



# RF Exposure Evaluation Declaration

Product Name : Wireless Charge Rack

Model No. : CN85-WL-6DESK

FCC ID : HD5-CX85WL

Applicant : HONEYWELL INTERNATIONAL INC  
Honeywell Safety and Productivity Solutions  
Address : 9680 OLD BAILES RD FORT MILL SC 29707-7539,  
USA

Date of Receipt : Jan. 26, 2021

Test Date : Jan. 27, 2021 ~ Jun. 04, 2021

Issued Date : Jun. 04, 2021

Report No. : 2110870R-RF-US-P20V01

Report Version : V1.0

The test results presented in this report relate only to the object tested.

The measurement result is considered in conformance with the requirement if it is within the prescribed limit,  
It is not necessary to account the uncertainty associated with the measurement result.

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## Test Report Certification

Issued Date: Jun. 04, 2021

Report No.: 2110870R-RF-US-P20V01



Product Name : Wireless Charge Rack

Applicant : HONEYWELL INTERNATIONAL INC  
Honeywell Safety and Productivity Solutions

Address : 9680 OLD BAILES RD FORT MILL SC 29707-7539, USA

Manufacturer : 1.HONEYWELL INTERNATIONAL INC  
Honeywell Safety and Productivity Solutions  
2.Metro(Suzhou)Technologies Co.,Ltd

Address : 1.9680 OLD BAILES RD FORT MILL SC 29707-7539, USA  
2.No.221 Xinghai street China-Singapore Suzhou Industrial Park

Model No. : CN85-WL-6DESK

FCC ID : HD5-CX85WL

Brand Name : Honeywell

EUT Voltage : AC 120V/60Hz

Applicable Standard : KDB 680106 D01 RF Exposure Wireless Charging App v03r01

Test Result : Complied

Performed Location : DEKRA Testing and Certification (Suzhou) Co., Ltd.  
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FCC Designation Number: CN1199

Documented By :



(Project Engineer: Scott Shen)

Approved By :



(Supervisor: Jack Zhang)

## TABLE OF CONTENTS

Description	Page
1. General Information .....	5
1.1. EUT Description .....	5
1.2. Antenna information .....	6
1.3. Mode of Operation.....	7
1.4. Tested System Details .....	8
1.5. Configuration of Tested System.....	9
1.6. EUT Exercise Software.....	10
2. Technical Test .....	11
2.1. Test Environment.....	11
3. Electric Field Strength / Magnetic Field Strength .....	12
3.1. Test Equipment.....	12
3.2. Test Setup.....	13
3.3. Test Configuration.....	14
3.4. Limit.....	15
3.5. Test Procedure .....	15
3.6. Uncertainty .....	16
3.7. Test Result.....	17

### History of This Test Report

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
2110870R-RF-US-P20V01	V1.0	Initial Issued Report	Jun. 04, 2021

## 1. General Information

### 1.1. EUT Description

Product Name	Wireless Charge Rack
Model No.	CN85-WL-6DESK
S/N	21012B2C08
Hardware Version	Rev01
Working Voltage	AC 120V/60Hz
Frequency Range	120 kHz ~ 300 kHz
Type of Modulation	ASK

**1.2. Antenna information**

Model No.	N/A					
Antenna manufacturer	N/A					
Antenna Delivery	<input checked="" type="checkbox"/>	1*TX+1*RX	<input type="checkbox"/>	2*TX+2*RX	<input type="checkbox"/>	3*TX+3*RX
Antenna technology	<input checked="" type="checkbox"/>	SISO				
	<input type="checkbox"/>	MIMO	<input type="checkbox"/>	Basic		
			<input type="checkbox"/>	CDD		
			<input type="checkbox"/>	Sectorized		
			<input type="checkbox"/>	Beam-forming		
Antenna Type	<input type="checkbox"/>	External	<input type="checkbox"/>	Dipole		
			<input type="checkbox"/>	Sectorized		
	<input checked="" type="checkbox"/>	Internal	<input type="checkbox"/>	PIFA		
			<input type="checkbox"/>	PCB		
			<input type="checkbox"/>	Ceramic Chip Antenna		
			<input checked="" type="checkbox"/>	Loop antenna		
<input type="checkbox"/>	Type F 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

