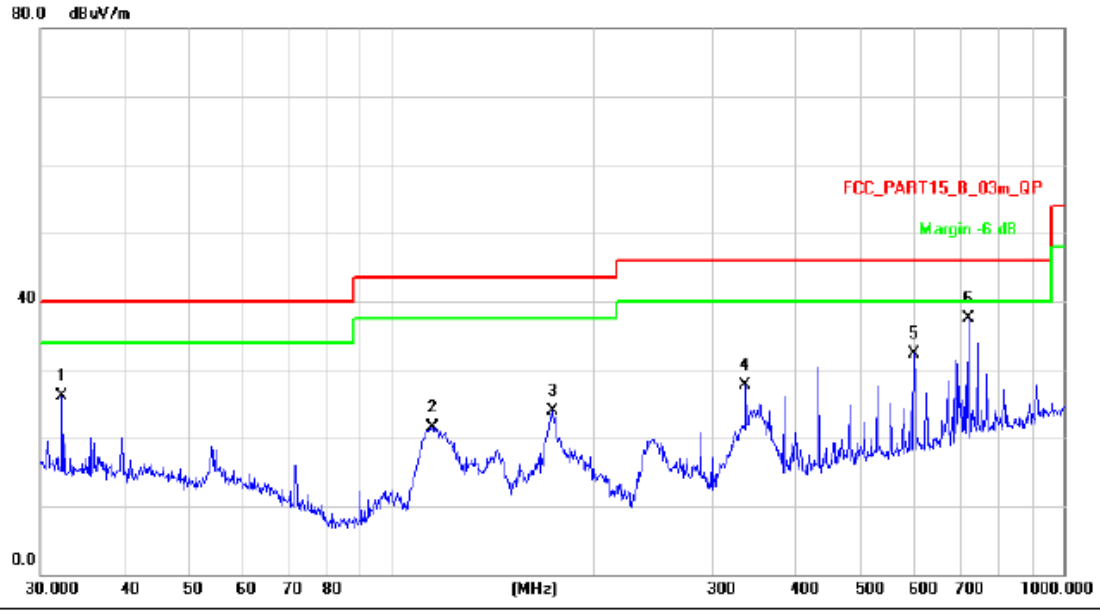
30MHz-1GHz

EUT：	Wireless charger	Model Name ：	T-300
Temperature：	26 ℃	Relative Humidity：	54%
Pressure：	1010 hPa	Polarization :	Horizontal
Test Voltage ：	DC5V For Adapter		
Test Mode ：	Mode 4		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		32.2925	34.40	-8.34	26.06	40.00	-13.94	QP			
2		114.9169	36.62	-15.14	21.48	43.50	-22.02	QP			
3		173.8135	37.71	-13.79	23.92	43.50	-19.58	QP			
4		336.0352	39.45	-11.66	27.79	46.00	-18.21	QP			
5		599.3212	37.93	-5.69	32.24	46.00	-13.76	QP			
6	*	721.7259	41.38	-3.93	37.45	46.00	-8.55	QP			

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

Remark:
Factor = Antenna Factor + Cable Loss – Pre-amplifier.
All interfaces was connected, and BT TX mode was link.



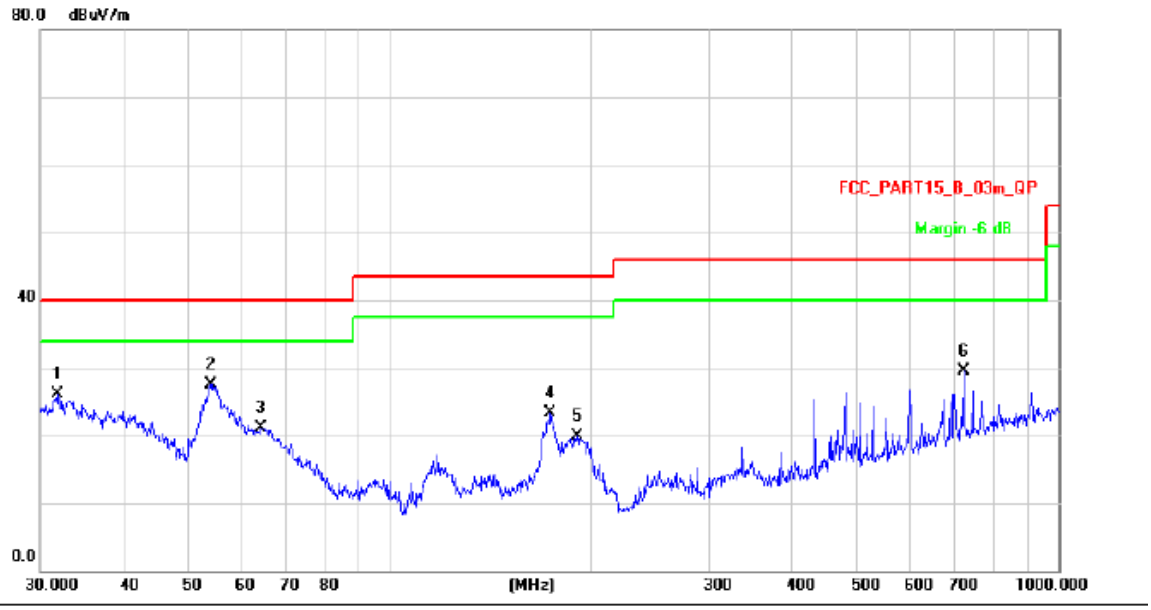
Site 966 BCTC Chamber #1 Polarization: *Horizontal* Temperature: 26

