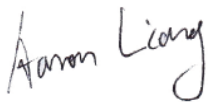
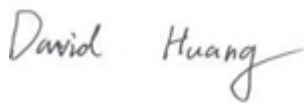


# RF EXPOSURE REPORT



Report No.: 18070406-FCC-H

Supersede Report No.: N/A

|                                                                                                                                      |                                                                                     |                                                                                       |
|--------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Applicant                                                                                                                            | SWAGTEK                                                                             |                                                                                       |
| Product Name                                                                                                                         | 4 inch 3G Smart Phone                                                               |                                                                                       |
| Model No.                                                                                                                            | LOGIC X4G                                                                           |                                                                                       |
| Serial No.                                                                                                                           | iSWAG Alpha, UNONU X4G                                                              |                                                                                       |
| Test Standard                                                                                                                        | FCC 2.1093                                                                          |                                                                                       |
| Test Date                                                                                                                            | May 03 to 20, 2018                                                                  |                                                                                       |
| Issue Date                                                                                                                           | May 21, 2018                                                                        |                                                                                       |
| Test Result                                                                                                                          | <input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail              |                                                                                       |
| Equipment complied with the specification <input checked="" type="checkbox"/>                                                        |                                                                                     |                                                                                       |
| Equipment did not comply with the specification <input type="checkbox"/>                                                             |                                                                                     |                                                                                       |
|                                                   |  |  |
| Aaron Liang<br>Test Engineer                                                                                                         | David Huang<br>Checked By                                                           |                                                                                       |
| This test report may be reproduced in full only<br>Test result presented in this test report is applicable to the tested sample only |                                                                                     |                                                                                       |

Issued by:

**SIEMIC (SHENZHEN-CHINA) LABORATORIES**

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## Laboratories Introduction

SIEMIC, headquartered in the heart of Silicon Valley, with superior facilities in US and Asia, is one of the leading independent testing and certification facilities providing customers with one-stop shop services for Compliance Testing and Global Certifications.



In addition to testing and certification, SIEMIC provides initial design reviews and compliance management throughout a project. Our extensive experience with China, Asia Pacific, North America, European, and International compliance requirements, assures the fastest, most cost effective way to attain regulatory compliance for the global markets.

### Accreditations for Conformity Assessment

| Country/Region | Scope                              |
|----------------|------------------------------------|
| USA            | EMC, RF/Wireless, SAR, Telecom     |
| Canada         | EMC, RF/Wireless, SAR, Telecom     |
| Taiwan         | EMC, RF, Telecom, SAR, Safety      |
| Hong Kong      | RF/Wireless, SAR, Telecom          |
| Australia      | EMC, RF, Telecom, SAR, Safety      |
| Korea          | EMI, EMS, RF, SAR, Telecom, Safety |
| Japan          | EMI, RF/Wireless, SAR, Telecom     |
| Singapore      | EMC, RF, SAR, Telecom              |
| Europe         | EMC, RF, SAR, Telecom, Safety      |

|             |                |
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## 1. Report Revision History

| Report No.     | Report Version | Description | Issue Date   |
|----------------|----------------|-------------|--------------|
| 18070406-FCC-H | NONE           | Original    | May 21, 2018 |
|                |                |             |              |
|                |                |             |              |
|                |                |             |              |
|                |                |             |              |
|                |                |             |              |

## 2. Customer information

|                  |                                                |
|------------------|------------------------------------------------|
| Applicant Name   | SWAGTEK                                        |
| Applicant Add    | 10205 NW 19th Street, STE 101, Miami, FL 33172 |
| Manufacturer     | SWAGTEK                                        |
| Manufacturer Add | 10205 NW 19th Street, STE 101, Miami, FL 33172 |

