



# Test Report FCC Part15 Subpart C

Product Name : Wireless Charge Rack

Model No. : CN85-WCR

FCC ID : HD5-CX85WCR

IC : 1693B-CX85WCR

Applicant: HONEYWELL INTERNATIONAL INC

Honeywell Safety and Productivity Solutions

Address: 9680 OLD BAILES RD

FORT MILL SC 29707-7539

Date of Receipt: Dec. 12, 2018

Test Date : Dec. 13, 2018~ Dec. 31, 2018

Issued Date: Jan. 07, 2019

Report No. : 18C2057R-RF-US-P06V05

Report Version: V1.0

The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standard through the calibration of the equipment and evaluated measurement uncertainty herein.

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# **Test Report Certification**

Issued Date: Jan. 07, 2019

Report No. : 18C2057R-RF-US-P06V05



Product Name : Wireless Charge Rack

Applicant : HONEYWELL INTERNATIONAL INC

Honeywell Safety and Productivity Solutions

Address : 9680 OLD BAILES RD

FORT MILL SC 29707-7539

Manufacturer : 1.HONEYWELL INTERNATIONAL INC

Honeywell Safety and Productivity Solutions

2.RAYVAL (SUZHOU) TECHNOLOGIES CO LTD

3.Metro(Suzhou)Technologies Co.,Ltd

Address : 1.9680 OLD BAILES RD

FORT MILL SC 29707-7539

2.SUCHUN INDUSTRIAL SQUARE, BLDG 15A 428 XINGLONG STR SUZHOU INDUSTRIAL PARK SUZHOU JIANGSU 215126 CHINA 3.No.221 Xinghai street China-Singapore Suzhou Industrial Park

Model No. : CN85-WCR

FCC ID : HD5-CX85WCR
IC : 1693B-CX85WCR
EUT Voltage : AC 120V/60Hz
Test Voltage : AC 120V/60Hz
Brand Name : Honeywell

Applicable Standard : FCC CFR Title 47 Part 15 Subpart C; ANSI C63.10: 2013

KDB 680106 D01 RF Exposure Wireless Charging Apps v03

RSS-216 Issue 2

Test Result : Complied

Performed Location : DEKRA Testing and Certification (Suzhou) Co., Ltd.

No.99 Hongye Rd., Suzhou Industrial Park, Suzhou, 215006, Jiangsu,

Lo

China

TEL: +86-512-6251-5088 / FAX: +86-512-6251-5098 FCC Designation Number: CN1199; IC Lab Code: 4075B

Documented By :

(Adm. Specialist: Kitty Li)

Litty

Reviewed By :

Frankhe

(Senior Project Manager: Frank He)

Approved By

Jouk zhang

(Engineering Supervisor: Jack Zhang)



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**History of This Test Report** 

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
18C2057R-RF-US-P06V05	V1.0	Initial Issued Report	Jan. 07, 2019



## 1. General Information

## 1.1. EUT Description

Product Name	Wireless Charge Rack
Model No.	CN85-WCR
Working Voltage	AC 120V/60Hz
Frequency Range	110kHz~145KHz
Type of Modulation	ASK





## 1.2. Antenna information

Model No.	N/A						
Antenna manufacturer		N/A					
Antenna Delivery		1*TX+1*R	1*TX+1*RX				
Antenna technology		SISO	SISO				
				Basic			
		MIMO		CDD			
				Sectoriz	ed		
				Beam-forming			
Antenna Type	☐ External		Dipole				
		External		Sectoriz	ed		
				PIFA			
		Internal		PCB			
				Ceramic	Chip Antenna	a	
			$\boxtimes$	Loop antenna			
			Type F a	antenna			



#### 1.3. Mode of Operation

DEKRA has verified the construction and function in typical operation. All the test modes were carried out with the EUT in normal operation, which was shown in this test report and defined as:

Test Mode

Mode 1: Transmit

- 1. Regards to the frequency band operation: the lowest middle and highest frequency of channel were selected to perform the test, then shown on this report.
- 2. For portable device, radiated spurious emission was verified over X, Y, Z Axis, and shown the worst case on this report.