Note:

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

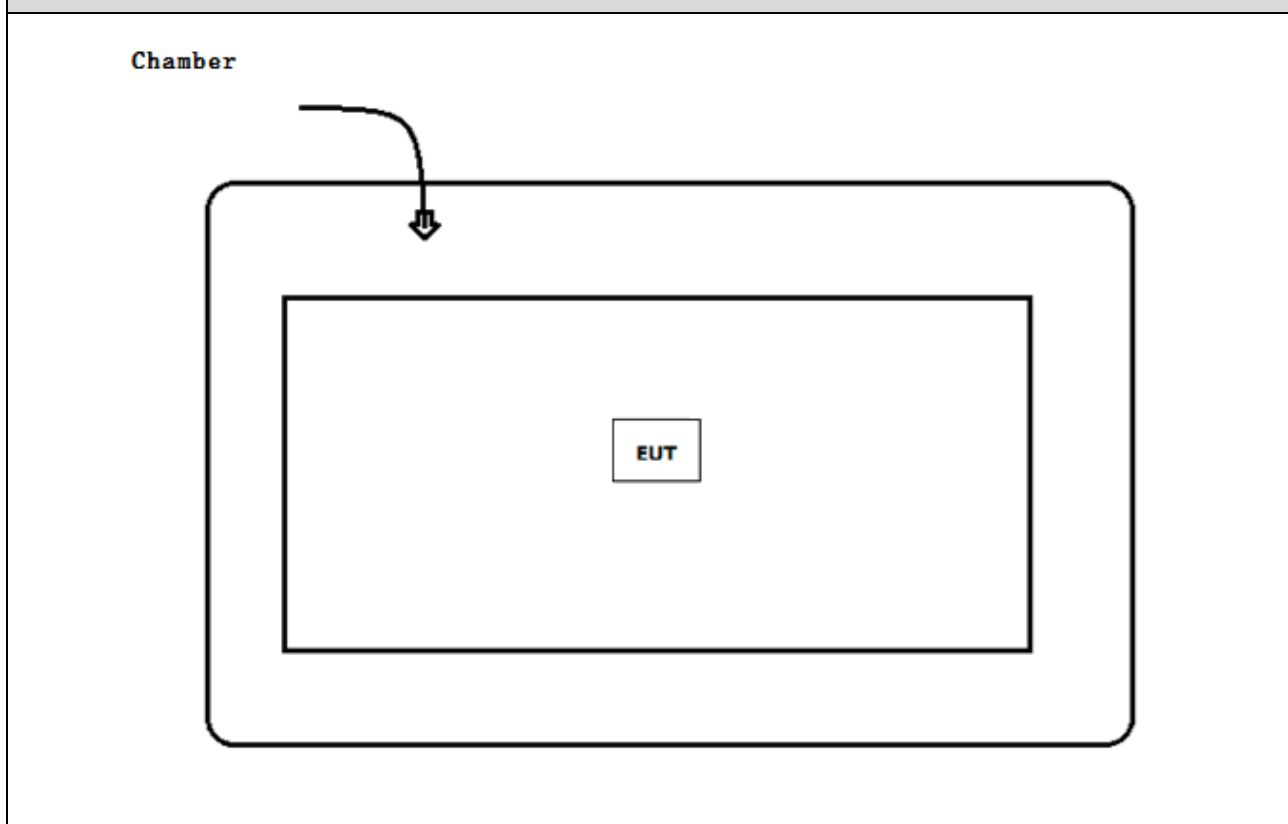
The types for all equipment, plus descriptions of all cables used in the tested system (including inserted cards) are:

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

Test setup Diagram- Radiated Emission



### **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.

## 2. Technical Test

### 2.1. 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

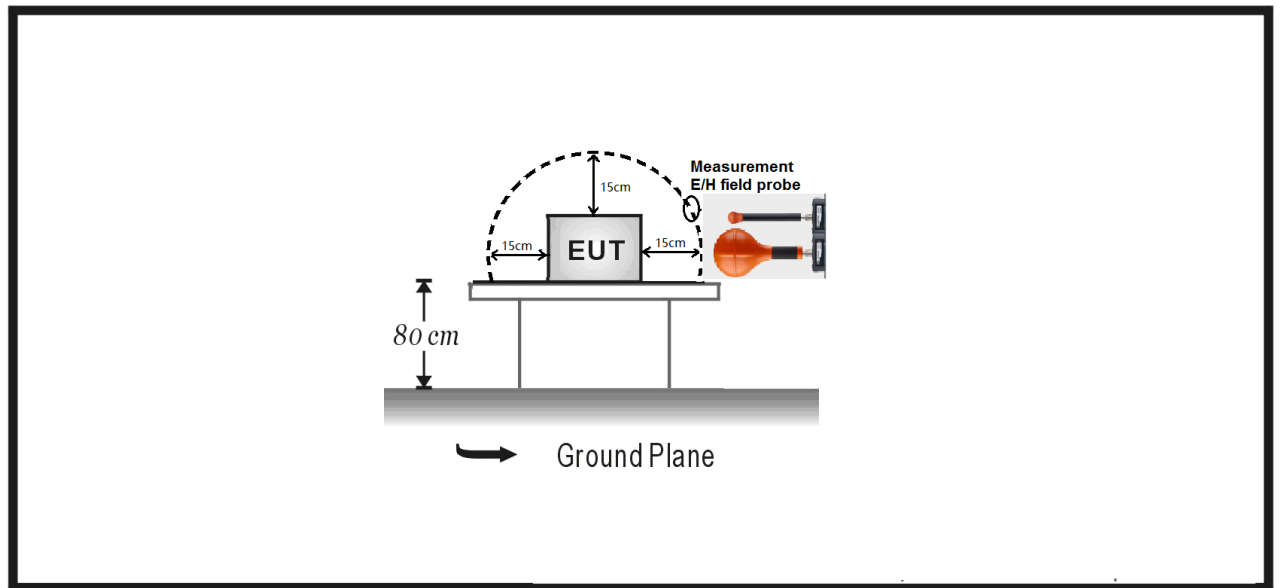
### 3. Electric Field Strength / Magnetic Field Strength

#### 3.1. Test Equipment

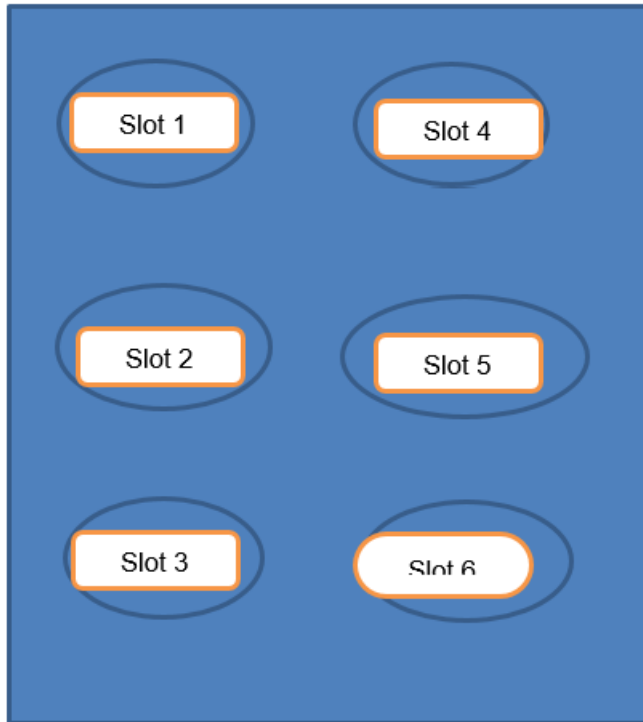
Electric Field Strength / Magnetic Field Strength / AC-6					
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date	Cal. Due Date
Field Meter	WAVECONTROL	SMP2	20SN1286	2020.06.28	2021.06.27
Temperature/Humidity Meter	RTS	RTS-8S	RF06	2020.08.13	2021.08.12
Note: All equipment are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.					

