

# FCC&IC Test Report

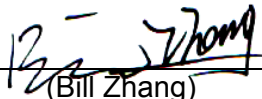
**FCC ID: EMOHWL83**

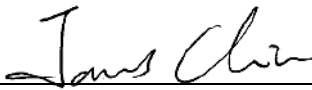
**IC: 986B-HWL83**

This report concerns (check one): ☒Original Grant ☐Class I Change ☐Class II Change

**Project No.** : 1601C013  
**Equipment** : Wireless Charging Clock Speaker with Dual USB Charging  
**Model Name for FCC** : HWL83, HWL83B, HWL83X("X" denote as color of cabinet)  
**Model Name for IC** : HWL83  
**Applicant** : SDI TECHNOLOGIES INC.  
**Address** : 1299 Main Street, Rahway, NJ 07065, U.S.A

**Date of Receipt** : Jan. 04, 2016  
**Date of Test** : Jan. 04, 2016 ~ Feb 01, 2016  
**Issued Date** : Feb 02, 2016  
**Tested by** : BTL Inc.

Testing Engineer :   
(Bill Zhang)

Technical Manager :   
(James Chiu)

Authorized Signatory :   
(Steven Lu)

## **B T L I N C .**

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### **Declaration**

**BTL** represents to the client that testing is done in accordance with standard procedures as applicable and that test instruments used has been calibrated with the standards traceable to National Measurement Laboratory (**NML**) of **R.O.C.**, or National Institute of Standards and Technology (**NIST**) of **U.S.A.**

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### **Limitation**

For the use of the authority's logo is limited unless the Test Standard(s)/Scope(s)/Item(s) mentioned in this test report is (are) included in the conformity assessment authorities acceptance respective.

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**REPORT ISSUED HISTORY**

Issued No.	Description	Issued Date
BTL-FICE-2-1601C013	Original Issue.	Feb 02, 2016

## 1. CERTIFICATION

Equipment : Wireless Charging Clock Speaker with Dual USB Charging  
Brand Name : iHome  
Model Name : HWL83, HWL83B, HWL83X("X" denote as color of cabinet)  
for FCC  
Model Name : HWL83  
for IC  
Applicant : SDI TECHNOLOGIES INC.  
Manufacturer : SDI TECHNOLOGIES INC.  
Address : 1299 Main Street, Rahway, NJ 07065, U.S.A  
Factory : DONGGUAN FINEMOST ELECTRONICS CO., LTD  
Address : 46 Shangxing Road, Shangjiao, Chang An Town, Dongguan City,  
Guangdong, P.R.China  
Date of Test : Jan. 04, 2016 ~ Feb 01, 2016  
Test Sample : Engineering Sample  
Standard(s) : FCC Part 18  
ICES-001 Issue 4: 2006+Update 2014  
ANSI C63.4-2014

The above equipment has been tested and found compliance with the requirement of the relative standards by BTL Inc.

The test data, data evaluation, and equipment configuration contained in our test report (Ref No. BTL-FICE-2-1601C013) were obtained utilizing the test procedures, test instruments, test sites that has been accredited by the Authority of TAF according to the ISO-17025 quality assessment standard and technical standard(s).

## 2. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

EMC Emission				
Standard(s)	Test Item	Limit	Judgment	Remark
FCC Part 18 ICES-001 Issue 4: 2006+Update 2014 ANSI C63.4-2014	Conducted Emission	Class B	PASS	
	Radiated emission between 9kHz and 30MHz	Class B	PASS	
	Radiated emission between 30MHz and 1000MHz	Class B	PASS	
	Radiated emission Above 1 GHz	Class B	N/A	NOTE (2)

**NOTE:**

(1) "N/A" denotes test is not applicable in this Test Report

(2) The EUT's max operating frequency is 110-205 kHz which does not exceed 108 MHz, so the test will not be performed.

## 2.1 TEST FACILITY

The test facilities used to collect the test data in this report at the location of No.3, Jinshagang 1st Road, Shixia, Dalang Town, Dongguan, Guangdong, China.

## 2.2 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2, The BTL measurement uncertainty is less than the CISPR 16-4-2  $U_{\text{CISPR}}$  requirement.

The reported uncertainty of measurement  $y \pm U$ , where expanded uncertainty  $U$  is based on a standard uncertainty multiplied by a coverage factor of  $k=2$ , providing a level of confidence of approximately **95%**.

### A. Conducted Measurement :

Test Site	Method	Measurement Frequency Range	U,(dB)
DG-C02	CISPR	150 kHz ~ 30MHz	2.32

### B. Radiated Measurement :

Test Site	Method	Measurement Frequency Range	Ant.	U,(dB)
CB03 (1m)	CISPR	9kHz ~ 150kHz	4.00	3.79
		150kHz ~ 30MHz	4.00	3.57

Test Site	Method	Measurement Frequency Range	Ant.	U,(dB)
CB03 (3m)	CISPR	30MHz ~ 200MHz	V	3.82
		30MHz ~ 200MHz	H	3.78
		200MHz ~ 1,000MHz	V	4.10
		200MHz ~ 1,000MHz	H	4.06

Note: Unless specifically mentioned, the uncertainty of measurement has not been taken into account to declare the compliance or non-compliance to the specification.

### 3. GENERAL INFORMATION

#### 3.1 GENERAL DESCRIPTION OF EUT

Equipment	Wireless Charging Clock Speaker with Dual USB Charging
Brand Name	iHome
Model Name for FCC	HWL83, HWL83B, HWL83X
Model Name for IC	HWL83
Model Difference	"X" denote as color of cabinet.
Power Source	#1 DC voltage supplied from AC Adapter. Brand/Model: iHome / GQ30-090300-AU #2 Supplied from AA*2 battery. (for clock)
Power Rating	#1 I/P: AC100-240V 50/60Hz 1.0A Max O/P: DC9V 3A #2 I/P: DC 3V(for clock)

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.



