

# RF TEST REPORT



Report No.: 17070659-FCC-R6

Supersede Report No.: N/A

Applicant	TECNO MOBILE LIMITED	
Product Name	Mobile phone	
Model No.	AX8	
Serial No.	N/A	
Test Standard	FCC Part 15.407: 2016, ANSI C63.10: 2013	
Test Date	July 29 to September 28, 2017	
Issue Date	September 29, 2017	
Test Result	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail	
Equipment complied with the specification	<input checked="" type="checkbox"/>	
Equipment did not comply with the specification	<input type="checkbox"/>	
<i>Loren Luo</i>	<i>David Huang</i>	
Loren Luo Test Engineer	David Huang Checked By	
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Issued by:

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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
17070659-FCC-R6	NONE	Original	September 29, 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

Test Lab:

Lab performing tests	SIEMIC (Shenzhen-China) LABORATORIES
Lab Address	Zone A, Floor 1, Building 2 Wan Ye Long Technology Park 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

## 4. Equipment under Test (EUT) Information

Description of EUT:	Mobile phone
Main Model:	AX8
Serial Model:	N/A
Date EUT received:	July 28, 2017
Test Date(s):	July 29 to September 28, 2017
Equipment Category :	NII
Antenna Gain:	GSM850: -2.53dBi PCS1900: -1.31dBi UMTS-FDD Band V: -2dBi UMTS-FDD Band II: -1.74dBi LTE Band II: -1.31dBi LTE Band IV: -2.64dBi LTE Band V: -2.14dBi LTE Band VII: -0.27dBi WIFI(2.4G): -0.87 dBi WIFI(5150-5250MHz): -5.3 dBi WIFI(5250-5350MHz): -5.3 dBi WIFI(5725-5850MHz): -5.3 dBi Bluetooth/BLE: -0.87dBi GPS: -1.47dBi
Antenna Type:	IFA 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

	GSM 850: 124CH
	PCS1900: 299CH
	UMTS-FDD Band V : 102CH
	UMTS-FDD Band II : 277CH
	WIFI :802.11b/g: 11CH
Number of Channels:	WIFI :802.11a: 24CH
	WIFI :802.11n20: 11CH(2.4GHz); 24CH(5GHz)
	WIFI :802.11n40: 7CH(2.4GHz); 12CH(5GHz)
	Bluetooth: 79CH
	BLE: 40CH
	GPS:1CH
	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;
	RX: 1932.4 ~ 1987.6 MHz
	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
RF Operating Frequency (ies):	LTE Band VII TX: 2502.5 ~ 2567.5 MHz; RX : 2622.5 ~ 2687.5 MHz
	802.11b/g: 2412-2462 MHz (TX/RX)
	802.11n20: 2412-2462MHz ; 5180-5240 MHz; 5260-5320 MHz; 5745-5825 MHz; (TX/RX)
	802.11n40: 2422-2452 MHz (TX/RX); 5190-5230 MHz; 5270-5310 MHz; 5755-5795 MHz; (TX/RX)
	802.11 a: 5180-5240 MHz; 5260-5320 MHz; 5745-5825 MHz (TX/RX)
	Bluetooth& BLE: 2402-2480 MHz
	GPS: 1575.42 MHz
Max. Output Power:	802.11a: 9.78dBm
	802.11n(20M): 9.97dBm
	802.11n(40M): 8.88dBm
Port:	USB Port, Earphone Port
Trade Name :	TECNO
GPRS/EGPRS Multi-slot class	8/10/11/12





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FCC ID:

2ADYY-AX8

## 5. Test Summary

The product was tested in accordance with the following specifications.

All testing has been performed according to below product classification:

FCC Rules	Description of Test	Result
§15.407(h)	In-Service Monitoring for Channel Move Time and Channel Closing Transmission Time	Compliance

## 6. Measurements, Examination And Derived Results

### 6.1 In-Service Monitoring for Channel Move Time and Channel Closing Transmission Time

These tests define how the following DFS parameters are verified during In-Service Monitoring; Channel Closing Transmission Time, Channel Move Time, and Non-Occupancy Period.

The steps below define the procedure to determine the above mentioned parameters when a radar Burst with a level equal to the DFS Detection Threshold + 1dB is generated on the Operating Channel of the U-NII device.

A U-NII device operating as a Client Device will associate with the UUT (Master) at Mid Channel. Stream the MPEG test file from the Master Device to the Client Device on the selected Channel for the entire period of the test.

At time T0 the Radar Waveform generator sends a Burst of pulses for each of the radar types at -62dBm.

