Test Report

Product Name	:	PVC Wireless Charger
Trade mark	:	N/A
Model No.	:	PWCP-011-01, PWCP-011-02, PWCP-011-03, PWCP-011-04, PWCP-011-05
FCC ID	:	2AT3QPWCP-011
Report Number	:	BLA-EMC-201907-A09-01
Date of sample receipt	:	July 05, 2019
Date of Test	:	July 05, 2019-July 22, 2019
Date of Issue	:	July 23, 2019
Test standard	:	47 CFR Part 18
Test result	:	PASS

Prepared for:

shenzhen CWC technology Co., ltd
Room 608, Bantian Group Business Center, Lipu Block, West Changfa Rd., Bantian, Longgang Dist., Shenzhen, China

Prepared by:

Qianhai BlueAsia of Technical Services(Shenzhen) Co., Ltd.
IOT Test Centre of BlueAsia
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Compiled by: Jason

Review by: Sweet Liang

Approved by: Emen_Li

Date: July 23, 2019

2 Version

Version No.	Date	Description
00	*July 23, 2019*	*Original*

3 Test Summary

Radio Spectrum Matter Part				
Item	**Standard**	**Method**	**Requirement**	**Result**
Conducted disturbance	47 CFR Part 18	FCC MP-5	Part 18.307	Pass
Radiated emission	47 CFR Part 18	FCC MP-5	Part 18.305	Pass

4 Contents

5 General Information

• Details of E.U.T.

Power supply:	Input: DC 5V
Cable:	USB cable: 30cm unshielded
Operation frequency:	169kHz
Antenna type:	Inductive Loop Coil Antenna
Modulation type:	Load modulation

• Description of Support Units

Description	Manufacturer	Model No.	Serial No.
Adapter	SAMSUNG	ETAOU80EBE	N/A
Mobile Phone	iphone	X	N/A

• 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%.			

- **Test Location**

  All tests were performed at:

  Qianhai BlueAsia of Technical Services(Shenzhen) Co., Ltd.
  IOT Test Centre of BlueAsia

  No. 448 Bulong Road, Bantian Street, Longgang District, Shenzhen, China

  Telephone: TEL: +86-755-28682673 FAX: +86-755-28682673

- No tests were sub-contracted.

- **Test Facility**

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

  ● FCC — Designation No.: CN1252

  Qianhai BlueAsia of Technical Services(Shenzhen) Co., Ltd 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. Designation CN1252.

  ●ISED — CAB identifier No.: CN0028

  Qianhai BlueAsia of Technical Services(Shenzhen) Co., Ltd has been registered by Certification and Engineering Bureau of ISED for radio equipment testing with CAB identifier CN0028.

- **Deviation from Standards**

  None

- **Abnormalities from Standard Conditions**

  None

6 Equipment List

Radiated Emission:						
Item	**Test Equipment**	**Manufacturer**	**Model No.**	**Serial No.**	**Cal. Date (mm-dd-yy)**	**Cal. Due date (mm-dd-yy)**
1	3m SAC	SKET	9m*6m*6m	966	06-10-2018	06-09-2023
2	Broadband Antenna	SCHWARZBECK	VULB9168	00836 P:00227	07-14-2018	07-13-2019
					07-14-2019	07-13-2020
3	Horn Antenna	SCHWARZBECK	9120D	01892 P:00331	07-14-2018	07-13-2019
					07-14-2019	07-13-2020
4	EMI Test Software	EZ	EZ	N/A	N/A	N/A
5	Pre-amplifier	SKET	N/A	N/A	07-14-2018	07-13-2019
					07-14-2019	07-13-2020
6	Spectrum analyzer	Rohde & Schwarz	FSP40	100817	05-24-2019	05-23-2020
7	EMI Test Receiver	Rohde & Schwarz	ESRP7	101199	03-21-2019	03-20-2020
8	Controller	SKET	N/A	N/A	N/A	N/A
9	Coaxial Cable	BlueAsia	BLA-XC-02	N/A	N/A	N/A
10	Coaxial Cable	BlueAsia	BLA-XC-03	N/A	N/A	N/A
11	Coaxial Cable	BlueAsia	BLA-XC-01	N/A	N/A	N/A

Conducted Emission:						
Item	**Test Equipment**	**Manufacturer**	**Model No.**	**Serial No.**	**Cal.Date (mm-dd-yy)**	**Cal.Due date (mm-dd-yy)**
1	EMI Test Receiver	Rohde & Schwarz	ESPI3	101082	06-10-2019	06-09-2020
2	LISN	CHASE	MN2050D	1447	12-18-2018	12-17-2019
3	LISN	Rohde & Schwarz	ENV216	3560.6550.15	07-14-2018	07-13-2019
					07-14-2019	07-13-2020
4	EMI Test Software	EZ	EZ	N/A	N/A	N/A
5	Coaxial Cable	BlueAsia	BLA-XC-05	N/A	N/A	N/A

7 Radio Spectrum Matter Test Results

- **Conducted disturbance**

Test Requirement Part 18.307
Test Method: FCC MP-5
Limit:

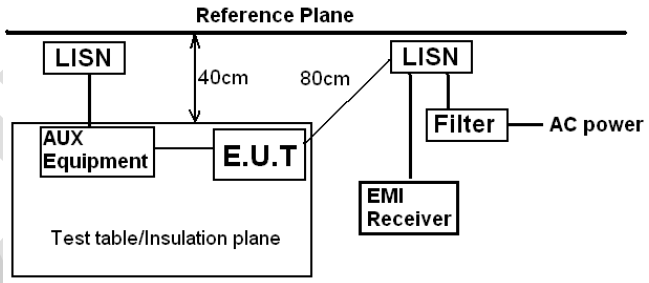
Frequency of emission (MHz)	Conducted limit (dBμV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

E.U.T. Operation

Operating Environment:
Temperature: 21.7 °C Humidity: 57.5 % RH Atmospheric Pressure: 1000 mbar
Test mode a:Charge mode_Keep the Mobile phone in charging mode

