

**ELECTROMAGNETIC EMISSIONS COMPLIANCE REPORT
INTENTIONAL RADIATOR CERTIFICATION TO
FCC PART 15 SUBPART C
REQUIREMENT T**

OF

Wireless Charging Transmitter

MODEL No.: CFS011

Trademark: N/A

FCC ID: 2AI98-CFS011

REPORT NO: ES160608011E

ISSUE DATE: December 01, 2016

Prepared for

Shenzhen Muweisan Technology Co. Ltd

Room 923, Baoyuan Building, Baoyuan Road, Xixiang Street, Bao'an
District, Shenzhen, Guangdong, China

Prepared by

EMTEK (SHENZHEN) CO., LTD.

Bldg 69, Majialong Industry Zone, Nanshan District,
Shenzhen, Guangdong, China

TEL: 0086-755-26954280

FAX: 0086-755-26954282

TABLE OF CONTENT

Test Report Description	Page
1. SUMMARY OF TEST RESULT	5
2. GENERAL INFORMATION.....	6
2.1. Description of Device (EUT).....	6
2.2. Support Device	6
2.3. Apply to the following mobile phone	6
2.4. Description of Test Facility	7
2.5. Measurement Uncertainty.....	7
3. MEASURING DEVICE AND TEST EQUIPMENT	8
3.1. For Power Line Conducted Emission	8
3.2. For Radiated Emission Measurement	8
3.3. Test Configurations	8
4. POWER LINE CONDUCTED EMISSION MEASUREMENT	9
4.1. Block Diagram of Test Setup	9
4.2. Measuring Standard.....	9
4.3. Power Line Conducted Emission Limits	9
4.4. CONDUCTED EMISSION TEST SETUP	10
4.5. Test Procedure	10
4.6. Measurement Results	10
5. RADIATED EMISSION MEASUREMENT	19
5.1. Block Diagram of Test	19
5.2. Measuring Standard.....	19
5.3. Radiated Emission Limits	20
5.4. Test Procedure	20
5.5. Measuring Results	20
6. PHOTOGRAPH OF TEST.....	33
6.1. Photo of Conducted Emission Measurement	33
6.2. Photo of Radiation Emission Measurement.....	35

APPENDIX I (Photos of EUT) (10 Pages)

TEST REPORT DESCRIPTION

Applicant:	Shenzhen Muweisan Technology Co. Ltd Room 923, Baoyuan Building, Baoyuan Road, Xixiang Street, Bao'an District, Shenzhen, Guangdong, China
Manufacturer:	Shenzhen Muweisan Technology Co. Ltd Room 923, Baoyuan Building, Baoyuan Road, Xixiang Street, Bao'an District, Shenzhen, Guangdong, China
Product Description:	Wireless Charging Transmitter
Model Number:	CFS011
Serial Number:	N/A
File Number:	ES160704026E
Date of Test:	June 03, 2016 to November 30, 2016

Measurement Procedure Used:

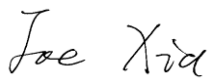
APPLICABLE STANDARDS	
STANDARD	Document Title
47 CFR Part 18	INDUSTRIAL, SCIENTIFIC, AND MEDICAL EQUIPMENT
ANSI C63.4-2014	American National Standard for Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz
FCC/OST MP-5:1986	Methods of Measurements of Radio Noise Emissions from ISM equipment

We hereby certify that:

The device described above is tested by EMTEK (SHENZHEN) CO., LTD. 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 EMTEK (SHENZHEN) CO., LTD. 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 requirements.

The test results of this report relate only to the tested sample identified in this report.

Date of Test : June 03, 2016 to November 30, 2016

Prepared by : 
Joe Xia/Editor

Reviewer : 
Yaping Shen /Supervisor

Approve & Authorized Signer : 
Lisa Wang/Manager

Modified History

Version	Report No.	Revision date	Summary
Ver.1.0	ES160704026E	\	Original Report

1. SUMMARY OF TEST RESULT

Emission		
Description of test item	Standard & Limits	Results
Conducted disturbance at mains terminals	18.307(b)	Pass
Radiated Disturbance	18.305(b)	Pass
Note: N/A is an abbreviation for Not Applicable.		

2. GENERAL INFORMATION

2.1. Description of Device (EUT)

Model Name	CFS011
Network and Wireless connectivity	Wireless Power Transmission,Bluetooth
Operating Frequency	6.78MHz
Antenna Type :	Coil Antenna
Antenna Gain:	0dBi
FCC Classification	Part 18 Consumer Device
Power Source	DC 15V(Adapter)
About the Product	Only the Wireless Power Transmission was tested in this report.

2.2. Support Device

Charger	
Trademark	N/A
Model No.	HJ-AD24-150150
Rated Input	AC 100-240V 50/60Hz 0.7A
Rated Output	DC 15V ,1500mA

2.3. Apply to the following mobile phone

Mobile phone model	FCC ID Number
Iphone 5	BCG-E2599A
Iphone 5C	BCG-E2644A
Iphone 5S	BCG-E2643A
Iphone 6	BCG-E2816A
Iphone 6Plus	BCG-E2817A
Iphone 6S	BCG-E2946A
Iphone 6S Plus	BCG-E2944A
Iphone SE	BCG-E3042A
SAMSUNG S6	A3LSM9200

2.4. Description of Test Facility

Site Description

EMC Lab. : Accredited by CNAS, 2013.10.29
The certificate is valid until 2016.10.28
The Laboratory has been assessed and proved to be in compliance with
CNAS-CL01:2006 (identical to ISO/IEC 17025:2005)
The Certificate Registration Number is L2291.

Accredited by TUV Rheinland Shenzhen 2015.4
The Laboratory has been assessed according to the requirements
ISO/IEC 17025.

Accredited by FCC, April 17, 2013
The Certificate Registration Number is 709623.

Accredited by FCC, July 24, 2013
The Certificate Registration Number is 406365.

Accredited by Industry Canada, November 29, 2012
The Certificate Registration Number is 4480A.

Name of Firm : EMTEK (SHENZHEN) CO., LTD.
Site Location : Bldg 69, Majialong Industry Zone,
Nanshan District, Shenzhen, Guangdong, China

2.5. Measurement Uncertainty

The following measurement uncertainty levels have been estimated for tests performed on the apparatus:

Parameter	Uncertainty
Radio Frequency	$\pm 1 \times 10^{-5}$
Conducted Emissions Test	$\pm 2.0\text{dB}$
Radiated Emission Test	$\pm 2.0\text{dB}$
Occupied Bandwidth Test	$\pm 1.0\text{dB}$
All emission, radiated	$\pm 3\text{dB}$
Temperature	$\pm 0.5^{\circ}\text{C}$
Humidity	$\pm 3\%$

Measurement Uncertainty for a level of Confidence of 95%

3. MEASURING DEVICE AND TEST EQUIPMENT

3.1. For Power Line Conducted Emission

EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.
Test Receiver	Rohde & Schwarz	ESCS30	828985/018	05/15/2016	05/14/2017
L.I.S.N.	Schwarzbeck	NNLK8129	8129203	05/15/2016	05/14/2017
50Ω Coaxial Switch	Anritsu	MP59B	M20531	N/A	N/A
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100006	05/15/2016	05/14/2017
Voltage Probe	Rohde & Schwarz	TK9416	N/A	05/15/2016	05/14/2017
I.S.N	Rohde & Schwarz	ENY22	1109.9508.02	05/15/2016	05/14/2017

3.2. For Radiated Emission Measurement

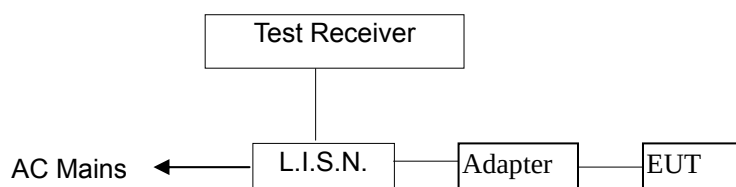
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.
EMI Test Receiver	Rohde & Schwarz	ESU	1302.6005.26	05/15/2016	05/14/2017
Pre-Amplifier	HP	8447D	2944A07999	05/15/2016	05/14/2017
Bilog Antenna	Schwarzbeck	VULB9163	142	05/15/2016	05/14/2017
Loop Antenna	ARA	PLA-1030/B	1029	05/15/2016	05/14/2017
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170399	05/15/2016	05/14/2017
Horn Antenna	Schwarzbeck	BBHA 9120	D143	05/15/2016	05/14/2017
Cable	Schwarzbeck	AK9513	ACRX1	05/15/2016	05/14/2017
Cable	Rosenberger	N/A	FP2RX2	05/15/2016	05/14/2017
Cable	Schwarzbeck	AK9513	CRPX1	05/15/2016	05/14/2017
Cable	Schwarzbeck	AK9513	CRRX2	05/15/2016	05/14/2017

3.3. Test Configurations

Test Configurations	Description
Mode 1	The Wireless Power Transmission Test Mode The EUT configuration of the emission tests is EUT + Wireless Power Transmission Load(Two Iphones) + Charger. During the measurement, the EUT is connected with the Wireless Power Transmission load. The EUT is also connected with the charger and working normally.
Mode 2	The Wireless Power Transmission Test Mode The EUT configuration of the emission tests is EUT + Wireless Power Transmission Load(Two Android Phones) + Charger. During the measurement, the EUT is connected with the Wireless Power Transmission load. The EUT is also connected with the charger and working normally.

4. POWER LINE CONDUCTED EMISSION MEASUREMENT

4.1. Block Diagram of Test Setup



4.2. Measuring Standard

FCC Part18.307(b)

4.3. Power Line Conducted Emission Limits

Conducted Emission Limit		
Frequency(MHz)	Quasi-peak	Average
0.15-0.5	66-56	56-46
0.5-5.0	56	46
5.0-30.0	60	50

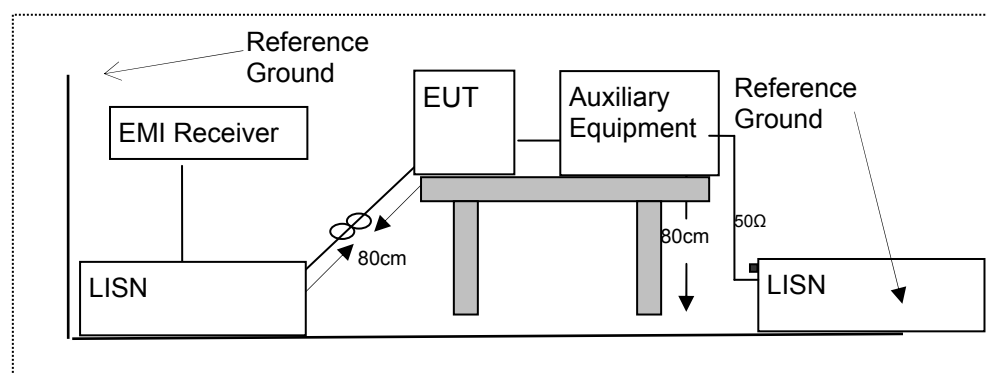
Note: 1. The lower limit shall apply at the transition frequencies
 2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.
 3. Based on §18.307(e), conduction limits in the table above apply only outside the frequency bands specified in §18.301. Therefore, emissions at 6.78 MHz, 13.56 MHz, and 27.12 MHz are not subject to the conduction limits of §18.307

4.4. CONDUCTED EMISSION TEST SETUP

The mains cable of the EUT (per Adapter) must be connected to LISN. The LISN shall be placed 0.8 m from the boundary of EUT and bonded to a ground reference plane for LISN mounted on top of the ground reference plane. This distance is between the closest points of the LISN and the EUT. All other units of the EUT and associated equipment shall be at least 0.8m from the LISN.

Ground connections, where required for safety purposes, shall be connected to the reference ground point of the LISN and, where not otherwise provided or specified by the manufacturer, shall be of same length as the mains cable and run parallel to the mains connection at a separation distance of not more than 0.8 m.

According to the requirements in ANSI C63.4-2014 Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30 MHz using CISPR Quasi-Peak and average detector mode.



4.5. Test Procedure

The EUT is put on the plane 0.8m high above the ground by insulating support and connected to the AC mains through Line Impedance Stability Network (L.I.S.N). This provided a 50ohm coupling impedance for the tested equipments. Both sides of AC line are investigated to find out the maximum conducted emission according to the FCC regulations during conducted emission measurement.

The bandwidth of the test receiver (R&S ESCI) is set at 9KHz in 150KHz~30MHz and 200Hz in 9KHz~150KHz.

The frequency range from 150kHz to 30MHz is investigated

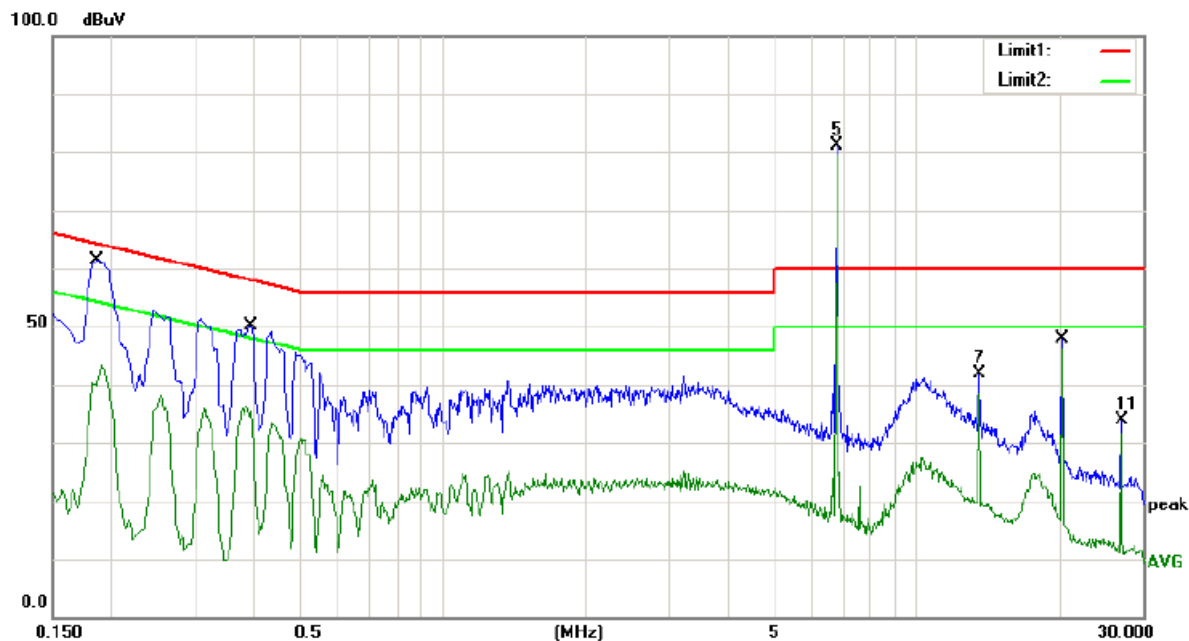
4.6. Measurement Results

PASS.

