# RF EXPOSURE REPORT



Report No.: 17071343-FCC-H2 Supersede Report No.: N/A

| Applicant                    | BLU Products, Inc.                              |                            |  |
|------------------------------|-------------------------------------------------|----------------------------|--|
| Product Name                 | Mobile Pho                                      | ne                         |  |
| Model No.                    | STUDIO VI                                       | EW MEGA                    |  |
| Serial No.                   | N/A                                             |                            |  |
| Test Standard                | FCC 2.109                                       | 3:2016                     |  |
| Test Date                    | December                                        | 21, 2017 to March 06, 2018 |  |
| Issue Date                   | March 07, 2                                     | 2018                       |  |
| Test Result                  | Pass                                            | Fail                       |  |
| Equipment compl              | ied with the                                    | specification              |  |
| Equipment did no             | Equipment did not comply with the specification |                            |  |
| Janon Lie                    | ond o                                           | David Huang                |  |
| Aaron Liang<br>Test Engineer |                                                 | David Huang<br>Checked By  |  |

This test report may be reproduced in full only

Test result presented in this test report is applicable to the tested sample only

#### Issued by:

#### SIEMIC (SHENZHEN-CHINA) LABORATORIES

Zone A, Floor 1, Building 2 Wan Ye Long Technology Park
South Side of Zhoushi Road, Bao' an District, Shenzhen, Guangdong China 518108
Phone: +86 0755 2601 4629801 Email: China@siemic.com.cn



| T | est Report | 17071343-FCC-H2 |
|---|------------|-----------------|
| Р | age        | 2 of 9          |

### **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      |



| Test Report | 17071343-FCC-H2 |
|-------------|-----------------|
| Page        | 3 of 9          |

This page has been left blank intentionally.



| Test Report | 17071343-FCC-H2 |
|-------------|-----------------|
| Page        | 4 of 9          |

## **CONTENTS**

| 1.  | REPORT REVISION HISTORY                                                      | 5   |
|-----|------------------------------------------------------------------------------|-----|
| 2.  | CUSTOMER INFORMATION                                                         | 5   |
| 3.  | TEST SITE INFORMATION                                                        | 5   |
| 4.  | EQUIPMENT UNDER TEST (EUT) INFORMATION                                       | 6   |
| 5.  | FCC §2.1093 - RADIOFREQUENCY RADIATION EXPOSURE EVALUATION: PORTABLE DEVICES | . 8 |
| 5.1 | RF EXPOSURE                                                                  | 8   |
| 5.2 | TEST RESULT                                                                  | 9   |



| Test Report | 17071343-FCC-H2 |
|-------------|-----------------|
| Page        | 5 of 9          |

## 1. Report Revision History

| Report No.      | Report Version | Description | Issue Date     |
|-----------------|----------------|-------------|----------------|
| 17071343-FCC-H2 | NONE           | Original    | March 07, 2018 |
|                 |                |             |                |
|                 |                |             |                |
|                 |                |             |                |
|                 |                |             |                |
|                 |                |             |                |

## 2. Customer information

| Applicant Name   | BLU Products, Inc.                     |
|------------------|----------------------------------------|
| Applicant Add    | 10814 NW 33rd St # 100 Doral, FL 33172 |
| Manufacturer     | BLU Products, Inc.                     |
| Manufacturer Add | 10814 NW 33rd St # 100 Doral, FL 33172 |

## 3. Test site information

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



| Test Report | 17071343-FCC-H2 |
|-------------|-----------------|
| Page        | 6 of 9          |

## 4. Equipment under Test (EUT) Information

Description of EUT: Mobile Phone

Main Model: STUDIO VIEW MEGA

Serial Model: N/A

Date EUT received: December 20, 2017

Test Date(s): December 21, 2017 to March 06, 2018

GSM850: -3.8dBi PCS1900: -2.4dBi

UMTS-FDD Band V: -3.8dBi UMTS-FDD Band IV: -2.3dBi

Antenna Gain:

UMTS-FDD Band II: -2.7dBi

WIFI: -3.6dBi

Bluetooth/BLE: -3.3dBi

GPS: -3.3dBi

Antenna Type: PIFA Antenna

GSM / GPRS: GMSK

EGPRS: GMSK

UMTS-FDD: QPSK

Type of Modulation: 802.11b/g/n: DSSS, OFDM

Bluetooth: GFSK,  $\pi$  /4DQPSK, 8DPSK

BLE: GFSK GPS:BPSK



| Test Report | 17071343-FCC-H2 |
|-------------|-----------------|
| Page        | 7 of 9          |