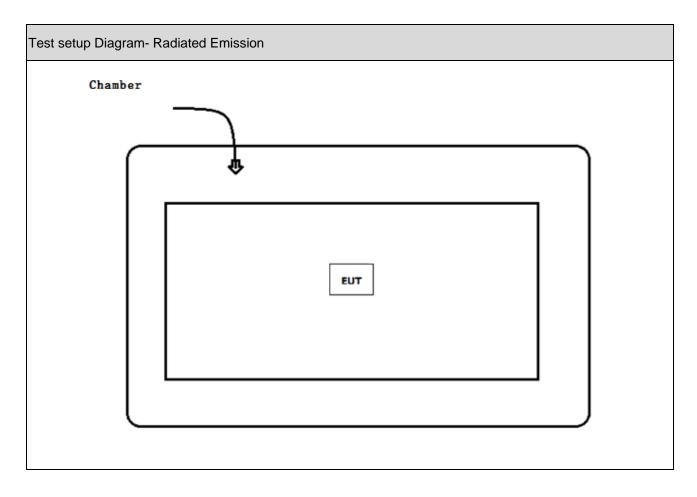
## 1.4. Tested System Details

The types for all equipments, plus descriptions of all cables used in the tested system (including inserted cards) are:

Product	Manufacturer	Model No.	Serial No.	Power Cord
1 N/A	N/A	N/A	N/A	N/A



# 1.5. Configuration of Tested System





## 1.6. EUT Exercise Software

1	Setup the EUT and simulators as shown on above.
2	Turn on the power of equipment.
3	Start to continue transmit.

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## 2. Technical Test

# 2.1. Summary of Test Result

No deviations from the test standards
Deviations from the test standards as below description:

Performed Test Item	Normative References	Limit	Result
Conducted Emission	FCC CFR Title 47 Part 15 Subpart C	FCC 15.207	N/A
	Section 15.207		
Field Strength of Spurious	FCC CFR Title 47 Part 15 Subpart C	FCC 15.209	PASS
	Section 15.209		
Channel Bandwidth	FCC CFR Title 47 Part 15 Subpart C	FCC 15.215	PASS
	Section 15.215(c)		
Antenna Requirement	FCC CFR Title 47 Part 15 Subpart C: Section	FCC 15.203	PASS
	15.203		

Performed Test Item	Normative References	Limit	Result
Conducted Emission	RSS 216: Issue 2 Clause 6.2.2.1	RSS Gen	N/A
Field Strength of Spurious	RSS 216: Issue 2 Clause 6.2.2.2	RSS Gen	PASS
Channel Bandwidth	RSS Gen: Issue 5 Clause 6.7	RSS Gen	PASS
Antenna Requirement	RSS Gen: Issue 5 Clause 6.8	RSS Gen	PASS

## 2.2. Test Environment

Items	Required (IEC 68-1)	Actual
Temperature (°C)	15-35	21
Humidity (%RH)	25-75	50
Barometric pressure (mbar)	860-1060	950-1000



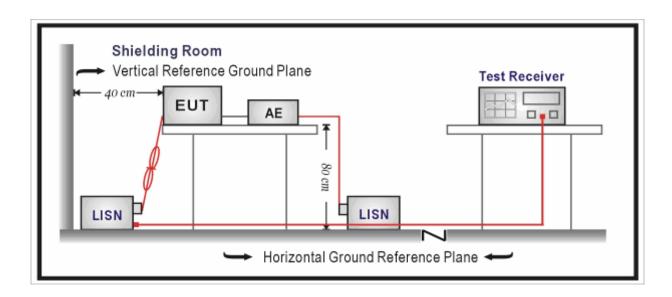
#### 3. Conducted Emission

## 3.1. Test Equipment

Conducted Emission / TR-1					
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date	Cal. Due Date
EMI Test Receiver	R&S	ESCI	100726	2018.03.29	2019.03.28
Two-Line V-Network	R&S	ENV216	100043	2018.03.29	2019.03.28
Two-Line V-Network	R&S	ENV216	100044	2018.09.17	2019.09.16
50ohm Coaxial	Anritsu	MP59B	6200464462	2018.03.02	2019.03.01
Switch	Allitisu	IMF 39D	0200404402	2010.03.02	2019.03.01
50ohm Termination	SHX	TF2	07081401	2018.09.17	2019.09.16
Temperature/Humidity	zhicheng	ZC1-2	TR1-TH	2018.01.04	2019.01.03
Meter	Zilicheng	201-2	1171-111	2010.01.04	2019.01.03

Note: All equipment are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

## 3.2. Test Setup





#### 3.3. Limit

FCC Part 15 Subpart C Paragraph 15.207 Limits				
Frequency (MHz)	QP (dBuV)	AV (dBuV)		
0.15 - 0.50	66 - 56	56 – 46		
0.50 - 5.0	56	46		
5.0 - 30	60	50		

Note 1: The lower limit shall apply at the transition frequencies.

Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.

#### 3.4. Test Procedure

The EUT was setup according to ANSI C63.10 requirements. The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 80 cm from any other grounded conducting surface. The EUT and simulators are connected to the main power through a line impedance stabilization network (LISN). The LISN provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN. (Please refer to the block diagram of the test setup and photographs) Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor, was individually connected through a LISN to the input power source.

The excess length of the power cord between the EUT and the LISN receptacle were folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length. Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9 kHz.

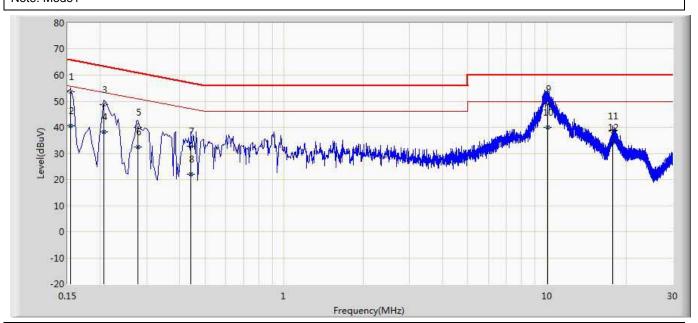
#### 3.5. Uncertainty

The measurement uncertainty is defined as ± 2.02 dB



## 3.6. Test Result

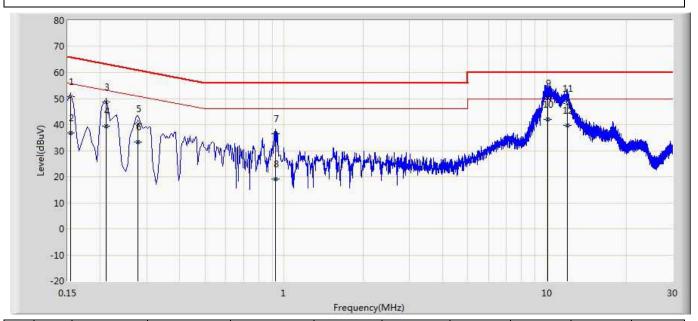
Engineer: Damon						
Site: TR1	Time: 2019/01/04 - 16:02					
Limit: FCC_Part15.207_CE_AC Power	Margin: 0					
Probe: ENV216_101190(0.009-30MHz)	Polarity: Neutral					
EUT: Wireless Charge Rack	Power: AC 120V/60Hz					
Note: Mode1						



No	Mark	Frequency	Measure Level	Reading Level	Over Limit	Limit	Probe	Cable	Amp	Туре
		(MHz)	(dBuV)	(dBuV)	(dB)	(dBuV)	(dB)	(dB)	(dB)	
1		0.154	53.687	44.065	-12.094	65.781	9.593	0.029	0.000	QP
2		0.154	40.571	30.950	-15.210	55.781	9.593	0.029	0.000	AV
3		0.206	48.660	39.032	-14.705	63.365	9.599	0.029	0.000	QP
4		0.206	38.265	28.638	-15.100	53.365	9.599	0.029	0.000	AV
5		0.278	40.144	30.514	-20.731	60.875	9.597	0.033	0.000	QP
6		0.278	32.444	22.814	-18.431	50.875	9.597	0.033	0.000	AV
7		0.442	32.786	23.154	-24.238	57.024	9.592	0.041	0.000	QP
8		0.442	22.132	12.499	-24.892	47.024	9.592	0.041	0.000	AV
9		10.034	48.846	38.854	-11.154	60.000	9.791	0.201	0.000	QP
10	*	10.034	39.907	29.915	-10.093	50.000	9.791	0.201	0.000	AV
11		17.750	38.466	28.114	-21.534	60.000	10.081	0.271	0.000	QP
12		17.750	34.178	23.826	-15.822	50.000	10.081	0.271	0.000	AV



Engineer: Damon						
Site: TR1	Time: 2019/01/04 - 16:02					
Limit: FCC_Part15.207_CE_AC Power	Margin: 0					
Probe: ENV216_101190(0.009-30MHz)	Polarity: Line					
EUT: Wireless Charge Rack	Power: AC 120V/60Hz					
Note: Mode1						