### 3.2 DESCRIPTION OF TEST MODES

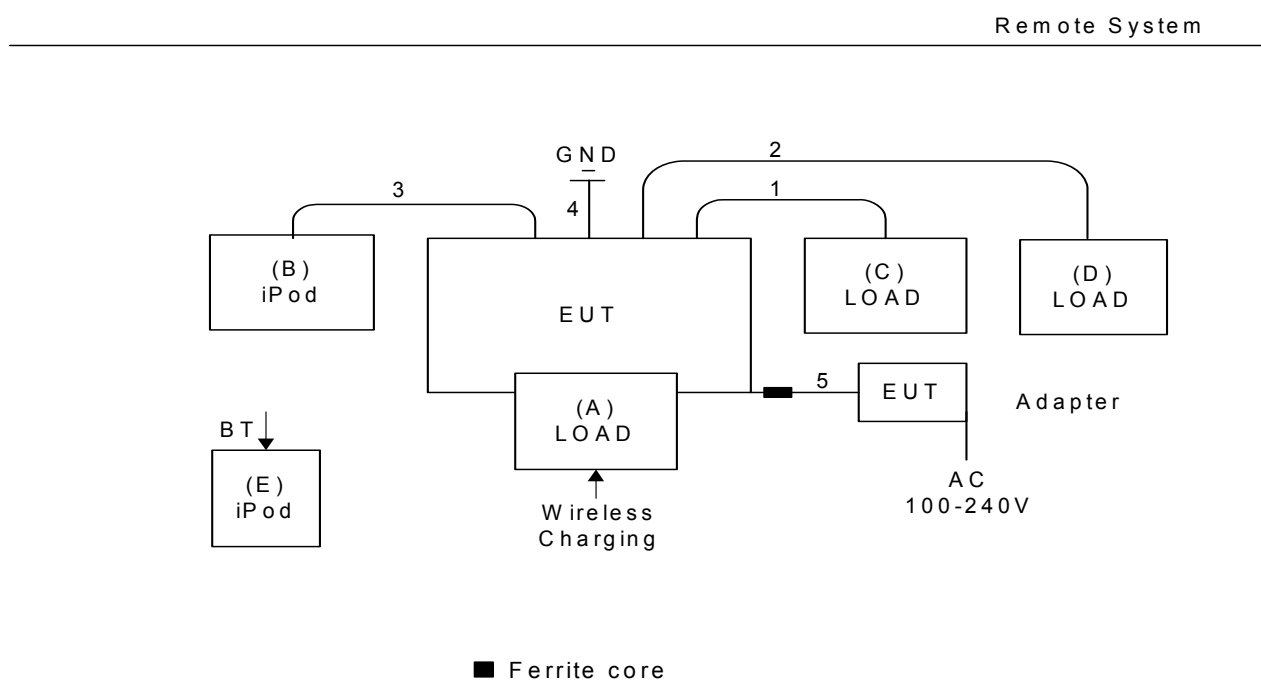
To investigate the maximum EMI emission characteristics generated from EUT, the test system was pre-scanning tested based on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Pretest Mode	Description
Mode 1	AUX IN+Wireless Charging
Mode 2	BT PLAY+Wireless Charging

The EUT system operated these modes were found to be the worst case during the pre-scanning test as Following:

For Conducted / Radiated Test	
Final Test Mode	Description
Mode 1	AUX IN+Wireless Charging
Mode 2	BT PLAY+Wireless Charging

### 3.3 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



### 3.4 DESCRIPTION OF SUPPORT UNITS

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.	FCC ID	Series No.
A	LOAD	N/A	N/A	N/A	N/A
B	iPod nano(8G)	Apple	A1320	DOC	YMOO6EX721
C	LOAD	N/A	N/A	N/A	N/A
D	LOAD	N/A	N/A	N/A	N/A
E	iPod nano(8G)	Apple	A1320	DOC	YMOO6EX72A

Item	Shielded Type	Ferrite Core	Length	Note
1	YES	NO	1.0m	USB Cable
2	YES	NO	1.0m	USB Cable
3	NO	NO	0.3m	Audio Cable
4	NO	NO	0.9m	GND Cable
5	NO	YES	1.8m	DC Cable

### 3.5 TEST CONDITIONS

The EUT exercise program used during radiated and/or conducted emission measurement was designed to exercise the various system components in a manner similar to a typical use.

## 4. EMC EMISSION TEST

### 4.1 CONDUCTED EMISSION MEASUREMENT

#### 4.1.1 POWER LINE CONDUCTED EMISSION (Frequency Range 150KHz-30MHz)

FREQUENCY (MHz)	Class A (dBuV)		Class B (dBuV)	
	Quasi-peak	Average	Quasi-peak	Average
0.15 -0.5	79.00	66.00	66 - 56 *	56 - 46 *
0.50 -5.0	73.00	60.00	56.00	46.00
5.0 -30.0	73.00	60.00	60.00	50.00

Note:

- (1) The tighter limit applies at the band edges.
- (2) The limit of " \* " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.
- (3) The test result calculated as following:  
 Measurement Value = Reading Level + Correct Factor  
 Correct Factor = Insertion Loss + Cable Loss + Attenuator Factor(if use)  
 Margin Level = Measurement Value - Limit Value

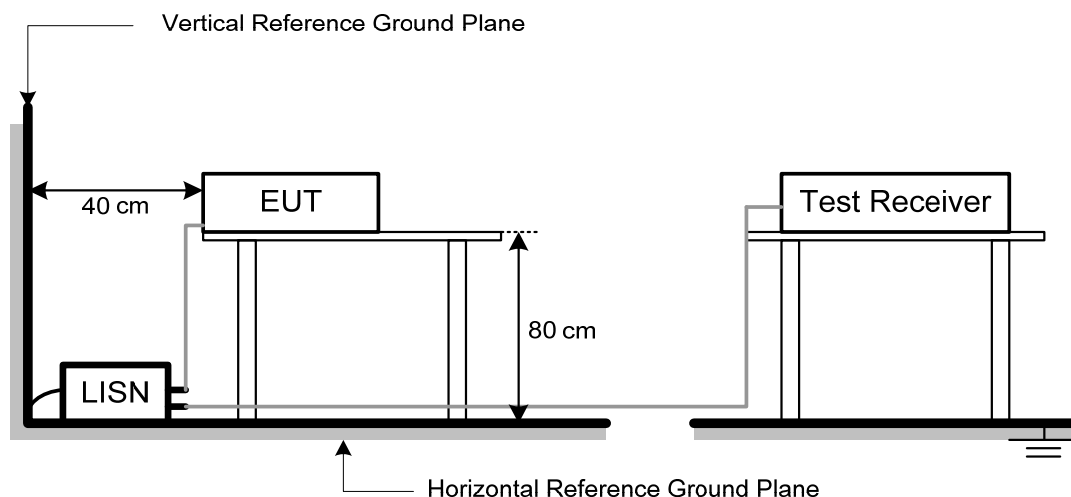
#### 4.1.2 TEST PROCEDURE

- a. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- d. LISN at least 80 cm from nearest part of EUT chassis.
- e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

#### 4.1.3 DEVIATION FROM TEST STANDARD

No deviation

#### 4.1.4 TEST SETUP



#### 4.1.5 EUT OPERATING CONDITIONS

The EUT exercise program used during radiated and/or conducted emission measurement was designed to exercise the various system components in a manner similar to a typical use.

#### 4.1.6 TEST RESULTS

Please refer to the Attachment A.

Temperature: 24°C Relative Humidity: 60%

##### Remark

- (1) Reading in which marked as QP means measurements by using are Quasi-Peak Mode with Detector BW=9KHz; SPA setting in RBW=10KHz, VBW =10KHz, Swp. Time = 0.3 sec./MHz. Reading in which marked as AV means measurements by using are Average Mode with instrument setting in RBW=10KHz, VBW =10KHz, Swp. Time =0.3 sec./MHz.
- (2) All readings are QP Mode value unless otherwise stated AVG in column of 'Note'. If the QP Mode Measured value compliance with the QP Limits and lower than AVG Limits, the EUT shall be deemed to meet both QP & AVG Limits and then only QP Mode was measured, but AVG Mode didn't perform. In this case, a " \* " marked in AVG Mode column of Interference Voltage Measured.
- (3) Measuring frequency range from 150KHz to 30MHz.

