



# RF MPE REPORT

**Report No.:** 20240417G06830X-W5

**Product Name:** SOLIS GO Kiosk

**Model No.:** CYD-016S, CYD-012S, CYD-008S

**FCC ID:** 2A9UP-SOL24KIOSK

**Applicant:** SIMO Holdings Inc.

**Address:** PO.Box PO.Box 309, Ugland House, GrandCayman, KY1-1104,  
Cayman Islands

**Dates of Testing:** 04/23/2024 - 05/22/2024

**Issued by:** CCIC Southern Testing Co., Ltd.

**Lab Location:** Electronic Testing Building, No. 43 Shahe Road, Xili Street,  
Nanshan District, Shenzhen, Guangdong, China.

**Tel:** 86 755 26627338      **E-Mail:** manager@ccic-set.com

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## Test Report

**Product.....:** SOLIS GO Kiosk

**Brand Name.....:** N/A

**Trade Name .....** 

**Applicant.....:** SIMO Holdings Inc.

**Applicant Address.....:** PO.Box PO.Box 309, Ugland House, GrandCayman,  
KY1-1104, Cayman Islands

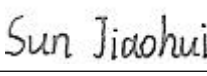
**Manufacturer.....:** SIMO Holdings Inc.

**Manufacturer Address.....:** PO.Box PO.Box 309, Ugland House, GrandCayman,  
KY1-1104, Cayman Islands

**Test Standards.....:** 47 CFR Part 2.1091

**Test Result.....:** Pass

**Tested by .....**  2024.05.22  
Chuiwang Zhang, Test Engineer

**Reviewed by.....:**  2024.05.22  
Sun Jiaohui, Senior Engineer

**Approved by.....:**  2024.05.22  
Chris You, Manager



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| Change History |            |                   |
|----------------|------------|-------------------|
| Issue          | Date       | Reason for change |
| 1.0            | 2024.05.22 | First edition     |
|                |            |                   |



## 1. GENERAL INFORMATION

### 1.1. EUT Description

|                                 |                                                                                                                                                                                                                                                    |                                                                   |
|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| Product Name                    | SOLIS GO Kiosk                                                                                                                                                                                                                                     |                                                                   |
| EUT supports Radios application | GSM 850/1900<br>WCDMA Band 2/4/5<br>LTE Band 2/4/5/7/12/25/26/41<br>2.4G WIFI                                                                                                                                                                      |                                                                   |
| Frequency Range(Tx)             | GSM 850: 824MHz~849MHz<br>GSM 1900: 1850MHz~1910MHz                                                                                                                                                                                                |                                                                   |
|                                 | WCDMA 850: 824MHz~849MHz<br>WCDMA 1700: 1710MHz~1755MHz<br>WCDMA 1900: 1850MHz~1910MHz                                                                                                                                                             |                                                                   |
|                                 | LTE Band 2: 1850MHz~1910MHz<br>LTE Band 4: 1710MHz~1755MHz<br>LTE Band 5: 824MHz~849MHz<br>LTE Band 7: 2500MHz~2570MHz<br>LTE Band 12: 699MHz~716MHz<br>LTE Band 25: 1850MHz~1915MHz<br>LTE Band 26: 814MHz~849MHz<br>LTE Band 41: 2496MHz~2690MHz |                                                                   |
|                                 | 2.4G WIFI: 2.412GHz ~ 2.462GHz                                                                                                                                                                                                                     |                                                                   |
|                                 |                                                                                                                                                                                                                                                    |                                                                   |
|                                 |                                                                                                                                                                                                                                                    |                                                                   |
|                                 |                                                                                                                                                                                                                                                    |                                                                   |
|                                 |                                                                                                                                                                                                                                                    |                                                                   |
|                                 |                                                                                                                                                                                                                                                    |                                                                   |
| Bandwidth                       | GSM 850/1900:                                                                                                                                                                                                                                      | 200kHz                                                            |
|                                 | WCDMA B2/4/5:                                                                                                                                                                                                                                      | 5MHz                                                              |
|                                 | LTE Band 2/4/25:                                                                                                                                                                                                                                   | 1.4MHz/3MHz/5MHz/10MHz/15MHz/20MHz                                |
|                                 | LTE Band 5/12:                                                                                                                                                                                                                                     | 1.4MHz/3MHz/5MHz/10MHz                                            |
|                                 | LTE Band 26(Part90):                                                                                                                                                                                                                               | 1.4MHz/3MHz/5MHz/10MHz                                            |
|                                 | LTE Band 26(Part22):                                                                                                                                                                                                                               | 1.4MHz/3MHz/5MHz/10MHz/15MHz                                      |
|                                 | LTE Band 7/41:                                                                                                                                                                                                                                     | 5MHz/10MHz/15MHz/20MHz                                            |
|                                 | 2.4G WIFI:                                                                                                                                                                                                                                         | 802.11b/g/n-HT20: 20MHz<br>802.11n-HT40: 40MHz                    |
| Modulation Type                 | GSM                                                                                                                                                                                                                                                | GPRS: GMSK<br>EDGE: GMSK/8PSK                                     |
|                                 | WCDMA                                                                                                                                                                                                                                              | WCDMA: QPSK(Uplink)<br>HSDPA: QPSK(Uplink)<br>HSUPA: QPSK(Uplink) |
|                                 | LTE                                                                                                                                                                                                                                                | QPSK/16QAM/64QAM(downlink only)                                   |
|                                 | 2.4G WIFI                                                                                                                                                                                                                                          | DSSS (802.11b), OFDM (802.11g/n)                                  |