GSM850 TX: 824.2 ~ 848.8 MHz; RX: 869.2 ~ 893.8 MHz

PCS1900 TX: 1850.2 ~ 1909.8 MHz; RX: 1930.2 ~ 1989.8 MHz

UMTS-FDD Band V TX: 826.4 ~ 846.6 MHz; RX: 871.4 ~ 891.6 MHz

UMTS-FDD Band II TX:1852.4 ~ 1907.6 MHz;

RX: 1932.4 ~ 1987.6 MHz

RF Operating Frequency (ies): UMTS-FDD Band IV TX:1712.4 ~ 1752.6 MHz;

RX: 2112.4 ~ 2152.6 MHz

WIFI: 802.11b/g/n(20M): 2412-2462 MHz WIFI: 802.11n(40M): 2422-2452 MHz Bluetooth& BLE: 2402-2480 MHz

GPS: 1575.42 MHz

GSM 850: 124CH PCS1900: 299CH

UMTS-FDD Band V: 102CH
UMTS-FDD Band IV: 202CH
UMTS-FDD Band II: 277CH

Number of Channels:

WIFI:802.11b/g/n(20M): 11CH

WIFI:802.11n(40M): 7CH

Bluetooth: 79CH

BLE: 40CH GPS:1CH

Port: USB Port, Earphone Port

Adapter:

Model: TPA-46050200UU

Input: AC100-240V~50/60Hz,0.3A

Output: DC 5V, 2A

Input Power:

Battery

Model: C876440350P Voltage: 3.8V, 13.3Wh

Battery Capacity: 3500mAh

Trade Name : BLU

GPRS/EGPRS Multi-slot class 8/10/11/12

FCC ID: YHLBLUSTVIEWMG



| Test Report | 17071343-FCC-H2 |
|-------------|-----------------|
| Page        | 8 of 9          |

## 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 ≤ 50 mm are determined by:

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

- f<sub>(GHz)</sub> 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  $\leq 5$  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.

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

P= Maximum turn-up power in mW

F= Channel frequency in GHz

D= Minimum test separation distance in mm



| Test Report | 17071343-FCC-H2 |  |  |  |
|-------------|-----------------|--|--|--|
| Page        | 9 of 9          |  |  |  |

### 5.2 Test Result

#### Bluetooth Mode:

| Modulation | СН   | Freque<br>ncy<br>(MHz) | Conducted Power (dBm) | Tune Up<br>Power<br>(dBm) | Max Tune Up Power (dBm) | Max Tune Up Power (mW) | Result | Limit |
|------------|------|------------------------|-----------------------|---------------------------|-------------------------|------------------------|--------|-------|
|            |      | ,                      | • •                   | ,                         | ,                       | , ,                    | 2.22   |       |
| GFSK       | Low  | 2402                   | 4.08                  | 4±1                       | 5                       | 3.162                  | 0.98   | 3     |
|            | Mid  | 2441                   | 3.73                  | 4±1                       | 5                       | 3.162                  | 0.99   | 3     |
|            | High | 2480                   | 3.58                  | 4±1                       | 5                       | 3.162                  | 1.00   | 3     |
| π /4 DQPSK | Low  | 2402                   | 3.70                  | 4±1                       | 5                       | 3.162                  | 0.98   | 3     |
|            | Mid  | 2441                   | 3.70                  | 4±1                       | 5                       | 3.162                  | 0.99   | 3     |
|            | High | 2480                   | 3.12                  | 4±1                       | 5                       | 3.162                  | 1.00   | 3     |
| 8-DPSK     | Low  | 2402                   | 3.73                  | 4±1                       | 5                       | 3.162                  | 0.98   | 3     |
|            | Mid  | 2441                   | 3.38                  | 4±1                       | 5                       | 3.162                  | 0.99   | 3     |
|            | High | 2480                   | 3.22                  | 4±1                       | 5                       | 3.162                  | 0.98   | 3     |

#### BLE Mode:

| Modulation | СН   | Freq<br>(MHz) | Conducted Power (dBm) | Tune Up<br>Power<br>(dBm) | Max Tune Up Power (dBm) | Max Tune Up Power (mW) | Result | Limit |
|------------|------|---------------|-----------------------|---------------------------|-------------------------|------------------------|--------|-------|
| GFSK       | Low  | 2402          | -4.16                 | -4±1                      | -3                      | 0.501                  | 0.16   | 3     |
|            | Mid  | 2440          | -3.12                 | -4±1                      | -3                      | 0.501                  | 0.16   | 3     |
|            | High | 2480          | -3.70                 | -4±1                      | -3                      | 0.501                  | 0.16   | 3     |

Result: Compliance

No SAR measurement is required.