## 3. Test site information

|                      |                                                                                                                                              |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| Lab performing tests | SIEMIC (Shenzhen-China) LABORATORIES                                                                                                         |
| Lab Address          | Zone A, Floor 1, Building 2 Wan Ye Long Technology Park<br>South Side of Zhoushi Road, Bao' an District, Shenzhen, Guangdong China<br>518108 |
| FCC Test Site No.    | 535293                                                                                                                                       |
| IC Test Site No.     | 4842E-1                                                                                                                                      |
| Test Software        | Radiated Emission Program-To Shenzhen v2.0                                                                                                   |

## 4. Equipment under Test (EUT) Information

|                               |                                                                                                             |
|-------------------------------|-------------------------------------------------------------------------------------------------------------|
| Description of EUT:           | 4 inch 3G Smart Phone                                                                                       |
| Main Model:                   | LOGIC X4G                                                                                                   |
| Serial Model:                 | iSWAG Alpha, UNONU X4G                                                                                      |
| Date EUT received:            | May 03, 2018                                                                                                |
| Test Date(s):                 | May 03 to 20, 2018                                                                                          |
| Antenna Gain:                 | WiFi: -1.5dBi<br>Bluetooth/BLE: -1dBi                                                                       |
| Antenna Type:                 | PIFA Antenna                                                                                                |
| Type of Modulation:           | 802.11b/g/n: DSSS, OFDM<br>Bluetooth: GFSK, $\pi/4$ DQPSK, 8DPSK<br>BLE: GFSK                               |
| RF Operating Frequency (ies): | WiFi: 802.11b/g/n(20M): 2412-2462 MHz<br>WiFi: 802.11n(40M): 2422-2452 MHz<br>Bluetooth& BLE: 2402-2480 MHz |
| Number of Channels:           | WiFi :802.11b/g/n(20M): 11CH<br>WiFi :802.11n(40M): 7CH<br>Bluetooth: 79CH<br>BLE: 40CH                     |
| Port:                         | USB Port, Earphone Port                                                                                     |

Adapter 1:

Model: A31A-050055U-US1

Input: AC100-240V~50/60Hz,0.2Amps

Output: DC 5.0V, 550mA

Adapter 2:

Model: A31A-050055U-US1

Input: AC100-240V~50/60Hz,0.2Amps

Output: DC 5.0V, 550mA

Battery 1:

Spec: 3.8V, 1500mAh, 5.7Wh

Battery 2:

Spec: 3.8V, 1500mAh, 5.7Wh

Input Power:

Trade Name :

LOGIC, iSWAG, UNONU

FCC ID:

O55401618

## 5. FCC §2.1093 - Radiofrequency radiation exposure evaluation: portable devices.

### 5.1 RF Exposure

#### Standard Requirement:

According to §15.247 (i) and §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at *test separation distances*  $\leq 50$  mm are determined by:

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f_{\text{(GHz)}}}] \leq 3.0$  for 1-g SAR and  $\leq 7.5$  for 10-g extremity SAR,<sup>16</sup> where

- $f_{\text{(GHz)}}$  is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation<sup>17</sup>
- The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum *test separation distance* is  $\leq 50$  mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum *test separation distance* is  $< 5$  mm, a distance of 5 mm is applied to determine SAR test exclusion.

Routine SAR evaluation refers to that specifically required by § 2.1093, using measurements or computer simulation. When routine SAR evaluation is not required, portable transmitters with output power greater than the applicable low threshold require SAR evaluation to qualify for TCB approval.