Please refer to the following pages.

Test Data:

MODE 1



Site site #1

Phase: **N**

Temperature: 22

Limit: (CE)FCC PART 18 (consumer devices)_QP

Power: AC 120V/60Hz

Humidity: 50 %

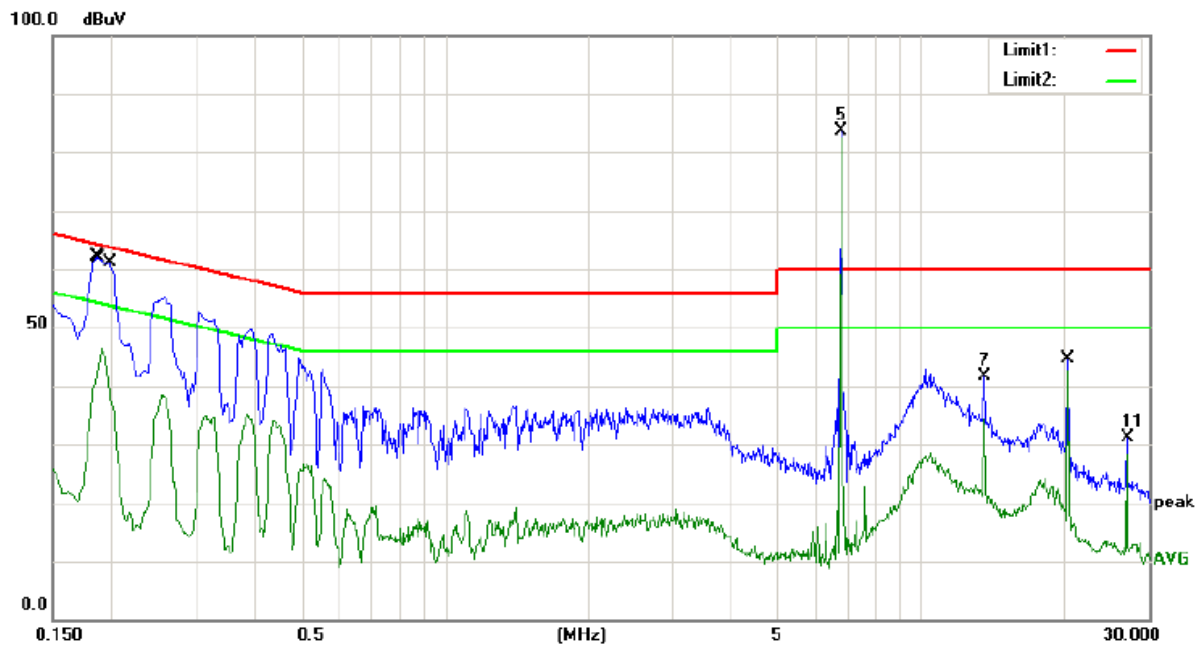
EUT: Wireless Charger Transmitter

M/N: CFS011

Mode: Mode 1

Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		0.1860	47.40	11.00	58.40	64.21	-5.81	QP	
2		0.1863	29.20	11.00	40.20	54.20	-14.00	AVG	
3		0.3940	36.10	11.00	47.10	57.98	-10.88	QP	
4		0.3940	24.50	11.00	35.50	47.98	-12.48	AVG	
5	X	6.7800	70.04	11.00	81.04	60.00	21.04	peak	
6	*	6.7800	68.38	11.00	79.38	50.00	29.38	AVG	
7		13.5600	30.77	11.00	41.77	60.00	-18.23	peak	
8		13.5600	27.50	11.00	38.50	50.00	-11.50	AVG	
9		20.3400	36.80	11.00	47.80	60.00	-12.20	QP	
10		20.3400	35.10	11.00	46.10	50.00	-3.90	AVG	
11		27.1200	22.85	11.00	33.85	60.00	-26.15	peak	
12		27.1200	20.53	11.00	31.53	50.00	-18.47	AVG	



Site site #1

Phase: **L1**

Temperature: 22

Limit: (CE)FCC PART 18 (consumer devices)_QP

Power: AC 120V/60Hz

Humidity: 50 %

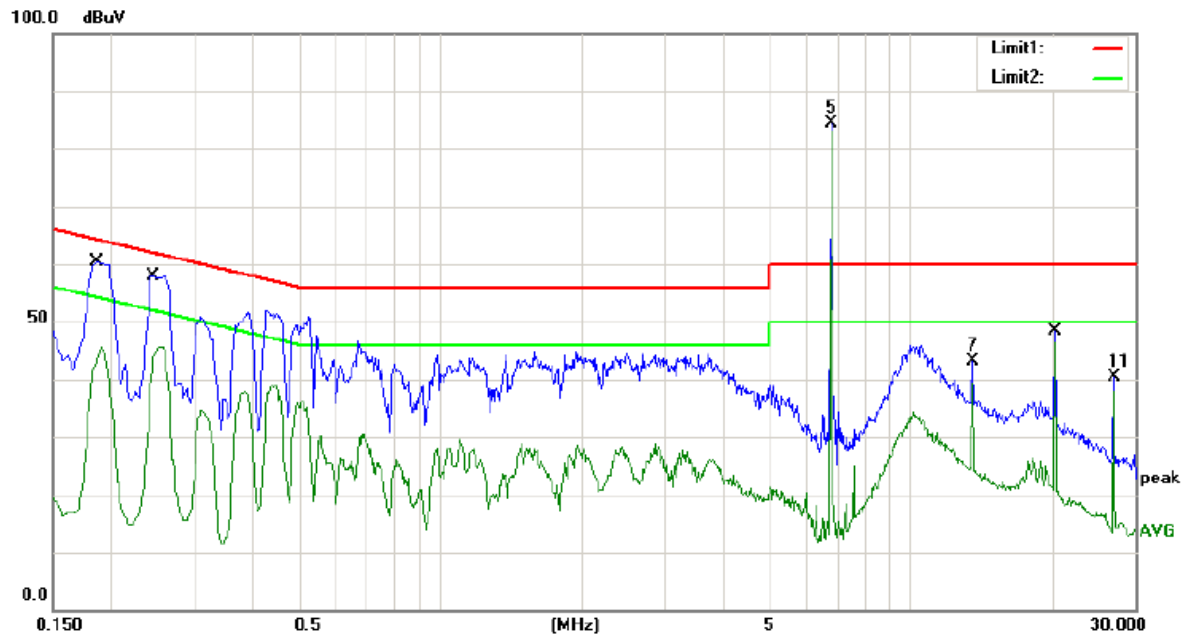
EUT: Wireless Charger Transmitter

M/N: CFS011

Mode: Mode 1

Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		0.1860	48.00	11.00	59.00	64.21	-5.21	QP	
2		0.1900	35.40	11.00	46.40	54.04	-7.64	AVG	
3		0.1980	47.10	11.00	58.10	63.69	-5.59	QP	
4		0.1980	27.10	11.00	38.10	53.69	-15.59	AVG	
5	X	6.7800	72.51	11.00	83.51	60.00	23.51	peak	
6	*	6.7800	71.42	11.00	82.42	50.00	32.42	AVG	
7		13.5600	30.62	11.00	41.62	60.00	-18.38	peak	
8		13.5600	23.45	11.00	34.45	50.00	-15.55	AVG	
9		20.3400	33.60	11.00	44.60	60.00	-15.40	QP	
10		20.3400	31.70	11.00	42.70	50.00	-7.30	AVG	
11		27.1200	20.05	11.00	31.05	60.00	-28.95	peak	
12		27.1200	17.47	11.00	28.47	50.00	-21.53	AVG	



Site site #1

Phase: **N**

Temperature: 22

Limit: (CE)FCC PART 18 (consumer devices)_QP

Power: AC 240V/60Hz

Humidity: 50 %

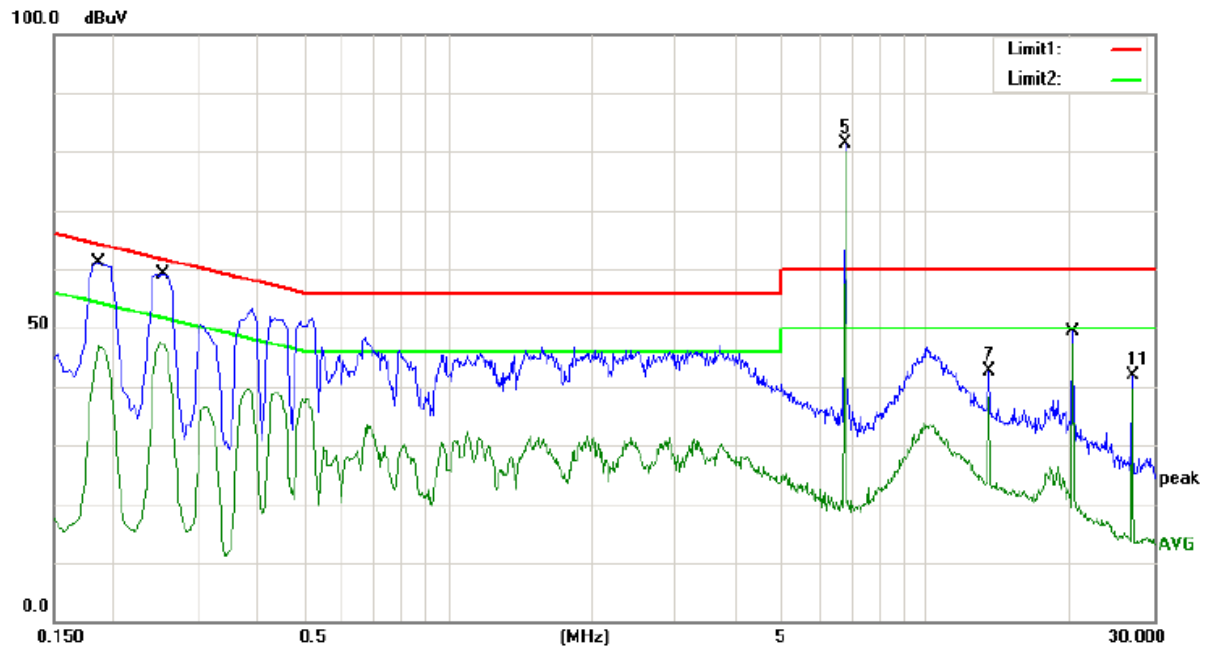
EUT: Wireless Charger Transmitter

M/N: CFS011

Mode: Mode 1

Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		0.1844	46.40	11.00	57.40	64.29	-6.89	QP	
2		0.1844	31.30	11.00	42.30	54.29	-11.99	AVG	
3		0.2460	43.90	11.00	54.90	61.89	-6.99	QP	
4		0.2460	32.90	11.00	43.90	51.89	-7.99	AVG	
5	X	6.7800	73.28	11.00	84.28	60.00	24.28	peak	
6	*	6.7800	72.13	11.00	83.13	50.00	33.13	AVG	
7		13.5600	32.22	11.00	43.22	60.00	-16.78	peak	
8		13.5600	28.47	11.00	39.47	50.00	-10.53	AVG	
9		20.3400	37.40	11.00	48.40	60.00	-11.60	QP	
10		20.3400	35.30	11.00	46.30	50.00	-3.70	AVG	
11		27.1200	29.30	11.00	40.30	60.00	-19.70	peak	
12		27.1200	26.95	11.00	37.95	50.00	-12.05	AVG	

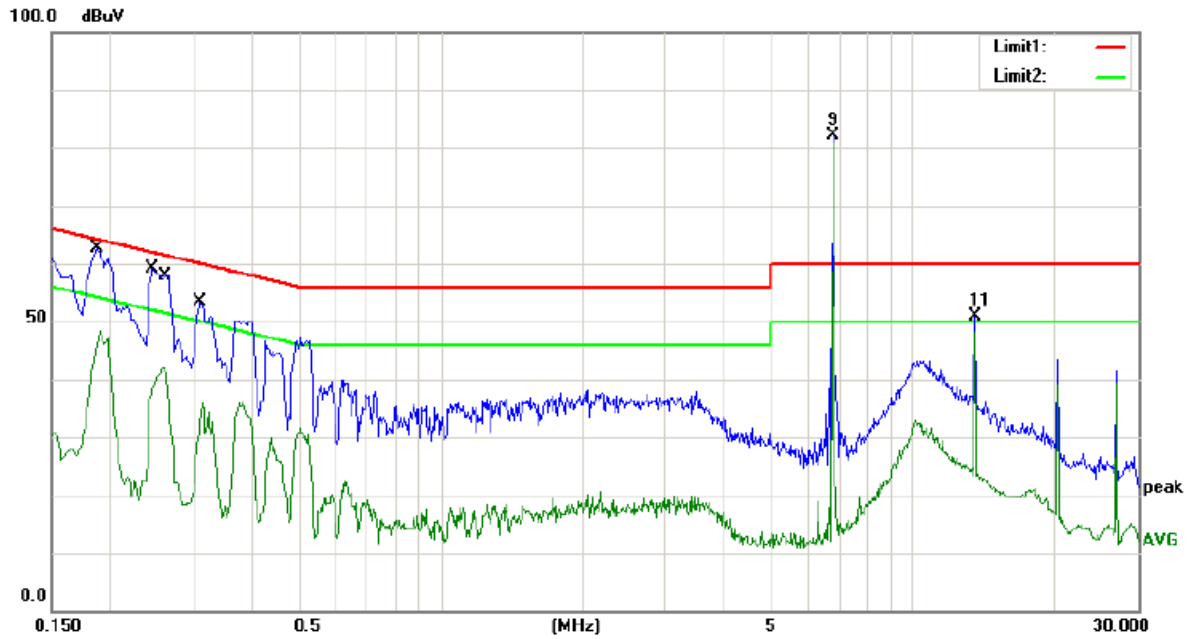


Site site #1
Limit: (CE)FCC PART 18 (consumer devices)_QP
EUT: Wireless Charger Transmitter
M/N: CFS011
Mode: Mode 1
Note:

Phase: **L1** Temperature: 22
Power: AC 240V/60Hz Humidity: 50 %

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		0.1860	47.00	11.00	58.00	64.21	-6.21	QP	
2		0.1860	35.70	11.00	46.70	54.21	-7.51	AVG	
3		0.2540	45.20	11.00	56.20	61.63	-5.43	QP	
4		0.2540	36.42	11.00	47.42	51.63	-4.21	AVG	
5	X	6.7800	70.45	11.00	81.45	60.00	21.45	peak	
6	*	6.7800	68.90	11.00	79.90	50.00	29.90	AVG	
7		13.5600	31.62	11.00	42.62	60.00	-17.38	peak	
8		13.5600	27.16	11.00	38.16	50.00	-11.84	AVG	
9		20.3400	38.40	11.00	49.40	60.00	-10.60	QP	
10		20.3400	36.50	11.00	47.50	50.00	-2.50	AVG	
11		27.1200	30.87	11.00	41.87	60.00	-18.13	peak	
12		27.1200	28.65	11.00	39.65	50.00	-10.35	AVG	

MODE 2



Site site #1

Phase: **L1**

Temperature: 23

Limit: (CE)FCC PART 18 (consumer devices)_QP

Power: AC 120V/60Hz

Humidity: 54 %

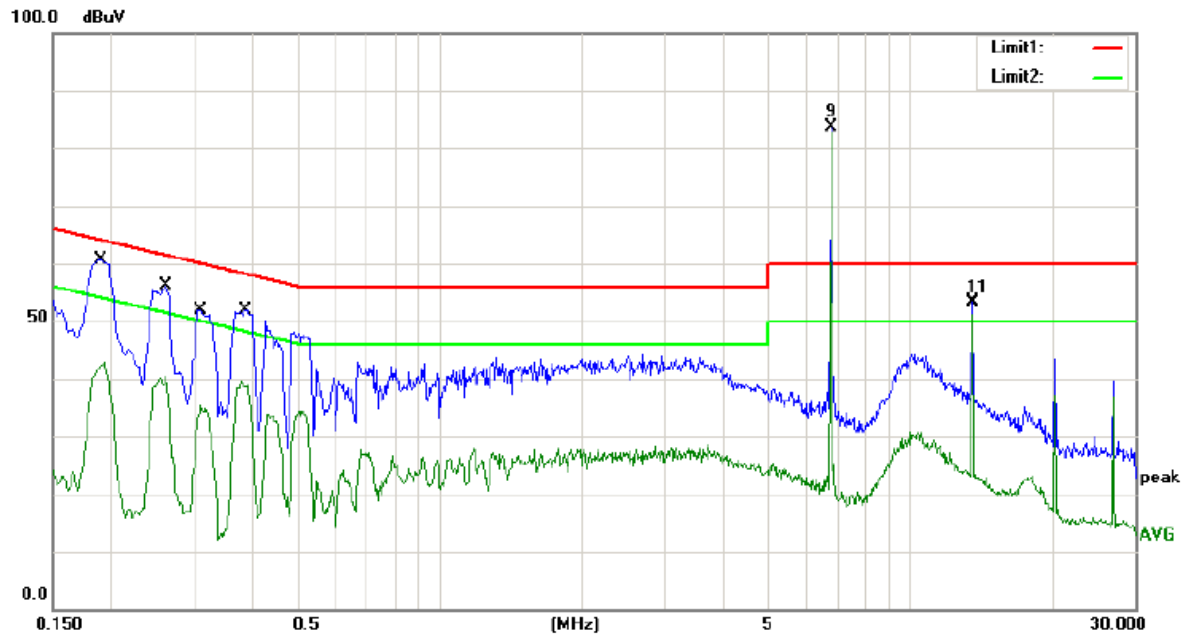
EUT: Wireless Chraging Transmitter

M/N: CFS011

Mode: Mode 2

Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		0.1900	48.10	11.00	59.10	64.04	-4.94	QP	
2		0.1900	32.90	11.00	43.90	54.04	-10.14	AVG	
3		0.2460	42.10	11.00	53.10	61.89	-8.79	QP	
4		0.2460	26.20	11.00	37.20	51.89	-14.69	AVG	
5		0.2620	42.50	11.00	53.50	61.37	-7.87	QP	
6		0.2620	27.50	11.00	38.50	51.37	-12.87	AVG	
7		0.3100	38.20	11.00	49.20	59.97	-10.77	QP	
8		0.3100	24.50	11.00	35.50	49.97	-14.47	AVG	
9	X	6.7800	71.25	11.00	82.25	60.00	22.25	peak	
10	*	6.7800	69.91	11.00	80.91	50.00	30.91	AVG	
11		13.5600	39.89	11.00	50.89	60.00	-9.11	peak	
12		13.5600	37.16	11.00	48.16	50.00	-1.84	AVG	

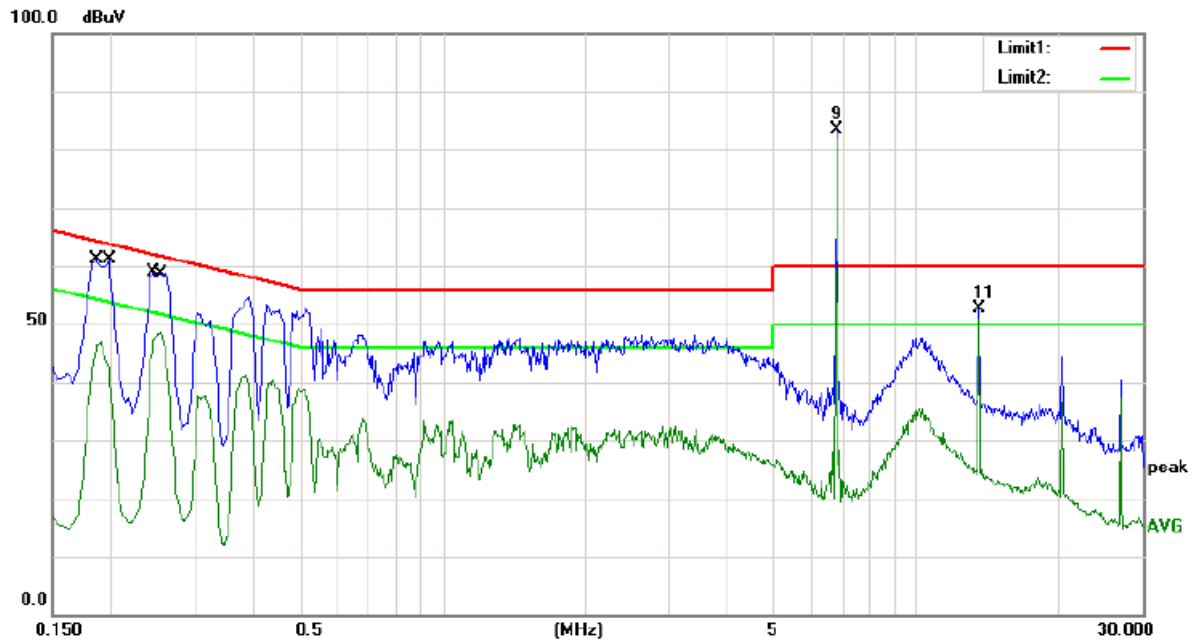


Site site #1
Limit: (CE)FCC PART 18 (consumer devices)_QP
EUT: Wireless Chraging Transmitter
M/N: CFS011
Mode: Mode 2
Note:

Phase: **N**
Power: AC 120V/60Hz

Temperature: 23
Humidity: 54 %

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		0.1900	46.10	11.00	57.10	64.04	-6.94	QP	
2		0.1900	31.50	11.00	42.50	54.04	-11.54	AVG	
3		0.2620	42.40	11.00	53.40	61.37	-7.97	QP	
4		0.2620	28.10	11.00	39.10	51.37	-12.27	AVG	
5		0.3100	37.90	11.00	48.90	59.97	-11.07	QP	
6		0.3100	25.80	11.00	36.80	49.97	-13.17	AVG	
7		0.3860	38.20	11.00	49.20	58.15	-8.95	QP	
8		0.3860	28.10	11.00	39.10	48.15	-9.05	AVG	
9	X	6.7800	72.72	11.00	83.72	60.00	23.72	peak	
10	*	6.7800	71.52	11.00	82.52	50.00	32.52	AVG	
11		13.5600	42.25	11.00	53.25	60.00	-6.75	peak	
12	X	13.5600	40.05	11.00	51.05	50.00	1.05	AVG	

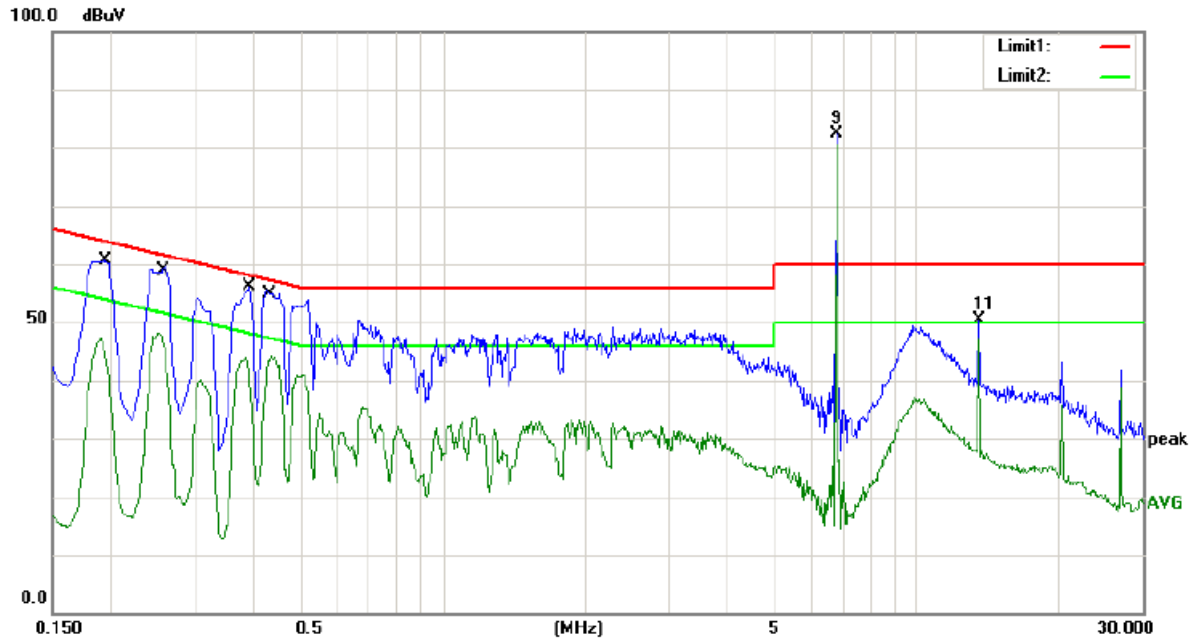


Site site #1
Limit: (CE)FCC PART 18 (consumer devices)_QP
EUT: Wireless Chraging Transmitter
M/N: CFS011
Mode: Mode 2
Note:

Phase: **N**
Power: AC 240V/50Hz

Temperature: 23
Humidity: 54 %

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		0.1860	48.00	11.00	59.00	64.21	-5.21	QP	
2		0.1860	35.70	11.00	46.70	54.21	-7.51	AVG	
3		0.1980	44.90	11.00	55.90	63.69	-7.79	QP	
4		0.1980	28.70	11.00	39.70	53.69	-13.99	AVG	
5		0.2460	47.20	11.00	58.20	61.89	-3.69	QP	
6		0.2460	37.00	11.00	48.00	51.89	-3.89	AVG	
7		0.2521	47.10	11.00	58.10	61.69	-3.59	QP	
8		0.2521	37.50	11.00	48.50	51.69	-3.19	AVG	
9	X	6.7800	72.33	11.00	83.33	60.00	23.33	peak	
10	*	6.7800	70.88	11.00	81.88	50.00	31.88	AVG	
11		13.5600	41.56	11.00	52.56	60.00	-7.44	peak	
12	X	13.5600	39.77	11.00	50.77	50.00	0.77	AVG	



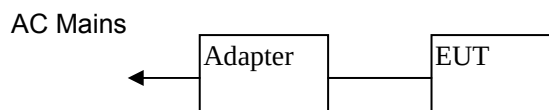
Site site #1 Phase: **L1** Temperature: 23
Limit: (CE)FCC PART 18 (consumer devices)_QP Power: AC 240V/50Hz Humidity: 54 %
EUT: Wireless Chraging Transmitter
M/N: CFS011
Mode: Mode 2
Note:

No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	0.1904	47.70	11.00	58.70	64.02	-5.32	QP	
2	0.1904	36.20	11.00	47.20	54.02	-6.82	AVG	
3	0.2521	47.60	11.00	58.60	61.69	-3.09	QP	
4	0.2521	37.50	11.00	48.50	51.69	-3.19	AVG	
5	0.3900	44.00	11.00	55.00	58.06	-3.06	QP	
6	0.3900	30.20	11.00	41.20	48.06	-6.86	AVG	
7	0.4351	42.40	11.00	53.40	57.15	-3.75	QP	
8	0.4351	31.60	11.00	42.60	47.15	-4.55	AVG	
9 X	6.7800	71.28	11.00	82.28	60.00	22.28	peak	
10 *	6.7800	69.56	11.00	80.56	50.00	30.56	AVG	
11	13.5600	39.33	11.00	50.33	60.00	-9.67	peak	
12	13.5600	36.15	11.00	47.15	50.00	-2.85	AVG	