## 4.2 RADIATED EMISSION MEASUREMENT

### 4.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT

Operating frequency	Field Strength (uV/m)	Measurement Distance (meters)	F.S Limitation at 1m Distance	F.S Limitation at 3m Distance
			(dBuV/m)	(dBuV/m)
Any ISM	25	300	127.04	67.96
Any non-ISM	15	300	122.61	63.52

Notes:

- (1) The Equipment is for 18.305(b) Any type unless otherwise specified (miscellaneous) Operating frequency in any non-ISM frequency
- (2) Operation of ISM equipment within the following safety, search and rescue frequency bands is prohibited: 490–510 kHz, 2170–2194 kHz, 8354–8374 kHz, 121.4–121.6 MHz, 156.7–156.9 MHz, and 242.8–243.2 MHz.
- (3) Distance extrapolation factor =  $40 \log (\text{specific distance} / \text{test distance})$  (dB);  
Limit line = specific limits (dBuV) + distance extrapolation factor.
- (4) The test result calculated as following:  
Measurement Value = Reading Level + Correct Factor  
Correct Factor = Antenna Factor + Cable Loss - Amplifier Gain(if use)  
Margin Level = Measurement Value - Limit Value

### 4.2.2 TEST PROCEDURE

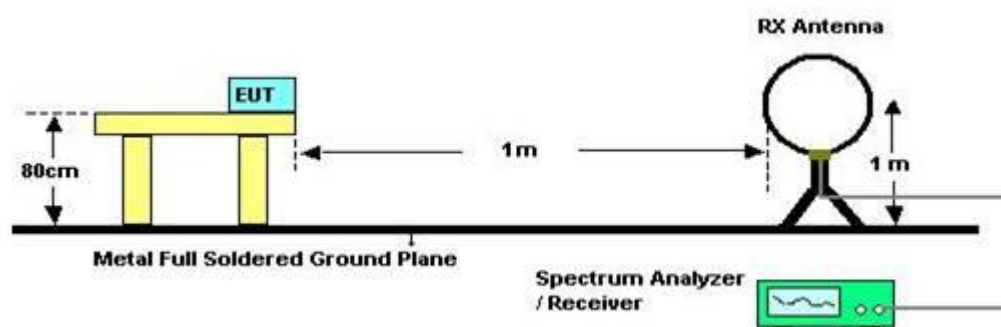
- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 1m or 3 meter open area test site. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The height of the equipment or of the substitution antenna shall be 0.8 m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- c. The initial step in collecting radiated emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- d. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
- e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

### 4.2.3 DEVIATION FROM TEST STANDARD

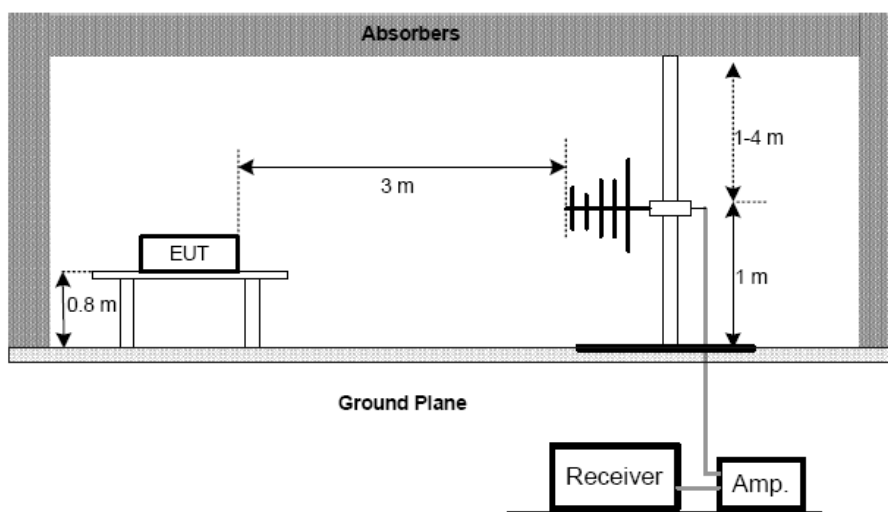
No deviation

#### 4.2.4 TEST SETUP

For radiated emissions between 9kHz and 30MHz



For radiated emissions between 30MHz and 1000MHz



#### 4.2.5 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 4.1.5 Unless otherwise a special operating condition is specified in the follows during the testing.

#### 4.2.6 TEST RESULTS- BETWEEN 9KHZ AND 30MHZ

Please refer to the Attachment B.

Temperature: 22°C Relative Humidity: 56%

#### 4.2.7 TEST RESULTS- BETWEEN 30MHZ AND 1000MHZ

Please refer to the Attachment C.

Temperature: 22°C Relative Humidity: 56%

Remark:

- (1) Reading in which marked as QP or Peak means measurements by using are Quasi-Peak Mode or Peak Mode with Detector BW=120KHz ; SPA setting in RBW=120KHz, VBW =120KHz, Swp. Time = 0.3 sec./MHz.
- (2) All readings are Peak unless otherwise stated QP in column of 『Note』 . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ◦
- (3) Measuring frequency range from 9kHz to 1000MHz.