### 3.2. Test Setup

3kHz~10MHz Test Setup:



### 3.3. Test Configuration

**One device Loaded:**

1 device in slot 1, 0 devices in slots 2, 3, 4, 5, 6  
1 device in slot 2, 0 devices in slots 1, 3, 4, 5, 6  
1 device in slot 3, 0 devices in slots 1, 2, 4, 5, 6  
1 device in slot 4, 0 devices in slots 1, 2, 3, 5, 6  
1 device in slot 5, 0 devices in slots 1, 2, 3, 4, 6  
1 device in slot 6, 0 devices in slots 1, 2, 3, 4, 5

**Two devices Loaded:**

insert 2 devices in slot 1, 4 on the top, slot, 2, 5 on the middle. Slot 3, 6 on the bottom

**Fully Loaded:**

insert 6 devices on slot 1, 2, 3, 4, 5, 6

Both E, and H field measurement are carried out in full, 2 loaded and 1 loaded condition for compliance.

### 3.4. Limit

According to KDB 680106 D01v03r01 Clause 3.c: For devices designed for typical desktop applications, such a wireless charging pads, RF exposure evaluation should be conducted assuming a user separation distance of 15 cm. E and H field strength measurements or numerical modeling may be used to demonstrate compliance. Measurements should be made from all sides and the top of the primary/client pair, with the 15 cm measured from the center of the probe(s) to the edge of the device. Emissions between 100 kHz to 300 kHz should be assessed versus the limits at 300 kHz in Table 1 of Section 1.1310: 614 V/m and 1.63 A/m.

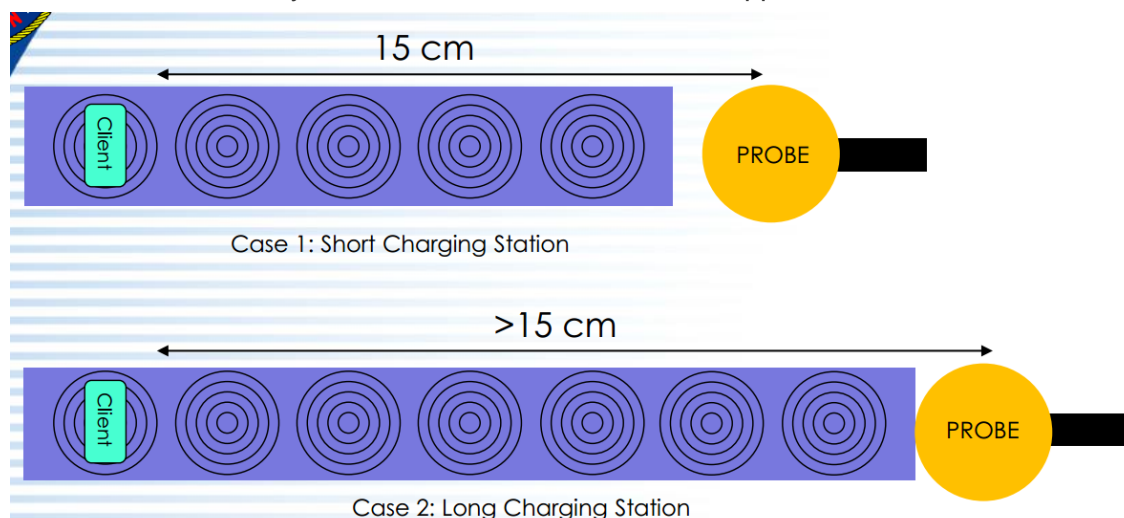
### 3.5. Test Procedure

- Set the measurement frequency of the measurement probe to the fundamental frequency of the device under test.
- Set the span to encompass the entire emission bandwidth.
- Set the RBW greater than the 99% OBW of the fundamental emission.