No	Mark	Frequency	Measure Level	Reading Level	Over Limit	Limit	Probe	Cable	Amp	Туре
		(MHz)	(dBuV)	(dBuV)	(dB)	(dBuV)	(dB)	(dB)	(dB)	
1		0.154	50.825	41.187	-14.956	65.781	9.609	0.029	0.000	QP
2		0.154	36.821	27.184	-18.960	55.781	9.609	0.029	0.000	AV
3		0.210	48.650	39.021	-14.555	63.205	9.601	0.029	0.000	QP
4		0.210	39.497	29.867	-13.708	53.205	9.601	0.029	0.000	AV
5		0.278	40.258	30.624	-20.617	60.875	9.600	0.033	0.000	QP
6		0.278	33.413	23.780	-17.462	50.875	9.600	0.033	0.000	AV
7		0.926	36.398	26.733	-19.602	56.000	9.608	0.058	0.000	QP
8		0.926	19.010	9.344	-26.990	46.000	9.608	0.058	0.000	AV
9		10.030	50.145	40.173	-9.855	60.000	9.771	0.201	0.000	QP
10	*	10.030	41.988	32.016	-8.012	50.000	9.771	0.201	0.000	AV
11		11.930	48.177	38.136	-11.823	60.000	9.820	0.221	0.000	QP
12		11.930	39.652	29.611	-10.348	50.000	9.820	0.221	0.000	AV

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.



- 2. " \* ", means this data is the worst emission level.
- 3. Measurement Level = Reading Level + Factor(Probe+Cable-Amp).



#### 4. Radiated Emission

## 4.1. Test Equipment

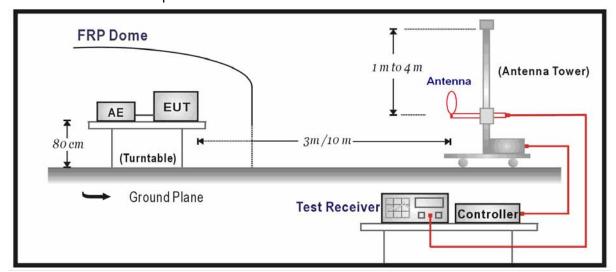
Radiated Emission / AC-1									
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date	Cal. Due Date				
EMI Test Receiver	R&S	ESCI	100573	2018.03.29	2019.03.28				
Loop Antenna	R&S	HFH2-Z2	833799/003	2018.11.25	2019.11.24				
Bilog Antenna	Teseq GmbH	CBL6112D	27611	2018.10.11	2019.10.10				
		SUCOFLEX							
Coaxial Cable	Huber+Suhner	106	AC2-C	2018.03.02	2019.03.01				
Temperature/Humidity Meter	Zhicheng	ZC1-2	AC2-TH	2018.01.08	2019.01.07				

Note: All equipment are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

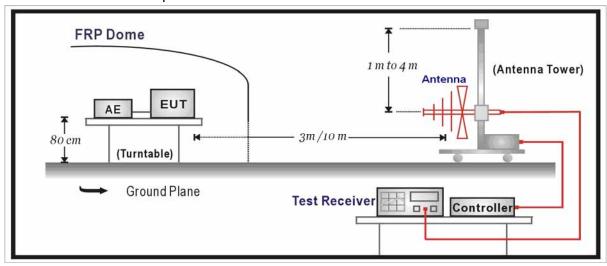


## 4.2. Test Setup

#### 9kHz~30MHz Test Setup:



#### 30MHz~1GHz Test Setup:





#### 4.3. Limit

Field strength of emissions from intentional radiators operated under 15.209(a) shall not exceed the following:

FCC Part 15.209(a)								
Fundamental frequency	Field strength of	Field strength of spurious						
(MHz)	fundamental ( µ V/m)	emissions ( µ V/m)						
0.009-0.490	2400/F(kHz)	300						
0.490-1.705	24000/F(kHz)	30						
1.705-30.0	30	30						
30-88	100**	3						
88-216	150**	3						
216-960	200**	3						
Above 960	500	3						

- (1) The tighter limits apply at the band edges.
- (2) Measurements were performed at 10m and the data was extrapolated to the specified measurement distance of 300m using the square of an inverse linear distance extrapolation factor (40 dB/decade) as specified in §15.31(f)(2). Extrapolation Factor = 40 log<sub>10</sub>(300/10) = 59dB for example.