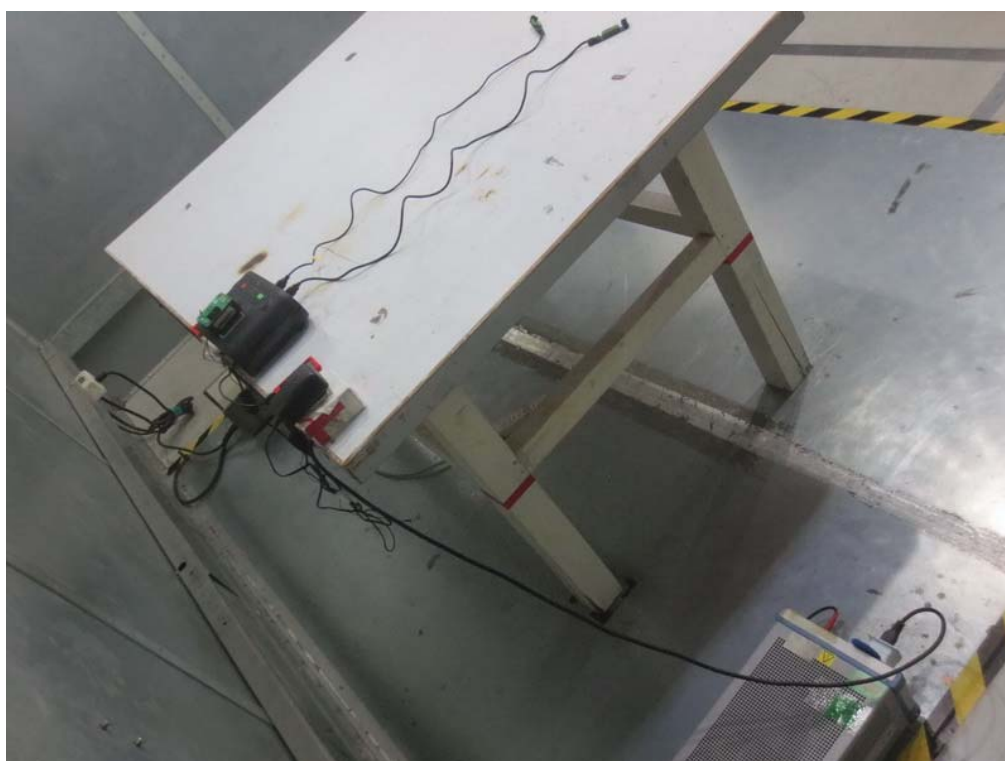
## 5. MEASUREMENT INSTRUMENTS LIST

Conducted Emission					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	LISN	EMCO	3816/2	0052765	Mar. 28, 2016
2	LISN	R&S	ENV216	101447	Mar. 28, 2016
3	Test Cable	emci	RG223(9KHz-30 MHz)	C_17	Mar. 13, 2016
4	EMI Test Receiver	R&S	ESCS30	826547/022	Mar. 28, 2016
5	50Ω Terminator	SHX	TF2-3G-A	08122901	Mar. 28, 2016
6	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A

Radiated Emission					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Antenna	Schwarbeck	VULB9160	9160-3232	Mar. 28, 2016
2	Amplifier	HP	8447D	2944A09673	Nov. 09, 2016
3	Receiver	AGILENT	N9038A	MY52130039	Oct. 11, 2016
4	Test Cable	emci	LMR-400(30MHz-1GHz)	C-01	Jun. 28, 2016
5	Controller	CT	SC100	N/A	N/A
6	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
7	Active Loop Antenna	R&S	HFH2-Z2	830749/020	Sep. 07, 2016

## 6. EUT TEST PHOTO

### Conducted emission test photos

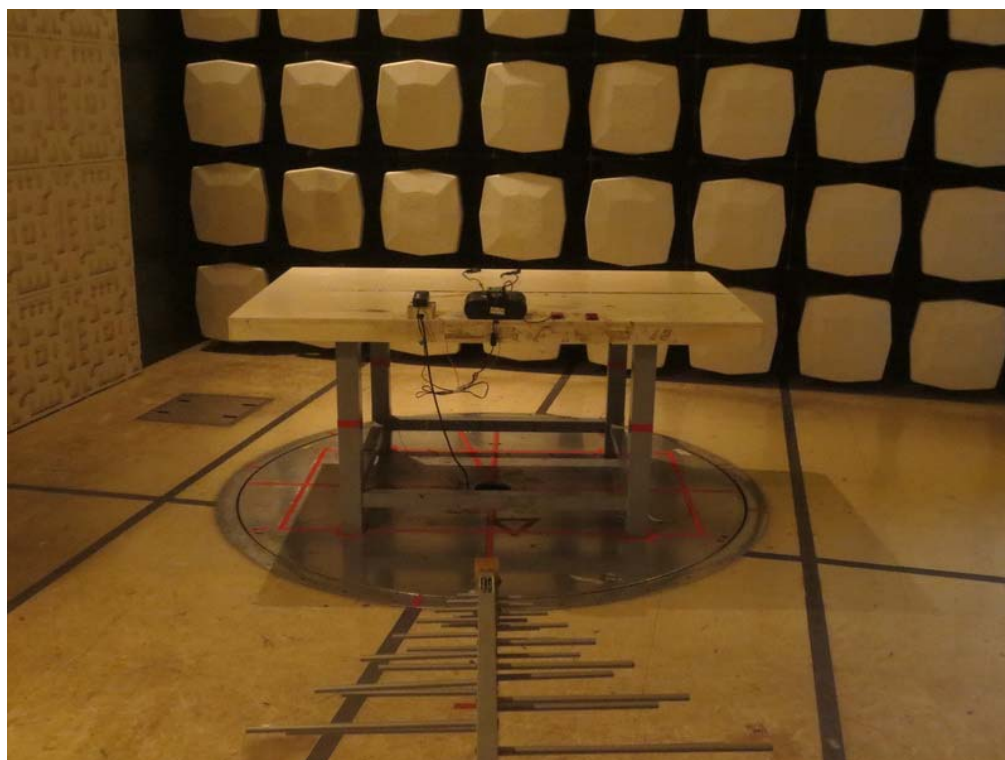
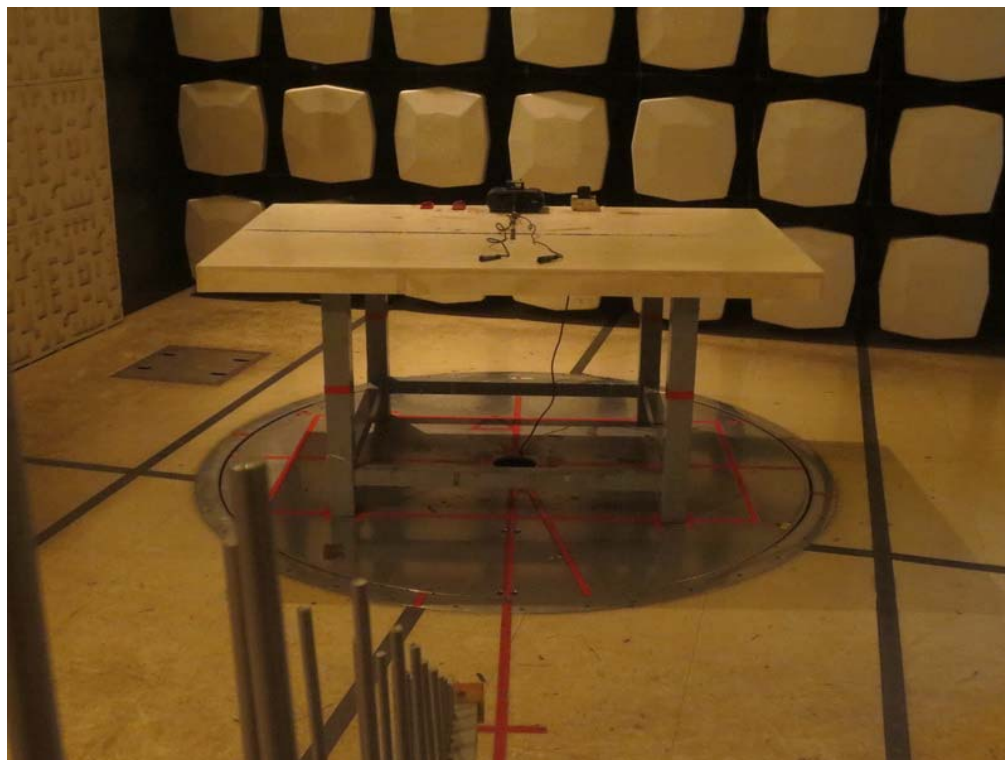