$$\text{result} = P\sqrt{F} / D$$

P= Maximum turn-up power in mW

F= Channel frequency in GHz

D= Minimum test separation distance in mm

## 5.2 Test Result

### WIFI Mode:

| Modulation    | CH   | Frequency (MHz) | Conducted Power (dBm) | Tune Up Power (dBm) | Max Tune Up Power (dBm) | Max Tune Up Power (mW) | Result | Limit |
|---------------|------|-----------------|-----------------------|---------------------|-------------------------|------------------------|--------|-------|
| 802.11b       | Low  | 2412            | 8.16                  | 8±1                 | 9                       | 7.943                  | 2.47   | 3     |
|               | Mid  | 2442            | 8.88                  | 8±1                 | 9                       | 7.943                  | 2.48   | 3     |
|               | High | 2472            | 8.54                  | 8±1                 | 9                       | 7.943                  | 2.49   | 3     |
| 802.11g       | Low  | 2412            | 6.97                  | 7.5±1               | 8.5                     | 7.079                  | 2.20   | 3     |
|               | Mid  | 2442            | 7.77                  | 7.5±1               | 8.5                     | 7.079                  | 2.21   | 3     |
|               | High | 2472            | 8.36                  | 7.5±1               | 8.5                     | 7.079                  | 2.22   | 3     |
| 802.11n (20M) | Low  | 2412            | 6.92                  | 7.5±1               | 8.5                     | 7.079                  | 2.20   | 3     |
|               | Mid  | 2442            | 7.49                  | 7.5±1               | 8.5                     | 7.079                  | 2.21   | 3     |
|               | High | 2472            | 8.21                  | 7.5±1               | 8.5                     | 7.079                  | 2.22   | 3     |
| 802.11n (40M) | Low  | 2422            | 6.59                  | 7±1                 | 8                       | 6.310                  | 1.96   | 3     |
|               | Mid  | 2442            | 7.07                  | 7±1                 | 8                       | 6.310                  | 1.97   | 3     |
|               | High | 2462            | 7.48                  | 7±1                 | 8                       | 6.310                  | 1.98   | 3     |

### Bluetooth Mode:

| Modulation | CH   | Frequency (MHz) | Conducted Power (dBm) | Tune Up Power (dBm) | Max Tune Up Power (dBm) | Max Tune Up Power (mW) | Result | Limit |
|------------|------|-----------------|-----------------------|---------------------|-------------------------|------------------------|--------|-------|
| GFSK       | Low  | 2402            | -3.617                | -2.8±1              | -1.8                    | 0.661                  | 0.20   | 3     |
|            | Mid  | 2441            | -3.222                | -2.8±1              | -1.8                    | 0.661                  | 0.21   | 3     |
|            | High | 2480            | -1.971                | -2.8±1              | -1.8                    | 0.661                  | 0.21   | 3     |
| π /4 DQPSK | Low  | 2402            | -3.774                | -3±1                | -2                      | 0.631                  | 0.20   | 3     |
|            | Mid  | 2441            | -3.470                | -3±1                | -2                      | 0.631                  | 0.20   | 3     |
|            | High | 2480            | -2.296                | -3±1                | -2                      | 0.631                  | 0.20   | 3     |
| 8-DPSK     | Low  | 2402            | -3.612                | -3±1                | -2                      | 0.631                  | 0.20   | 3     |
|            | Mid  | 2441            | -3.437                | -3±1                | -2                      | 0.631                  | 0.20   | 3     |
|            | High | 2480            | -2.249                | -3±1                | -2                      | 0.631                  | 0.20   | 3     |

**BLE Mode:**

| Modulation | CH   | Freq<br>(MHz) | Conducted<br>Power<br>(dBm) | Tune Up<br>Power<br>(dBm) | Max Tune<br>Up Power<br>(dBm) | Max Tune<br>Up Power<br>(mW) | Result | Limit |
|------------|------|---------------|-----------------------------|---------------------------|-------------------------------|------------------------------|--------|-------|
| GFSK       | Low  | 2402          | -0.794                      | -1±1                      | 0                             | 1.000                        | 0.31   | 3     |
|            | Mid  | 2440          | -0.857                      | -1±1                      | 0                             | 1.000                        | 0.31   | 3     |
|            | High | 2480          | -1.005                      | -1±1                      | 0                             | 1.000                        | 0.31   | 3     |

**Result:** Compliance

No SAR measurement is required.