RF EXPOSURE REPORT

Report No.: 16071303-FCC-H2

Supersede Report No.: N/A

Applicant	Shenzhen Konka Telecommunications Technology Co., Ltd.
Product Name	Smart Phone
Model No.	R5
Serial No.	N/A
Test Standard	FCC 2.1093:2015
Test Date	November 05 to 21, 2016
Issue Date	November 21, 2016
Test Result	☑ Pass ☐ Fail
Equipment complied with the specification	☑
Equipment did not comply with the specification	☐

Loren Luo	David Huang	
Loren Luo 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

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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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CONTENTS

1. REPORT REVISION HISTORY 5

2. CUSTOMER INFORMATION 5

3. TEST SITE INFORMATION 5

4. EQUIPMENT UNDER TEST (EUT) INFORMATION 6

5. FCC §2.1093 - RADIOFREQUENCY RADIATION EXPOSURE EVALUATION: PORTABLE DEVICES. 8

5.1 RF EXPOSURE 8

5.2 TEST RESULT 9

1. Report Revision History

Report No.	Report Version	Description	Issue Date
16071303-FCC-H2	NONE	Original	November 21, 2016

2. Customer information

Applicant Name	Shenzhen Konka Telecommunications Technology Co., Ltd.
Applicant Add	No.9008 Shennan Road,Overseas Chinese Town, ShenZhen, Guangdong,China
Manufacturer	Shenzhen Konka Telecommunications Technology Co.,Ltd.
Manufacturer Add	No.9008 Shennan Road,Overseas Chinese Town, Shenzhen, Guangdong,China

3. Test site information

Lab performing tests	SIEMIC (Shenzhen-China) LABORATORIES
Lab Address	Zone A, Floor 1, Building 2 Wan Ye Long Technology Park 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

4. Equipment under Test (EUT) Information

Description of EUT:	Smart Phone
Main Model:	R5
Serial Model:	N/A
Date EUT received:	November 04, 2016
Test Date(s):	November 05 to 21, 2016
Antenna Gain:	GSM850: -0.09dBi GSM900: -0.01dBi(This is CE frequency) GSM1800: 0.93dBi(This is CE frequency) PCS1900: 0.99dBi UMTS-FDD Band II:0.93dBi UMTS-FDD Band VIII:-0.01dBi(This is CE frequency) LTE Band I:0.97dBi(This is CE frequency) LTE Band III: 0.93dBi(This is CE frequency) LTE Band IV: -0.41dBi Bluetooth/BLE/WIFI:2.01dBi GPS:2.01dBi
Antenna Type:	PIFA antenna
Type of Modulation:	GSM / GPRS: GMSK EGPRS: GMSK,8PSK UMTS-FDD: QPSK LTE Band: QPSK, 16QAM 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 EGSM900 TX:880-915 MHz; RX: 925-960MHz(This is CE frequency) DCS1800 TX:1710-1785MHz;RX:1805-1880MHz(This is CE frequency) UMTS-FDD Band II TX:1852.4 ~ 1907.6 MHz; RX: 1932.4 ~ 1987.6 MHz UMTS-FDD Band VIII: TX:880-915 MHz ; RX:925-960 MHz (This is CE frequency) LTE Band I TX:1920-1980MHz;RX:2110-2170MHz(This is CE frequency) LTE Band III TX:1710-1785MHz;RX:1805-1880MHz(This is CE frequency) LTE Band IV TX: 1710.7 ~ 1754.3 MHz; RX : 2110.7 ~ 2154.3 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
Number of Channels:	GSM 850: 124CH PCS1900: 299CH 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
Input Power:	Adapter: Model: U0B2E0A050100 Input: AC100-240V~50/60Hz,150mA Output: DC 5.0V,1A Battery: Model: KLB210N340 Capacity:3.8V,2000mAh,7.6Wh Limited charger voltage:4.35V
Trade Name :	KONKA
GPRS/EGPRS Multi-slot class	8/10/12
FCC ID:	UT3KKR5

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*)] · [$\sqrt{f_{(GHz)}}$] ≤ 3.0 for 1-g SAR and ≤ 7.5 for 10-g extremity SAR,[16] where

- $f_{(GHz)}$ is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation[17]
- The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum *test separation distance* is ≤ 50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum *test separation distance* is < 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

5.2 Test Result

Bluetooth Mode:

Modulation	CH	Frequency (MHz)	Conducted Power (dBm)	Tune Up Power (dBm)	Max Tune Up Power (dBm)	Max Tune Up Power (mW)	Result	Limit
GFSK	Low	2402	5.317	4.7±1	5.7	3.715	1.15	3
	Mid	2441	**5.395**	4.7±1	5.7	3.715	1.16	3
	High	2480	4.045	4.7±1	5.7	3.715	1.17	3
π /4 DQPSK	Low	2402	**4.922**	4.5±1	5.5	3.548	1.10	3
	Mid	2441	4.542	4.5±1	5.5	3.548	1.11	3
	High	2480	4.268	4.5±1	5.5	3.548	1.12	3
8-DPSK	Low	2402	**5.016**	4.6±1	5.6	3.631	1.13	3
	Mid	2441	4.766	4.6±1	5.6	3.631	1.13	3
	High	2480	4.304	4.6±1	5.6	3.631	1.14	3

WIFI Mode:

Modulation	CH	Frequency (MHz)	Conducted Power (dBm)	Tune Up Power (dBm)	Max Tune Up Power (dBm)	Max Tune Up Power (mW)	Result	Limit
802.11b	Low	2412	8.30	8.5±1	9.5	8.913	2.77	3
	Mid	2442	**8.84**	8.5±1	9.5	8.913	2.78	3
	High	2472	8.69	8.5±1	9.5	8.913	2.80	3
802.11g	Low	2412	8.43	8.5±1	9.5	8.913	2.77	3
	Mid	2442	8.54	8.5±1	9.5	8.913	2.78	3
	High	2472	**8.56**	8.5±1	9.5	8.913	2.80	3
802.11n (20M)	Low	2412	8.16	8.5±1	9.5	8.913	2.77	3
	Mid	2442	8.49	8.5±1	9.5	8.913	2.78	3
	High	2472	**8.81**	8.5±1	9.5	8.913	2.80	3
802.11n (40M)	Low	2422	8.53	8.5±1	9.5	8.913	2.77	3
	Mid	2442	8.42	8.5±1	9.5	8.913	2.78	3
	High	2462	**8.80**	8.5±1	9.5	8.913	2.79	3

BLE Mode:

Modulation	CH	Freq (MHz)	Conducted Power (dBm)	Tune Up Power (dBm)	Max Tune Up Power (dBm)	Max Tune Up Power (mW)	Result	Limit
GFSK	Low	2402	-3.273	-3±1	-2	0.631	0.20	3
	Mid	2440	**-2.992**	-3±1	-2	0.631	0.20	3
	High	2480	-4.617	-4.5±1	-3.5	0.447	0.14	3

Result: Compliance

No SAR measurement is required.