

# TEST REPORT

Reference No..... : WTH22X07140326W002  
FCC ID ..... : 2AOAF-380  
Applicant ..... : Tylt ,INC  
Address..... : 685 Cochran St. Suite 200 Simi Valley CA93065 United States  
Manufacturer ..... : HANK ELECTRONICS VIETNAM LTD  
Address..... : No. 7,11 Street VSIP Tu Son. 16353 Bac Ninh Province. Vietnam  
Product Name ..... : Magnetic Wireless Charging Pad  
Model No..... : QIWCMS15BK-CQ, 4465R  
Standards ..... : KDB 680106 D01 V03  
Date of Receipt sample .... : 2022-07-11  
Date of Test..... : 2022-07-11 to 2022-07-15  
Date of Issue ..... : 2022-07-15  
Test Report Form No. .... : WTX\_KDB 680106 D01 V03W  
Test Result..... : Pass

Remarks:

The results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of approver.

**Prepared By:**

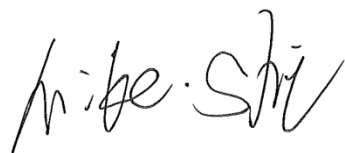
**Waltek Testing Group (Shenzhen) Co., Ltd.**

Address: 1/F., Room 101, Building 1, Hongwei Industrial Park, Liuxian 2nd Road,  
Block 70 Bao'an District, Shenzhen, Guangdong, China

Tel.: +86-755-33663308 Fax.: +86-755-33663309 Email: sem@waltek.com.cn

Tested by:

Approved by:



Mike Shi



Silin Chen

**TABLE OF CONTENTS**

**1. GENERAL INFORMATION.....4**

1.1 PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT).....4

1.2 AUXILIARY EQUIPMENT LIST AND DETAILS.....5

1.3 TEST EQUIPMENT LIST AND DETAILS.....6

**2. RF EXPOSURE TEST REPORT.....7**

2.1 STANDARD APPLICABLE.....7

2.2 TEST CONDITIONS .....7

2.3 TEST PROCEDURE.....8

2.4 TEST RESULT.....9

2.5 MEASUREMENT UNCERTAINTY .....11

2.6 TEST PHOTOS .....12

**APPENDIX PHOTOGRAPHS.....13**

## Report version

| Version No. | Date of issue | Description |
|-------------|---------------|-------------|
| Rev.00      | 2022-07-15    | Original    |
| /           | /             | /           |

## 1. GENERAL INFORMATION

---

### 1.1 Product Description for Equipment Under Test (EUT)

| General Description of EUT                                                                                                                                                                                                                                                                        |                                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| Product Name:                                                                                                                                                                                                                                                                                     | Magnetic Wireless Charging Pad |
| Trade Name:                                                                                                                                                                                                                                                                                       | /                              |
| Model No.:                                                                                                                                                                                                                                                                                        | QIWCMS15BK-CQ, 4465R           |
| <i>Note: The test data is gathered from a production sample, provided by the manufacturer. The appearance of others models listed in the report is different from main-test model QIWCMS15BK-CQ, but the circuit and the electronic construction do not change, declared by the manufacturer.</i> |                                |

| Technical Characteristics of EUT |                             |
|----------------------------------|-----------------------------|
| Frequency Range:                 | 110~205KHz                  |
| Modulation Type:                 | ASK                         |
| Antenna Type:                    | Coil Antenna                |
| Antenna Gain:                    | 0dBi                        |
| Input:                           | DC5V 2A, DC9V 2A,DC12V1.67A |
| Wireless output:                 | 5W,10W,15W                  |
| Power adapter:                   | /                           |

1.2 Auxiliary Equipment List and Details

Auxiliary Equipment List and Details

| Description            | Manufacturer | Model                        | Serial Number |
|------------------------|--------------|------------------------------|---------------|
| AC Adapter             | /            | A138A120150U-CN2             | /             |
| Wireless Charging Load | YBZ          | YBZ wireless charging tester | /             |