|              |                                                                                           |                                                                                                |
|--------------|-------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| Antenna gain | GSM 850: -1.88 dBi<br>PCS: 1900: 1.93 dBi                                                 | WCDMA 850: -1.88 dBi<br>WCDMA 1700: 0.52 dBi<br>WCDMA 1900: 1.93 dBi                           |
|              | LTE Band 2: 1.93dBi<br>LTE Band 4: 0.52dBi<br>LTE Band 5: -1.88dBi<br>LTE Band 7: 3.87dBi | LTE Band 12: -3.18dBi<br>LTE Band 25: 1.93dBi<br>LTE Band 26: -1.88dBi<br>LTE Band 41: 3.87dBi |
|              | 2.4G WIFI: 3.03dBi                                                                        |                                                                                                |
|              |                                                                                           |                                                                                                |
| Antenna Type | Internal Antenna                                                                          |                                                                                                |

Note 1: The information of antenna gain and cable loss is provided by the manufacturer and our lab is not responsible for the accuracy of the antenna gain and cable loss information.

Note 2: TModel difference: All models covered in this report are identical except for the Number of charging ports and the model name.

Details see below table:

The model CYD-016S with 16 charging ports and powered with 120W power.

The model CYD-012S with 12 charging ports and powered with 120W power.

The model CYD-008S with 8 charging ports and powered with 60W power.

## 1.2. EUT Description

EUT has been tested according to the following standards.

| No. | Identity                                        | Document Title                                                                                        |
|-----|-------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| 1   | 47 CFR Part 1                                   | Practice and Procedure                                                                                |
| 2   | 47 CFR Part 2                                   | Frequency Allocations and Radio Treaty Matters; General Rules and Regulations                         |
| 3   | KDB 447498 D01 General RF Exposure Guidance v06 | RF Exposure Procedures and Equipment Authorization Policies for Mobile and Portable Devices           |
| 4   | OET Bulletin 65 Edition 97-01                   | Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields |

## 1.3. Laboratory Facilities

### FCC-Registration No.: CN1283

CCIC Southern Testing Co., Ltd EMC Laboratory has been registered and fully described in a report filed with the FCC (Federal Communications Commission). The acceptance letter from the FCC is maintained in our files. Designation Number: CN1283, valid time is until Jun. 30th, 2025.

### ISED Registration: 11185A

CCIC Southern Testing Co., Ltd. EMC Laboratory has been registered by Certification and Engineering Bureau of Industry Canada for the performance of radiated measurements with Registration No. 11185A on Aug. 04, 2016, valid time is until Jun. 30th, 2025.

### CAB number: CN0064

### A2LA Code: 5721.01

CCIC-SET is a third party testing organization accredited by A2LA according to ISO/IEC 17025. The accreditation certificate number is 5721.01.

## 1.4. Laboratory Location

|               |                                                                                                           |
|---------------|-----------------------------------------------------------------------------------------------------------|
| Company Name: | CCIC Southern Testing Co., Ltd.                                                                           |
| Address:      | Electronic Testing Building, No. 43 Shahe Road, Xili Street, Nanshan District, Shenzhen, Guangdong, China |

## 2. Technical Requirements Specification in CFR Title 47 Part 2.1091

### 2.1. Exposure Limits

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).

**Table 1 to § 1.1310(e)(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) |
|----------------------------------------------------------------------|-------------------------------|-------------------------------|-------------------------------------|--------------------------|
| (i) Limits for Occupational/Controlled Exposure                      |                               |                               |                                     |                          |
| 0.3-3.0                                                              | 614                           | 1.63                          | *(100)                              | < 6                      |
| 3.0-30                                                               | 1824/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                      |
| (ii) 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                     |
| Note: f = frequency in MHz. * = Plane-wave equivalent power density. |                               |                               |                                     |                          |

### 2.2. Predication of MPE limit at a given distance

Refer to formulas on page 19 of OET Bulletin 65, Edition 97-01.

$$S = \frac{PG}{4\pi R^2}$$

Where:

S = power density (in appropriate units, e.g. mW/cm<sup>2</sup>)

P = power input to the antenna (in appropriate units, e.g., mW)

G = numeric gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the centre of radiation of the antenna (appropriate units, e.g., cm)