**Radiated emission test photos**  
**(BETWEEN 9KHZ AND 30MHZ) (1m distance)**



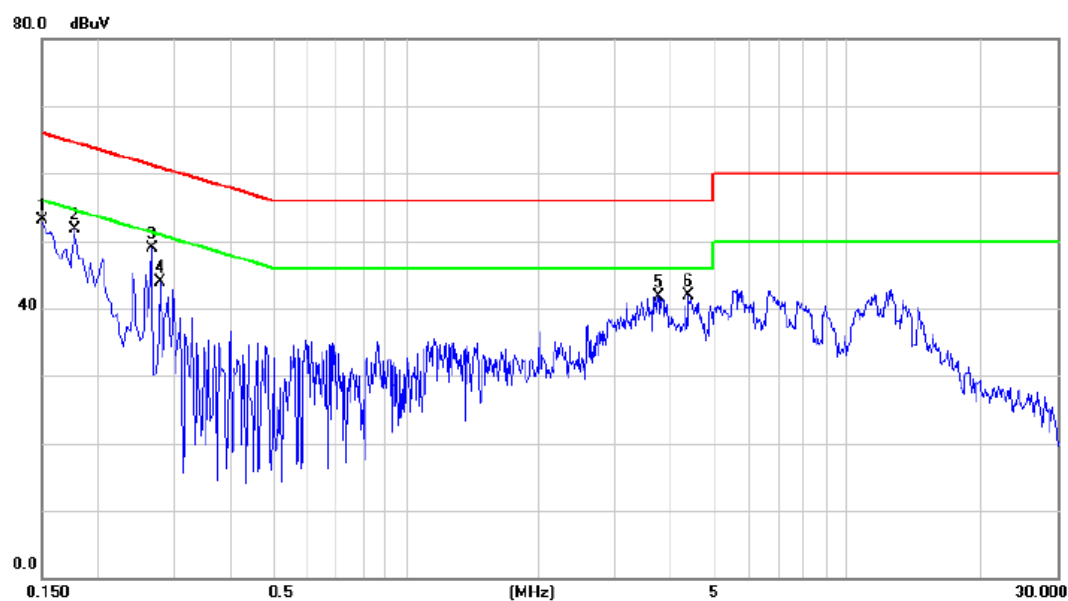
**Radiated emission test photos  
(BETWEEN 30MHZ AND 1000MHZ) (3m distance)**



## **ATTACHMENT A - CONDUCTED EMISSION**

Test Voltage:	AC 120V/60Hz
Test Mode:	AUX IN+Wireless Charging

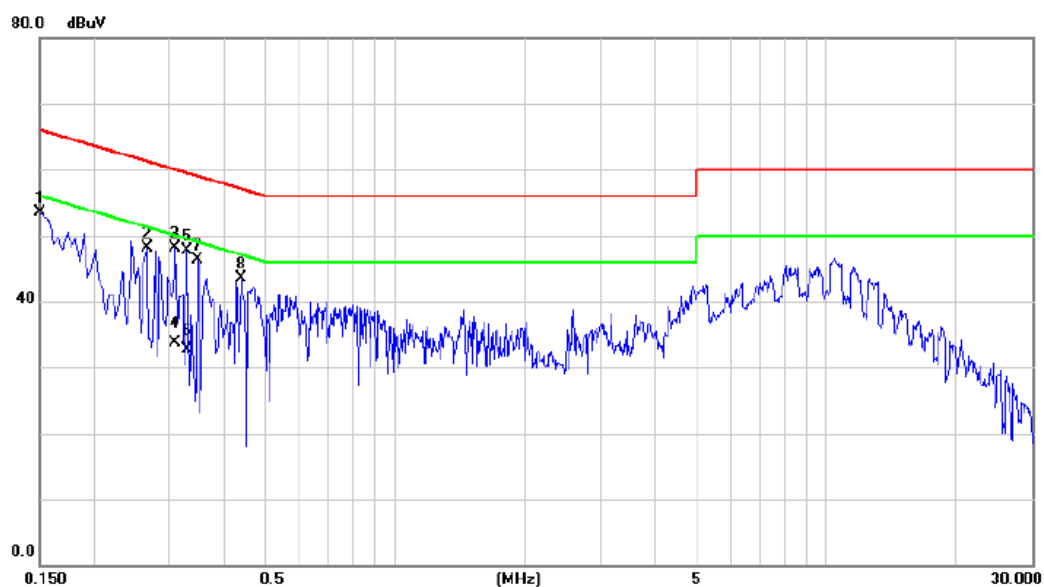
## Line



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1		0.1500	43.57	9.54	53.11	66.00	-12.89	peak	
2		0.1780	42.24	9.56	51.80	64.58	-12.78	peak	
3	*	0.2660	39.22	9.62	48.84	61.24	-12.40	peak	
4		0.2780	34.20	9.63	43.83	60.88	-17.05	peak	
5		3.7420	31.82	9.98	41.80	56.00	-14.20	peak	
6		4.4060	31.85	9.97	41.82	56.00	-14.18	peak	

Test Voltage:	AC 120V/60Hz
Test Mode:	AUX IN+Wireless Charging

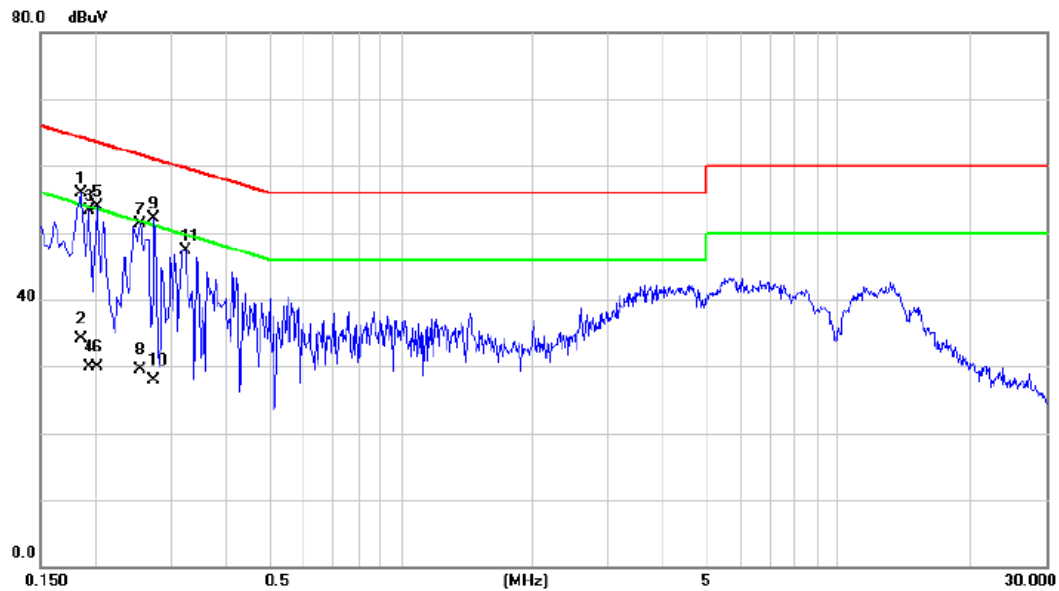
## Neutral



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1		0.1500	43.93	9.49	53.42	66.00	-12.58	peak	
2		0.2660	38.58	9.51	48.09	61.24	-13.15	peak	
3		0.3100	38.54	9.52	48.06	59.97	-11.91	peak	
4		0.3100	24.10	9.52	33.62	49.97	-16.35	AVG	
5	*	0.3300	38.14	9.53	47.67	59.45	-11.78	peak	
6		0.3300	23.20	9.53	32.73	49.45	-16.72	AVG	
7		0.3500	36.86	9.53	46.39	58.96	-12.57	peak	
8		0.4420	34.01	9.54	43.55	57.02	-13.47	peak	