5. RADIATED EMISSION MEASUREMENT

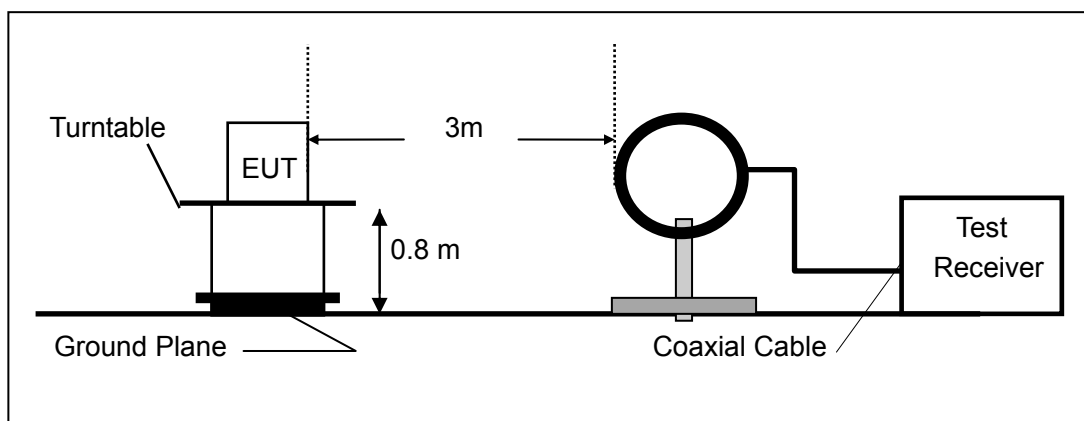
5.1. Block Diagram of Test

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

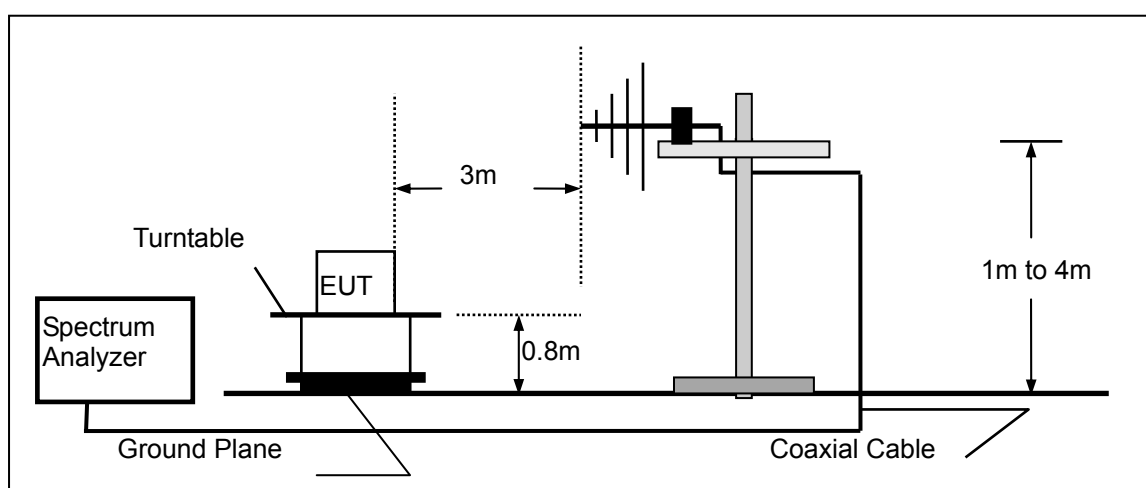


5.1.2. Block diagram of test setup (In chamber)

(a) Radiated Emission Test Set-Up, Frequency Below 30MHz



(b) Radiated Emission Test Set-Up, Frequency Below 1000MHz



5.2. Measuring Standard

FCC Part18.305(b)

5.3. Radiated Emission Limits

- (a) ISM equipment operating on a frequency specified in §18.301 is permitted unlimited radiated energy in the band specified for that frequency.

ISM frequency	Tolerance
6.78 MHz	± 15 kHz

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

Frequency (MHz)	Field Strength (μV/m @300m)	Field Strength (dBμV/m @300m)	Field Strength (μV/m @3m)	Field Strength (dBμV/m @3m)
0.009 - 1000	25	27.96	2500	68.0

Note: According to the article 18.305(b), the operating frequency is ISM frequency, RF power generated by equipment is below 500 (watts).

5.4. Test Procedure

Below 30MHz:

The EUT is placed on a turntable 0.8 meters above the ground in the chamber, 3 meter away from the antenna (loop antenna). The Antenna should be positioned with its plane vertical at the specified distance from the EUT and rotated about its vertical axis for maximum response at each azimuth about the EUT. The center of the loop shall be 1 m above the ground. For certain applications, the loop antenna plane may also need to be positioned horizontally at the specified distance from the EUT.

All Spurious Emission tests were performed in X, Y, Z axis direction. And only the worst axis test condition was recorded in this test report.

Above 30MHz:

The EUT is placed on a turn table which is 0.8 meter high above the 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 an antenna tower. The antenna can be moved up and down from 1 to 4 meters to find out the maximum emission level. Bilog antenna (calibrated by Dipole Antenna) and horn antenna are used as a receiving antenna. Both horizontal and vertical polarization of the antenna are set on test.

The bandwidth of the Receiver is set at 120kHz in frequency range from 30MHz to 1000 MHz. The frequency range from 30MHz to 1000MHz is investigated.

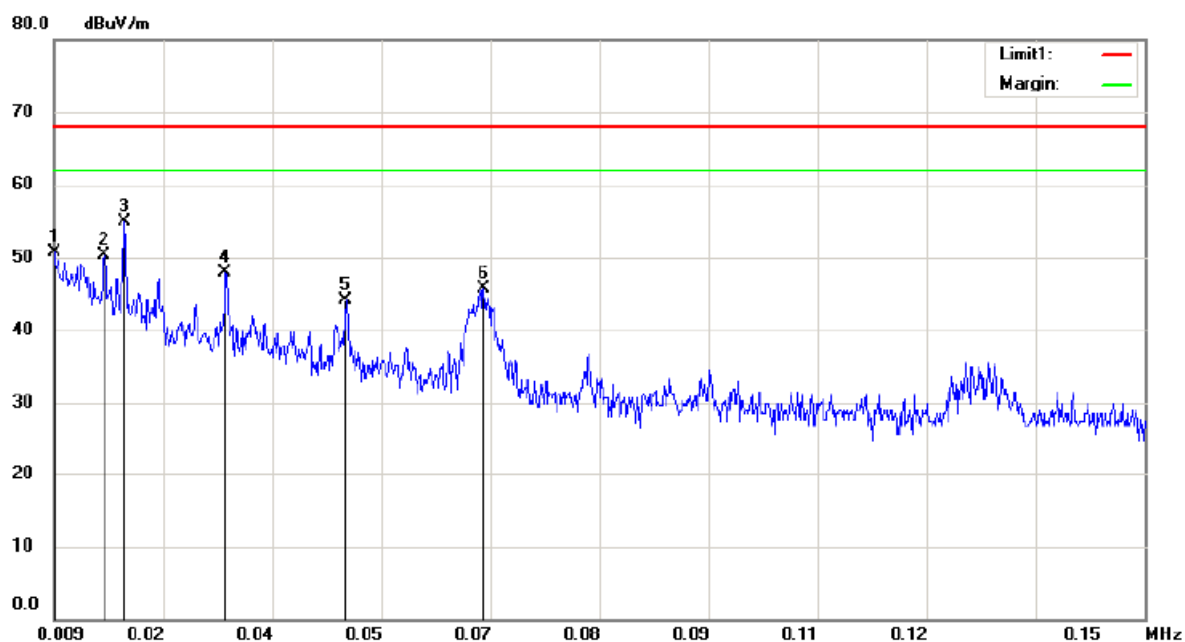
5.5. Measuring Results

PASS.

Please refer to the following pages.

Test Data:

9KMHz-30MHz
Mode 1



Site site #1

Polarization: **Vertical**

Temperature: 22 C

Limit: (RE)FCC PART 18_ISM

Power: AC 120V/60Hz

Humidity: 50 %

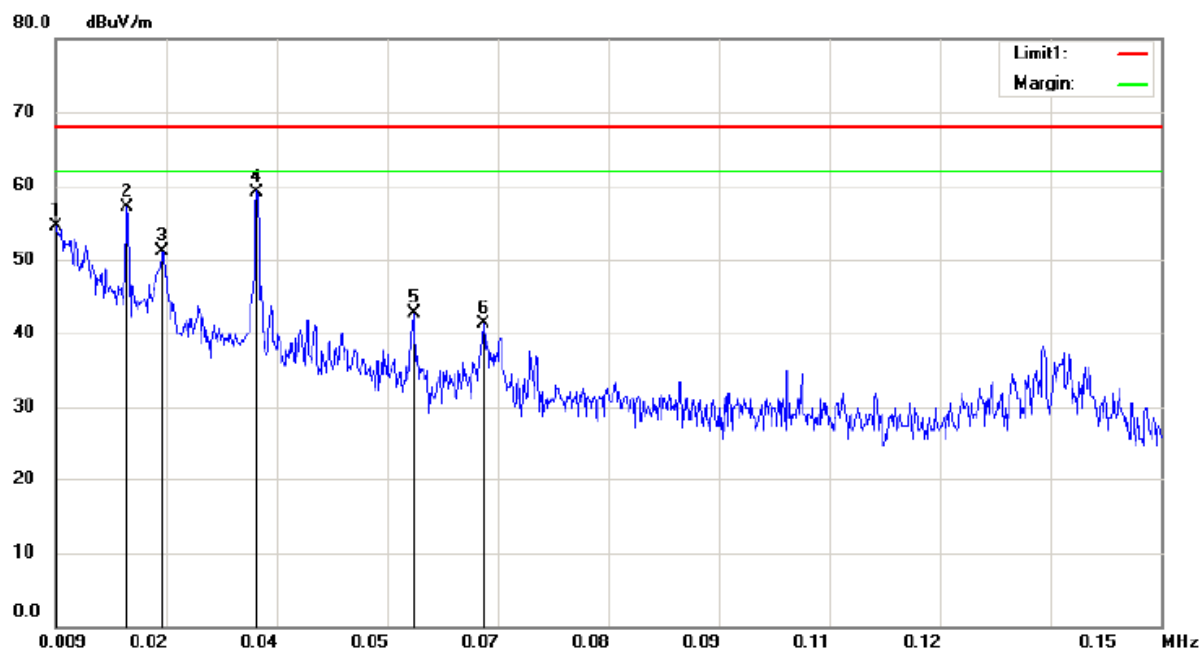
EUT: Wireless Charger Transmitter

M/N: CFS011

Mode: Mode 1

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		0.0090	30.04	20.65	50.69	68.00	-17.31	QP		
2		0.0154	29.63	20.60	50.23	68.00	-17.77	QP		
3	*	0.0182	34.36	20.57	54.93	68.00	-13.07	QP		
4		0.0310	27.25	20.74	47.99	68.00	-20.01	QP		
5		0.0466	23.07	21.00	44.07	68.00	-23.93	QP		
6		0.0645	25.01	20.61	45.62	68.00	-22.38	QP		



Site site #1

Polarization: **Horizontal**

Temperature: 22 C

Limit: (RE)FCC PART 18_ISM

Power: AC 120V/60Hz

Humidity: 50 %

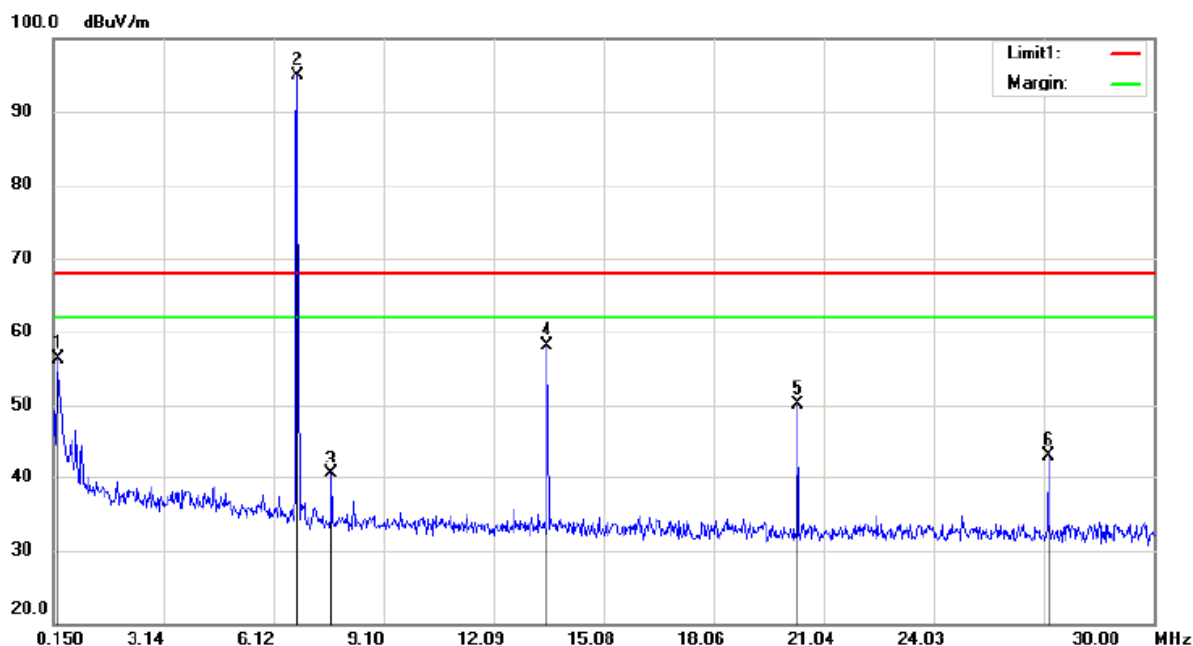
EUT: Wireless Charger Transmitter

M/N: CFS011

Mode:Mode 1

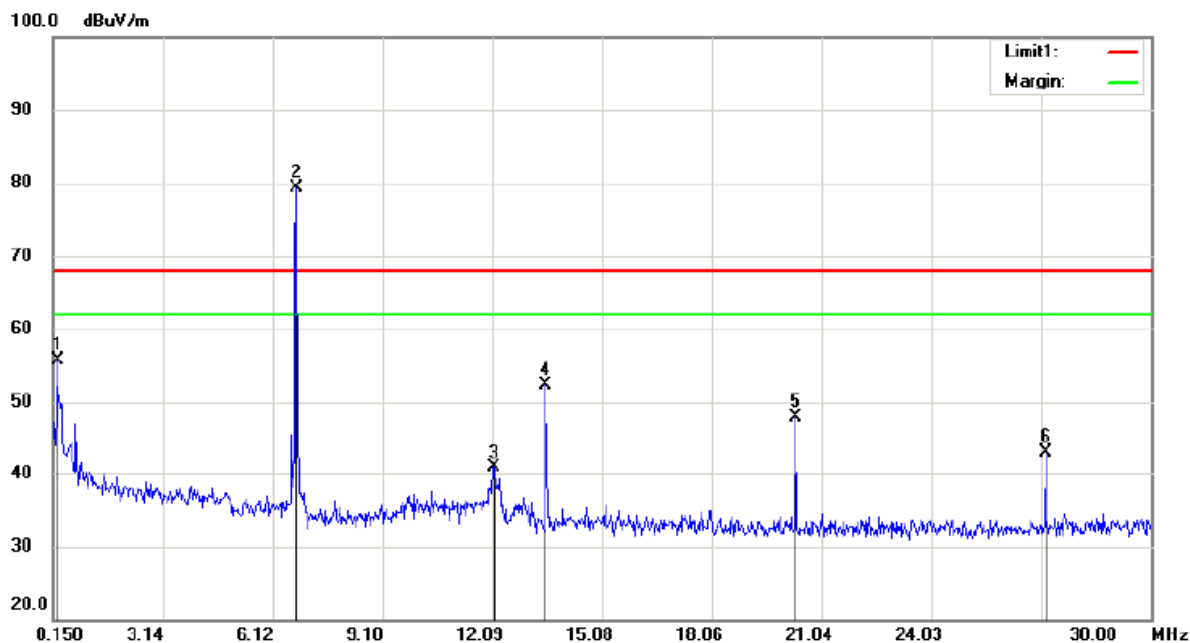
Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		0.0090	33.85	20.65	54.50	68.00	-13.50	QP		
2		0.0182	36.50	20.57	57.07	68.00	-10.93	QP		
3		0.0226	30.56	20.59	51.15	68.00	-16.85	QP		
4	*	0.0346	38.40	20.80	59.20	68.00	-8.80	QP		
5		0.0547	21.86	20.91	42.77	68.00	-25.23	QP		
6		0.0635	20.70	20.64	41.34	68.00	-26.66	QP		



