

# Radio Exposure Evaluation Report

FCC ID : 2AZRF-DCPC03  
Equipment : DHOS Reiri Touch Solution  
Brand Name : Reiri  
Model Name : DCPF04  
Applicant : Daikin Holdings Singapore Pte. Ltd.  
10 Ang Mo Kio Ind Park 2, Singapore 569501  
Manufacturer : Daikin Holdings Singapore Pte. Ltd.  
10 Ang Mo Kio Ind Park 2, Singapore 569501  
Standard : 47 CFR FCC Part 2 Subpart J, section 2.1091

The product was received on Dec. 17, 2020, and testing was started from Mar. 17, 2021 and completed on Apr. 13, 2021. We, SPORTON INTERNATIONAL INC. Hsinhua Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in 47 CFR FCC Part 2 Subpart J, section 2.1091 and shown compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. Hsinhua Laboratory, the test report shall not be reproduced except in full.



Approved by: Allen Lin

**SPORTON INTERNATIONAL INC. Hsinhua Laboratory**  
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## Summary of Test Result

| Report Clause                             | Ref Std. Clause | Test Items          | Result (PASS/FAIL) | Remark |
|-------------------------------------------|-----------------|---------------------|--------------------|--------|
| 2                                         | -               | Exposure evaluation | PASS               | -      |
| Note: From Sporton Project No.: FA0D0433. |                 |                     |                    |        |

**Declaration of Conformity:**

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

**Comments and Explanations:**

None

**Reviewed by: Sam Tsai**

**Report Producer: Jenny Yang**

# 1 General Description

## 1.1 Information

### 1.1.1 EUT General Information

| RF General Information |                        |                           |                                                                                                 |
|------------------------|------------------------|---------------------------|-------------------------------------------------------------------------------------------------|
| Evaluation Mode        | Frequency Range (MHz)  | Operating Frequency (MHz) | Modulation Type                                                                                 |
| 2.4GHz WLAN            | 2400-2483.5            | 2412-2462                 | 802.11b: DSSS (DBPSK, DQPSK, CCK)<br>802.11g/n/VHT: OFDM (BPSK, QPSK, 16QAM, 64QAM)             |
| 5GHz WLAN              | 5150-5250<br>5725-5850 | 5180-5240<br>5745-5825    | 802.11a/n: OFDM (BPSK, QPSK, 16QAM, 64QAM)<br>802.11ac: OFDM (BPSK, QPSK, 16QAM, 64QAM, 256QAM) |

### 1.1.2 Antenna Information

| Ant. | Brand                    | Model Name           | Antenna Type | Connector |
|------|--------------------------|----------------------|--------------|-----------|
| 1    | ARISTOTLE ENTERRISES INC | RFA-25-AP152L-4G-135 | PIFA         | I-PEX     |
| 2    | ARISTOTLE ENTERRISES INC | RFA-25-AP152R-4B-260 | PIFA         | I-PEX     |

| Ant. | Port | Gain (dBi) |      |
|------|------|------------|------|
|      |      | 2.4G       | 5G   |
| 1    | 1    | 3.54       | 6.79 |
| 2    | 2    | 3.19       | 4.72 |

Note 1: The EUT has two antennas.

#### For 2.4GHz function:

For IEEE 802.11 b/g mode (1TX/1RX)

Only Ant. 1 (port 1) can be used as transmitting/receiving antenna.

For IEEE 802.11 n/VHT mode (2TX/2RX)

Ant. 1 (port 1) and Ant. 2 (port 2) could transmit/receive simultaneously.

#### For 5GHz function:

For IEEE 802.11 a mode (1TX/1RX)

Only Ant. 1 (port 1) can be used as transmitting/receiving antenna.

For IEEE 802.11 n/ac mode (2TX/2RX)

Ant. 1 (port 1) and Ant. 2 (port 2) could transmit/receive simultaneously.

### 1.1.3 Table for Multiple Listing

There are two suppliers for the panel:

| Panel | Supplier        | Description                                                               |
|-------|-----------------|---------------------------------------------------------------------------|
| 1     | Willtron        | All the EUTs are identical, the difference is that the suppliers of panel |
| 2     | Data Image Home |                                                                           |

### 1.1.4 Accessories

| Accessories |              |                                           |            |              |
|-------------|--------------|-------------------------------------------|------------|--------------|
| AC Adapter  | Brand Name   | Linshiung Enterprise Co.,Ltd              | Model Name | CAADM1129A03 |
|             | Manufacturer | Powewrtron Electronics Company.           |            |              |
|             | Power Rating | I/P:100 -240 Vac,0.4 A, O/P: 5.0Vdc, 3.0A |            |              |
| USB Cable   | Brand Name   | Horng Jye                                 | Model Name | 178-001-0401 |
|             | Power Cord   | 0.5 meter, non-shielded cable             |            |              |

Reminder: Regarding to more detail and other information, please refer to user manual.