Special Cable List and Details

| Cable Description | Length (M) | Shielded/Unshielded | With Core/Without Core |
|-------------------|------------|---------------------|------------------------|
| Type-C Cable      | 1.0        | Shielded            | Without Ferrite        |

1.3 Test Equipment List and Details

| Description                             | Manufacturer | Model     | Serial No. | Cal Date   | Due Date   |
|-----------------------------------------|--------------|-----------|------------|------------|------------|
| ELECTRIC AND MAGNETIC<br>FIELD ANALYZER | Narda        | EHP-200AC | 180ZX10226 | 2021-05-20 | 2024-05-19 |

## 2. RF Exposure Test Report

### 2.1 Standard Applicable

According to § 1.1310 system operating under the provisions of this section shall be operating in a manner that the public is not exposed to radio frequency energy level in excess limit for maximum permissible exposure.

TABLE 1—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

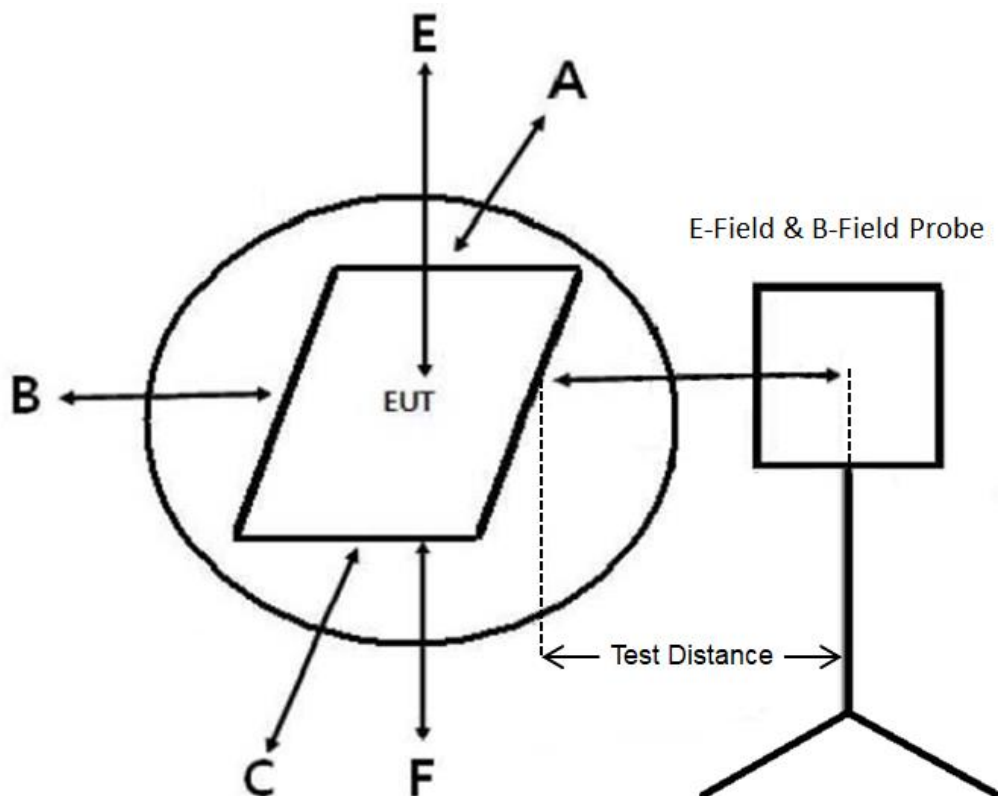
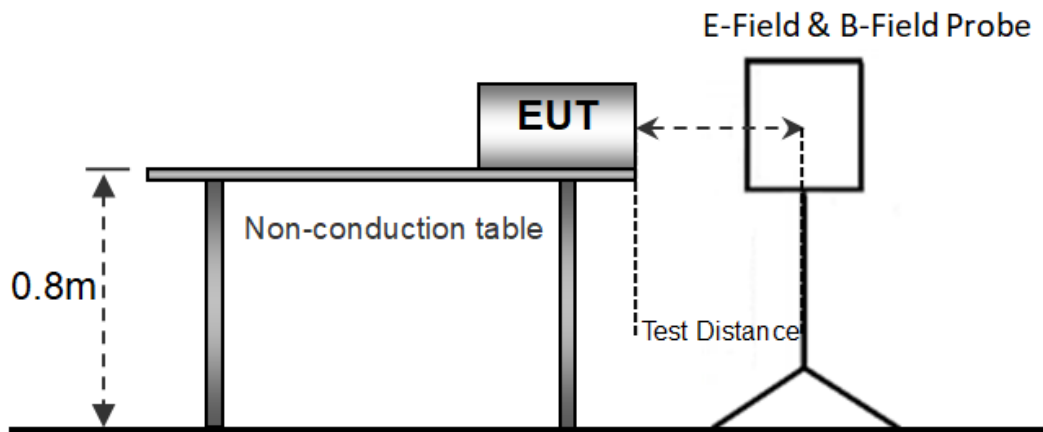
| Frequency range (MHz)                                          | Electric field strength (V/m) | Magnetic field strength (A/m) | Power density (mW/cm <sup>2</sup> ) | Averaging time (minutes) |
|----------------------------------------------------------------|-------------------------------|-------------------------------|-------------------------------------|--------------------------|
| <b>(A) Limits for Occupational/Controlled Exposure</b>         |                               |                               |                                     |                          |
| 0.3-3.0                                                        | 614                           | 1.63                          | *100                                | 6                        |
| 3.0-30                                                         | 1842/f                        | 4.89/f                        | *900/f <sup>2</sup>                 | 6                        |
| 30-300                                                         | 61.4                          | 0.163                         | 1.0                                 | 6                        |
| 300-1,500                                                      |                               |                               | f/300                               | 6                        |
| 1,500-100,000                                                  |                               |                               | 5                                   | 6                        |
| <b>(B) Limits for General Population/Uncontrolled Exposure</b> |                               |                               |                                     |                          |
| 0.3-1.34                                                       | 614                           | 1.63                          | *100                                | 30                       |
| 1.34-30                                                        | 824/f                         | 2.19/f                        | *180/f <sup>2</sup>                 | 30                       |
| 30-300                                                         | 27.5                          | 0.073                         | 0.2                                 | 30                       |
| 300-1,500                                                      |                               |                               | f/1500                              | 30                       |
| 1,500-100,000                                                  |                               |                               | 1.0                                 | 30                       |

