# RF EXPOSURE REPORT



Report No.: 18070041-FCC-H2 Supersede Report No.: N/A

Applicant	TECNO MOBILE LIMITED			
Product Name	Mobile pho	Mobile phone		
Model No.	T632S			
Serial No.	N/A			
Test Standard	FCC 2.1093	3:2017		
Test Date	January 12	to January 2	9, 2018	
Issue Date	January 30	, 2018		
Test Result	Pass Fail			
Equipment complied with the specification				
Equipment did not comply with the specification				
James Lione		David	Huang	
Aaron Liang Test Engineer			d Huang cked 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**

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.

#### **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
18070041-FCC-H2	NONE	Original	January 30, 2018

## 2. Customer information

Applicant Name	TECNO MOBILE LIMITED	
Applicant Add	ROOMS 05-15, 13A/F., SOUTH TOWER, WORLD FINANCE CENTRE,	
	HARBOUR CITY, 17 CANTON ROAD, TSIM SHA TSUI, KOWLOON, 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.	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: Mobile phone

Main Model: T632S

Serial Model: N/A

Date EUT received: January 11, 2018

Test Date(s): January 12 to January 29, 2018

GSM850: -0.2dBi

PCS1900: 1.7dBi Antenna Gain:

UMTS-FDD Band V: -0.2dBi
UMTS-FDD Band II: 1.7dBi

Bluetooth: -2.7dBi

Antenna Type: GSM: PIFA antenna

BT: PCB antenna

GSM / GPRS: GMSK

Type of Modulation:

RF Operating Frequency (ies):

UMTS-FDD: QPSK

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

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 II TX:1852.4  $\sim$  1907.6 MHz;

RX: 1932.4 ~ 1987.6 MHz

Bluetooth: 2402-2480 MHz

GSM 850: 124CH

PCS1900: 299CH

Number of Channels: UMTS-FDD Band V: 102CH

UMTS-FDD Band II: 277CH

Bluetooth: 79CH



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Port: USB Port, Earphone Port

Adapter:

Model: A31-500500

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

Output: DC 5.0V, 500mA

Input Power: Battery:

Model: BL-5CAT

Spec: 3.7V, 1150mAh, 4.255Wh

Voltage: 4.2V

Trade Name : TECNO

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

FCC ID: 2ADYY-T632S



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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	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	1.56	2±1	3	1.995	0.62	3
	Mid	2441	1.92	2±1	3	1.995	0.62	3
	High	2480	2.39	2±1	3	1.995	0.63	3
π /4 DQPSK	Low	2402	1.75	2±1	3	1.995	0.62	3
	Mid	2441	2.07	2±1	3	1.995	0.62	3
	High	2480	2.15	2±1	3	1.995	0.63	3
8-DPSK	Low	2402	1.59	2±1	3	1.995	0.62	3
	Mid	2441	2.23	2±1	3	1.995	0.62	3
	High	2480	2.31	2±1	3	1.995	0.63	3

Result: Compliance

No SAR measurement is required.