Measurements were performed at 10m and the data was extrapolated to the specified measurement distance of 30m using the square of an inverse linear distance extrapolation factor (40 dB/decade) as specified in §15.31(f)(2). Extrapolation Factor = 40  $\log_{10}(30/10) = 19$ dB for example.

(3) All measurements were performed using a loop antenna. The antenna was positioned in three orthogonal positions (X front, Y side, Z top) and the position with the highest emission level was recorded.

#### 4.4. Test Procedure

The EUT was setup according to ANSI C63.10 for compliance to FCC 47CFR 15.209 requirements.

The EUT is placed on a turn table which is 0.8 meter above ground. The turn table is rotated 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 10 meters.

The antenna is scanned from 1 meter to 4 meters to find out the maximum emission level. This



is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.10 on radiated measurement.

The frequency range from 9kHz to 10<sup>th</sup> harmonic is checked.

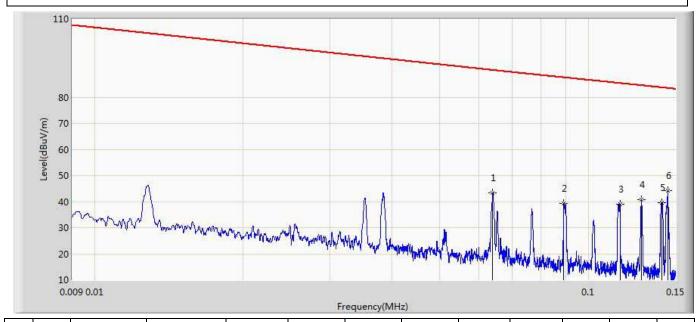
#### 4.5. Uncertainty

The measurement uncertainty is defined as ± 3.80 dB



#### 4.6. Test Result

Site: AC1	Time: 2018/12/17 - 10:08
Limit: FCC-15.209(10m) 9K-30M	Margin: 0
Probe: loop antenna(0.009-30MHz)	Polarity: Vertical
EUT: Wireless Charge Rack	Power: AC 120V/60Hz
Note: Mode 1:	

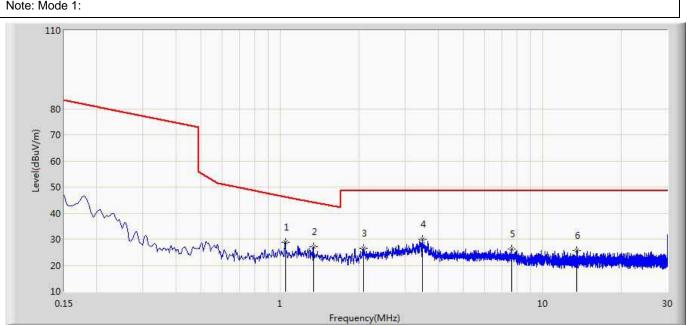


N	Mar	Frequency	Measure	Reading	Over	Limit	Probe	Cable	Amp	Ant	Table	Тур
О	k	(MHz)	Level	Level	Limit	(dBuV/	(dB/m)	(dB)	(dB)	Pos	Pos	е
			(dBuV/m)	(dBuV)	(dB)	m)				(cm)	(deg)	
1		0.064	43.289	32.435	-47.277	90.565	10.800	0.054	0.000	0	0	QP
2		0.089	39.145	28.267	-48.556	87.701	10.800	0.078	0.000	0	0	QP
3		0.116	39.068	28.163	-46.332	85.400	10.800	0.105	0.000	0	0	QP
4		0.128	40.638	29.722	-43.906	84.545	10.800	0.116	0.000	0	0	QP
5		0.141	39.679	28.750	-44.026	83.705	10.800	0.129	0.000	0	0	QP
6	*	0.145	44.099	33.166	-39.363	83.462	10.800	0.133	0.000	0	0	QP

- 1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
- 2. " \* ", means this data is the worst emission level.
- 3. Measurement Level = Reading Level + Factor(Probe+Cable-Amp).



