# RF EXPOSURE REPORT



#### Report No.: 17070204-FCC-H2 Supersede Report No.: N/A Applicant **BLU Products, Inc. Product Name Mobile Phone** Model No. **STUDIO J2** Serial No. N/A FCC 2.1093:2016 **Test Standard Test Date** March 30 to April 21, 2017 **Issue Date** April 22, 2017 Pass **Test Result** Fail 7 Equipment complied with the specification Equipment did not comply with the specification oren Luo David Huang Loren Lou **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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# 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



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## 1. Report Revision History

Report No.	Report Version	Description	Issue Date
17070204-FCC-H2	NONE	Original	April 22, 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 of			
Radiated Emission	Radiated Emission Program-To Shenzhen v2.0		
Test Software of			
Conducted Emission	EZ-EMC(ver.lcp-03A1)		



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# 4. Equipment under Test (EUT) Information

Description of EUT:	Mobile Phone
Main Model:	STUDIO J2
Serial Model:	N/A
Date EUT received:	March 29,2017
Test Date(s):	March 30 to April 21, 2017
Antenna Gain:	GSM850: -3.8dBi PCS1900: -2.5dBi UMTS-FDD Band V: -3.8dBi UMTS-FDD Band IV: -2.3dBi UMTS-FDD Band II: -2.7dBi WIFI: -3.6dBi Bluetooth/BLE:-3.3dBi GPS: -2.5dBi
Antenna Type:	PIFA antenna
Type of Modulation:	GSM / GPRS: GMSK EGPRS: GMSK UMTS-FDD: QPSK 802.11b/g/n: DSSS, OFDM Bluetooth: GFSK, π /4DQPSK, 8DPSK BLE: GFSK GPS:BPSK
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 UMTS-FDD Band V TX: 826.4 ~ 846.6 MHz; RX: 871.4 ~ 891.6 MHz UMTS-FDD Band IV TX:1712.4 ~ 1752.6 MHz; RX : 2112.4 ~ 2152.6 MHz 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



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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 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-46B050070UU Input: AC100-240V~50/60Hz,0.2A Output: DC 5.0V,0.7A Input Power: Battery: Model:C745244200L Spec:3.8V,7.60Wh,2000mAh Trade Name : BLU GPRS/EGPRS Multi-slot class 8/10/12 FCC ID: YHLBLUSTUDIOJ2



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# 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)].

- $\left[\sqrt{f_{(GHz)}}\right] \le 3.0$  for 1-g SAR and  $\le 7.5$  for 10-g extremity SAR,<sup>16</sup> 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	Conducted Power	Tune Up Power	Max Tune Up Power	Max Tune Up Power	Result	Limit
		(MHz)	(dBm)	(dBm)	(dBm)	(mW)		
	Low	2402	4.495	5±1	6	3.981	1.23	3
GFSK	Mid	2441	5.237	5±1	6	3.981	1.24	3
	High	2480	4.479	5±1	6	3.981	1.25	3
π /4 DQPSK	Low	2402	4.312	5±1	6	3.981	1.23	3
	Mid	2441	5.769	5±1	6	3.981	1.24	3
	High	2480	4.050	5±1	6	3.981	1.25	3
8-DPSK	Low	2402	4.291	5±1	6	3.981	1.23	3
	Mid	2441	4.754	5±1	6	3.981	1.24	3
	High	2480	4.038	5±1	6	3.981	1.25	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	Limit
	Low	2402	-2.461	-2±1	-1	0.794	0.25	3
GFSK	Mid	2440	-2.076	-2±1	-1	0.794	0.25	3
	High	2480	-2.745	-2±1	-1	0.794	0.25	3

#### Result: Compliance

No SAR measurement is required.