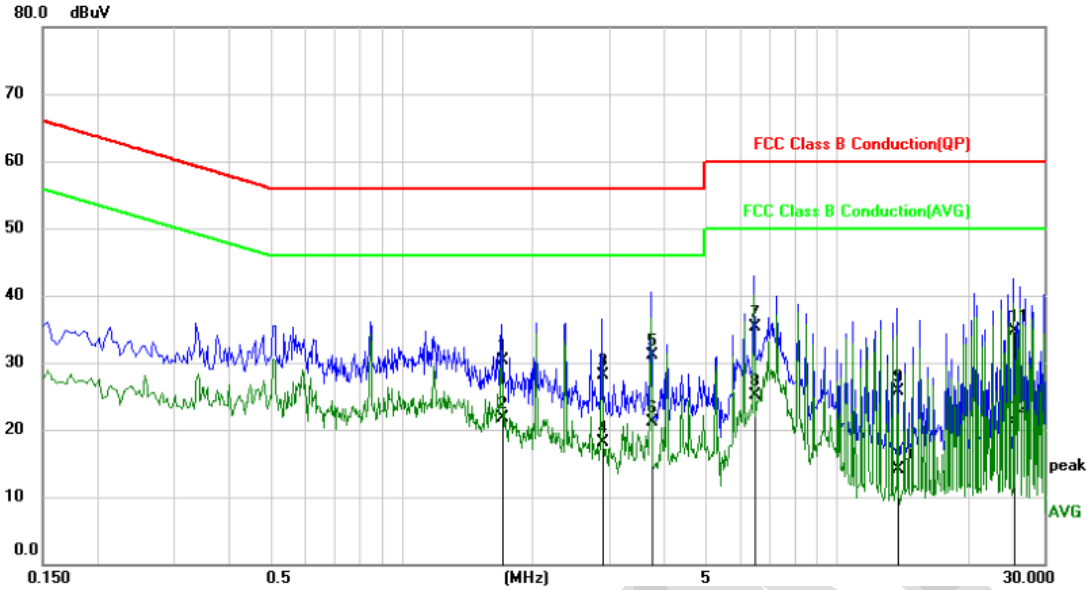
Test Setup Diagram



Remark:
E.U.T: Equipment Under Test
LISN: Line Impedence Stabilization Network
Test table height=0.8m

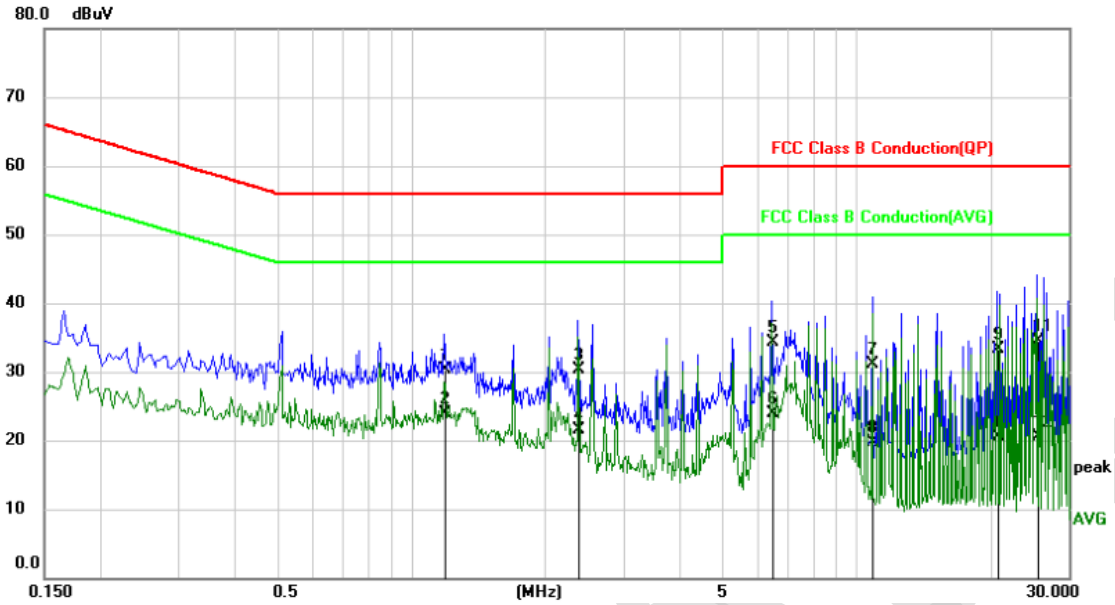
Measurement Procedure and Data

Line:Live Line



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector
1		1.7020	20.48	9.83	30.31	56.00	-25.69	QP
2	*	1.7020	11.90	9.83	21.73	46.00	-24.27	AVG
3		2.8940	18.16	9.86	28.02	56.00	-27.98	QP
4		2.8940	8.24	9.86	18.10	46.00	-27.90	AVG
5		3.7420	21.33	9.85	31.18	56.00	-24.82	QP
6		3.7420	11.25	9.85	21.10	46.00	-24.90	AVG
7		6.4699	25.49	9.86	35.35	60.00	-24.65	QP
8		6.4699	15.31	9.86	25.17	50.00	-24.83	AVG
9		13.7820	15.66	9.96	25.62	60.00	-34.38	QP
10		13.7820	4.05	9.96	14.01	50.00	-35.99	AVG
11		25.5300	24.66	10.05	34.71	60.00	-25.29	QP
12		25.5300	11.01	10.05	21.06	50.00	-28.94	AVG

Line:Neutral Line



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector
1		1.1900	20.41	9.83	30.24	56.00	-25.76	QP
2	*	1.1900	13.98	9.83	23.81	46.00	-22.19	AVG
3		2.3820	20.37	9.86	30.23	56.00	-25.77	QP
4		2.3820	11.68	9.86	21.54	46.00	-24.46	AVG
5		6.4660	24.53	9.85	34.38	60.00	-25.62	QP
6		6.4660	14.05	9.85	23.90	50.00	-26.10	AVG
7		10.8900	21.18	9.97	31.15	60.00	-28.85	QP
8		10.8900	9.81	9.97	19.78	50.00	-30.22	AVG
9		20.7620	23.16	10.06	33.22	60.00	-26.78	QP
10		20.7620	10.43	10.06	20.49	50.00	-29.51	AVG
11		25.5260	24.47	10.03	34.50	60.00	-25.50	QP
12		25.5260	10.46	10.03	20.49	50.00	-29.51	AVG

Notes:

1. *An initial pre-scan was performed on the line and neutral lines with peak detector.*
2. *Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.*

Final Level =Receiver Read level + LISN Factor + Cable Loss.