EUT：	Wireless charger	Model Name ：	T-300
Temperature：	26 ℃	Relative Humidity：	54%
Pressure：	1010 hPa	Polarization :	Vertical
Test Voltage ：	DC5V For Adapter		
Test Mode ：	Mode 4		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		31.8427	34.33	-8.27	26.06	40.00	-13.94	QP			
2	*	53.8818	38.42	-10.93	27.49	40.00	-12.51	QP			
3		64.2074	33.47	-12.37	21.10	40.00	-18.90	QP			
4		173.8135	37.07	-13.79	23.28	43.50	-20.22	QP			
5		190.4050	35.42	-15.61	19.81	43.50	-23.69	QP			
6		721.7259	33.49	-3.93	29.56	46.00	-16.44	QP			

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

Remark:
Factor = Antenna Factor + Cable Loss – Pre-amplifier.
All interfaces was connected, and BT TX mode was link.



Site 966 BCTC Chamber #1 Polarization: *Vertical* Temperature: 26

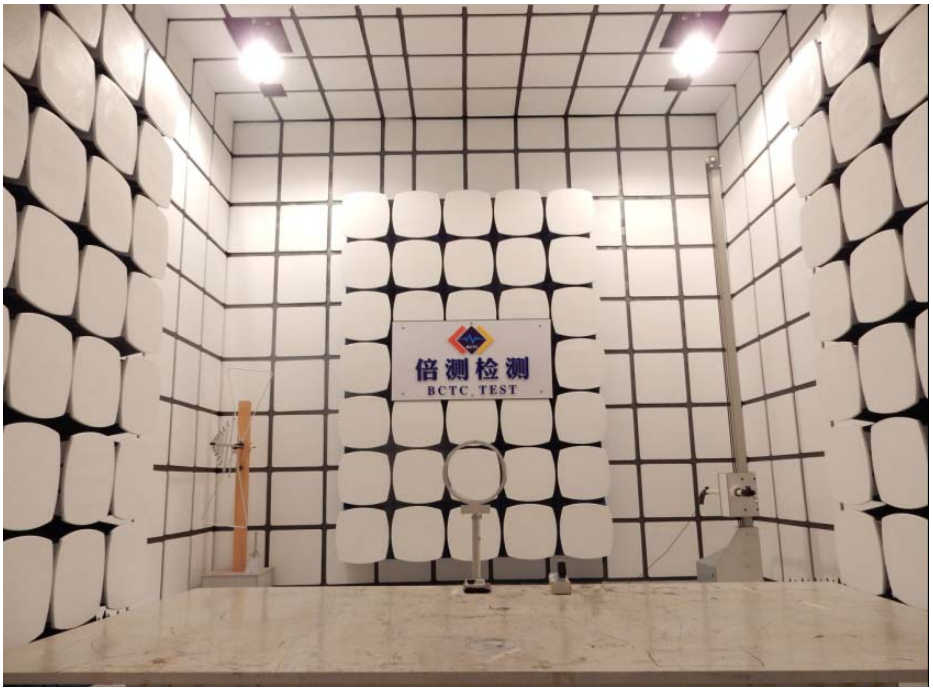
APPENDIX I (PHOTOS OF THE EUT)

EUT Photo 1

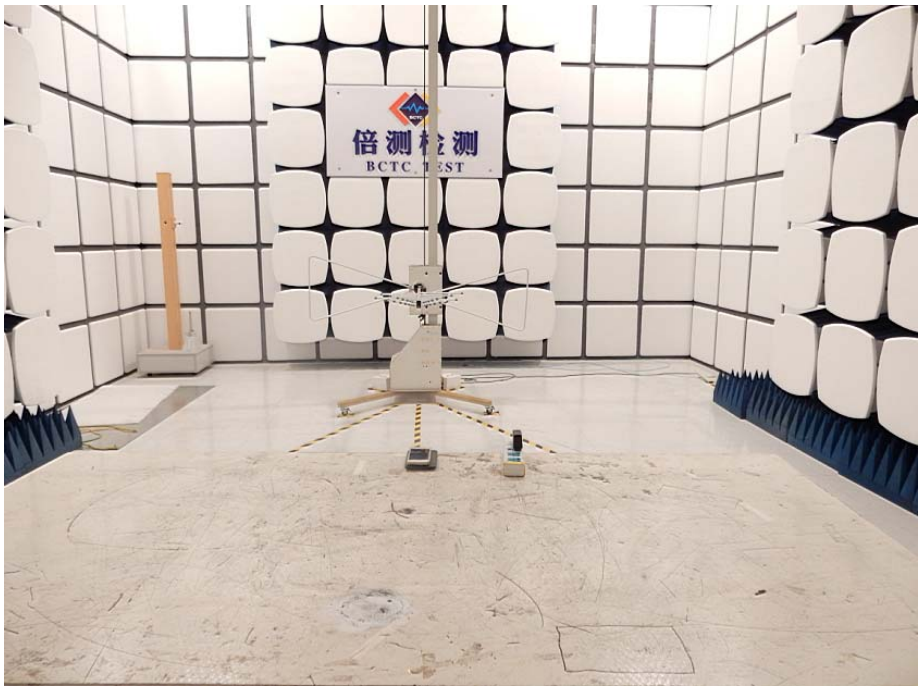
EUT Photo 2

APPENDIX II (TEST PHOTOS OF THE EUT)

9KMz-30MHz



30MHz-1GMz



※ ※ ※ ※ ※ **END OF REPORT** ※ ※ ※ ※ ※