RF EXPOSURE REPORT



Report No.: 17071049-FCC-H2 Supersede Report No.: N/A

Applicant	TECNO MOBILE LIMITED			
Product Name	Mobile phone			
Model No.	W3 Pro			
Serial No.	N/A			
Test Standard	FCC 2.109	3:2016		
Test Date	September	31 to October	24, 2017	
Issue Date	October 25, 2017			
Test Result	Pass Fail			
Equipment complied with the specification				
Equipment did not comply with the specification				
Loven	LOVEN LUO David Huang			
Loren Luo Test Engineer		David Check	•	

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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
17071049-FCC-H2	NONE	Original	October 25, 2017

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: W3 Pro

Serial Model: N/A

Date EUT received: September 30, 2017

Test Date(s): September 31 to October 24, 2017

GSM850: -1.0dBi PCS1900: -0.7dBi

UMTS-FDD Band V: -1.0dBi

Antenna Gain: UMTS-FDD Band II: -0.7dBi

Bluetooth/BLE: 2.0dBi

WIFI: 2.0dBi GPS: 0.32dBi

Antenna Type: PIFA antenna

GSM / GPRS: GMSK EGPRS: GMSK,8PSK

UMTS-FDD: QPSK

Type of Modulation: 802.11b/g/n: DSSS, OFDM

Bluetooth: GFSK, π /4DQPSK, 8DPSK

BLE: GFSK GPS:BPSK

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 ~ 1907.6 MHz;

RF Operating Frequency (ies): RX: 1932.4 ~ 1987.6 MHz

WIFI: 802.11b/g/n(20M): 2412-2462 MHz WIFI: 802.11n(40M): 2422-2452 MHz

Bluetooth& BLE: 2402-2480 MHz

GPS: 1575.42 MHz



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GSM 850: 124CH PCS1900: 299CH

UMTS-FDD Band V: 102CH 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-25FT

Spec: 3.8V, 2500mAh, 9.5Wh Limited charger voltage: 4.35V

Trade Name: **TECNO**

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

FCC ID: 2ADYY-W3PRO



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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 ≤ 7.5 for 10-g extremity SAR, 16 where

- f_(GHz) is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation¹⁷
- The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is ≤ 50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is ≤ 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	3.174	2.5±1	3.5	2.239	0.69	3
	Mid	2441	2.942	2.5±1	3.5	2.239	0.70	3
	High	2480	2.401	2.5±1	3.5	2.239	0.71	3
π /4 DQPSK	Low	2402	2.756	2.5±1	3.5	2.239	0.69	3
	Mid	2441	2.613	2.5±1	3.5	2.239	0.70	3
	High	2480	2.176	2.5±1	3.5	2.239	0.71	3
8-DPSK	Low	2402	2.890	2.5±1	3.5	2.239	0.69	3
	Mid	2441	2.744	2.5±1	3.5	2.239	0.70	3
	High	2480	2.322	2.5±1	3.5	2.239	0.71	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	-4.223	-4±1	-3	0.501	0.16	3
	Mid	2440	-3.991	-4±1	-3	0.501	0.16	3
	High	2480	-4.263	-4±1	-3	0.501	0.16	3

Result: Compliance

No SAR measurement is required.