# RF EXPOSURE REPORT



Report No.: 15070962-FCC-H2 Supersede Report No.: N/A

Applicant	Verykool USA Inc			
Product Name	Mobile pho	Mobile phone		
Model No.	SL6010			
Serial No.	N/A			
Test Standard	FCC 2.109	3:2014		
Test Date	October 27	October 27 to November 18, 2015		
Issue Date	November 18, 2015			
Test Result	Pass Fail			
Equipment complied with the specification				
Equipment did not comply with the specification				
Winnie Zhang		Dewid Huang		
Winnie Zhang		David Huang		
Test Engineer		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**

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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
15070962-FCC-H2	NONE	Original	November 18, 2015

# 2. Customer information

Applicant Name	Verykool USA Inc	
Applicant Add	3636 Nobel Drive, Suite 325, San Diego, CA 92122 USA	
Manufacturer	HUIZHOU QIAOXING ELECTRONICS TECHNOLOGY CO.,LTD	
Manufacturer Add	Room 1906 of VIA Building, No.9966 Shennan Avenue, Yuehai Street in Nanshan	
	District, Shenzhen	

# 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

Description of EUT: Mobile phone

Main Model: SL6010

Serial Model: N/A

Date EUT received: October 26, 2015

Test Date(s): October 27 to November 18, 2015

GSM850: 1.7 dBi PCS1900: 3.7 dBi

UMTS-FDD Band V: 1.7 dBi UMTS-FDD Band IV: 3.6 dBi UMTS-FDD Band II: 3.7 dBi Bluetooth/BLE: 3.0 dBi

Antenna Gain: WIFI: 2.8 dBi

LTE Band 2: 3.7 dBi LTE Band 4: 3.6 dBi LTE Band 5: 1.7 dBi LTE Band 7: 2.8 dBi LTE Band 17: 1.7 dBi

GPS:1.8 dBi

GSM / GPRS: GMSK EGPRS: GMSK,8PSK

UMTS-FDD: QPSK, 16QAM 802.11b/g/n: DSSS, OFDM

Type of Modulation:

Bluetooth: GFSK, π /4DQPSK, 8DPSK

**BLE: GFSK** 

LTE Band: QPSK, 16QAM

**GPS:BPSK** 

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

RF Operating Frequency (ies): 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



Number of Channels:

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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 WIFI:802.11n(40M): 2422-2452 MHz Bluetooth& BLE: 2402-2480 MHz

LTE Band 2 TX:  $1852.5 \sim 1907.5$  MHz; RX:  $1932.5 \sim 1987.5$  MHz LTE Band 4 TX:  $1712.5 \sim 1752.5$  MHz; RX:  $2112.5 \sim 2152.5$  MHz LTE Band 5 TX:  $826.5 \sim 846.5$  MHz; RX:  $871.5 \sim 891.5$  MHz LTE Band 7 TX:  $2502.5 \sim 2567.5$  MHz; RX:  $2622.5 \sim 2687.5$  MHz LTE Band 17 TX:  $706.5 \sim 713.5$  MHz; RX:  $736.5 \sim 743.5$  MHz

GPS RX: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: Power Port, Earphone Port, USB Port

Adapter:

Model:STC-A515A-Z

Input: AC 100-240V; 50/60Hz; 300mA

Output: DC 5.0V,1500mA

Input Power: Battery:

Model:Q600

Spec:3.7V,2500mAh(9.25Wh) Limited charger voltage:4.2V

Trade Name: verykool

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



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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	Freq (MHz)	Conducted Power	Tune Up Power	Max Tune Up Power	Max Tune Up Power	Result	Limit
			(dBm)	(dBm)	(dBm)	(mW)		
GFSK	Low	2402	-0.928	-1±1	0	1.000	0.31	3
	Mid	2441	0.186	1±1	2	1.585	0.50	3
	High	2480	0.889	1±1	2	1.585	0.50	3
π /4 DQPSK	Low	2402	-1.793	-1±1	0	1.000	0.31	3
	Mid	2441	-0.549	-1±1	0	1.000	0.31	3
	High	2480	-0.050	-1±1	0	1.000	0.31	3
8-DPSK	Low	2402	-1.545	-1±1	0	1.000	0.31	3
	Mid	2441	-0.909	-1±1	0	1.000	0.31	3
	High	2480	0.114	1±1	2	1.585	0.50	3

#### WIFI 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	2412	8.53	8±1	9	7.943	2.47	3
802.11b	Mid	2437	8.89	8±1	9	7.943	2.48	3
	High	2462	9.01	8±1	9	7.943	2.49	3
802.11g	Low	2412	9.22	8±1	9	7.943	2.47	3
	Mid	2437	9.27	8±1	9	7.943	2.48	3
	High	2462	9.31	8±1	9	7.943	2.49	3
	Low	2412	9.06	8±1	9	7.943	2.47	3
802.11n	Mid	2437	9.34	8±1	9	7.943	2.48	3
(20M)	High	2462	9.12	8±1	9	7.943	2.49	3
000 44#	Low	2422	8.96	8±1	9	7.943	2.47	3
802.11n (40M)	Mid	2437	9.03	8±1	9	7.943	2.48	3
	High	2452	9.19	8±1	9	7.943	2.49	3



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#### 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	-8.152	-8±1	-7	0.200	0.06	3
	Mid	2440	-6.885	-6±1	-5	0.316	0.10	3
	High	2480	-6.072	-6±1	-5	0.316	0.10	3

Result: Compliance

No SAR measurement is required.