6.2 Radiated emission

Test Requirement Part 18.305
Test Method: FCC MP-5
Measurement Distance: 3m
Limit:

(b) The field strength levels of emissions which lie outside the bands specified in §18.301, unless otherwise indicated, shall not exceed the following:

Equipment	Operating frequency	RF Power generated by equipment (watts)	Field strength limit (uV/m)	Distance (meters)
Any type unless otherwise specified (miscellaneous)	Any ISM frequency	Below 500 500 or more	25 25 × SQRT(power/500)	300 [1]300
	Any non-ISM frequency	Below 500 500 or more	15 15 × SQRT(power/500)	300 [1]300
Industrial heaters and RF stabilized arc welders	On or below 5,725 MHz Above 5,725 MHz	Any Any	10 ([2])	1,600 ([2])
Medical diathermy	Any ISM frequency Any non-ISM frequency	Any Any	25 15	300 300
Ultrasonic	Below 490 kHz	Below 500 500 or more	2,400/F(kHz) 2,400/F(kHz) × SQRT (power/500)	300 [3]300
	490 to 1,600 kHz Above 1,600 kHz	Any Any	24,000/F(kHz) 15	30 30
Induction cooking ranges	Below 90 kHz On or above 90 kHz	Any Any	1,500 300	[4]30 [4]30

[1]Field strength may not exceed 10 µV/m at 1600 meters. Consumer equipment operating below 1000 MHz is not permitted the increase in field strength otherwise permitted here for power over 500 watts.

[2]Reduced to the greatest extent possible.

[3]Field strength may not exceed 10 µV/m at 1600 meters. Consumer equipment is not permitted the increase in field strength otherwise permitted here for over 500 watts.

[4]Induction cooking ranges manufactured prior to February 1, 1980, shall be subject to the field strength limits for miscellaneous ISM equipment.

Remark:

1 This product belongs to non-ISM equipment, the field strength limit is 15uV/m at 300 meter distance.

2 Limit: 20log(15uV/m) +20log (300/3) =23.52+40=63.52dBuV/m at 3 meters distance

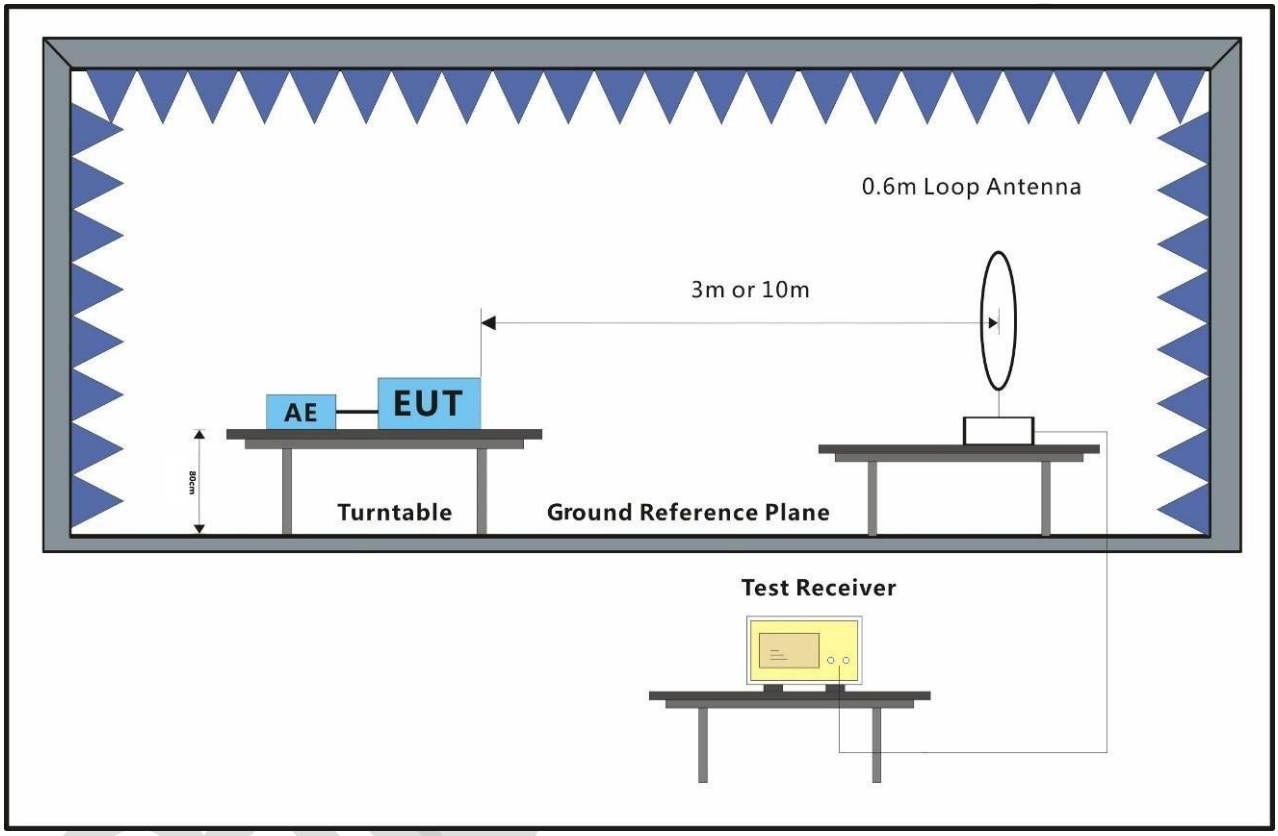
E.U.T. Operation

Operating Environment:

Temperature: 25 °C Humidity: 51 % RH Atmospheric Pressure: 1000 mbar

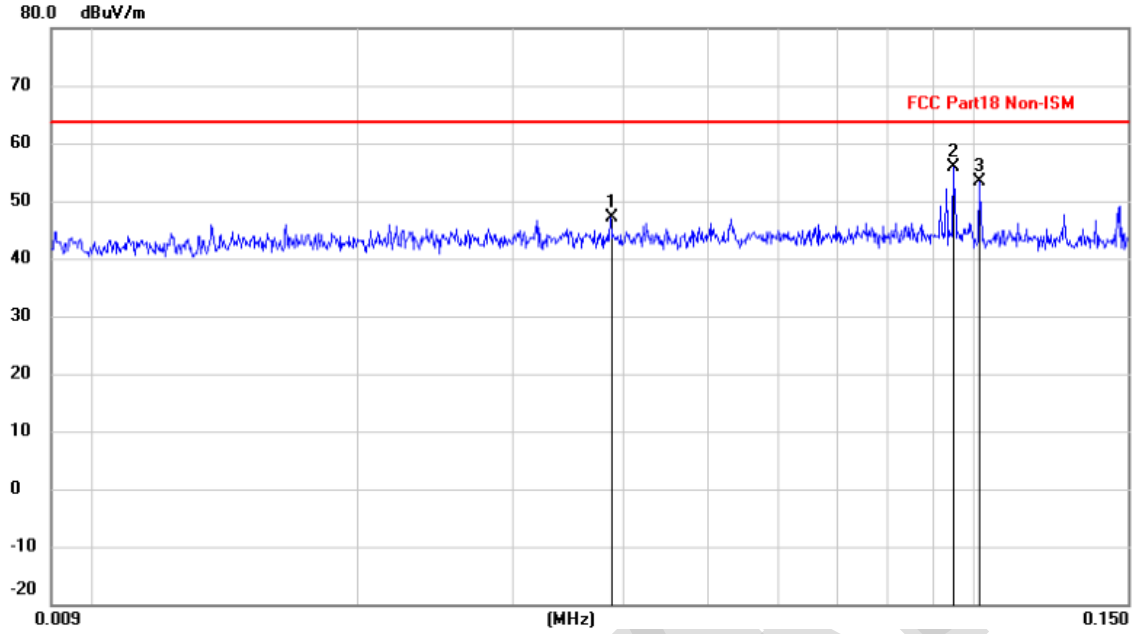
Test mode a:Charge mode_Keep the Mobile phone in charging mode

Test Setup Diagram



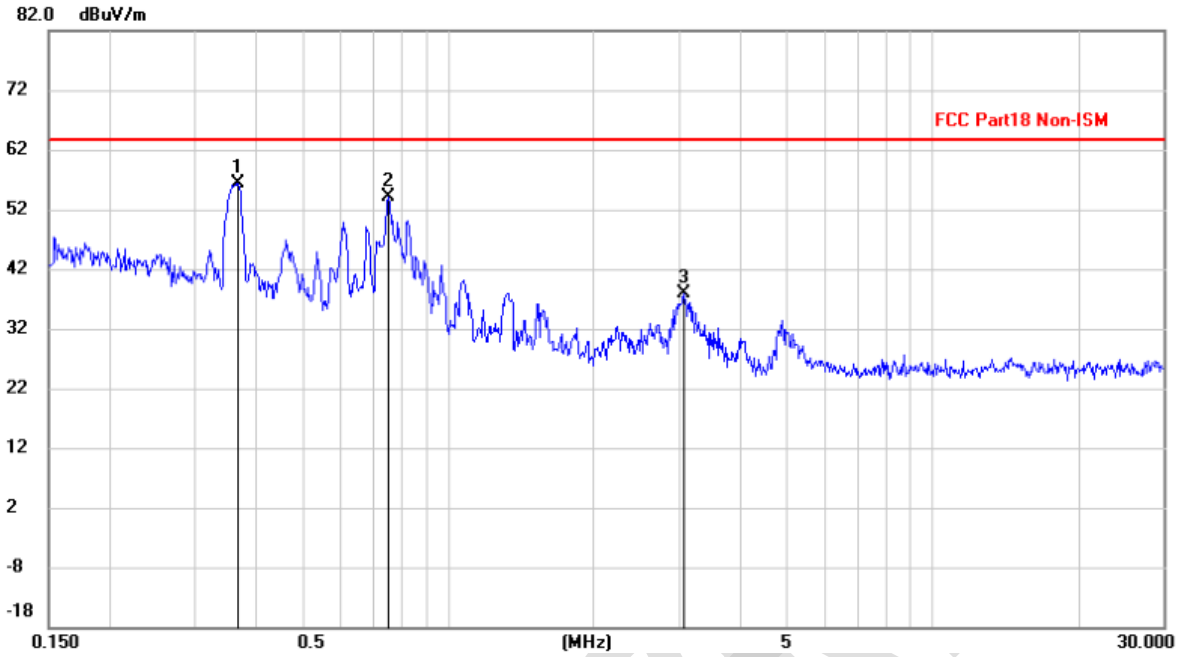
Measurement Procedure and Data

9kHz-150kHz



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		0.0388	27.20	19.82	47.02	63.52	-16.50	QP
2	*	0.0950	35.97	20.02	55.99	63.52	-7.53	QP
3		0.1015	33.42	19.99	53.41	63.52	-10.11	QP