Site: AC1	Time: 2018/12/17 - 10:54
Limit: FCC-15.209(10m) 9K-30M	Margin: 0
Probe: loop antenna(0.009-30MHz)	Polarity: Vertical
EUT: Wireless Charge Rack	Power: AC 120V/60Hz
Note: Mode 1:	

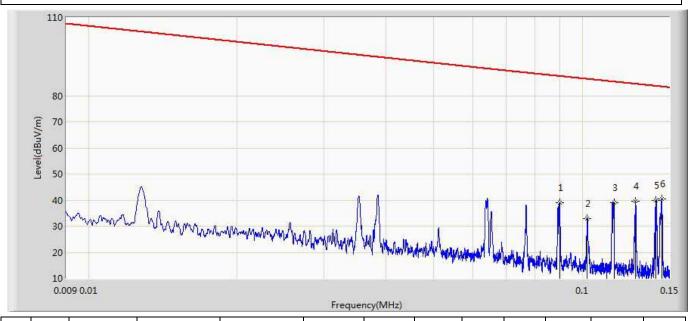


No	Mark	Frequency	Measure Level	Reading	Over	Limit	Probe	Cable	Amp	Ant	Table	Туре
		(MHz)	(dBuV/m)	Level	Limit	(dBuV/m	(dB/m)	(dB)	(dB)	Pos	Pos	
				(dBuV)	(dB)	)				(cm)	(deg)	
1		1.046	28.807	17.228	-17.492	46.298	10.600	0.979	0.000	0	0	QP
2	*	1.340	27.155	15.572	-16.992	44.147	10.600	0.983	0.000	0	0	QP
3		2.075	26.599	15.006	-22.028	48.627	10.600	0.993	0.000	0	0	QP
4		3.493	29.858	18.242	-18.769	48.627	10.600	1.016	0.000	0	0	QP
5		7.650	26.358	14.775	-22.270	48.627	10.500	1.083	0.000	0	0	QP
6		13.568	25.575	14.105	-23.053	48.627	10.300	1.170	0.000	0	0	QP

- 1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
- 2. " \* ", means this data is the worst emission level.
- 3. Measurement Level = Reading Level + Factor(Probe+Cable-Amp).



Site: AC1	Time: 2018/12/17 - 11:03
Limit: FCC-15.209(10m) 9K-30M	Margin: 0
Probe: loop antenna(0.009-30MHz)	Polarity: Horizontal
EUT: Wireless Charge Rack	Power: AC 120V/60Hz
Note: Mode 1:	

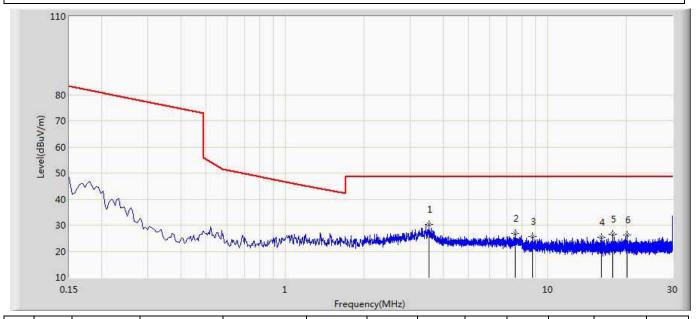


No	Mark	Frequency	Measure Level	Reading Level	Over	Limit	Probe	Cable	Amp	Ant	Table	Туре
		(MHz)	(dBuV/m)	(dBuV)	Limit	(dBuV/	(dB/m)	(dB)	(dB)	Pos	Pos	
					(dB)	m)				(cm)	(deg)	
1		0.090	38.852	27.973	-48.752	87.604	10.800	0.079	0.000	0	0	QP
2		0.102	32.925	22.034	-53.592	86.517	10.800	0.091	0.000	0	0	QP
3		0.116	39.053	28.148	-46.347	85.400	10.800	0.105	0.000	0	0	QP
4		0.128	39.533	28.617	-45.011	84.545	10.800	0.116	0.000	0	0	QP
5		0.141	39.971	29.042	-43.734	83.705	10.800	0.129	0.000	0	0	QP
6	*	0.145	40.415	29.482	-43.047	83.462	10.800	0.133	0.000	0	0	QP

- 1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
- 2. " \* ", means this data is the worst emission level.
  - 3. Measurement Level = Reading Level + Factor(Probe+Cable-Amp).



