# RF EXPOSURE REPORT



Report No.: 17070605-FCC-H2 Supersede Report No.: N/A

Applicant	Power Idea Technology (Shenzhen) Co., Ltd.			
Product Name	GSM Digital Mobile Phone			
Model No.	RG129			
Serial No.	N/A			
Test Standard	FCC 2.109	3: 2016		
Test Date	July 21 to August 23, 2017			
Issue Date	August 24, 2017			
Test Result	Pass Fail			
Equipment complied with the specification				
Equipment did not comply with the specification				
Loven	Luo	David	Huang	
Loren Luo Test Engineer			Huang ked 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
17070605-FCC-H2	NONE	Original	August 24, 2017

## 2. Customer information

Applicant Name	Power Idea Technology (Shenzhen) Co., Ltd.	
Applicant Add	4th Floor, A Section , Languang Science&technology Building , No.7 Xinxi RD , Hi-	
	Tech Industrial Park North , Nanshan District , ShenZhen , P.R.C.	
Manufacturer	Power Idea Technology (Shenzhen) Co., Ltd.	
Manufacturer Add	4th Floor, A Section , Languang Science&technology Building , No.7 Xinxi RD , Hi-	
	Tech Industrial Park North , Nanshan District , ShenZhen , P.R.C.	

### 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:	GSM Digital Mobile Phone
Main Model:	RG129
Serial Model:	N/A
Date EUT received:	July 20, 2017
Test Date(s):	July 21 to August 23, 2017
Antenna Gain:	GSM850: -2.02dBi PCS1900: -0.11dBi Bluetooth: -2.12dBi
Antenna Type:	GSM: PIFA antenna BT: Monopole antenna
Type of Modulation:	GSM / GPRS: GMSK Bluetooth: GFSK
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 Bluetooth: 2402-2480 MHz
Number of Channels:	GSM 850: 124CH PCS1900: 299CH Bluetooth: 79CH
Port:	USB Port, Earphone Port



Input Power:

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Adapter:

Model: STC-A22O501500USBA-Z

Input: AC100-240V~50/60Hz,200mA

Output: DC 5.0V,500mA

Battery

Model: BL100EI (ICP5/34/53) Spec: 3.7V/800mAh(2.96Wh) Limited charge voltage: 4.2V

Trade Name : N/A

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

FCC ID: ZLE-RG129



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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 (MHz)	Conducted Power (dBm)	Tune Up Power (dBm)	Max Tune Up Power (dBm)	Max Tune Up Power (mW)	Result	Limit
GFSK	Low	2402	0.179	0.5±1	1.5	1.413	0.44	3
	Mid	2441	-0.091	0.5±1	1.5	1.413	0.44	3
	High	2480	0.337	0.5±1	1.5	1.413	0.44	3

Result: Compliance

No SAR measurement is required.