f = frequency in MHz \* = Plane-wave equivalent power density

### 2.2 Test Conditions

| Test Mode             | Description       | Remark     |
|-----------------------|-------------------|------------|
| TM1                   | Wireless Charging | 5W output  |
| TM2                   | Wireless Charging | 10W output |
| TM3                   | Wireless Charging | 15W output |
|                       |                   |            |
| Measurement Distance: | 15 cm and 20 cm   |            |

## 2.3 Test Procedure



- The measurement probe was placed at test distance(15 cm for A,B,C,D,F and 20 cm for E) which is between the edge of the charger and the geometric center of probe.
- The highest emission level was recorded at the measurement points(A, B, C, D, E, F).
- The EUT was measured according to the distance of KDB 680106 D01 V03.

## 2.4 Test Result

The EUT complies with item 5.2 of KDB 680106 D01V03

1. Power transfer frequency is less than 1 MHz  
Yes, the device operates in the frequency range from 110kHz to 205kHz.
2. Output power from each primary coil is less than or equal to 15 watts  
Yes, the maximum output power of the primary coil is equal to 15W.
3. 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  
Yes, the client device includes only single primary coils.
4. Client device is inserted in or placed directly in contact with the transmitter  
Yes, Client device is placed directly in contact with the transmitter.
5. Mobile exposure conditions only (portable exposure conditions are not covered by this exclusion).  
Yes, It is mobile exposure conditions only.
6. 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.  
Yes, The EUT field strength levels are less than 50% of the MPE limit, refer to test TM1, TM2, TM3 list, and the coils can't be transmitted simultaneously.