Site site #1 Polarization: **Vertical** Temperature: 22 C
 Limit: (RE)FCC PART 18_ISM Power: AC 120V/60Hz Humidity: 50 %
 EUT: Wireless Charger Transmitter
 M/N: CFS011
 Mode: Mode 1
 Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		0.2694	35.27	20.98	56.25	68.00	-11.75	QP		
2	*	6.7800	74.48	20.40	94.88	68.00	26.88	peak		
3		7.7020	20.11	20.37	40.48	68.00	-27.52	QP		
4		13.5600	38.08	20.05	58.13	68.00	-9.87	QP		
5		20.3000	30.47	19.57	50.04	68.00	-17.96	QP		
6		27.1200	23.84	19.30	43.14	68.00	-24.86	QP		



Site site #1

Polarization: **Horizontal**

Temperature: 22 C

Limit: (RE)FCC PART 18_ISM

Power: AC 120V/60Hz

Humidity: 50 %

EUT: Wireless Charger Transmitter

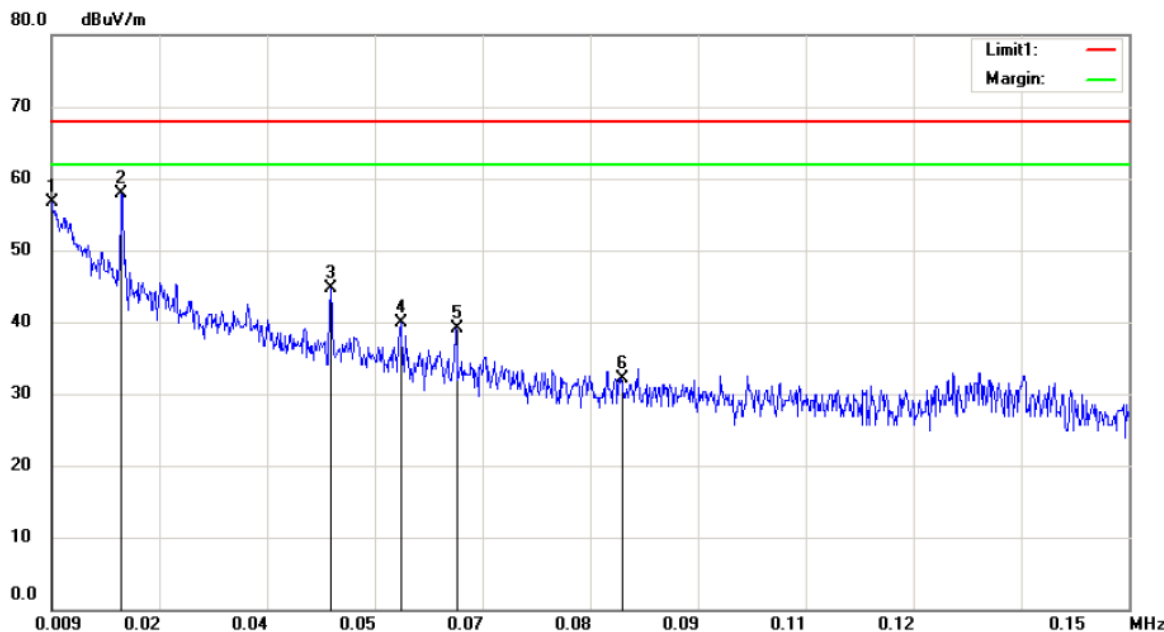
M/N: CFS011

Mode: Mode 1

Note:

No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Antenna	Table	
		MHz	Level	Factor	ment			Height	Degree	
			dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		0.2694	34.65	20.98	55.63	68.00	-12.37	QP		
2	*	6.7800	58.86	20.40	79.26	68.00	11.26	peak		
3		12.1497	20.75	20.15	40.90	68.00	-27.10	QP		
4		13.5600	32.28	20.05	52.33	68.00	-15.67	QP		
5		20.3400	28.39	19.57	47.96	68.00	-20.04	QP		
6		27.1200	23.84	19.30	43.14	68.00	-24.86	QP		

MODE 2



Site site #1

Polarization: **Vertical**

Temperature: 22 C

Limit: FCC PART 18_ISM

Power: AC 120V/60Hz

Humidity: 50 %

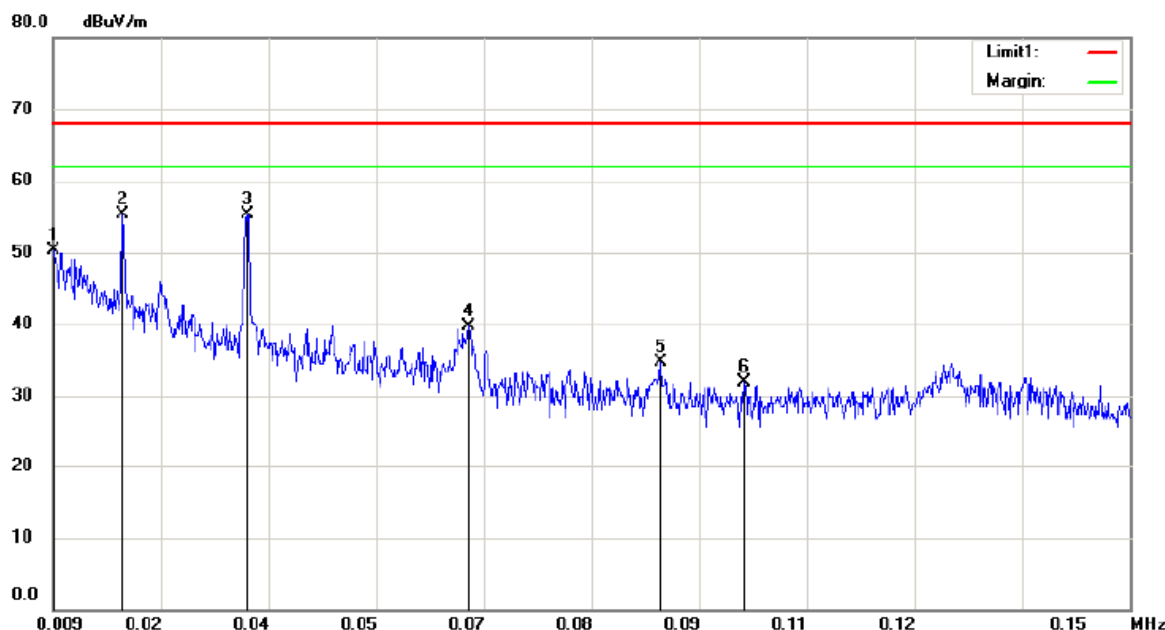
EUT: Wireless Chraging Transmitter

M/N: CFS011

Mode: Mode 2

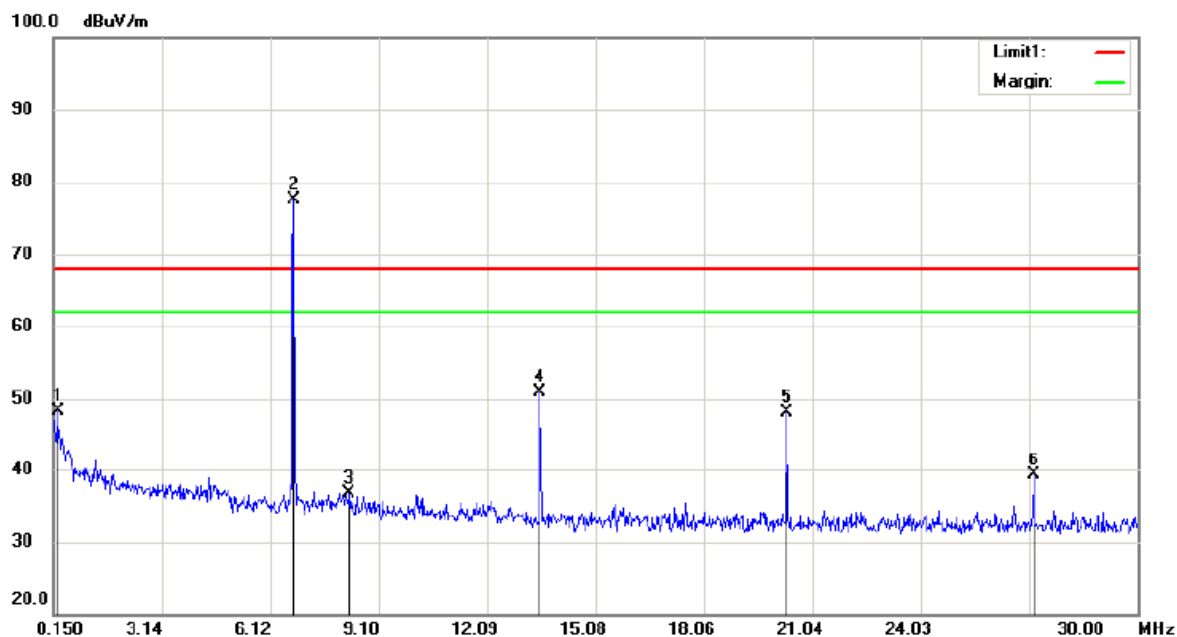
Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Antenna Height cm	Table Degree degree	Comment
1		0.0090	36.15	20.65	56.80	68.00	-11.20	QP		
2	*	0.0182	37.29	20.57	57.86	68.00	-10.14	QP		
3		0.0454	23.67	20.98	44.65	68.00	-23.35	QP		
4		0.0547	18.92	20.91	39.83	68.00	-28.17	QP		
5		0.0620	18.42	20.69	39.11	68.00	-28.89	QP		
6		0.0836	11.74	20.44	32.18	68.00	-35.82	QP		



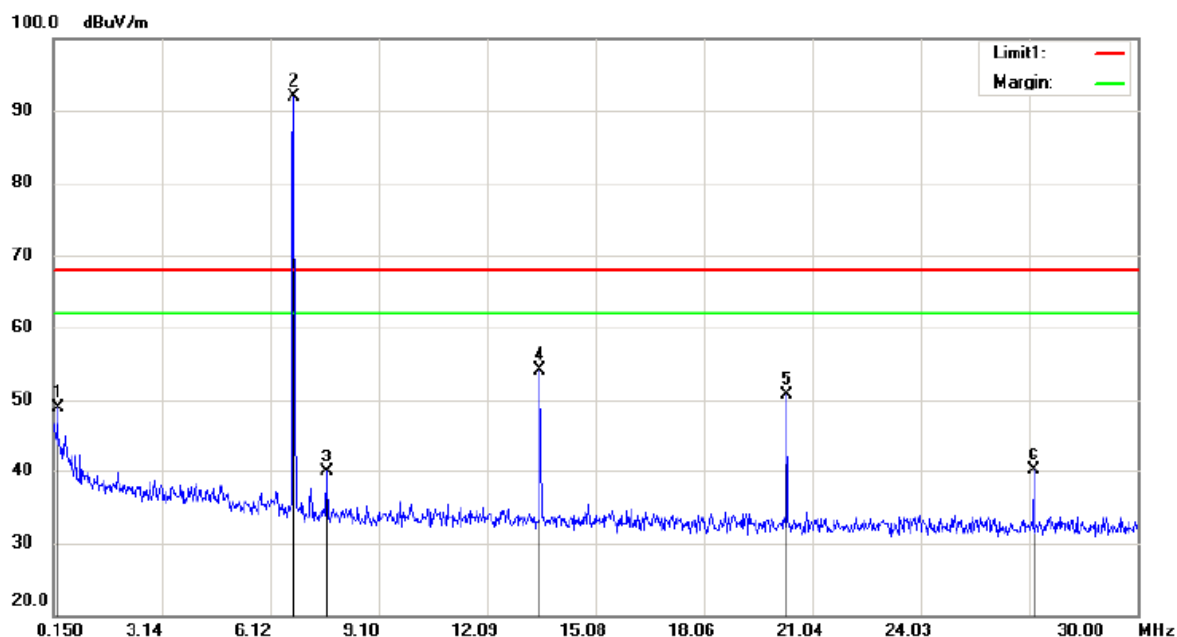
Site site #1 Polarization: **Horizontal** Temperature: 22 C
 Limit: FCC PART 18_ISM Power: AC 120V/60Hz Humidity: 50 %
 EUT: Wireless Chraging Transmitter
 M/N: CFS011
 Mode:Mode 2
 Note:

No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Antenna	Table	
		MHz	Level	Factor	ment			Height	Degree	
			dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		0.0090	29.63	20.65	50.28	68.00	-17.72	QP		
2	*	0.0182	34.83	20.57	55.40	68.00	-12.60	QP		
3		0.0345	34.56	20.80	55.36	68.00	-12.64	QP		
4		0.0634	19.09	20.64	39.73	68.00	-28.27	QP		
5		0.0885	14.22	20.54	34.76	68.00	-33.24	QP		
6		0.0995	11.18	20.77	31.95	68.00	-36.05	QP		



Site site #1 Polarization: **Horizontal** Temperature: 22 C
 Limit: FCC PART 18_ISM Power: AC 120V/60Hz Humidity: 50 %
 EUT: Wireless Chrging Transmitter
 M/N: CFS011
 Mode: Mode 2
 Note:

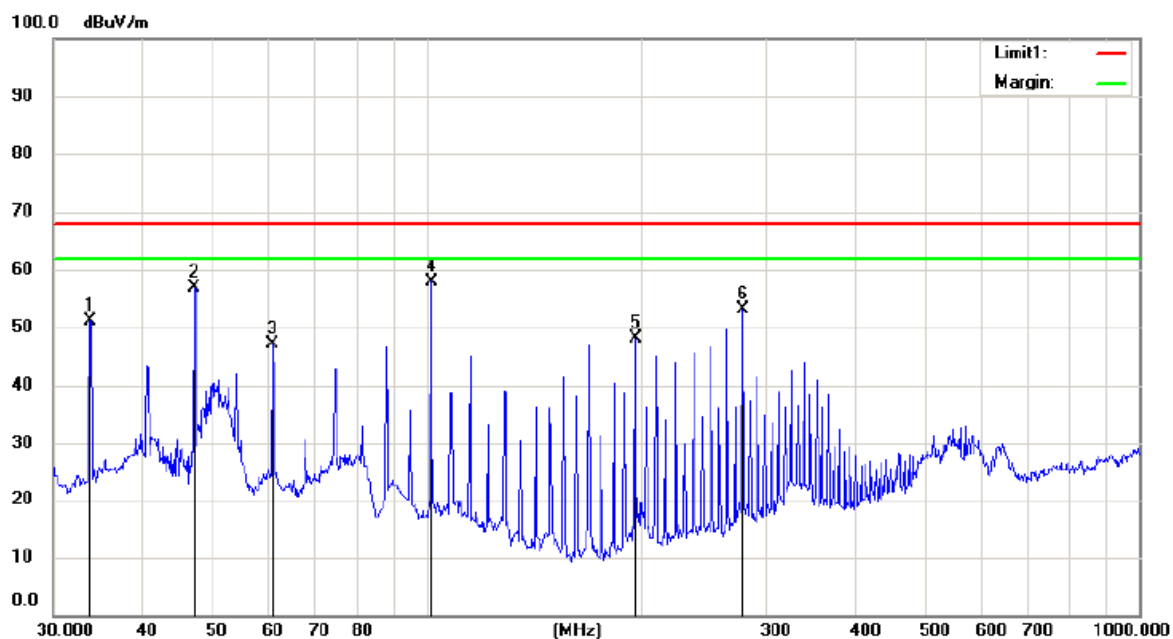
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		0.2694	27.41	20.98	48.39	68.00	-19.61			QP
2	*	6.7800	57.17	20.40	77.57	68.00	9.57			peak
3		8.2990	16.35	20.36	36.71	68.00	-31.29			QP
4		13.5600	30.83	20.05	50.88	68.00	-17.12			QP
5		20.3400	28.55	19.57	48.12	68.00	-19.88			QP
6		27.1200	20.01	19.30	39.31	68.00	-28.69			QP



Site site #1 Polarization: **Vertical** Temperature: 22 C
 Limit: FCC PART 18_ISM Power: AC 120V/60Hz Humidity: 50 %
 EUT: Wireless Chraging Transmitter
 M/N: CFS011
 Mode: Mode 2
 Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		0.2693	27.89	20.98	48.87	68.00	-19.13			QP
2	*	6.7800	71.47	20.40	91.87	68.00	23.87			peak
3		7.6722	19.62	20.37	39.99	68.00	-28.01			QP
4		13.5600	34.01	20.05	54.06	68.00	-13.94			QP
5		20.3400	31.12	19.57	50.69	68.00	-17.31			QP
6		27.1200	20.80	19.30	40.10	68.00	-27.90			QP

30MHz-1GHz MODE 1



Site site #1

Polarization: **Vertical**

Temperature: 20 C

Limit: FCC PART 18_ISM

Power: AC 120V/60Hz

Humidity: 52 %

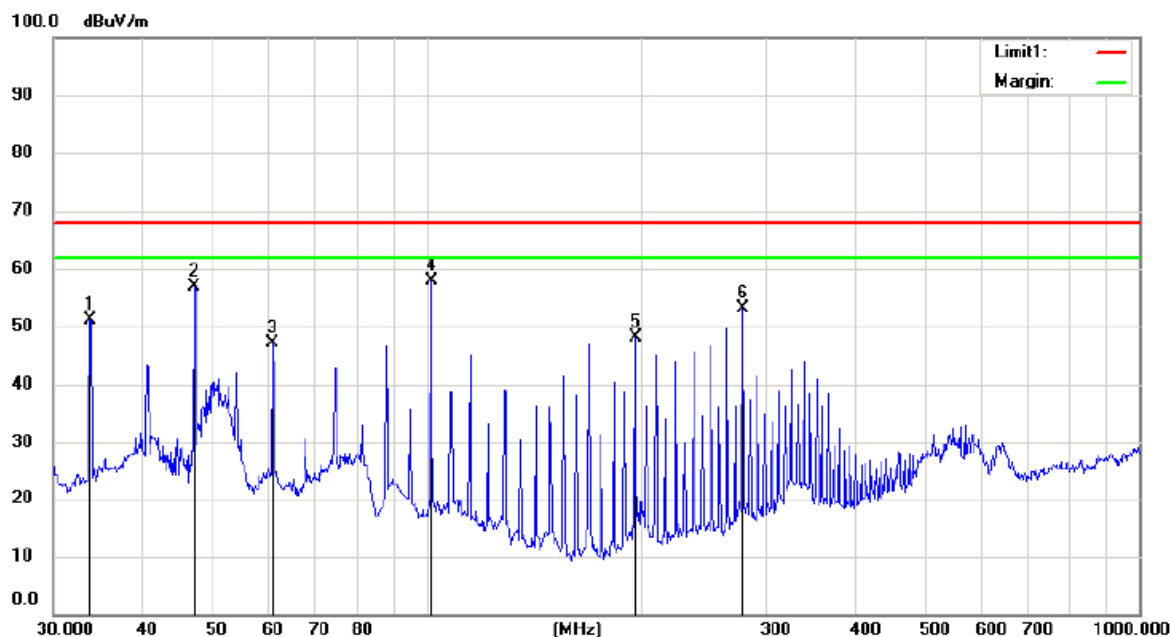
EUT: Wireless Charger Transmitter

M/N: CFS011

Mode: Mode 1

Note:

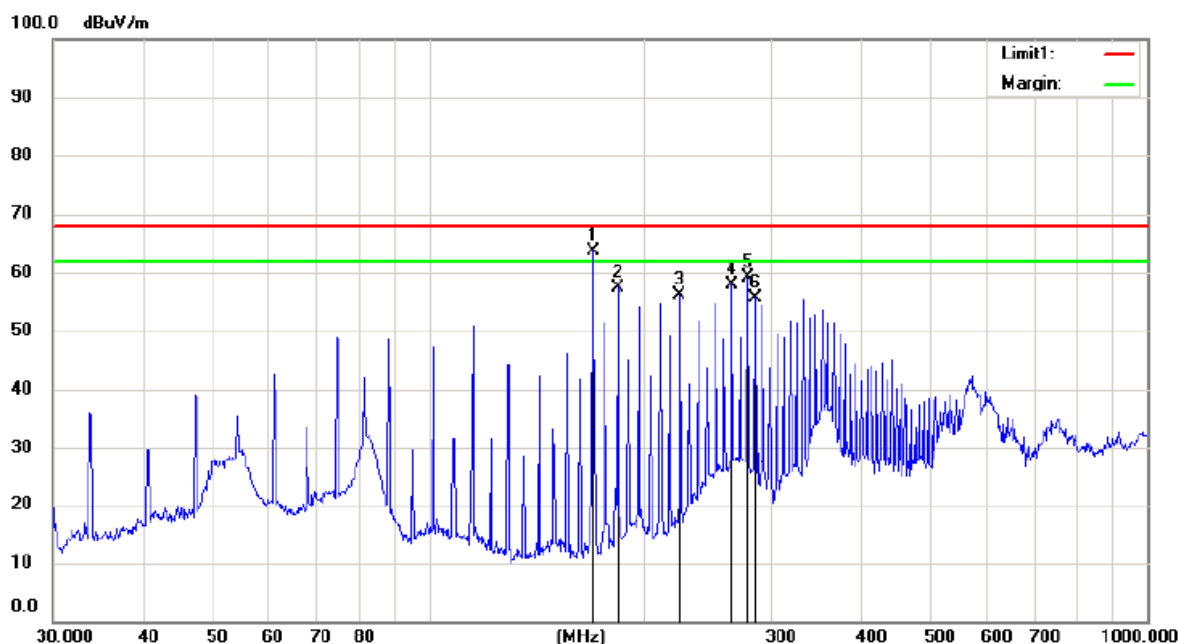
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Antenna Height cm	Table Degree degree	Comment
1		33.7986	73.53	-22.43	51.10	67.96	-16.86	QP		
2		47.3255	76.54	-19.74	56.80	67.96	-11.16	QP		
3		60.9176	69.20	-22.00	47.20	67.96	-20.76	QP		
4	*	101.6443	78.91	-21.01	57.90	67.96	-10.06	QP		
5		196.5098	70.05	-21.95	48.10	67.96	-19.86	QP		
6		278.0668	72.48	-19.38	53.10	67.96	-14.86	QP		



Site site #1 Polarization: **Vertical** Temperature: 20 C
 Limit: FCC PART 18_ISM Power: AC 120V/60Hz Humidity: 52 %
 EUT: Wireless Charger Transmitter
 M/N: CFS011
 Mode: Mode 1
 Note:

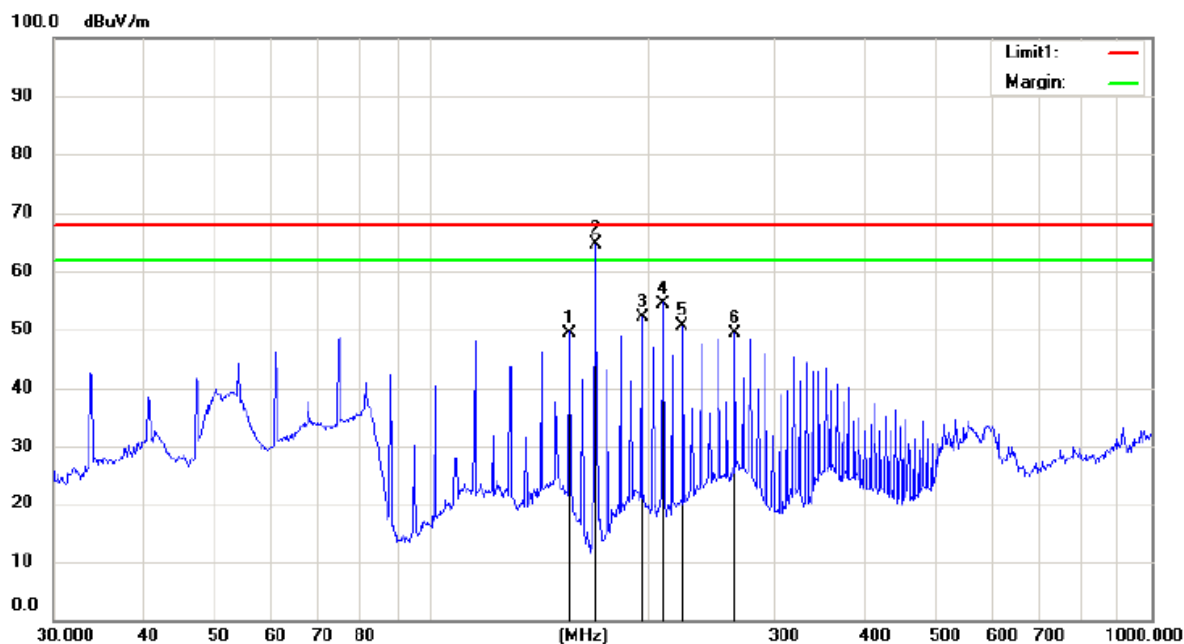
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Antenna Height cm	Table Degree degree	Comment
1		33.7986	73.53	-22.43	51.10	67.96	-16.86	QP		
2		47.3255	76.54	-19.74	56.80	67.96	-11.16	QP		
3		60.9176	69.20	-22.00	47.20	67.96	-20.76	QP		
4	*	101.6443	78.91	-21.01	57.90	67.96	-10.06	QP		
5		196.5098	70.05	-21.95	48.10	67.96	-19.86	QP		
6		278.0668	72.48	-19.38	53.10	67.96	-14.86	QP		

MODE 2



Site site #1 Polarization: **Horizontal** Temperature: 25 C
 Limit: FCC PART 18_ISM Power: AC 120V/60Hz Humidity: 52 %
 EUT: Wireless Chraging Transmitter
 M/N: CFS011
 Mode: Mode 2
 Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	169.5990	88.95	-25.25	63.70	67.96	-4.26	QP		
2		183.2005	81.53	-24.03	57.50	67.96	-10.46	QP		
3		223.7334	78.10	-22.00	56.10	67.96	-11.86	QP		
4		264.7457	78.33	-20.33	58.00	67.96	-9.96	QP		
5		278.0668	78.48	-19.38	59.10	67.96	-8.86	QP		
6		284.9767	74.90	-19.20	55.70	67.96	-12.26	QP		



Site site #1 Polarization: **Vertical** Temperature: 25 C
 Limit: FCC PART 18_ISM Power: AC 120V/60Hz Humidity: 52 %
 EUT: Wireless Chraging Transmitter
 M/N: CFS011
 Mode:Mode 2
 Note:

No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Antenna	Table	
		MHz	Level	Factor	ment			Height	Degree	
			dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		155.9101	75.06	-25.56	49.50	67.96	-18.46	QP		
2	*	169.5990	89.85	-25.25	64.60	67.96	-3.36	QP		
3		196.5098	74.05	-21.95	52.10	67.96	-15.86	QP		
4		210.0482	77.14	-22.64	54.50	67.96	-13.46	QP		
5		223.7334	72.60	-22.00	50.60	67.96	-17.36	QP		
6		264.7457	69.63	-20.33	49.30	67.96	-18.66	QP		

