# RF EXPOSURE REPORT



Report No.: 16071468-FCC-H2
Supersede Report No.: N/A

Applicant	Verykool U	SA Inc		
Product Name	Mobile Pho	ne		
Model No.	s5035			
Serial No.	N/A			
Test Standard	FCC 2.1093:2016			
Test Date	December :	23, 2016 to Ja	anuary 09, 2017	
Issue Date	January 10	, 2017		
Test Result	Pass	Fail		
Equipment compl	ied with the	specification	<b>V</b>	
Equipment did not comply with the specification				
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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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#### **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
16071468-FCC-H2	NONE	Original	January 10, 2017

## 2. Customer information

Applicant Name	Verykool USA Inc
Applicant Add	3636 Nobel Drive, Suite 325, San Diego, California 92122 United States
Manufacturer	HUAWO TECHNOLOGY LIMITED
Manufacturer Add	3 floor west, B building, New world shopping plaza, Gushu 2nd road, Xixiang street,
	Baoan District, Shenzhen,China

## 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

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Main Model: s5035

Serial Model: N/A

Date EUT received: December 22, 2016

Test Date(s): December 23, 2016 to January 09, 2017

GSM850: -0.6dBi PCS1900: -0.9dBi

UMTS-FDD Band V: -0.6dBi UMTS-FDD Band IV: -1.2dBi

Antenna Gain:

UMTS-FDD Band II: -1.1dBi

WIFI: -1.2dBi

Bluetooth/BLE:-1.2dBi

GPS: -1.1dBi

Antenna Type: PIFA antenna

GSM / GPRS: GMSK

EGPRS: GMSK

UMTS-FDD: QPSK

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

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

BLE: GFSK GPS:BPSK



Number of Channels:

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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

RF Operating Frequency (ies): 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

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: QU050100

Input: AC100-240V~50/60Hz,0.2A

Output: DC 5.0V,1000mA

Input Power: Battery:

Model:316083

Spec: 3.8V,2050mAh,7.79Wh

Limited charger voltage: 4.35V

Trade Name: verykool

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

FCC ID: WA6S5035



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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	Conducted Power	Tune Up Power	Max Tune Up Power	Max Tune Up Power	Result	Limit
		(MHz)	(dBm)	(dBm)	(dBm)	(mW)		
GFSK	Low	2402	3.303	3±1	4	2.512	0.78	3
	Mid	2441	3.647	3±1	4	2.512	0.78	3
	High	2480	2.779	3±1	4	2.512	0.79	3
π /4 DQPSK	Low	2402	3.161	3±1	4	2.512	0.78	3
	Mid	2441	3.583	3±1	4	2.512	0.78	3
	High	2480	2.660	3±1	4	2.512	0.79	3
8-DPSK	Low	2402	3.179	3±1	4	2.512	0.78	3
	Mid	2441	3.567	3±1	4	2.512	0.78	3
	High	2480	2.700	3±1	4	2.512	0.79	3

#### WIFI Mode:

Modulation	СН	Freque ncy (MHz)	Conducted Power (dBm)	Tune Up Power (dBm)	Max Tune Up Power (dBm)	Max Tune Up Power (mW)	Result	Limit
	Low	2412	8.68	8±1	9	7.943	2.47	3
802.11b	Mid	2437	8.36	8±1	9	7.943	2.48	3
	High	2462	8.58	8±1	9	7.943	2.49	3
	Low	2412	8.57	8±1	9	7.943	2.47	3
802.11g	Mid	2437	8.32	8±1	9	7.943	2.48	3
	High	2462	8.68	8±1	9	7.943	2.49	3
000 115	Low	2412	8.51	8±1	9	7.943	2.47	3
802.11n (20M)	Mid	2437	8.31	8±1	9	7.943	2.48	3
	High	2462	8.61	8±1	9	7.943	2.49	3
802.11n (40M)	Low	2422	8.49	8±1	9	7.943	2.47	3
	Mid	2437	8.67	8±1	9	7.943	2.48	3
	High	2452	8.31	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	-4.796	-5.0±1	-4.0	0.398	0.12	3
	Mid	2440	-4.195	-5.0±1	-4.0	0.398	0.12	3
	High	2480	-5.039	-5.0±1	-4.0	0.398	0.13	3

Result: Compliance

No SAR measurement is required.