

# RF Exposure Report

**FCC ID: 2BH4RW313**

**Report No.** : SSP25070190-2E

**Applicant** : Shenzhen Kangmingcheng Technology Co., Ltd

**Product Name** : 3 in 1 Wireless Charger

**Model Name** : W313

**Test Standard** : FCC CFR 47 PART 1, 1.1310

**Date of Issue** : 2025-08-08



**Shenzhen CCUT Quality Technology Co., Ltd.**

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This test report is limited to the above client company and the product model only. It may not be duplicated without prior permitted by Shenzhen CCUT Quality Technology Co., Ltd.

**Test Report Basic Information**

|                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Applicant</b> .....:                                                                                                                                                                                                                                                             | Shenzhen Kangmingcheng Technology Co., Ltd<br>6th Floor, Rooms 619-620, Tianhui Building, Donghuan 1st RoadFukan<br>Community, Longhua Street, Longhua District, ShenzhenCity, Guangdong<br>Province, China |
| <b>Manufacturer</b> .....:                                                                                                                                                                                                                                                          | Shenzhen Hongtian Electronics Co.. Ltd.<br>2nd Floor, Building A3, Guantian Hengkeng Industrial Park,<br>BeihuanRoad,Guantian Community,Shiyan Street, Bao'an District,<br>ShenzhenGuangdong, China         |
| <b>Product Name</b> .....:                                                                                                                                                                                                                                                          | 3 in 1 Wireless Charger                                                                                                                                                                                     |
| <b>Brand Name</b> .....:                                                                                                                                                                                                                                                            | Hicober                                                                                                                                                                                                     |
| <b>Main Model</b> .....:                                                                                                                                                                                                                                                            | W313                                                                                                                                                                                                        |
| <b>Series Models</b> .....:                                                                                                                                                                                                                                                         | -                                                                                                                                                                                                           |
| <b>Test Standard</b> .....:                                                                                                                                                                                                                                                         | FCC CFR 47 PART 1, 1.1310<br>KDB 680106 D01 Wireless Power Transfer v04                                                                                                                                     |
| <b>Date of Test</b> .....                                                                                                                                                                                                                                                           | 2025-07-18 to 2025-07-28                                                                                                                                                                                    |
| <b>Test Result</b> .....:                                                                                                                                                                                                                                                           | PASS                                                                                                                                                                                                        |
| <b>Tested By</b> .....                                                                                                                                                                                                                                                              | <u>Colin Chen</u> (Colin Chen)                                                                                                                                                                              |
| <b>Reviewed By</b> .....:                                                                                                                                                                                                                                                           | <u>Lieber Ouyang</u> (Lieber Ouyang)                                                                                                                                                                        |
| <b>Authorized Signatory</b> .....:                                                                                                                                                                                                                                                  | <u>Lahm Peng</u> (Lahm Peng)                                                                                                                                                                                |
| Note : This test report is limited to the above client company and the product model only. It may not be duplicated without prior permitted by Shenzhen CCUT Quality Technology Co., Ltd.. All test data presented in this test report is only applicable to presented test sample. |                                                                                                                                                                                                             |



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Revision History

| Revision | Issue Date | Description     | Revised By |
|----------|------------|-----------------|------------|
| V1.0     | 2025-08-08 | Initial Release | Lahm Peng  |
|          |            |                 |            |
|          |            |                 |            |
|          |            |                 |            |
|          |            |                 |            |