Site: AC1	Time: 2018/12/17 - 11:01
Limit: FCC-15.209(10m) 9K-30M	Margin: 0
Probe: loop antenna(0.009-30MHz)	Polarity: Horizontal
EUT: Wireless Charge Rack	Power: AC 120V/60Hz
Note: Mode 1:	·

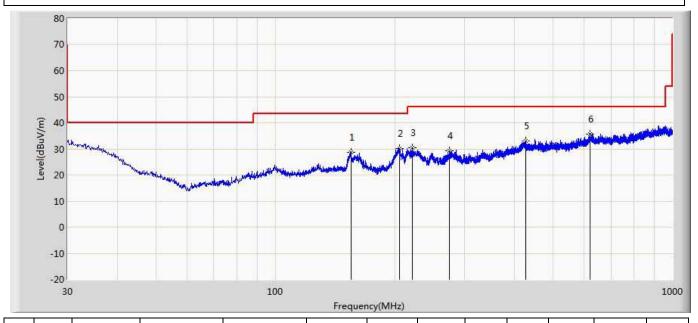


No	Mark	Frequency	Measure Level	Reading Level	Over	Limit	Probe	Cable	Amp	Ant	Table	Туре
		(MHz)	(dBuV/m)	(dBuV)	Limit	(dBuV/	(dB/m)	(dB)	(dB)	Pos	Pos	
					(dB)	m)				(cm)	(deg)	
1	*	3.534	30.383	18.766	-18.244	48.627	10.600	1.017	0.000	0	0	QP
2		7.564	26.825	15.244	-21.802	48.627	10.500	1.081	0.000	0	0	QP
3		8.807	25.716	14.114	-22.912	48.627	10.500	1.102	0.000	0	0	QP
4		16.023	25.362	13.859	-23.265	48.627	10.300	1.203	0.000	0	0	QP
5		17.780	26.587	14.858	-22.040	48.627	10.500	1.229	0.000	0	0	QP
6		20.120	26.283	14.426	-22.344	48.627	10.600	1.257	0.000	0	0	QP

- 1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
- 2. "  $^{*}$  ", means this data is the worst emission level.
- 3. Measurement Level = Reading Level + Factor(Probe+Cable-Amp).



Site: AC3	Time: 2018/12/24 - 18:20
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: AC3_3m (30-1000MHz)	Polarity: Horizontal
EUT: Wireless Charge Rack	Power: AC 120V/60Hz
Note: Mode 1:	

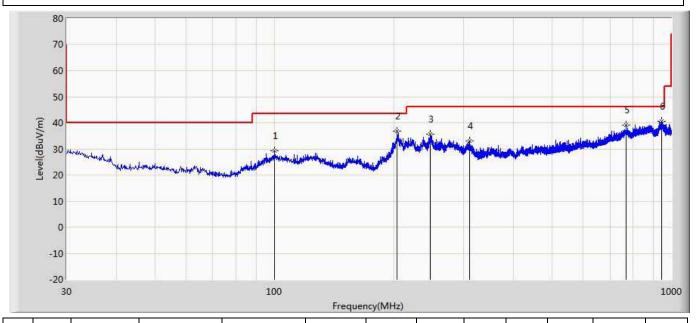


No	Mark	Frequency	Measure Level	Reading Level	Over	Limit	Probe	Cable	Amp	Ant	Table	Туре
		(MHz)	(dBuV/m)	(dBuV)	Limit	(dBuV/	(dB/m)	(dB)	(dB)	Pos	Pos	
					(dB)	m)				(cm)	(deg)	
1		155.372	28.696	11.330	-14.804	43.500	10.263	7.103	0.000	0	0	QP
2		205.570	30.095	12.452	-13.405	43.500	10.342	7.301	0.000	0	0	QP
3		221.818	30.449	12.227	-15.551	46.000	10.865	7.357	0.000	0	0	QP
4		274.198	29.282	9.467	-16.718	46.000	12.279	7.536	0.000	0	0	QP
5		427.579	32.964	5.930	-13.036	46.000	19.053	7.981	0.000	0	0	QP
6	*	618.911	35.765	6.377	-10.235	46.000	20.908	8.480	0.000	0	0	QP

- 1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
- 2. " \* ", means this data is the worst emission level.
- 3. Measurement Level = Reading Level + Factor(Probe+Cable-Amp).



