# RF EXPOSURE REPORT



Report No.: 17070358-FCC-H2 Supersede Report No.: N/A

Applicant	BLU Products, Inc.			
Product Name	Mobile Phone			
Model No.	R2			
Serial No.	N/A			
Test Standard	FCC 2.109	3:2016		
Test Date	June 20 to	July 04, 201	7	
Issue Date	July 05, 2017			
Test Result	Pass Fail			
Equipment compl	Equipment complied with the specification			
Equipment did no	t comply with	h the specific	ation 🗖	
Loven	TNO	David	Huang	
Loren Luo Test Engineer			d Huang cked By	

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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



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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
17070358-FCC-H2	NONE	Original	July 05, 2017

## 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

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.	718246
IC Test Site No.	4842E-1
Test Software	Radiated Emission Program-To Shenzhen v2.0



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### 4. Equipment under Test (EUT) Information

Main Model: R2

Serial Model: N/A

Antenna Gain:

Date EUT received: June 19, 2017

Test Date(s): June 20 to July 04, 2017

GSM850: -2.6dBi PCS1900: 0.7dBi

UMTS-FDD Band V: -2.6dBi UMTS-FDD Band IV: 0.5dBi

UMTS-FDD Band II: 0.7dBi

WIFI: -2.7dBi

Bluetooth/BLE: -2.7dBi

GPS: -2.9dBi

Antenna Type: PIFA antenna

GSM / GPRS: GMSK EGPRS: GMSK,8PSK UMTS-FDD: QPSK

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

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

BLE: GFSK GPS:BPSK

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  $\sim$  846.6 MHz; RX: 871.4  $\sim$  891.6 MHz

UMTS-FDD Band IV TX:1712.4 ~ 1752.6 MHz;

RF Operating Frequency (ies):

RX : 2112.4 ~ 2152.6 MHz

TOT : 2112.4 2102.0 WITE

UMTS-FDD Band II TX:1852.4 ~ 1907.6 MHz; RX: 1932.4 ~ 1987.6 MHz

WIFI: 802.11b/g/n(20M): 2412-2462 MHz



Number of Channels:

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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

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 5.0V,1.5A

Input Power:

Battery:

Model: C716041300P

Spec: 3.8V,3000mAh,11.4Wh

Voltage: 4.35V

Trade Name :

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

FCC ID: YHLBLUR2II



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## 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



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## 5.2 Test Result

#### **Bluetooth Mode:**

Modulation	СН	Freque ncy (MHz)	Conducted Power (dBm)	Tune Up Power (dBm)	Max Tune Up Power (dBm)	Max Tune Up Power (mW)	Result (W)	Limit (W)
GFSK	Low	2402	-0.263	0±1	1	1.259	0.39	3
	Mid	2441	0.588	0±1	1	1.259	0.39	3
	High	2480	0.657	0±1	1	1.259	0.40	3
π /4 DQPSK	Low	2402	-0.844	0±1	1	1.259	0.39	3
	Mid	2441	0.326	0±1	1	1.259	0.39	3
	High	2480	0.504	0±1	1	1.259	0.40	3
8-DPSK	Low	2402	-0.369	0±1	1	1.259	0.39	3
	Mid	2441	0.482	0±1	1	1.259	0.39	3
	High	2480	0.491	0±1	1	1.259	0.40	3

#### **BLE Mode:**

Modulation	СН	Freq (MHz)	Conducted Power (dBm)	Tune Up Power (dBm)	Max Tune Up Power (dBm)	Max Tune Up Power (mW)	Result (W)	Limit (W)
GFSK	Low	2402	-8.589	-8±1	-7	0.200	0.06	3
	Mid	2440	-7.160	-8±1	-7	0.200	0.06	3
	High	2480	-7.514	-8±1	-7	0.200	0.06	3

Result: Compliance

No SAR measurement is required.