# RF EXPOSURE REPORT



Report No.: 17070400-FCC-H2

Supersede Report No.: N/A					
Applicant	INFINIX MO	INFINIX MOBILITY LIMITED			
Product Name	Mobile Pho	ne			
Model No.	X5010				
Serial No.	N/A				
Test Standard	FCC 2.109	3:2016			
Test Date	June 01 to	June 22, 2017			
Issue Date	June 23, 20	)17			
Test Result	Pass	Fail			
Equipment compl	ied with the s	specification			
Equipment did no	t comply with	n the specification			
LOVER LUO David Huang					
Loren Luo Test Engineer		David Huang Checked By			
This test report may be reproduced in full only					
Test result p		his test report is applicable to	-		

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
17070400-FCC-H2	NONE	Original	June 23, 2017

## 2. Customer information

Applicant Name	INFINIX MOBILITY LIMITED
Applicant Add	RMS 05-15, 13A/F SOUTH TOWER WORLD FINANCE CTR HARBOUR CITY 17
	CANTON RD TST KLN HONG KONG
Manufacturer	SHENZHEN TECNO TECHNOLOGY CO.,LTD.
Manufacturer Add	1-4th Floor,3rd Building,Pacific Industrial Park,No.2088,Shenyan Road,Yantian
	District,Shenzhen,Guangdong,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

Description of EUT:	Mobile Phone
Main Model:	X5010
Serial Model:	N/A
Date EUT received:	May 31, 2017
Test Date(s):	June 01 to June 22, 2017
Antenna Gain:	GSM850: -6.2dBi PCS1900: -3.7dBi UMTS-FDD Band V: -5.8dBi UMTS-FDD Band IV: -3.6dBi UMTS-FDD Band II: -3.7dBi WIFI: -4.9dBi Bluetooth/BLE: -4.9dBi GPS: -3.7dBi
Antenna Type:	PIFA antenna
Type of Modulation:	GSM / GPRS: GMSK EGPRS: GMSK,8PSK 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: CU-52JT Input: AC100-240V~50/60Hz,200mA Output: DC 5.0V,1.2A Input Power: Battery: Model: BL-AW878 Spec: 3.8V,3000mAh/3060mAh 11.4Wh/11.62Wh Voltage: 4.35V Trade Name : Infinix GPRS/EGPRS Multi-slot class 8/10/12 FCC ID: 2AIZN-X5010



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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)].

- $[\sqrt{f_{(GHz)}}] \le 3.0$  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)		
	Low	2402	5.524	6±1	7	5.012	1.55	3
GFSK	Mid	2441	6.087	6±1	7	5.012	1.57	3
	High	2480	5.938	6±1	7	5.012	1.58	3
π /4 DQPSK	Low	2402	5.259	6±1	7	5.012	1.55	3
	Mid	2441	5.771	6±1	7	5.012	1.57	3
	High	2480	5.711	6±1	7	5.012	1.58	3
8-DPSK	Low	2402	5.350	6±1	7	5.012	1.55	3
	Mid	2441	5.855	6±1	7	5.012	1.57	3
	High	2480	5.799	6±1	7	5.012	1.58	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	-2.895	-2±1	-1	0.794	0.25	3
	Mid	2440	-2.371	-2±1	-1	0.794	0.25	3
	High	2480	-2.257	-2±1	-1	0.794	0.25	3

### Result: Compliance

No SAR measurement is required.