Test Voltage:	AC 120V/60Hz
Test Mode:	BT PLAY+Wireless Charging

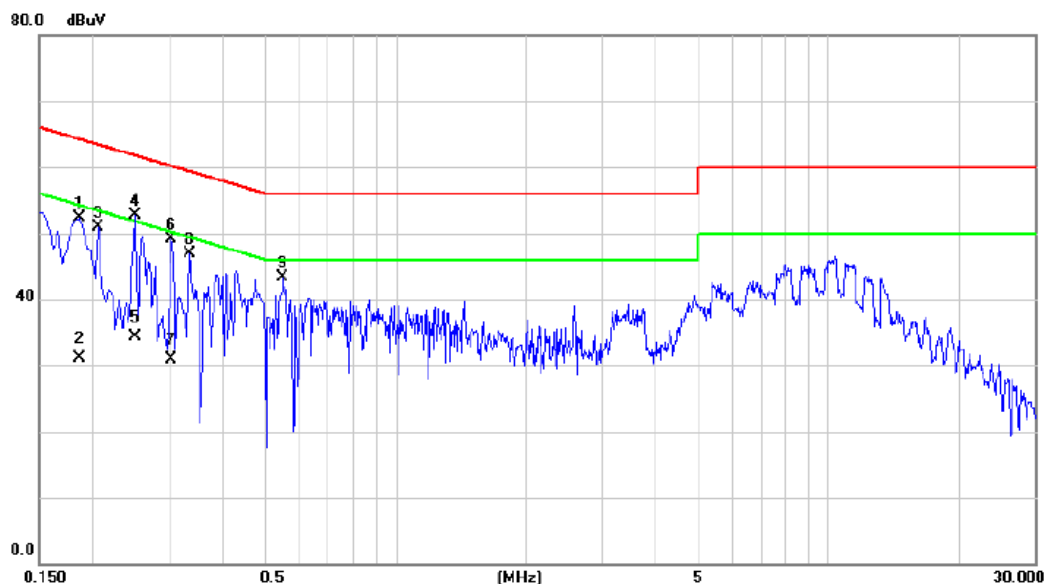
## Line



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1	*	0.1860	46.25	9.57	55.82	64.21	-8.39	peak	
2		0.1860	24.50	9.57	34.07	54.21	-20.14	AVG	
3		0.1940	43.64	9.57	53.21	63.86	-10.65	peak	
4		0.1940	20.30	9.57	29.87	53.86	-23.99	AVG	
5		0.2020	44.30	9.57	53.87	63.53	-9.66	peak	
6		0.2020	20.40	9.57	29.97	53.53	-23.56	AVG	
7		0.2540	41.77	9.61	51.38	61.63	-10.25	peak	
8		0.2540	19.90	9.61	29.51	51.63	-22.12	AVG	
9		0.2740	42.43	9.62	52.05	61.00	-8.95	peak	
10		0.2740	18.30	9.62	27.92	51.00	-23.08	AVG	
11		0.3220	37.66	9.64	47.30	59.66	-12.36	peak	

Test Voltage:	AC 120V/60Hz
Test Mode:	BT PLAY+Wireless Charging

## Neutral



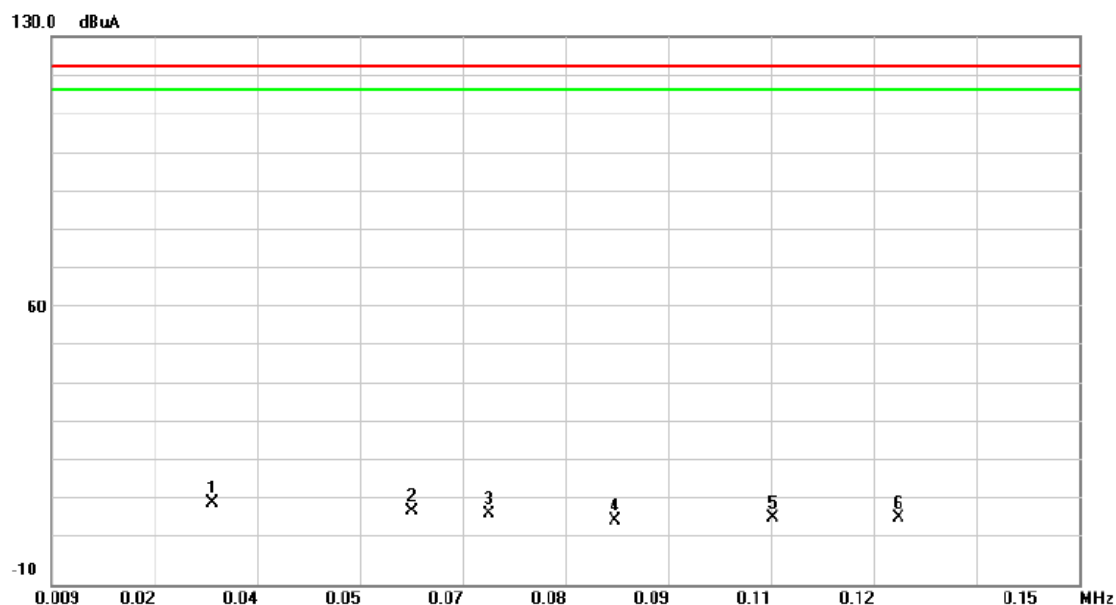
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1		0.1860	42.77	9.49	52.26	64.21	-11.95	peak	
2		0.1860	21.70	9.49	31.19	54.21	-23.02	AVG	
3		0.2060	41.33	9.50	50.83	63.37	-12.54	peak	
4	*	0.2500	43.22	9.51	52.73	61.76	-9.03	peak	
5		0.2500	24.80	9.51	34.31	51.76	-17.45	AVG	
6		0.3020	39.49	9.52	49.01	60.19	-11.18	peak	
7		0.3020	21.30	9.52	30.82	50.19	-19.37	AVG	
8		0.3340	37.39	9.53	46.92	59.35	-12.43	peak	
9		0.5500	33.79	9.56	43.35	56.00	-12.65	peak	