Site: AC3	Time: 2018/12/24 - 18:25
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: AC3_3m (30-1000MHz)	Polarity: Vertical
EUT: Wireless Charge Rack	Power: AC 120V/60Hz
Note: Mode 1:	



No	Mark	Frequency	Measure Level	Reading Level	Over	Limit	Probe	Cable	Amp	Ant	Table	Туре
		(MHz)	(dBuV/m)	(dBuV)	Limit	(dBuV/	(dB/m)	(dB)	(dB)	Pos	Pos	
					(dB)	m)				(cm)	(deg)	
1		100.082	29.147	7.066	-14.353	43.500	15.232	6.850	0.000	0	0	QP
2		203.872	36.810	13.871	-6.690	43.500	15.643	7.296	0.000	0	0	QP
3		247.038	35.521	12.195	-10.479	46.000	15.874	7.451	0.000	0	0	QP
4		310.209	33.046	7.619	-12.954	46.000	17.778	7.649	0.000	0	0	QP
5		769.019	39.255	6.932	-6.745	46.000	23.508	8.815	0.000	0	0	QP
6	*	943.376	40.529	6.192	-5.471	46.000	25.149	9.189	0.000	0	0	QP

- 1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
- 2. " \* ", means this data is the worst emission level.
- 3. Measurement Level = Reading Level + Factor(Probe+Cable-Amp).

Test Result Pass		IPass
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## 5. 20dB Occupied Bandwidth

## 5.1. Test Equipment

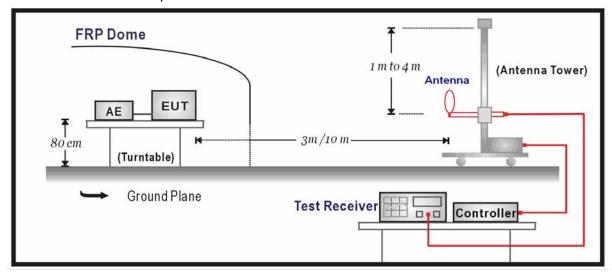
20dBc Occupied Bandwidth /	AC-1				
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date	Cal. Due Date
EMI Test Receiver	R&S	ESCI	100573	2018.03.29	2019.03.28
Loop Antenna	R&S	HFH2-Z2	833799/003	2018.11.25	2019.11.24
Bilog Antenna	Teseq GmbH	CBL6112D	27611	2018.10.11	2019.10.10
		SUCOFLEX			
Coaxial Cable	Huber+Suhner	106	AC2-C	2018.03.02	2019.03.01
Temperature/Humidity Meter	Zhicheng	ZC1-2	AC2-TH	2018.01.08	2019.01.07

Note: All equipment are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.



## 5.2. Test Setup

#### 9kHz~30MHz Test Setup:





#### 5.3. Limit

Intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§15.215(c), must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated.

#### 5.4. Test Procedure

The bandwidth of the fundamental frequency was measured by spectrum analyzer with the RBW 1%~5% of 20dBc bandwidth and the VBW three times of the RBW. The 20dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 20dB.

#### 5.5. Uncertainty

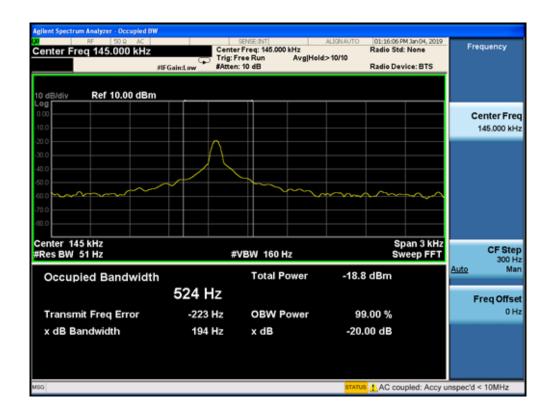
The measurement uncertainty is defined as ± 10 Hz



#### 5.6. Test Result

Product	Wireless Charge Rack		
Test Item	20dB Occupied Bandwidth		
Test Mode	Mode 1: Transmit		
Date of Test	2018/12/30	Test Site	AC-1

Frequency	20dB Bandwidth	99% Bandwidth
(kHz)	(kHz)	(kHz)
110~145	0.194	0.524



Test Result F	Pass
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Report No.: 18C2057R-RF-US-P06V05



#### 6. Antenna Requirement

#### 6.1. Requirement

#### Antenna Requirement Limit

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of §15.211, §15.213, §15.217, §15.219, or §15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with §15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

#### 6.2. Result

Ante	nna Connector Construction
	The use of a permanently attached antenna
	The antenna use of a unique coupling to the intentional radiator
	The use of a nonstandard antenna jack or electrical connector
Plea	se refer to the attached document "Internal Photograph" to show the antenna connector.