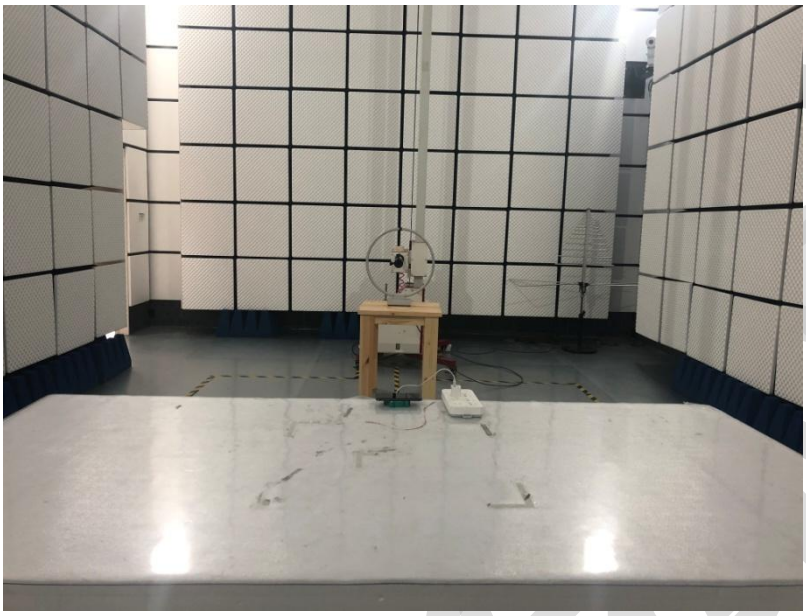
150kHz-30MHz



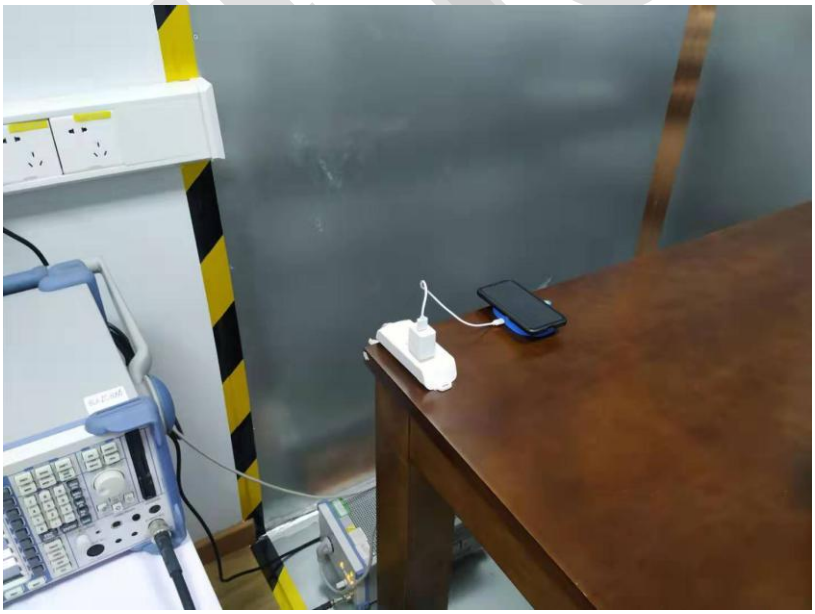
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1	*	0.3673	36.23	20.17	56.40	63.52	-7.12	QP
2		0.7549	33.89	20.29	54.18	63.52	-9.34	QP
3		3.0737	17.45	20.41	37.86	63.52	-25.66	QP