## 1.2 Testing Location

| Test Lab. : Sporton International Inc. Hsinhua Laboratory |                             |                                                                                         |                     |
|-----------------------------------------------------------|-----------------------------|-----------------------------------------------------------------------------------------|---------------------|
| <input checked="" type="checkbox"/>                       | Hsinhua<br>(TAF: 3785)      | ADD: No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan (R.O.C.)          |                     |
|                                                           |                             | TEL: 886-3-327-3456                                                                     | FAX: 886-3-327-0973 |
| Test site Designation No. TW3785 with FCC.                |                             |                                                                                         |                     |
| <input type="checkbox"/>                                  | Wen 33rd.St.<br>(TAF: 3785) | ADD: No.14-1, Ln. 19, Wen 33rd St., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.) |                     |
|                                                           |                             | TEL: 886-3-318-0787                                                                     | FAX: 886-3-318-0287 |
| Test site Designation No. TW0008 with FCC.                |                             |                                                                                         |                     |

## 2 Maximum Permissible Exposure

### 2.1 Limit of Maximum Permissible Exposure

(A) Limits for Occupational / Controlled Exposure

| Frequency Range (MHz) | Electric Field Strength (E) (V/m) | Magnetic Field Strength (H) (A/m) | Power Density (S) (mW/ cm <sup>2</sup> ) | Averaging Time  E  <sup>2</sup> , H  <sup>2</sup> or S (minutes) |
|-----------------------|-----------------------------------|-----------------------------------|------------------------------------------|------------------------------------------------------------------|
| 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

| Frequency Range (MHz) | Electric Field Strength (E) (V/m) | Magnetic Field Strength (H) (A/m) | Power Density (S) (mW/ cm <sup>2</sup> ) | Averaging Time  E  <sup>2</sup> , H  <sup>2</sup> or S (minutes) |
|-----------------------|-----------------------------------|-----------------------------------|------------------------------------------|------------------------------------------------------------------|
| 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                                                               |

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

### 2.2 MPE Calculation Method

The MPE was calculated at 20 cm to show compliance with the power density limit.

The following formula was used to calculate the Power Density:

$$E \text{ (V/m)} = \frac{\sqrt{30 \times P \times G}}{d} \quad \text{Power Density: } Pd \text{ (W/m}^2\text{)} = \frac{E^2}{377}$$

**E** = Electric field (V/m)

**P** = RF output power (W)

**G** = EUT Antenna numeric gain (numeric)

**d** = Separation distance between radiator and human body (m)

The formula can be changed to

$$Pd = \frac{30 \times P \times G}{377 \times d^2}$$

## 2.3 Calculated Result and Limit

Exposure Environment: General Population / Uncontrolled Exposure

### 2.4GHz WLAN

| Mode     | DG<br>(dBi) | Power<br>(dBm) | EIRP<br>(dBm) | Tolerance<br>(dB) | Tune-up<br>EIRP<br>(dBm) | Tune-up<br>EIRP<br>(W) | Distance<br>(cm) | S<br>(mW/cm <sup>2</sup> ) | S Limit<br>(mW/cm <sup>2</sup> ) |
|----------|-------------|----------------|---------------|-------------------|--------------------------|------------------------|------------------|----------------------------|----------------------------------|
| 2.4G;G1D | 3.54        | 23.73          | 27.27         | 0.50              | 27.77                    | 0.59841                | 20               | 0.11905                    | 1.00000                          |
| 2.4G;D1D | 3.54        | 27.43          | 30.97         | 0.50              | 31.47                    | 1.40281                | 20               | 0.27908                    | 1.00000                          |

### 5GHz WLAN

| Mode     | DG<br>(dBi) | Power<br>(dBm) | EIRP<br>(dBm) | Tolerance<br>(dB) | Tune-up<br>EIRP<br>(dBm) | Tune-up<br>EIRP<br>(W) | Distance<br>(cm) | S<br>(mW/cm <sup>2</sup> ) | S Limit<br>(mW/cm <sup>2</sup> ) |
|----------|-------------|----------------|---------------|-------------------|--------------------------|------------------------|------------------|----------------------------|----------------------------------|
| 5.2G;D1D | 6.79        | 22.04          | 28.83         | 0.50              | 29.33                    | 0.85704                | 20               | 0.17050                    | 1.00000                          |
| 5.8G;D1D | 6.79        | 28.13          | 34.92         | 0.50              | 35.42                    | 3.48337                | 20               | 0.69299                    | 1.00000                          |

————THE END————