## 1. General Information

### 1.1 Product Information

|                                                                                           |                                                                                                                                         |
|-------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| Product Name:                                                                             | 3 in 1 Wireless Charger                                                                                                                 |
| Trade Name:                                                                               | Hicober                                                                                                                                 |
| Main Model:                                                                               | W313                                                                                                                                    |
| Series Models:                                                                            | -                                                                                                                                       |
| Rated Voltage:                                                                            | Input: 5V=3A, 9V=2.22A<br>Watch Wireless Output: 2.5W (Max)<br>Earbuds Wireless Output: 3W (Max)<br>Wireless Output: 5W, 7.5W, 10W(Max) |
| Test Sample No:                                                                           | SSP25070190-1                                                                                                                           |
| Hardware Version:                                                                         | V1.0                                                                                                                                    |
| Software Version:                                                                         | V1.0                                                                                                                                    |
| Note 1: The test data is gathered from a production sample, provided by the manufacturer. |                                                                                                                                         |

| Wireless Specification |                                                                                                             |
|------------------------|-------------------------------------------------------------------------------------------------------------|
| Wireless Standard:     | WPC                                                                                                         |
| Operating Frequency:   | Wireless charging Output (Phone/Earphone):110.5kHz-205kHz<br>Wireless charging Output (Watch):310kHz-340kHz |
| Modulation:            | FSK                                                                                                         |
| Antenna Gain:          | 0dBi                                                                                                        |
| Type of Antenna:       | Coil Antenna                                                                                                |
| Type of Device:        | <input type="checkbox"/> Portable Device <input checked="" type="checkbox"/> Mobile Device                  |

## 1.2 Test Setup Information

| List of Test Modes                                                                                |                                                                                                                     |                     |                      |
|---------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|---------------------|----------------------|
| Test Mode                                                                                         | Description                                                                                                         |                     | Remark               |
| TM1                                                                                               | Wireless charging 10W (Phone)+adapter charging                                                                      |                     |                      |
| TM2                                                                                               | Wireless charging 7.5W (Phone)+adapter charging                                                                     |                     |                      |
| TM3                                                                                               | Wireless charging 5W (Phone) +adapter charging                                                                      |                     |                      |
| TM4                                                                                               | Wireless charging 3W (Earphone)+adapter charging                                                                    |                     |                      |
| TM5                                                                                               | Wireless charging 2.5W (Watch)+adapter charging                                                                     |                     |                      |
| TM6                                                                                               | Wireless charging 10W (Phone) + Wireless charging 3W (Earphone) +adapter charging                                   |                     |                      |
| TM7                                                                                               | Wireless charging 10W (Phone) + Wireless charging 2.5W (Watch) +adapter charging                                    |                     |                      |
| TM8                                                                                               | Wireless charging 3W (Earphone) + Wireless charging 2.5W (Watch) +adapter charging                                  |                     |                      |
| TM10                                                                                              | Wireless charging 5W (Phone) + Wireless charging 3W (Earphone) + Wireless charging 2.5W (Watch) +adapter charging   |                     |                      |
| TM11                                                                                              | Wireless charging 7.5W (Phone) + Wireless charging 3W (Earphone) + Wireless charging 2.5W (Watch) +adapter charging |                     |                      |
| TM12                                                                                              | Wireless charging 10W (Phone) + Wireless charging 5W (Earphone) + Wireless charging 2.5W (Watch) +adapter charging  |                     |                      |
| TM1                                                                                               | Wireless charging 10W (Phone)+adapter charging                                                                      |                     |                      |
| Note1: All modes have been tested and only the worst mode TM12 data is represented in the report. |                                                                                                                     |                     |                      |
| List and Details of Auxiliary Cable                                                               |                                                                                                                     |                     |                      |
| Description                                                                                       | Length (cm)                                                                                                         | Shielded/Unshielded | With/Without Ferrite |
| Type-C Cable                                                                                      | 100                                                                                                                 | Unshielded          | Without Ferrite      |
| -                                                                                                 | -                                                                                                                   | -                   | -                    |
| List and Details of Auxiliary Equipment                                                           |                                                                                                                     |                     |                      |
| Description                                                                                       | Manufacturer                                                                                                        | Model               | Serial Number        |
| Phone                                                                                             | iPhone                                                                                                              | iPhone 12pro        | -                    |
| Adapter                                                                                           | UGREEN                                                                                                              | CD289               | 90324                |
| Earphone charging case                                                                            | Xiaomi                                                                                                              | FreeBuds Pro2       | -                    |
| Apple Watch                                                                                       | iPhone                                                                                                              | A2855               | GK46LFW525           |

