RF EXPOSURE REPORT



Report No.: 18070333-FCC-H2

Supersede Report No.: N/A Applicant **BLU Products, Inc Product Name Feature Phone** Model No. FLASH Serial No. N/A FCC 2.1093:2017 **Test Standard Test Date** April 10 to April 24, 2018 **Issue Date** April 25, 2018 Pass **Test Result** Fail Equipment complied with the specification 7 Equipment did not comply with the specification David Huang ion form Aaron Liang **David Huang Test Engineer** 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

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 Test Report
 18070333-FCC-H2

 Page
 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.

| 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 | | | |

Accreditations for Conformity Assessment



| Test Report | 18070333-FCC-H2 |
|-------------|-----------------|
| Page | 3 of 9 |

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 Test Report
 18070333-FCC-H2

 Page
 4 of 9

CONTENTS

| 1. | REPORT REVISION HISTORY |
|-----|--|
| 2. | CUSTOMER INFORMATION |
| 3. | TEST SITE INFORMATION |
| 4. | EQUIPMENT UNDER TEST (EUT) INFORMATION6 |
| 5. | FCC §2.1093 - RADIOFREQUENCY RADIATION EXPOSURE EVALUATION: PORTABLE DEVICES.8 |
| 5.1 | RF EXPOSURE |
| 5.2 | TEST RESULT9 |



| Test Report | 18070333-FCC-H2 |
|-------------|-----------------|
| Page | 5 of 9 |

1. Report Revision History

| Report No. | Report Version | Description | Issue Date |
|-----------------|----------------|-------------|----------------|
| 18070333-FCC-H2 | NONE | Original | April 25, 2018 |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

2. Customer information

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

3. Test site information

| 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 | | | | |



4. Equipment under Test (EUT) Information

| Description of EUT: | Feature Phone | | | | |
|-------------------------------|---|--|--|--|--|
| Main Model: | FLASH | | | | |
| Serial Model: | N/A | | | | |
| Date EUT received: | April 09, 2018 | | | | |
| Test Date(s): | April 10 to April 24, 2018 | | | | |
| Antenna Gain: | GSM850: -0.5dBi PCS1900: -0.8dBi Bluetooth: -0.4dBi | | | | |
| Antenna Type: | GSM: PIFA antenna BT: Monopole antenna | | | | |
| Type of Modulation: | GSM / GPRS: GMSK EGPRS: GMSK Bluetooth: GFSK, π /4DQPSK, 8DPSK | | | | |
| RF Operating Frequency (ies): | 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 Bluetooth: 2402-2480 MHz | | | | |
| Number of Channels: | GSM 850: 124CH PCS1900: 299CH Bluetooth: 79CH | | | | |
| Port: | USB Port, Earphone Port | | | | |
| Input Power: | Adapter: Model: US-NB-0550 Input: AC100-240V~50/60Hz,0.15A Output: DC 5.0V, 550mA Battery: Model: C41664160170L | | | | |



 Test Report
 18070333-FCC-H2

 Page
 7 of 9

| | Spec: 3.7V, 1700mAh, 6.29Wh |
|-----------------------|-----------------------------|
| Trade Name : | BLU |
| GPRS Multi-slot class | 8/10/11/12 |

FCC ID: YHLBLUFLASH18



 Test Report
 18070333-FCC-H2

 Page
 8 of 9

5. <u>FCC §2.1093 - Radiofrequency radiation exposure evaluation: portable</u> 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:

[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)].

- $[\sqrt{f_{(GHz)}}] \le 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR,¹⁶ where
- f_(GHz) is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation¹⁷
- 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
 18070333-FCC-H2

 Page
 9 of 9

5.2 Test Result

Bluetooth Mode:

| | | Freque | Conducted | Tune Up | Max Tune | Max Tune | | |
|------------|------|--------|-----------|---------|----------|----------|--------|-------|
| Modulation | СН | ncy | Power | Power | Up Power | Up Power | Result | Limit |
| | | (MHz) | (dBm) | (dBm) | (dBm) | (mW) | | |
| | Low | 2402 | 1.56 | 2±1 | 3 | 1.995 | 0.62 | 3 |
| GFSK | Mid | 2441 | 1.92 | 2±1 | 3 | 1.995 | 0.62 | 3 |
| | High | 2480 | 2.39 | 2±1 | 3 | 1.995 | 0.63 | 3 |
| | Low | 2402 | 4.18 | 3.5±1 | 4.5 | 2.818 | 0.87 | 3 |
| π /4 DQPSK | Mid | 2441 | 2.62 | 3.5±1 | 4.5 | 2.818 | 0.88 | 3 |
| | High | 2480 | 4.04 | 3.5±1 | 4.5 | 2.818 | 0.89 | 3 |
| | Low | 2402 | 1.59 | 2±1 | 3 | 1.995 | 0.62 | 3 |
| 8-DPSK | Mid | 2441 | 2.23 | 2±1 | 3 | 1.995 | 0.62 | 3 |
| | High | 2480 | 2.31 | 2±1 | 3 | 1.995 | 0.63 | 3 |

Result: Compliance

No SAR measurement is required.