Note: This step is not required for a broadband measurement probe that integrates the entire frequency range.

- Set the detector to Peak and trace display to Max-Hold.
- Allow the probe meter to fill; for pulsing devices this may require an increased monitoring period.
- Using a marker, set it to the maximum level of the spectral envelope.
- Repeat steps (b) to (f) while scanning a parallel plane at the measurement distance of 15cm each loaded condition of each position of the slot to find the peak level.

Note: When scanning around the entire device, the location found to be the maximum for the E- or H-field may not be the same location as the opposite field.



### **3.6. Uncertainty**

The measurement uncertainty is defined as  $\pm 3.10$  dB



### 3.7. Test Result

#### One device Loaded

Test Location	Test Separation Distance (cm)	Maximum Electric Field Level (V/m)	Maximum Magnetic Field Level (A/m)	Electric Field Limit (V/m)	Magnetic Field Limit (A/m)	Result
Top	15	0.51	0.011	83	1.63	Pass
Front	15	0.14	0.004	83	1.63	Pass
Back	15	0.66	0.011	83	1.63	Pass
Left	15	1.14	0.012	83	1.63	Pass
Right	15	0.05	0.003	83	1.63	Pass

Note: We tested one device at different 6 slots and only show the worst data.

#### Two devices Loaded

Test Location	Test Separation Distance (cm)	Maximum Electric Field Level (V/m)	Maximum Magnetic Field Level (A/m)	Electric Field Limit (V/m)	Magnetic Field Limit (A/m)	Result
Top	15	0.46	0.014	83	1.63	Pass
Front	15	0.27	0.008	83	1.63	Pass
Back	15	0.64	0.009	83	1.63	Pass
Left	15	1.25	0.010	83	1.63	Pass
Right	15	0.05	0.003	83	1.63	Pass

Note: We tested two device at top/mid/bottom slots and only show the worst data.

**Fully Loaded**

Test Location	Test Separation Distance (cm)	Maximum Electric Field Level (V/m)	Maximum Magnetic Field Level (A/m)	Electric Field Limit (V/m)	Magnetic Field Limit (A/m)	Result
Top	15	0.25	0.013	83	1.63	Pass
Front	15	0.39	0.012	83	1.63	Pass
Back	15	0.88	0.016	83	1.63	Pass
Left	15	1.74	0.010	83	1.63	Pass
Right	15	0.06	0.004	83	1.63	Pass

**RF Exposure Evaluation**

WPT Device requirement	
<input checked="" type="checkbox"/>	Wireless power transfer frequency is below 1 MHz.
<input checked="" type="checkbox"/>	Output power from each primary coil is less than or equal to 15 watts.
<input checked="" type="checkbox"/>	The transfer system includes only single primary and secondary coils. This includes charging systems that may have multiple primary coils and clients that are able to detect and allow coupling only between individual pairs of coils.
<input checked="" type="checkbox"/>	Client device is placed directly in contact with the transmitter.
<input checked="" type="checkbox"/>	Mobile exposure conditions only (portable exposure conditions are not covered by this exclusion).
<input checked="" type="checkbox"/>	The aggregate H-field strengths at 15 cm surrounding the device and 20 cm above the top surface from all simultaneous transmitting coils are demonstrated to be less than 50% of the MPE limit.

Note: The WPT device can meet all the six requirements above.

\_\_\_\_\_ The End \_\_\_\_\_