### 1.3 Test Facilities

|                                                                                                                                                                                                      |                                                                                                                                                                              |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Laboratory Name:                                                                                                                                                                                     | <b>Shenzhen CCUT Quality Technology Co., Ltd.</b><br>1F, Building 35, Changxing Technology Industrial Park, Yutang Street,<br>Guangming District, Shenzhen, Guangdong, China |
| CNAS Laboratory No.:                                                                                                                                                                                 | L18863                                                                                                                                                                       |
| A2LA Certificate No.:                                                                                                                                                                                | 6983.01                                                                                                                                                                      |
| FCC Registration No:                                                                                                                                                                                 | 583813                                                                                                                                                                       |
| FCC Designation No.:                                                                                                                                                                                 | CN1373                                                                                                                                                                       |
| ISED Registration No.:                                                                                                                                                                               | CN0164                                                                                                                                                                       |
| All measurement facilities used to collect the measurement data are located at 1F, Building 35, Changxing Technology Industrial Park, Yutang Street, Guangming District, Shenzhen, Guangdong, China. |                                                                                                                                                                              |

1.4 List of Measurement Instruments

| Description                       | Manufacturer | Model   | Serial Number | Cal. Date  | Due. Date  |
|-----------------------------------|--------------|---------|---------------|------------|------------|
| Electromagnet-ic radiation tester | WAVECONTROL  | SMP3    | 23SL0158      | 2024-10-16 | 2025-10-15 |
| Electromagnet -ic field probe     | WAVECONTROL  | WP400-3 | 24WP240067    | 2024-10-16 | 2025-10-15 |
| Test Software                     | WAVECONTROL  | SMP     | N/A           | N/A        | N/A        |

1.5 Measurement Uncertainty

| Test Item | Uncertainty |
|-----------|-------------|
| E-field   | 0.6 dB      |
| H-field   | 0.6 dB      |



## 2. RF Exposure

### 2.1 Standard and Limit

The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

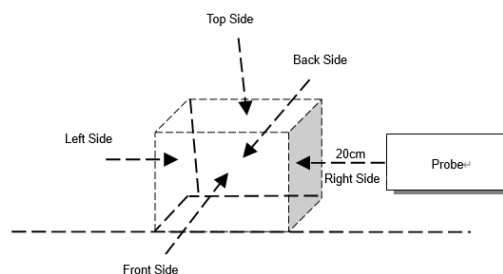
Limits for Maximum Permissible Exposure (MPE)

| Frequency range (MHz)                                   | Electric field strength (V/m) | Magnetic field strength (A/m) | Power density (mW/cm <sup>2</sup> ) | Averaging time (minutes) |
|---------------------------------------------------------|-------------------------------|-------------------------------|-------------------------------------|--------------------------|
| (A) Limits for Occupational/Controlled Exposures        |                               |                               |                                     |                          |
| 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                        |
| 300–1500                                                |                               |                               | f/300                               | 6                        |
| 1500–100,000                                            |                               |                               | 5                                   | 6                        |
| (B) Limits for General Population/Uncontrolled Exposure |                               |                               |                                     |                          |
| 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                       |
| 300–1500                                                |                               |                               | f/1500                              | 30                       |
| 1500–100,000                                            |                               |                               | 1.0                                 | 30                       |

f = frequency in MHz

### 2.2 Test Procedures

- 1) The RF exposure test was performed in anechoic chamber.
- 2) E and H-field measurements should be made with the center of the probe at a distance of 20m surrounding the device and 20 cm above the top surface of the primary/client pair.  
These measurements should be repeated for three different client battery levels, 1%, 50%, and 99%.
- 3) The highest emission level was recorded and compared with limit as soon as measurement of each points were completed.
- 4) The EUT was measured according to the dictates of KDB 680106 D01 v04.



