# RF EXPOSURE REPORT



Report No.: 18070525-FCC-H Supersede Report No.: N/A

Applicant	TECNO MOBILE LIMITED		
Product Name	Mobile phone		
Model No.	F3		
Serial No.	N/A		
Test Standard	FCC 2.109	3	
Test Date	May 16 to 25, 2018		
Issue Date	May 26, 2018		
Test Result	Pass Fail		
Equipment complied with the specification			
Equipment did not comply with the specification			
Janon Lione		David Huang	
Aaron Liang 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**

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
18070525-FCC-H	NONE	Original	May 26, 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	TECNO MOBILE LIMITED	
Manufacturer Add	ROOMS 05-15, 13A/F., SOUTH TOWER, WORLD FINANCE CENTRE,	
	HARBOUR CITY, 17 CANTON ROAD, TSIM SHA TSUI, KOWLOON, HONG	
	KONG	

## 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:	F3
Serial Model:	N/A
Date EUT received:	May 15, 2018
Test Date(s):	May 16 to 25, 2018
Antenna Gain:	Bluetooth/BLE: -3.5dBi
Antenna Type:	PIFA Antenna
Type of Modulation:	Bluetooth: GFSK, π /4DQPSK, 8DPSK BLE: GFSK
RF Operating Frequency (ies):	Bluetooth& BLE: 2402-2480 MHz
Number of Channels:	Bluetooth: 79CH BLE: 40CH
Port:	Please refer to the user's manual
	Adapter : Model: A8-501000 Input: AC100-240V~50/60Hz,200mA Output: DC 5.0V, 1.0A

Battery:

Input Power:

Model: BL-24ET

Spec: 3.8V, 2400mAh/2350mAh(typ/min), 9.12Wh/8.93Wh(typ/min)

Limited charge voltage: 4.35V



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Trade Name :	TECNO
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FCC ID: 2ADYY-F3



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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	1.155	1.5±1	2.5	1.778	0.55	3
	Mid	2441	1.359	1.5±1	2.5	1.778	0.56	3
	High	2480	1.991	1.5±1	2.5	1.778	0.56	3
π /4 DQPSK	Low	2402	1.084	1±1	2	1.585	0.49	3
	Mid	2441	1.291	1±1	2	1.585	0.50	3
	High	2480	1.868	1±1	2	1.585	0.50	3
8-DPSK	Low	2402	1.220	1.5±1	2.5	1.778	0.55	3
	Mid	2441	1.437	1.5±1	2.5	1.778	0.56	3
	High	2480	2.081	1.5±1	2.5	1.778	0.56	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	-5.959	-6±1	-5	0.316	0.10	3
	Mid	2440	-5.946	-6±1	-5	0.316	0.10	3
	High	2480	-5.778	-6±1	-5	0.316	0.10	3

Result: Compliance

No SAR measurement is required.