7 Photographs

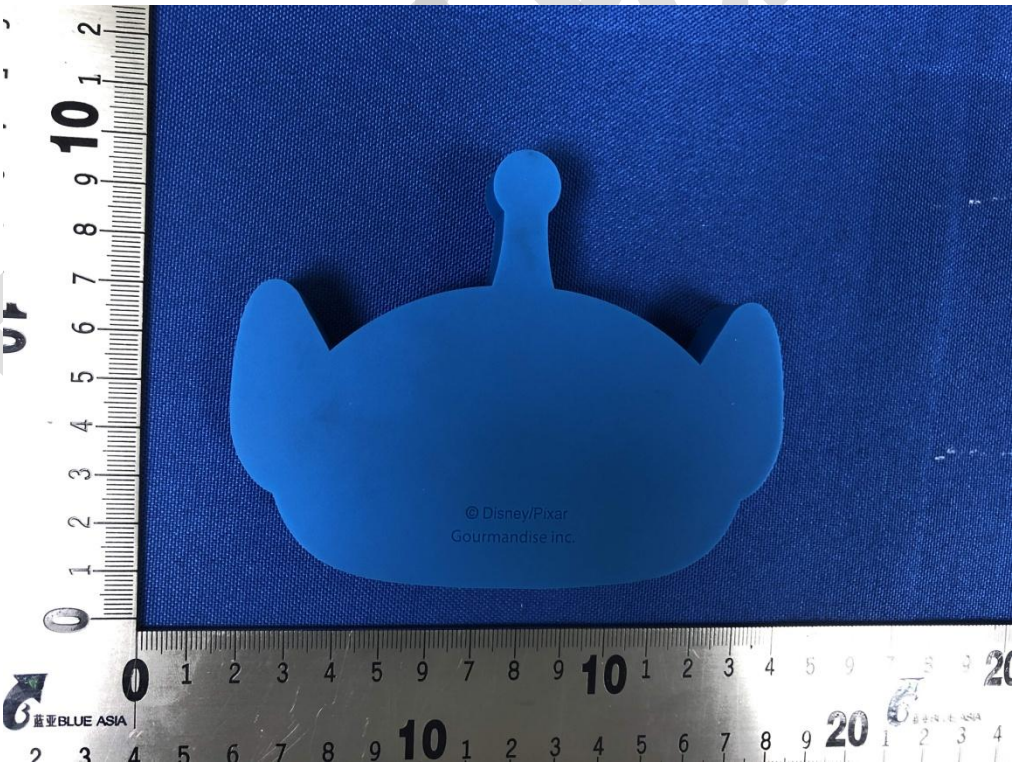
Test Setup
Radiated emission

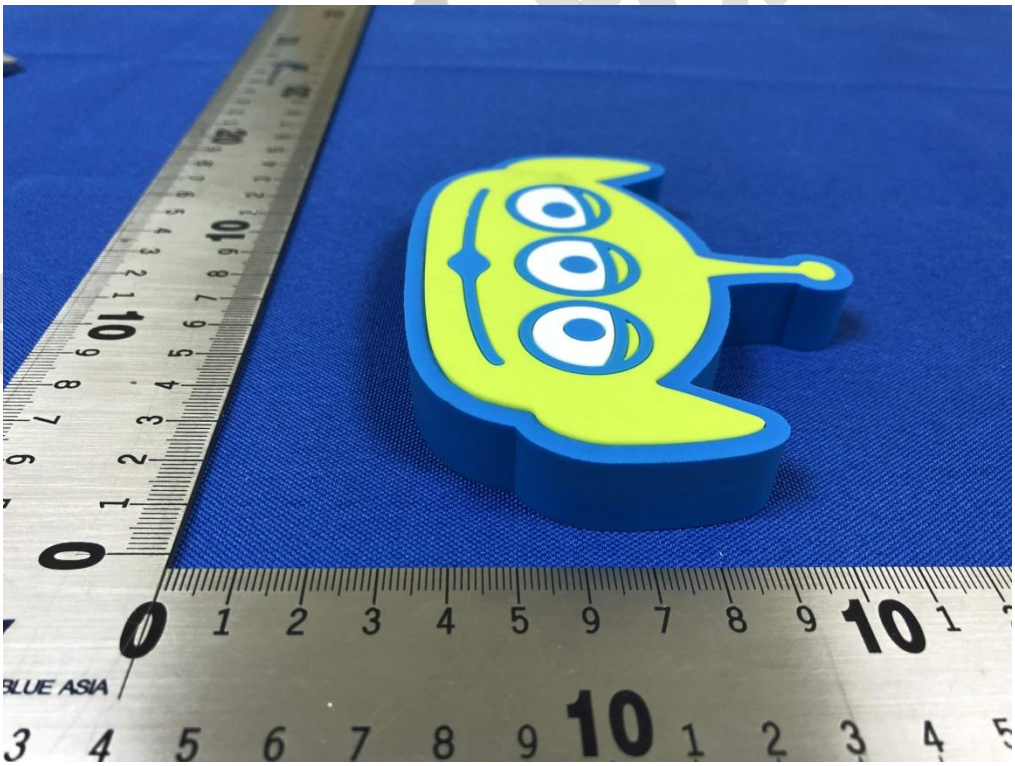


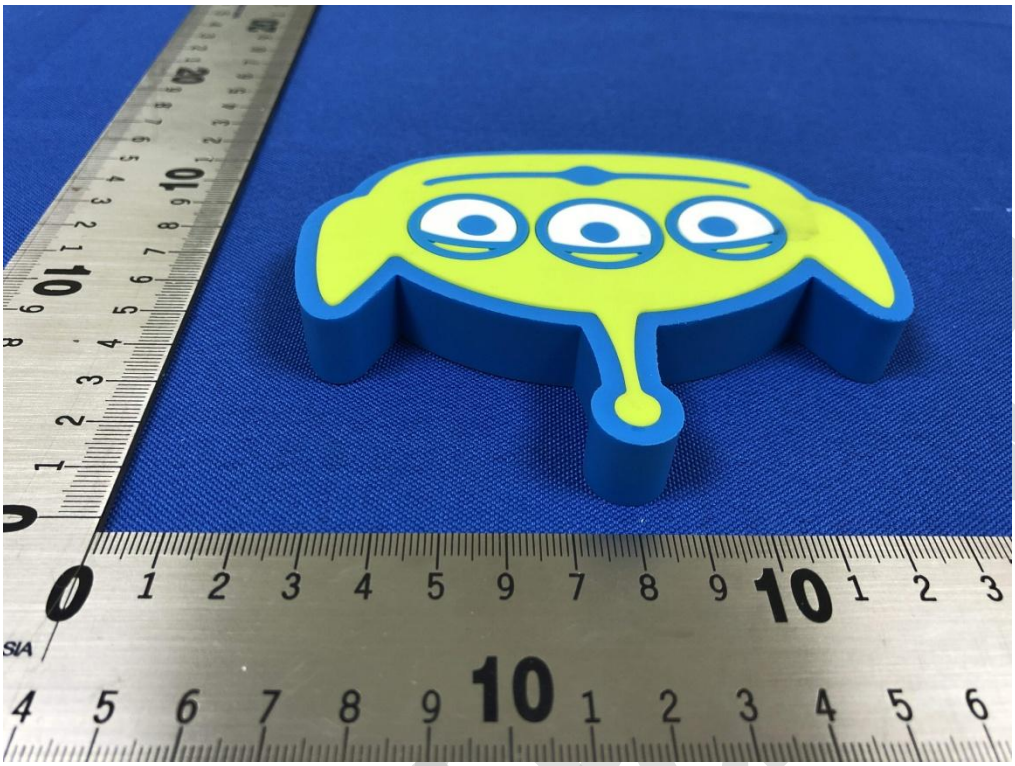
Conducted disturbance