Test Setup Block Diagram

## 2.3 Test Data and Results

All modes including full load, halfload and no-load have been tested, The report reflects data for the worst TM1 mode only.

Test condition 1: Mode 1 operating mode with client device.

| Maximum permissible Exposure |            |                   |             |
|------------------------------|------------|-------------------|-------------|
| Battery levels               | Test sides | Test distance(cm) | H-field(uT) |
| <1%                          | Top        | 20                | 0.38        |
| <1%                          | Left       | 20                | 0.29        |
| <1%                          | Right      | 20                | 0.54        |
| <1%                          | Front      | 20                | 0.26        |
| <1%                          | Back       | 20                | 0.25        |

| Maximum permissible Exposure |            |                   |               |              |
|------------------------------|------------|-------------------|---------------|--------------|
| Battery levels               | Test sides | Test distance(cm) | E -field(V/m) | H-field(A/m) |
| <1%                          | Top        | 20                | 2.344         | 0.30         |
| <1%                          | Left       | 20                | 4.159         | 0.23         |
| <1%                          | Right      | 20                | 6.319         | 0.43         |
| <1%                          | Front      | 20                | 3.541         | 0.21         |
| <1%                          | Back       | 20                | 1.679         | 0.20         |
| Limit                        |            |                   | 614           | 1.63         |
| 50% Margin Limit             |            |                   | 307           | 0.815        |

Note:  $A/m = uT/1.25$

| Maximum permissible Exposure |            |                   |             |
|------------------------------|------------|-------------------|-------------|
| Battery levels               | Test sides | Test distance(cm) | H-field(uT) |
| <50%                         | Top        | 20                | 0.17        |
| <50%                         | Left       | 20                | 0.25        |
| <50%                         | Right      | 20                | 0.26        |
| <50%                         | Front      | 20                | 0.21        |
| <50%                         | Back       | 20                | 0.19        |

| Maximum permissible Exposure |            |                   |               |              |
|------------------------------|------------|-------------------|---------------|--------------|
| Battery levels               | Test sides | Test distance(cm) | E -field(V/m) | H-field(A/m) |
| <50%                         | Top        | 20                | 2.120         | 0.14         |
| <50%                         | Left       | 20                | 4.315         | 0.20         |
| <50%                         | Right      | 20                | 6.113         | 0.21         |
| <50%                         | Front      | 20                | 3.769         | 0.17         |
| <50%                         | Back       | 20                | 1.365         | 0.15         |
| Limit                        |            |                   | 614           | 1.63         |
| 50% Margin Limit             |            |                   | 307           | 0.815        |

Note:  $A/m = uT/1.25$

| Maximum permissible Exposure |            |                   |             |
|------------------------------|------------|-------------------|-------------|
| Battery levels               | Test sides | Test distance(cm) | H-field(uT) |
| <99%                         | Top        | 20                | 0.44        |
| <99%                         | Left       | 20                | 0.20        |
| <99%                         | Right      | 20                | 0.48        |
| <99%                         | Front      | 20                | 0.36        |
| <99%                         | Back       | 20                | 0.24        |

| Maximum permissible Exposure |            |                   |               |              |
|------------------------------|------------|-------------------|---------------|--------------|
| Battery levels               | Test sides | Test distance(cm) | E -field(V/m) | H-field(A/m) |
| <99%                         | Top        | 20                | 2.454         | 0.35         |
| <99%                         | Left       | 20                | 4.341         | 0.16         |
| <99%                         | Right      | 20                | 6.323         | 0.38         |
| <99%                         | Front      | 20                | 3.235         | 0.29         |
| <99%                         | Back       | 20                | 2.116         | 0.19         |
| Limit                        |            |                   | 614           | 1.63         |
| 50% Margin Limit             |            |                   | 307           | 0.815        |

Note:  $A/m = uT/1.25$

## Annex A. Test Photos

### Test View 1



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