# RF EXPOSURE REPORT



Report No.: 18070525-FCC-H					
Supersede Report No.: N/A					
Applicant	TECNO M	OBILE LIMITED			
Product Name	Mobile pho	ne			
Model No.	F3				
Serial No.	N/A				
Test Standard	FCC 2.109	3			
Test Date	May 16 to 2	25, 2018			
Issue Date	May 26, 20	18			
Test Result	Pass	Pass Fail			
Equipment compl	Equipment complied with the specification				
Equipment did no	t comply wit	h the specification			
Aronon Licong		David Huang			
Aaron Liang		David Huang			
Test Engineer		Checked By			
This test report may be reproduced in full only					
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.

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
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
Input Power:	Adapter : Model: A8-501000 Input: AC100-240V~50/60Hz,200mA Output: DC 5.0V, 1.0A Battery : 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

FCC ID:

2ADYY-F3



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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:**

Medulation		Freque	Conducted	Tune Up	Max Tune	Max Tune	Decult	l insit
Modulation	СН		Power	Power	Up Power	Up Power	Result	Limit
		(MHz)	(dBm)	(dBm)	(dBm)	(mW)		
	Low	2402	1.155	1.5±1	2.5	1.778	0.55	3
GFSK	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.