### 2.3. Evaluation Results

#### Worst-Case mode Conducted Output Power Results for 2.4G WLAN

| Band      | Mode    | Frequency (MHz) | Maximum Output Power (dBm) | Max Tune up power (dBm) | Max Tune up power (mW) |
|-----------|---------|-----------------|----------------------------|-------------------------|------------------------|
| 2.4G WIFI | 802.11b | 2437            | 17.44                      | 17 ± 1                  | 63.10                  |

#### Worst-Case mode Conducted Output Power Results for WWAN

| Band                 | Frequency (MHz) | Maximum Output power(dBm) | Max Tune up power (dBm) | Max Tune up power (mW) |
|----------------------|-----------------|---------------------------|-------------------------|------------------------|
| GSM 850              | 836.6           | 32.53                     | 32 ± 1                  | 1995.26                |
| GSM 1900             | 1850.2          | 29.66                     | 29 ± 1                  | 1000.00                |
| WCDMA 850            | 826.4           | 23.86                     | 23 ± 1                  | 251.19                 |
| WCDMA 1700           | 1712.4          | 23.82                     | 23 ± 1                  | 251.19                 |
| WCDMA 1900           | 1852.4          | 23.88                     | 23 ± 1                  | 251.19                 |
| LTE Band 2           | 1880.0          | 24.64                     | 24 ± 1                  | 316.23                 |
| LTE Band 4           | 1732.5          | 24.91                     | 24 ± 1                  | 316.23                 |
| LTE Band 5           | 847.5           | 23.57                     | 23 ± 1                  | 251.19                 |
| LTE Band 7           | 2560.0          | 23.87                     | 23 ± 1                  | 251.19                 |
| LTE Band 12          | 707.5           | 24.30                     | 24 ± 1                  | 316.23                 |
| LTE Band 25          | 1907.5          | 24.12                     | 24 ± 1                  | 316.23                 |
| LTE Band 26(Part 90) | 819.0           | 23.90                     | 23 ± 1                  | 251.19                 |
| LTE Band 26(Part 22) | 836.5           | 23.84                     | 23 ± 1                  | 251.19                 |
| LTE Band 41          | 2593.0          | 23.91                     | 23 ± 1                  | 251.19                 |

**Calculation results: Worst-Case mode**

| Band                 | Antenna Gain (dBi) | Antenna Gain (numeric) | Distance (cm) | Result (mW/cm <sup>2</sup> ) | Power Density (mW/cm <sup>2</sup> ) | Ratio        |
|----------------------|--------------------|------------------------|---------------|------------------------------|-------------------------------------|--------------|
| 2.4G WIFI            | 3.03               | 2.01                   | 20            | 0.025                        | 1.00                                | <b>0.025</b> |
| GSM 850              | -1.88              | 0.65                   | 20            | 0.257                        | 0.56                                | <b>0.462</b> |
| GSM 1900             | 1.93               | 1.56                   | 20            | 0.310                        | 1.00                                | 0.310        |
| WCDMA 850            | -1.88              | 0.65                   | 20            | 0.032                        | 0.55                                | 0.059        |
| WCDMA 1700           | 0.52               | 1.13                   | 20            | 0.056                        | 1.00                                | 0.056        |
| WCDMA 1900           | 1.93               | 1.56                   | 20            | 0.078                        | 1.00                                | 0.078        |
| LTE Band 2           | 1.93               | 1.56                   | 20            | 0.098                        | 1.00                                | 0.098        |
| LTE Band 4           | 0.52               | 1.13                   | 20            | 0.071                        | 1.00                                | 0.071        |
| LTE Band 5           | -1.88              | 0.65                   | 20            | 0.032                        | 0.57                                | 0.057        |
| LTE Band 7           | 3.87               | 2.44                   | 20            | 0.122                        | 1.00                                | 0.122        |
| LTE Band 12          | -3.18              | 0.48                   | 20            | 0.030                        | 0.47                                | 0.064        |
| LTE Band 25          | 1.93               | 1.56                   | 20            | 0.098                        | 1.00                                | 0.098        |
| LTE Band 26(Part 90) | -1.88              | 0.65                   | 20            | 0.032                        | 0.55                                | 0.059        |
| LTE Band 26(Part 22) | -1.88              | 0.65                   | 20            | 0.032                        | 0.56                                | 0.058        |
| LTE Band 41          | 3.87               | 2.44                   | 20            | 0.122                        | 1.00                                | 0.122        |

**Simultaneous Transmission Calculation (Worst-case mode)**

| No. | Transmitter Combinations | Scenario Supported or not |
|-----|--------------------------|---------------------------|
| 1   | WWAN + 2.4G WLAN         | Yes                       |

**Max Simultaneous Transmission Calculation (Worst-case mode)**

| No. | Worst Mode           | MPE Ratio | Limit | Results |
|-----|----------------------|-----------|-------|---------|
| 1   | GSM 1900 + 2.4G WIFI | 0.487     | ≤ 1.0 | Pass    |

Note: MPE Ratio = 0.025 + 0.462 = 0.147.

**2.4. Conclusion**

According to the KDB 447498 D01 General RF Exposure Guidance v06 section 7.2 determine the device is exclusion from SAR test.

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