6. PHOTOGRAPH OF TEST

6.1. Photo of Conducted Emission Measurement

Mode 1



Mode 2

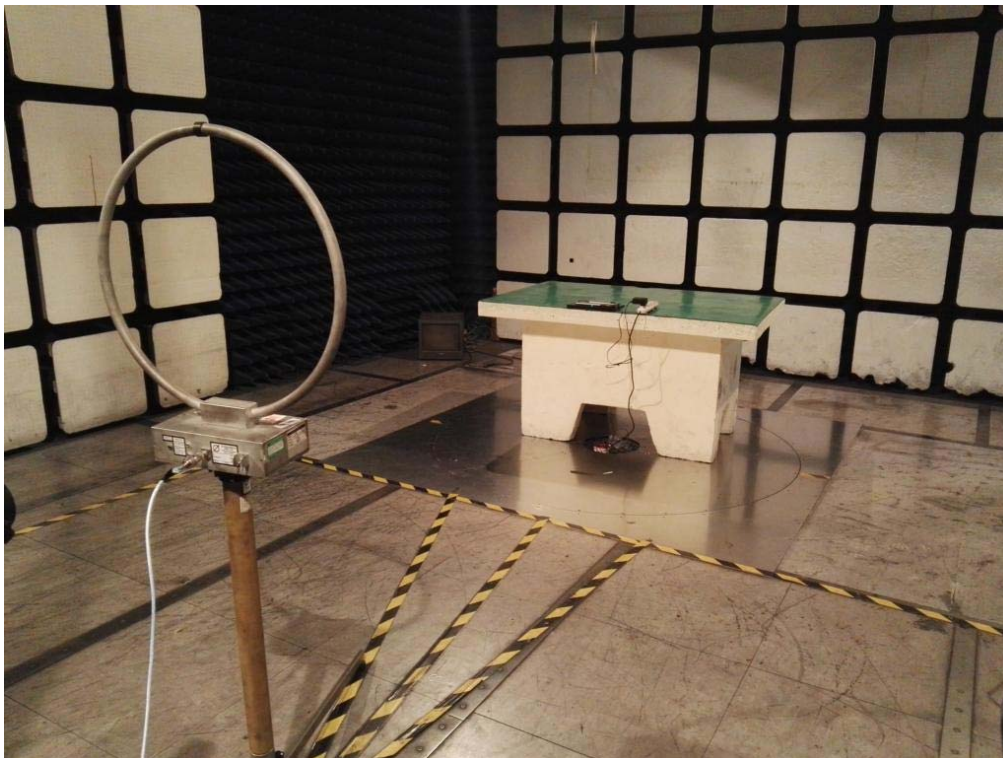
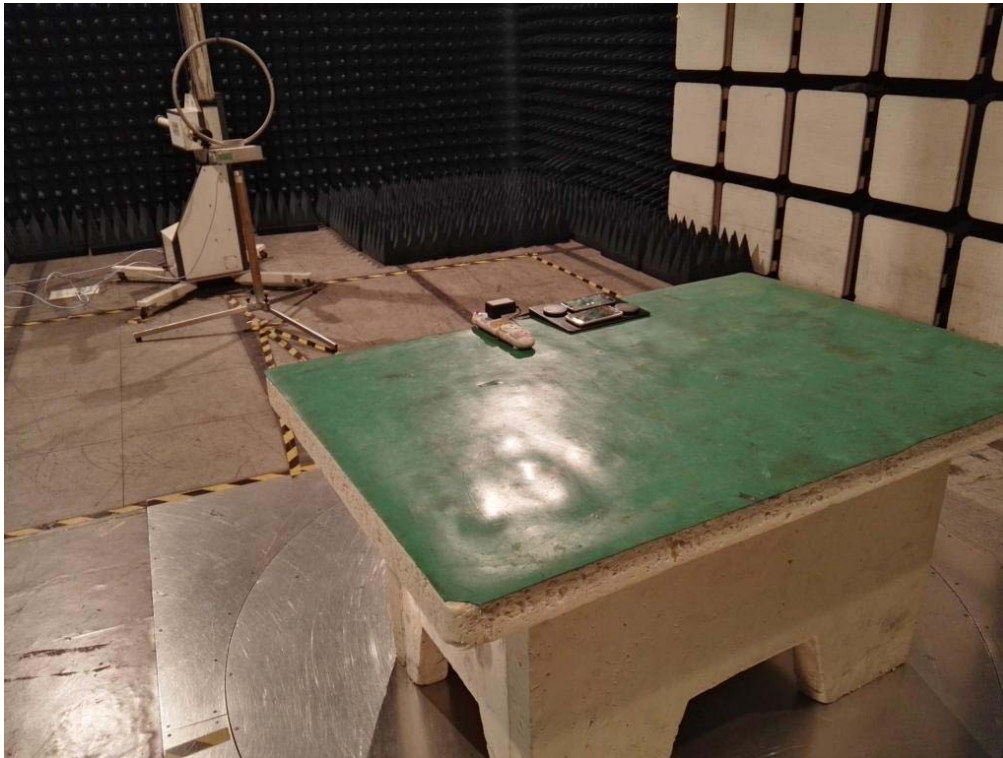


6.2. Photo of Radiation Emission Measurement

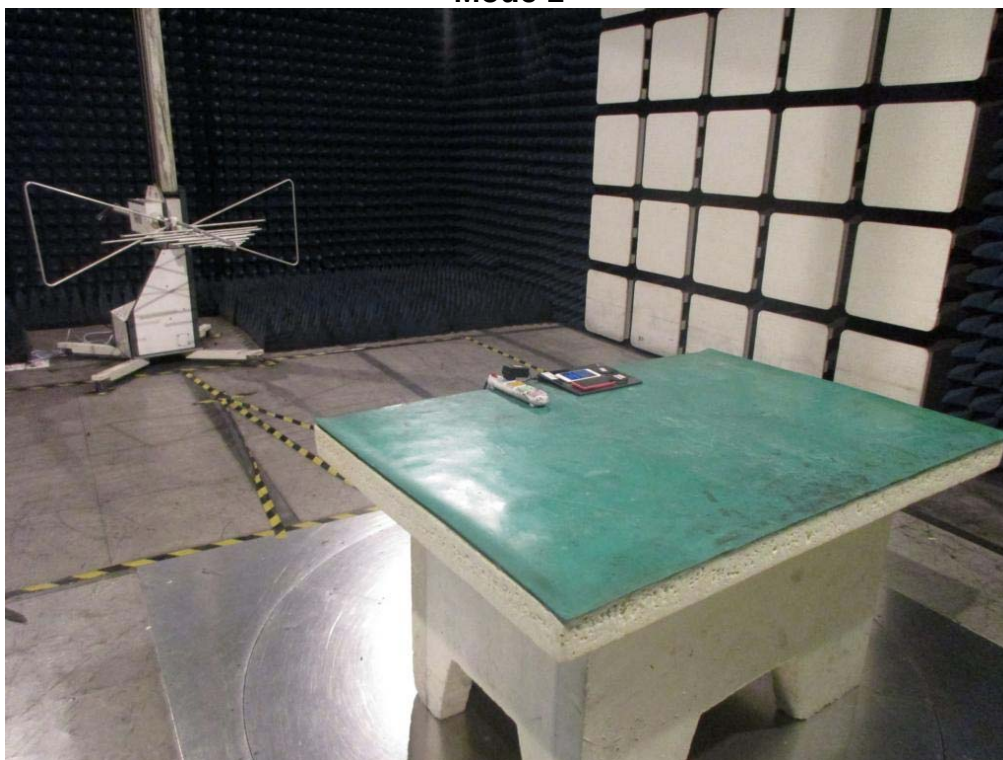
9KHz-30MHz
Mode 1



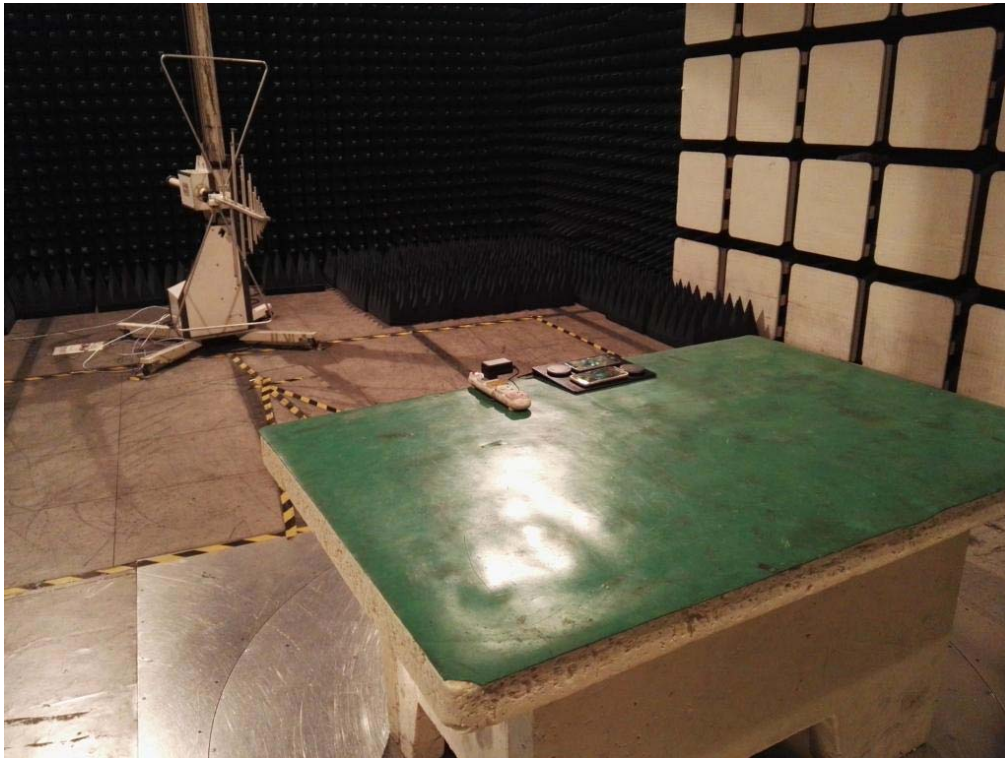
Mode 2



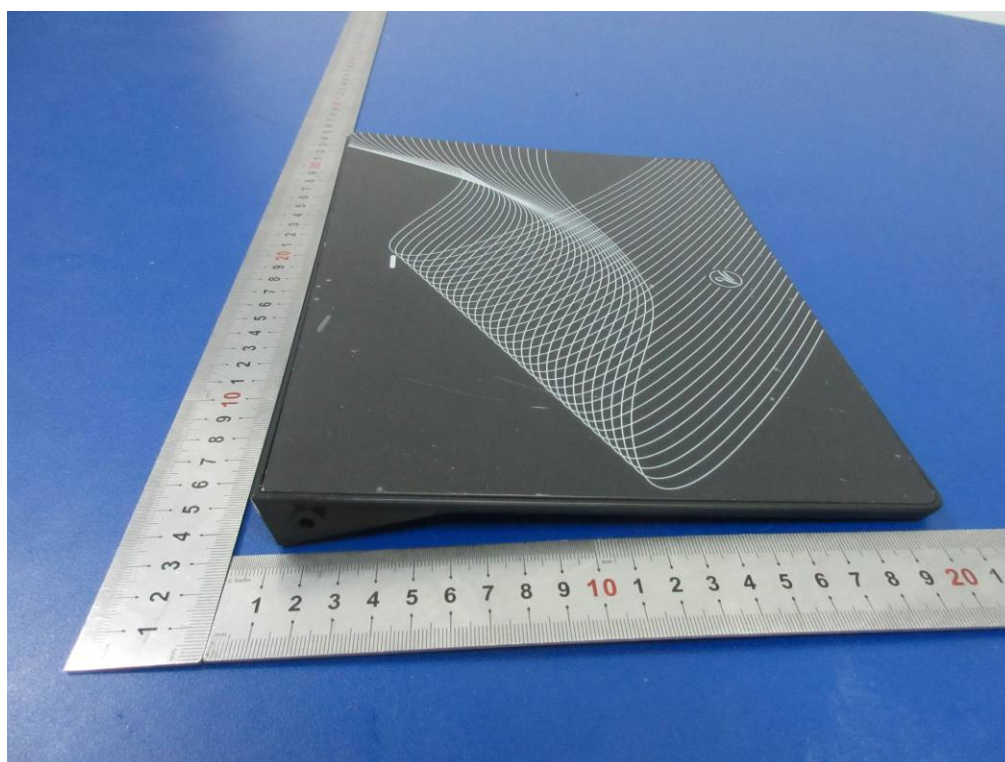
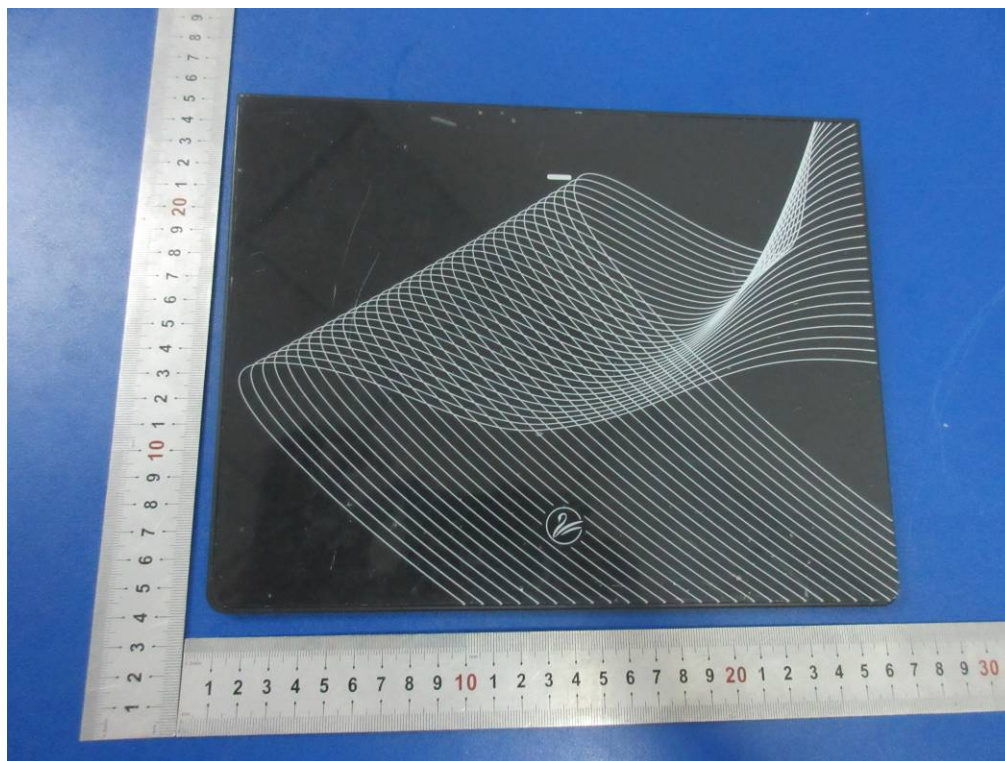
30MHz-1GHz
Mode 1

