# RF EXPOSURE REPORT



Report No.: 18070046-FCC-H2
Supersede Report No.: N/A

Applicant	BLU Products,Inc			
Product Name	Mobile Phone			
Model No.	VIVO ONE	PLUS		
Serial No.	N/A			
Test Standard	FCC 2.109	3:2016		
Test Date	January 13	January 13 to January 28, 2018		
Issue Date	January 29, 2018			
Test Result	Pass Fail			
Equipment complied with the specification				
Equipment did not comply with the specification				
Agran Li	one	David Huang		
Aaron Liang Test Engineer		David Huang Checked 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

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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
18070046-FCC-H2	NONE	Original	January 29, 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

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	



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## 4. Equipment under Test (EUT) Information

Description of EUT: Mobile Phone

Main Model: VIVO ONE PLUS

Serial Model: N/A

Date EUT received: January 12, 2018

Test Date(s): January 13 to January 28, 2018

GSM850: -2.8dBi PCS1900: -2.3dBi

UMTS-FDD Band V: -2.5dBi
UMTS-FDD Band IV: -2.5dBi
UMTS-FDD Band II: -2.5dBi

LTE Band II: -2.5dBi

Antenna Gain: LTE Band IV: -2.5dBi

LTE Band VII: -3.0dBi LTE Band XII: -2.8dBi LTE Band XVII: -2.8dBi Bluetooth/BLE: -2.7dBi

WIFI: -2.7dBi GPS: -2.5dBi

Antenna Type: PIFA Antenna

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

LTE Band: QPSK, 16QAM Type of Modulation:

802.11b/g/n: DSSS, OFDM

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

BLE: GFSK GPS: BPSK



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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

RF Operating Frequency (ies):

LTE Band II TX: 1850.7 ~ 1909.3MHz; RX : 1930.7 ~ 1989.3 MHz

LTE Band IV TX: 1710.7 ~ 1754.3 MHz; RX : 2110.7~ 2154.3 MHz

LTE Band VII TX: 2502.5 ~ 2567.5 MHz; RX : 2622.5 ~ 2687.5 MHz

LTE Band XII TX:699.7 ~ 715.3 MHz; RX : 729.7~ 745.3MHz LTE Band XVII TX: 706.5 ~ 713.5 MHz; RX : 736.5 ~ 743.5 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

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:

Number of Channels:

Battery:

Model: C916241400P

Spec: 3.85V, 4000mAh, 15.4Wh

Voltage: 4.4V

Brand Name : BLU



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Trade Name:



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

FCC ID: YHLBLUVOONEPLUS



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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, <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)		
GFSK	Low	2402	3.530	3±1	4	2.512	0.78	3
	Mid	2441	3.067	3±1	4	2.512	0.78	3
	High	2480	3.346	3±1	4	2.512	0.79	3
π /4 DQPSK	Low	2402	2.884	2±1	3	1.995	0.62	3
	Mid	2441	2.504	2±1	3	1.995	0.62	3
	High	2480	2.761	2±1	3	1.995	0.63	3
8-DPSK	Low	2402	3.067	3±1	4	2.512	0.78	3
	Mid	2441	2.672	3±1	4	2.512	0.78	3
	High	2480	2.919	3±1	4	2.512	0.79	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
GFSK	Low	2402	3.488	3±1	4	2.512	0.78	3
	Mid	2440	3.038	3±1	4	2.512	0.78	3
	High	2480	3.346	3±1	4	2.512	0.79	3

Result: Compliance

No SAR measurement is required.