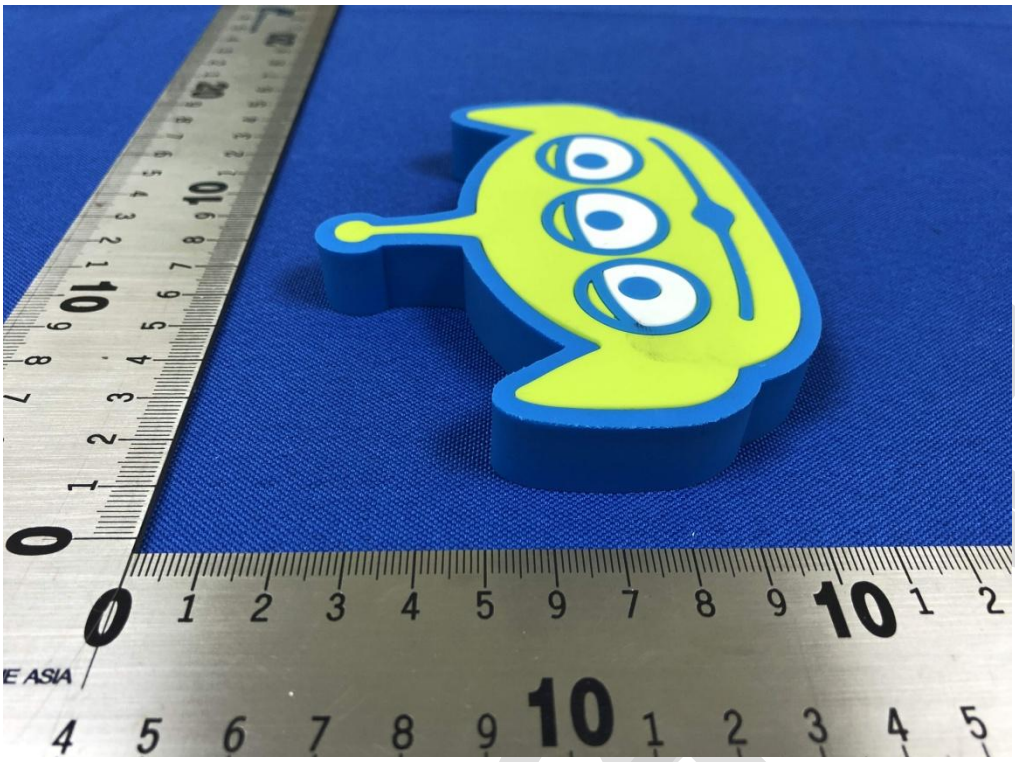


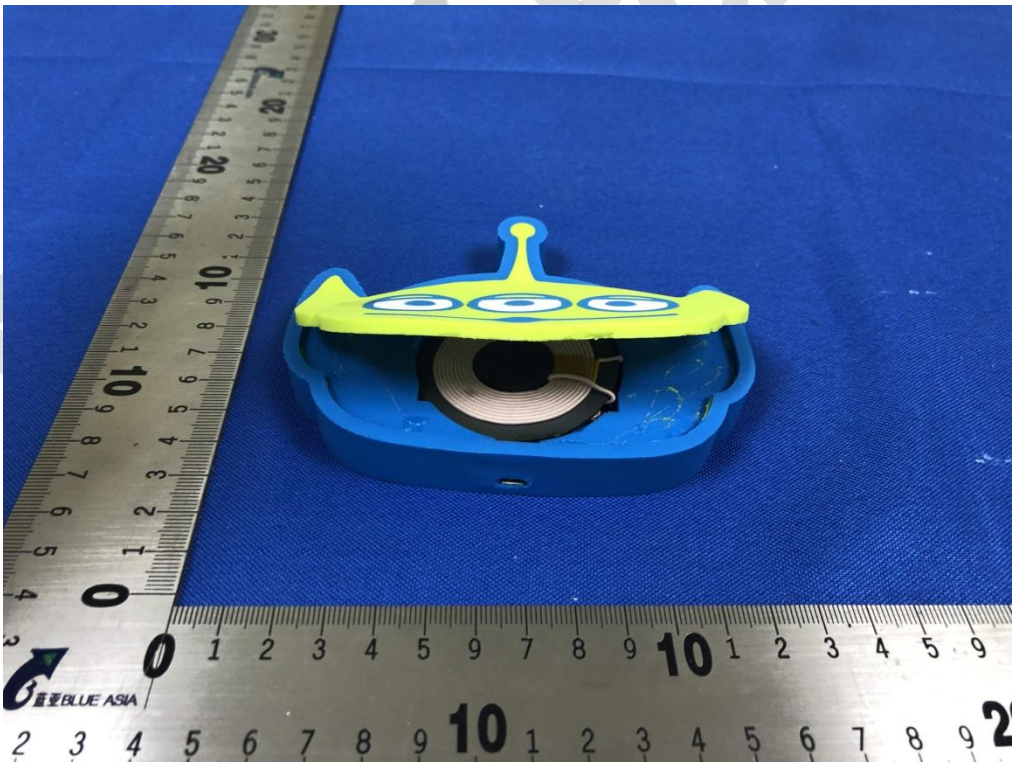
EUT Constructional Details (EUT Photos)

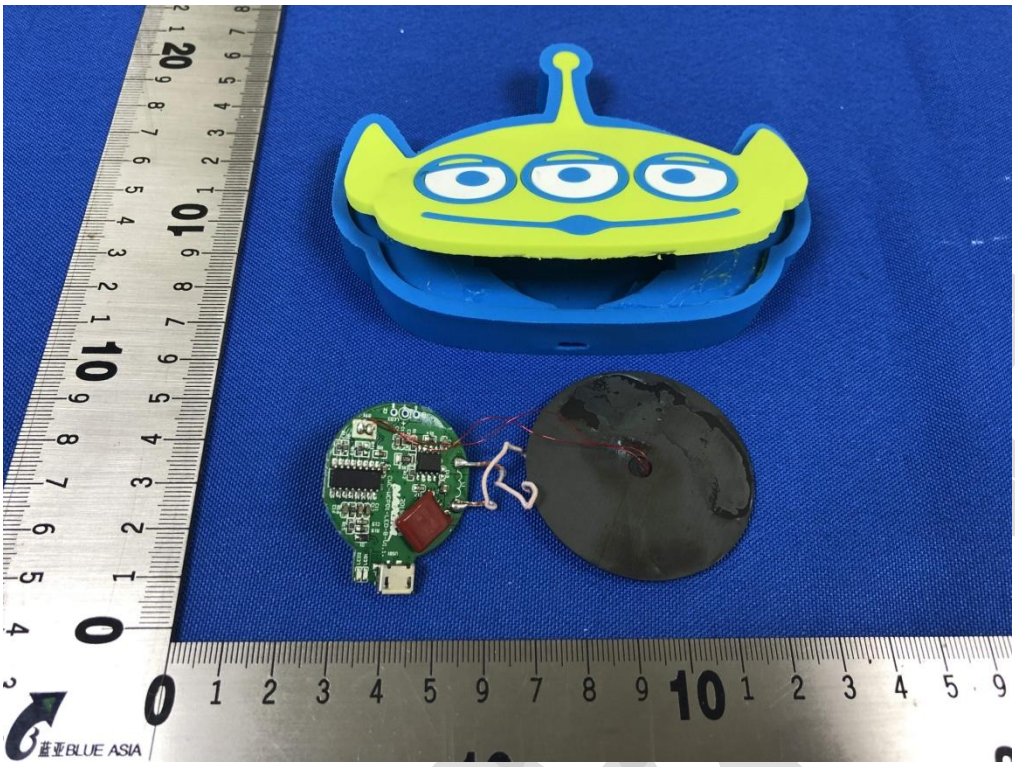

© Disney/Pixar
Gourmandise inc.