## **ATTACHMENT B - RADIATED EMISSION (BETWEEN 9KHZ AND 30MHZ)**



Test Voltage:	AC 120V/60Hz
Test Mode:	AUX IN+Wireless Charging

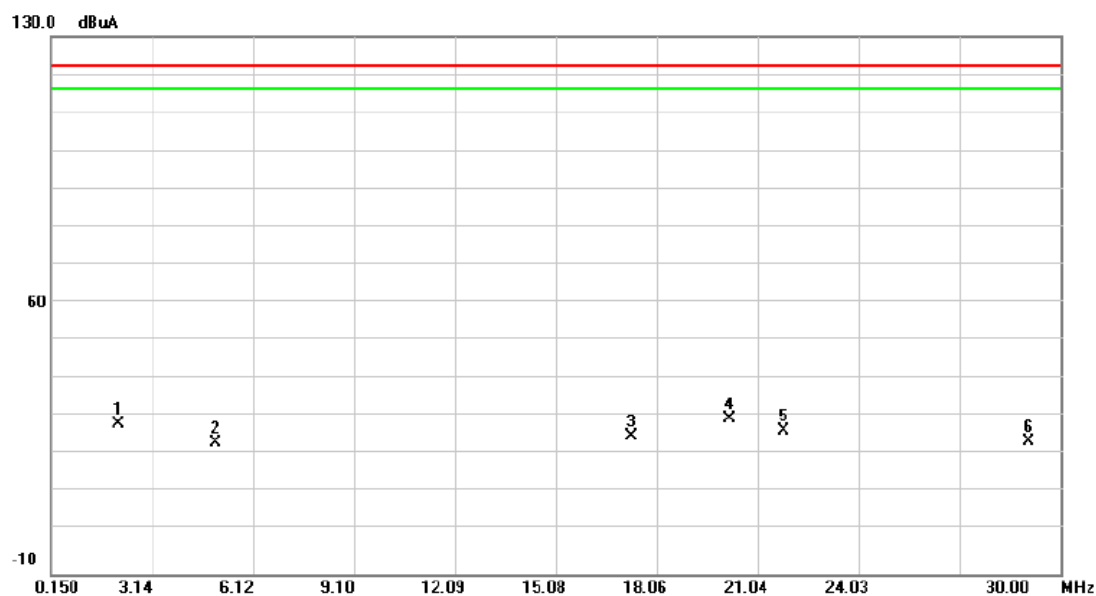
## Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Detector	Comment
		MHz	dBuA	dB	dBuA	dBuA	dB		
1	*	0.0310	10.44	0.25	10.69	122.60	-111.91	peak	
2		0.0585	8.57	0.28	8.85	122.60	-113.75	peak	
3		0.0690	7.78	0.30	8.08	122.60	-114.52	peak	
4		0.0864	6.01	0.32	6.33	122.60	-116.27	peak	
5		0.1080	6.60	0.31	6.91	122.60	-115.69	peak	
6		0.1252	6.88	0.27	7.15	122.60	-115.45	peak	

Test Voltage:	AC 120V/60Hz
Test Mode:	AUX IN+Wireless Charging

## Vertical

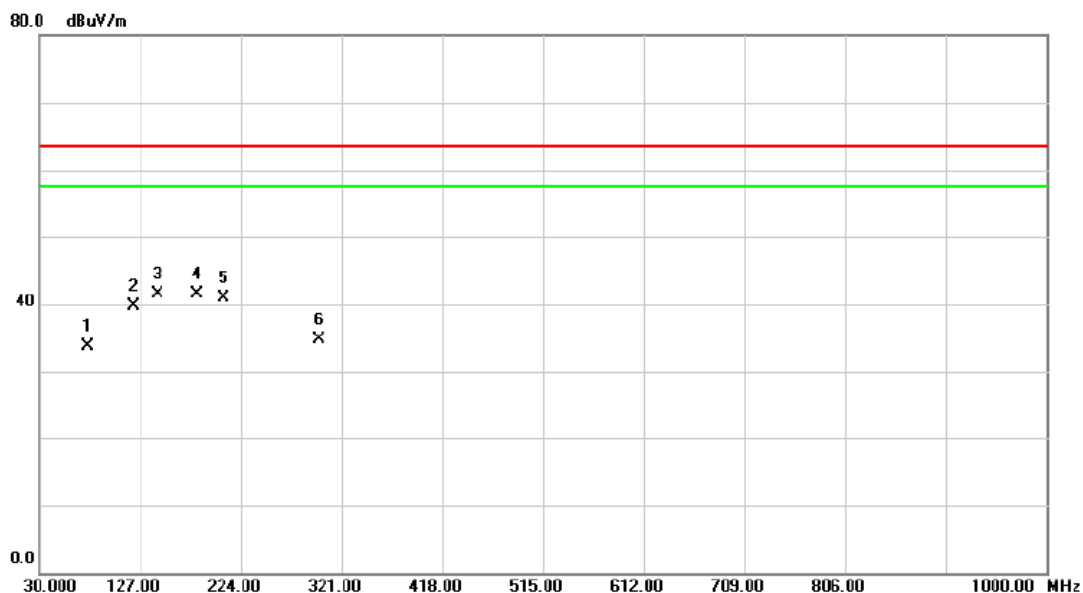


No.	Mk.	Freq. MHz	Reading Level dBuA	Correct Factor dB	Measure- ment dBuA	Limit dBuA	Margin dB	Detector	Comment
1		2.1500	28.66	0.48	29.14	122.60	-93.46	peak	
2		5.0155	23.44	0.82	24.26	122.60	-98.34	peak	
3		17.3137	24.88	0.93	25.81	122.60	-96.79	peak	
4	*	20.2390	29.55	1.04	30.59	122.60	-92.01	peak	
5		21.8211	26.13	1.04	27.17	122.60	-95.43	peak	
6		29.0746	23.45	1.05	24.50	122.60	-98.10	peak	

## **ATTACHMENT C - RADIATED EMISSION (BETWEEN 30MHZ AND 1000MHZ)**

Test Voltage:	AC 120V/60Hz
Test Mode:	AUX IN+Wireless Charging

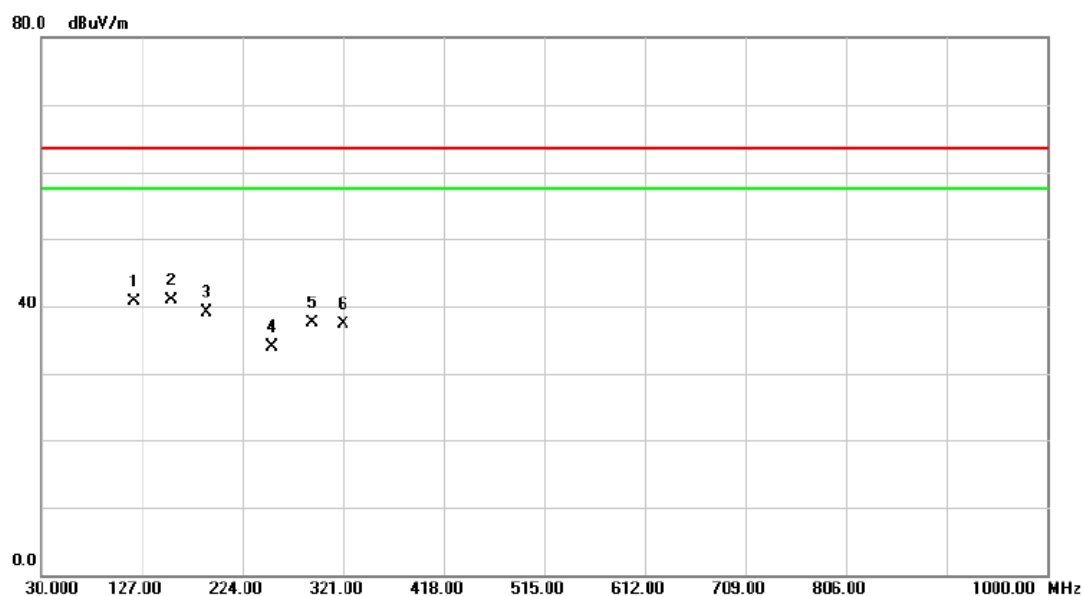
## Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		76.5600	50.03	-16.40	33.63	63.50	-29.87	QP	
2		121.1800	53.60	-13.92	39.68	63.50	-23.82	QP	
3		144.4600	55.01	-13.60	41.41	63.50	-22.09	QP	
4	*	182.2900	54.76	-13.28	41.48	63.50	-22.02	QP	
5		207.5100	55.81	-14.92	40.89	63.50	-22.61	QP	
6		299.6600	45.14	-10.51	34.63	63.50	-28.87	QP	