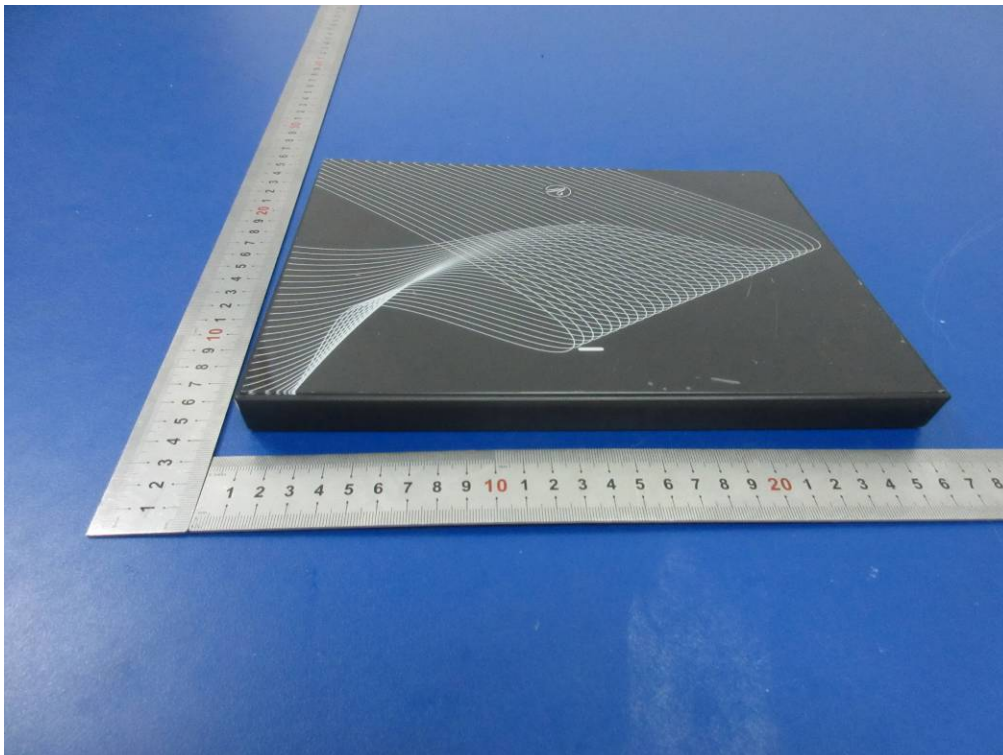
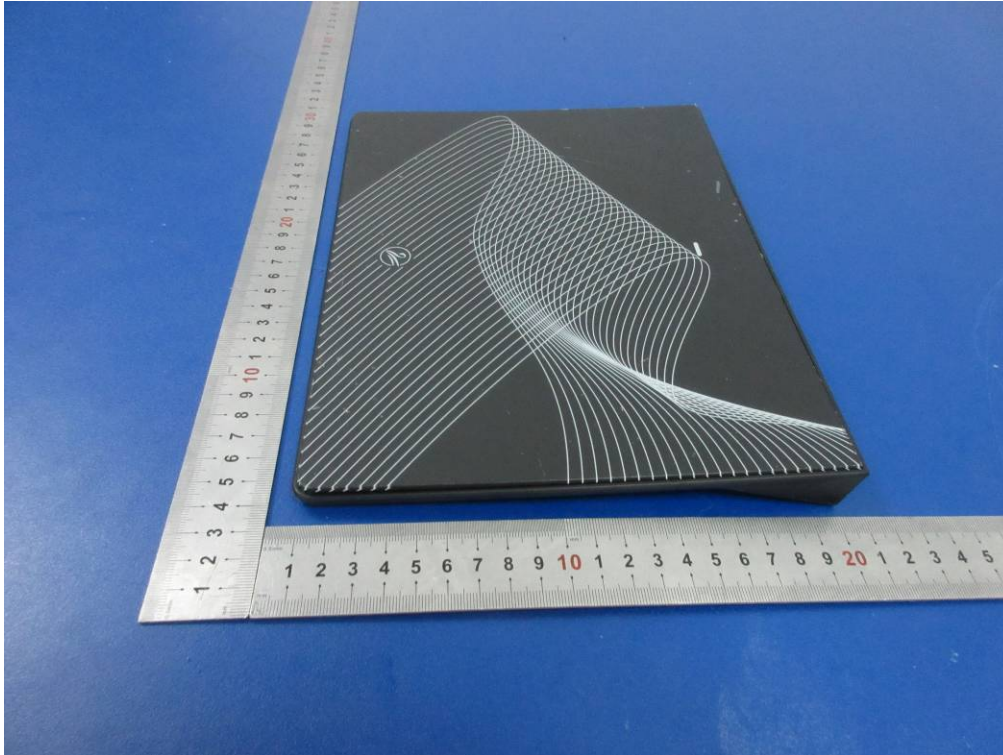


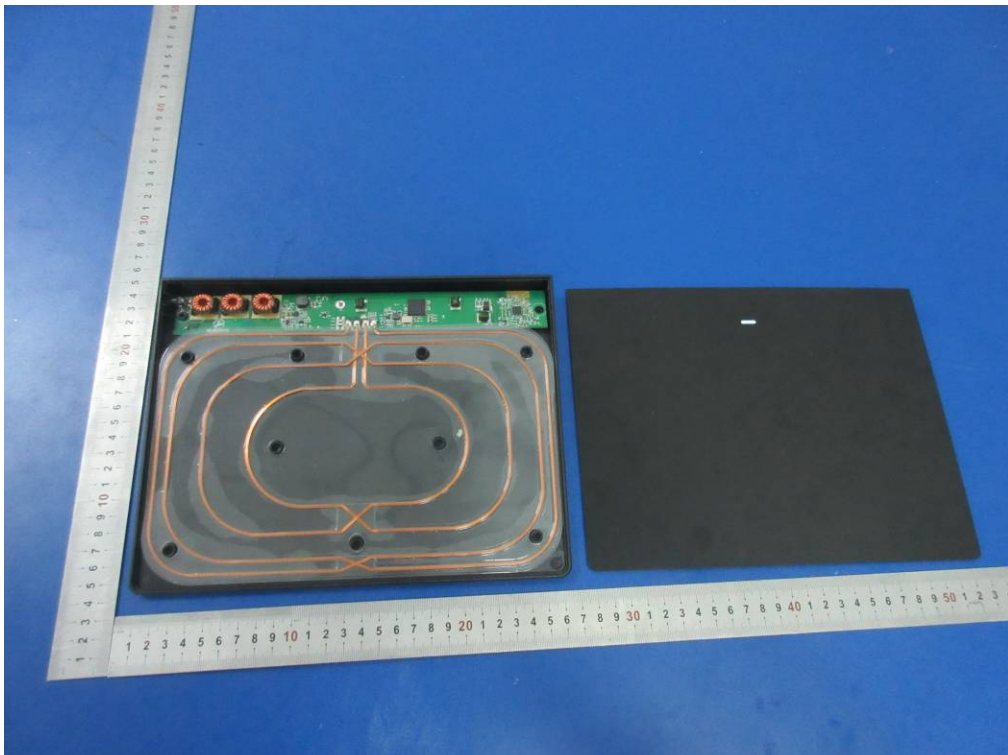
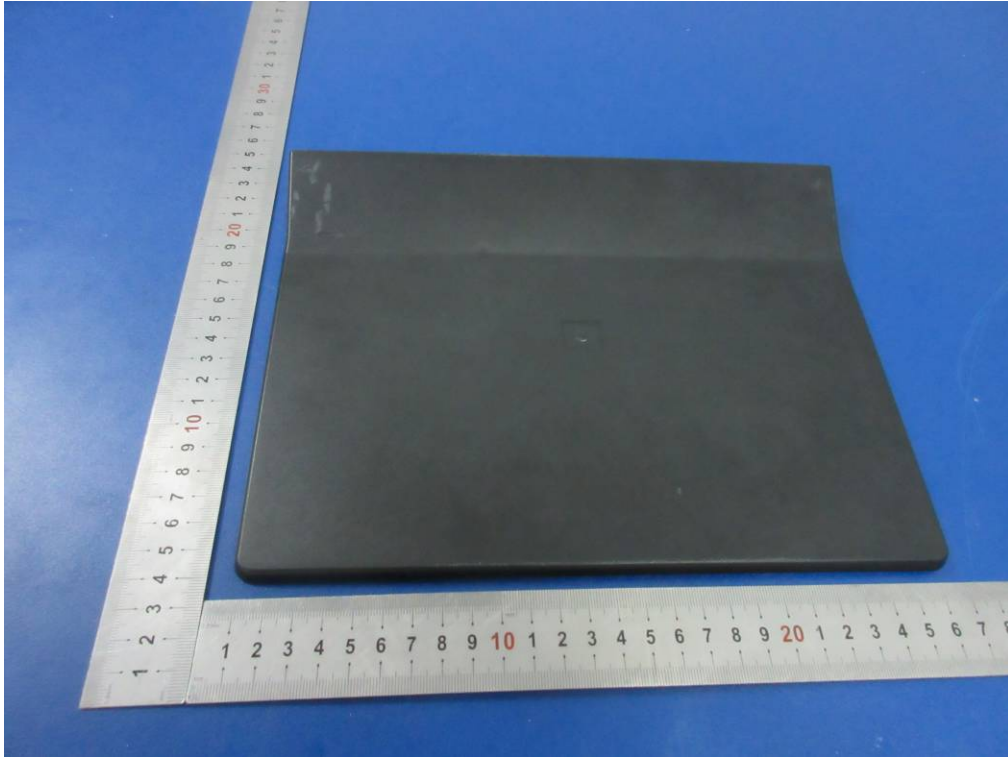
Mode 2

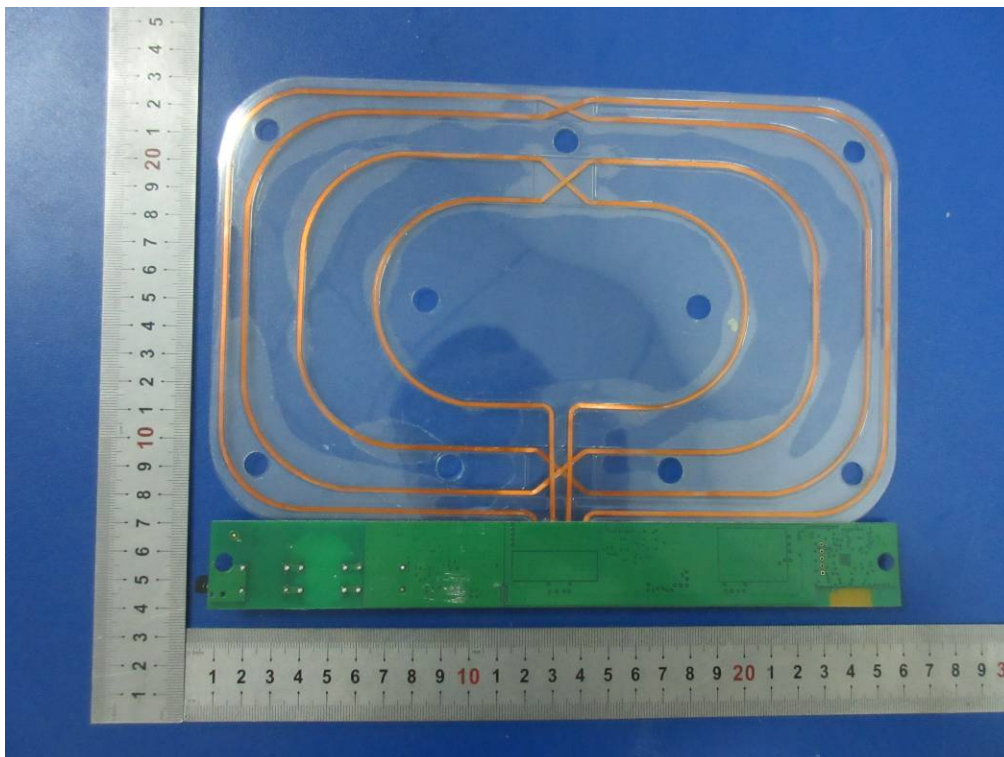
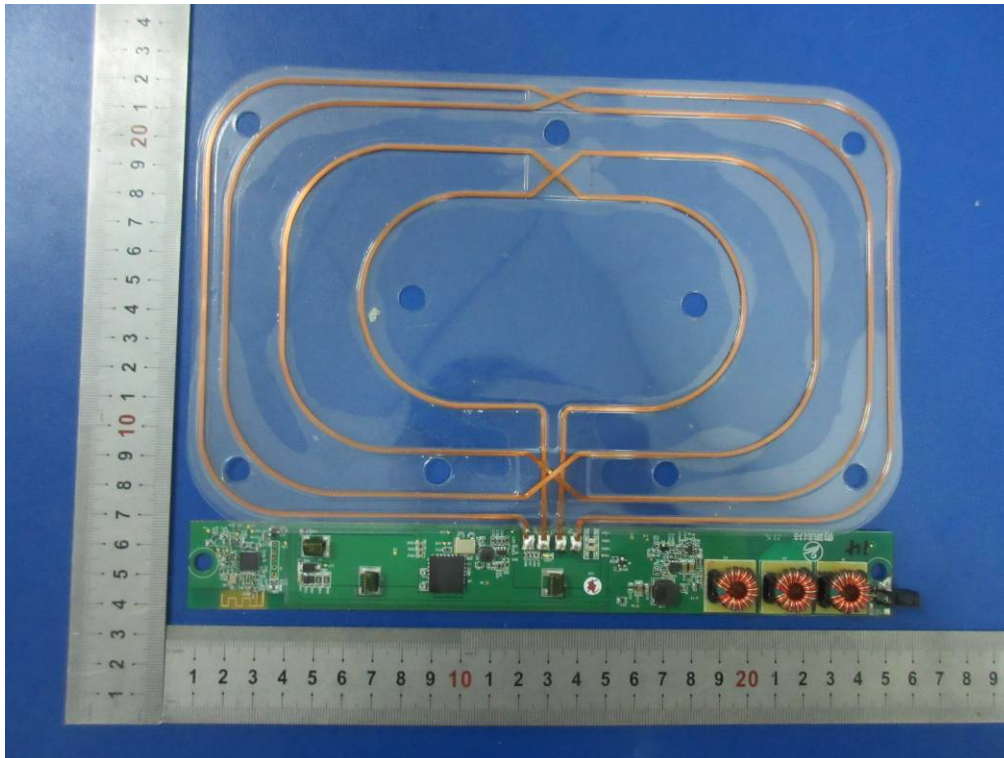


APPENDIX I (Photos of EUT)











---The End---