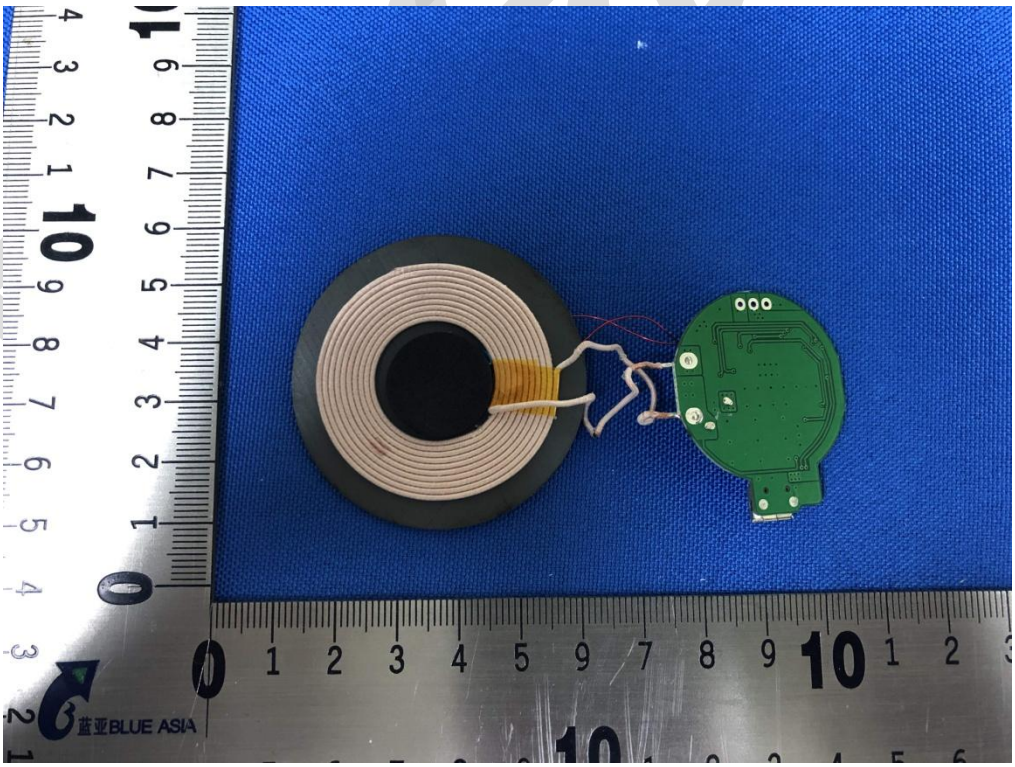


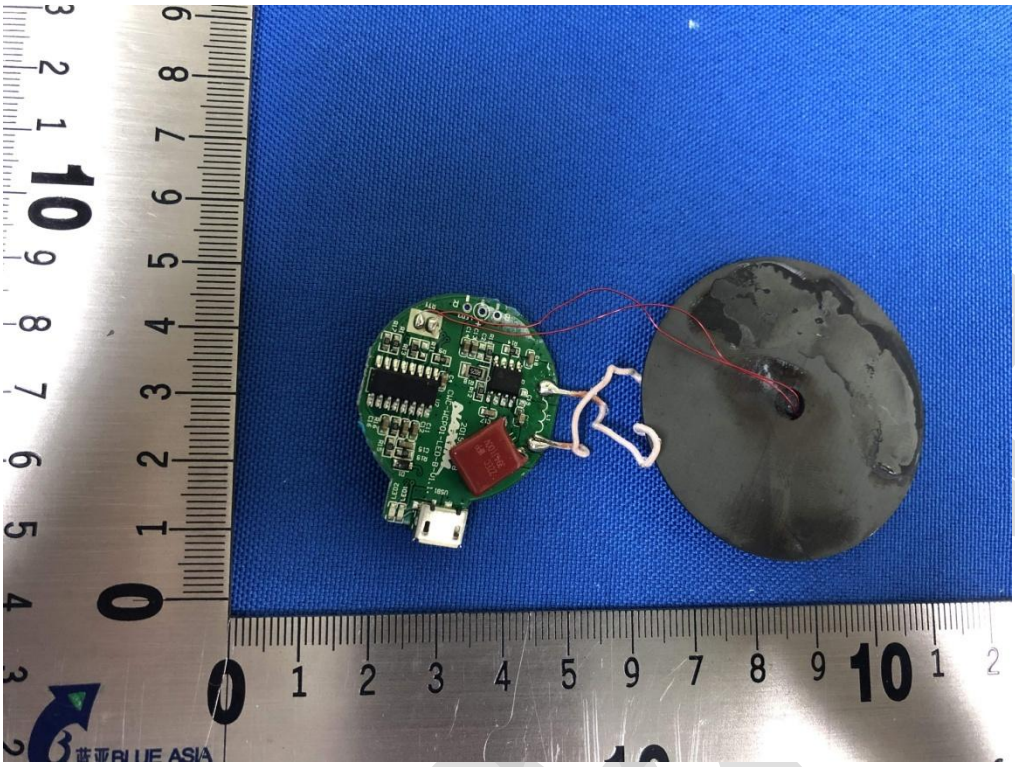












- End of the Report -

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