Test Voltage:	AC 120V/60Hz
Test Mode:	AUX IN+Wireless Charging

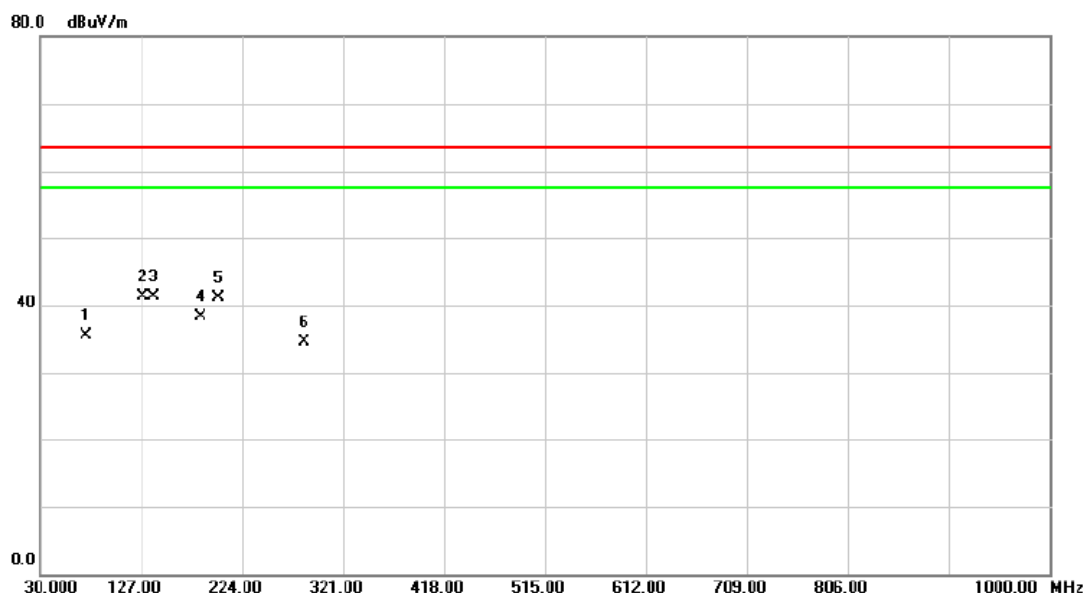
## Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		120.2100	54.80	-14.01	40.79	63.50	-22.71	QP	
2	*	156.1000	53.48	-12.66	40.82	63.50	-22.68	QP	
3		190.0500	53.49	-14.40	39.09	63.50	-24.41	QP	
4		253.1000	48.20	-14.32	33.88	63.50	-29.62	QP	
5		291.9000	48.40	-10.91	37.49	63.50	-26.01	QP	
6		322.9400	48.10	-10.88	37.22	63.50	-26.28	QP	

Test Voltage:	AC 120V/60Hz
Test Mode:	BT PLAY+Wireless Charging

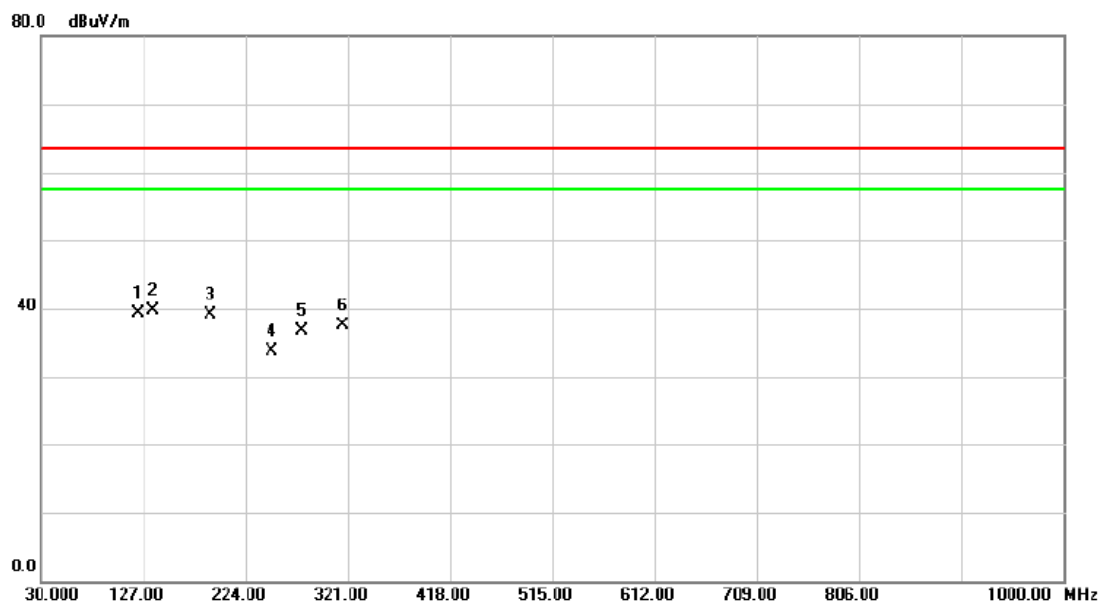
## Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		74.6200	51.70	-16.23	35.47	63.50	-28.03	QP	
2		127.9700	54.62	-13.26	41.36	63.50	-22.14	QP	
3	*	139.6100	55.43	-14.03	41.40	63.50	-22.10	QP	
4		184.2300	51.82	-13.56	38.26	63.50	-25.24	QP	
5		200.7200	56.18	-15.12	41.06	63.50	-22.44	QP	
6		284.1400	46.14	-11.72	34.42	63.50	-29.08	QP	

Test Voltage:	AC 120V/60Hz
Test Mode:	BT PLAY+Wireless Charging

## Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		122.1500	53.04	-13.81	39.23	63.50	-24.27	QP	
2	*	136.7000	53.35	-13.74	39.61	63.50	-23.89	QP	
3		191.0200	53.67	-14.48	39.19	63.50	-24.31	QP	
4		249.2200	48.02	-14.30	33.72	63.50	-29.78	QP	
5		277.3500	49.23	-12.59	36.64	63.50	-26.86	QP	
6		316.1500	48.26	-10.78	37.48	63.50	-26.02	QP	