# RF EXPOSURE REPORT



Report No.: 17071325-FCC-H2 Supersede Report No.: N/A

Applicant	TECNO MOBILE LIMITED				
Product Name	Mobile phone				
Model No.	CA6	CA6			
Serial No.	N/A				
Test Standard	FCC 2.109	FCC 2.1093:2016			
Test Date	December 28, 2017 to January 02, 2018				
Issue Date	January 03, 2018				
Test Result	Pass Fail				
Equipment complied with the specification					
Equipment did not comply with the specification					
Jaron Liang		David Huang			
Aarron 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**

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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
17071325-FCC-H2	NONE	Original	January 03, 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,YantianDistrict,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
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Main Model: CA6

Serial Model: N/A

Date EUT received: December 27, 2017

Test Date(s): December 28, 2017 to January 02, 2018

GSM850: -1.92dBi PCS1900: -0.61dBi

UMTS-FDD Band V: -1.92dBi UMTS-FDD Band IV: -0.7dBi UMTS-FDD Band II: -0.62dBi

LTE Band II: -0.61dBi

Antenna Gain: LTE Band IV: -0.7dBi

> LTE Band V: -1.92dBi LTE Band VII: -1dBi

WIFI: -1.22dBi

Bluetooth/BLE: -1.22dBi

GPS: -1.22dBi

Antenna Type: PIFA Antenna

Type of Modulation:

GSM / GPRS: GMSK EGPRS: GMSK,8PSK UMTS-FDD: QPSK

LTE Band: QPSK, 16QAM

802.11b/g/n: DSSS, OFDM

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

BLE: GFSK GPS:BPSK



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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 IV TX:1712.4 ~ 1752.6 MHz;

RX: 2112.4 ~ 2152.6 MHz

UMTS-FDD Band II TX:1852.4 ~ 1907.6 MHz;

RX: 1932.4 ~ 1987.6 MHz

RF Operating Frequency (ies): LTE Band II TX: 1850.7 ~ 1909.3MHz; RX: 1930.7 ~ 1989.3 MHz

LTE Band IV TX: 1710.7 ~ 1754.3 MHz; RX: 2110.7~ 2154.3 MHz

LTE Band V TX: 824.7~ 848.3 MHz; RX: 869.7 ~ 893.3MHz

LTE Band VII TX: 2502.5 ~ 2567.5 MHz; RX : 2622.5 ~ 2687.5 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

GSM 850: 124CH PCS1900: 299CH

UMTS-FDD Band V: 102CH UMTS-FDD Band IV: 202CH UMTS-FDD Band II: 277CH

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:

Number of Channels:

Battery

Model: BL-30UT

Rating: 3.85V, 3000mAh/3050mAh, 11.55Wh/11.74Wh

Limited charge voltage: 4.4V

Trade Name: TECNO



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GPRS/EGPRS Multi-slot class	8/10/11/12
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FCC ID: 2ADYY-CA6



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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	1.12	2±1	3	1.995	0.62	3
	Mid	2441	2.07	2±1	3	1.995	0.62	3
	High	2480	1.45	2±1	3	1.995	0.63	3
π /4 DQPSK	Low	2402	0.38	1±1	2	1.585	0.49	3
	Mid	2441	1.46	1±1	2	1.585	0.50	3
	High	2480	0.92	1±1	2	1.585	0.50	3
8-DPSK	Low	2402	1.44	1±1	2	1.585	0.49	3
	Mid	2441	1.57	1±1	2	1.585	0.50	3
	High	2480	0.83	1±1	2	1.585	0.50	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	0.02	0±1	1	1.259	0.39	3
	Mid	2440	0.84	0±1	1	1.259	0.39	3
	High	2480	-0.33	0±1	1	1.259	0.40	3

Result: Compliance

No SAR measurement is required.