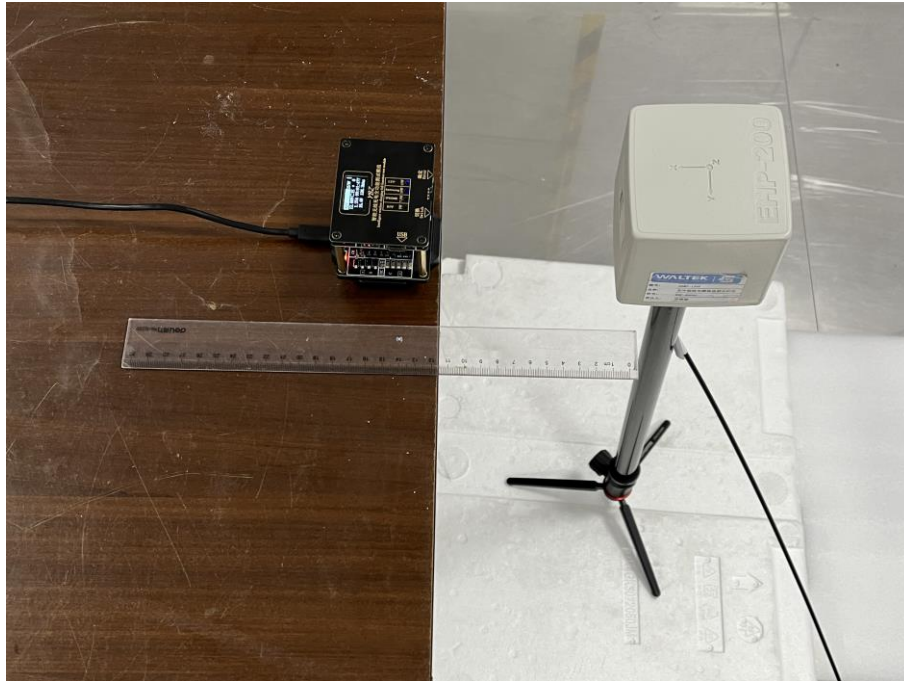
Test Mode: TM1

| Electric Field Emissions |                     |            |                 |
|--------------------------|---------------------|------------|-----------------|
| Test Position            | Measure Value (V/m) | Limit(V/m) | 50% Limit (V/m) |
| Point E                  | 5.15                | 614        | 307             |
| Point F                  | 4.25                | 614        | 307             |
| Point A                  | 3.02                | 614        | 307             |
| Point B                  | 2.85                | 614        | 307             |
| Point C                  | 1.06                | 614        | 307             |
| Point D                  | 3.54                | 614        | 307             |
| Magnetic Field Emissions |                     |            |                 |
| Test Position            | Measure Value (A/m) | Limit(A/m) | 50% Limit (A/m) |
| Point E                  | 0.28                | 1.63       | 0.815           |
| Point F                  | 0.41                | 1.63       | 0.815           |
| Point A                  | 0.22                | 1.63       | 0.815           |
| Point B                  | 0.18                | 1.63       | 0.815           |
| Point C                  | 0.27                | 1.63       | 0.815           |
| Point D                  | 0.17                | 1.63       | 0.815           |

## 2.5 Measurement Uncertainty

| Measurement uncertainty  |            |                  |
|--------------------------|------------|------------------|
| Parameter                | Conditions | Uncertainty      |
| Electric Field Emissions | Radiated   | $\pm 1.56$ (V/m) |
| Magnetic Field Emissions | Radiated   | $\pm 0.08$ (A/m) |

## 2.6 Test Photos



## APPENDIX PHOTOGRAPHS

---

Please refer to “ANNEX”

\*\*\*\*\* END OF REPORT \*\*\*\*\*