Observe the transmissions of the UUT at the end of the radar Burst on the Operating Channel for duration greater than 10 seconds. Measure and record the transmissions from the UUT during the observation time (Channel Move Time). Compare the Channel Move Time and Channel Closing Transmission Time results to the limits defined in the DFS Response requirement values table.

#### Channel Closing Transmission Time- Measurement

A type 1 waveform was introduced to the EUT and the Spectrum Analyzer sweep time was set to 1s for monitoring and capturing the plot. A LabView program was created to collect trace data and capturing the plot. The program will calculate the channel closing time base on the spectrum analyzer result. The result will be calculated based on FCC procedure.

$$C = N * D_{well}$$

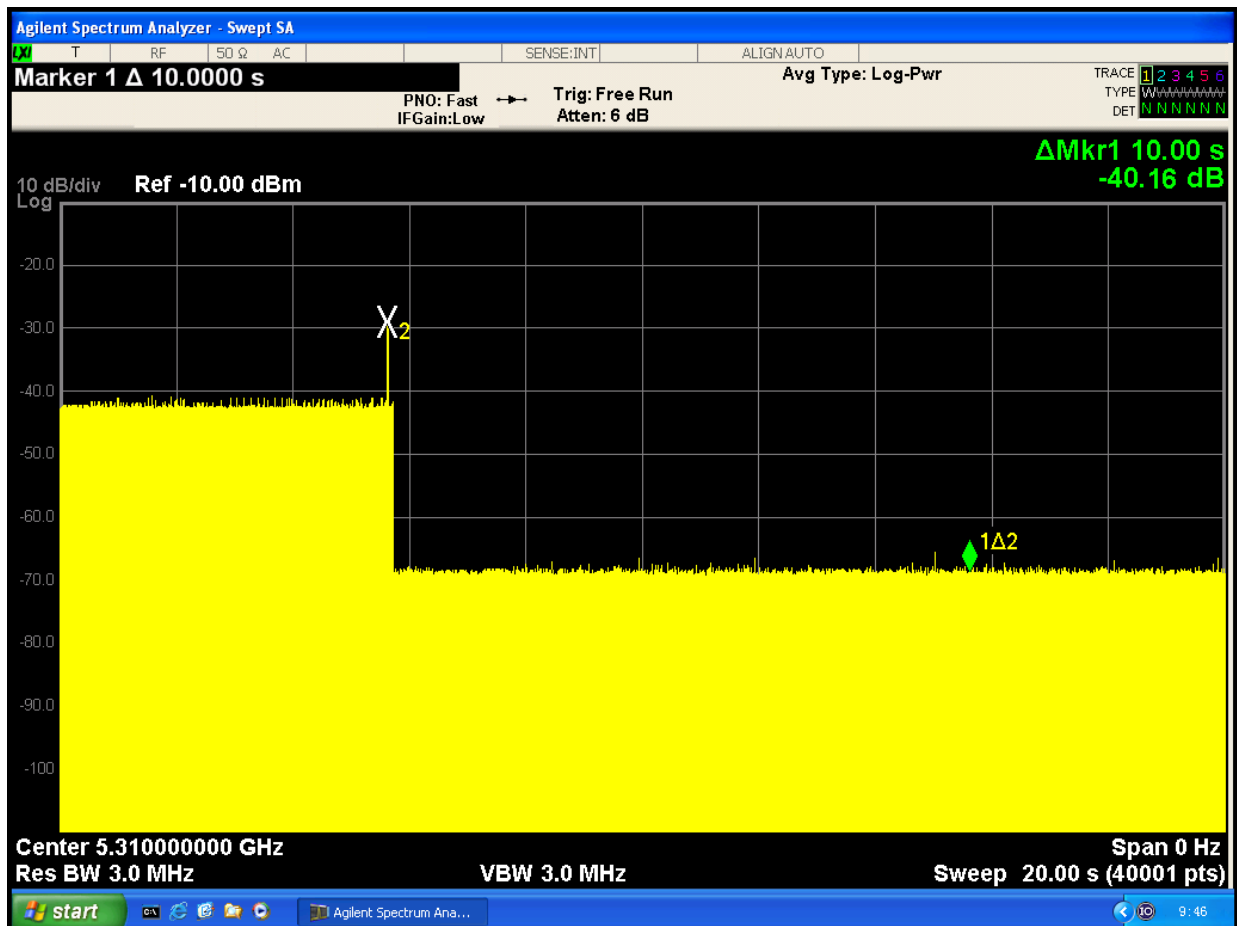
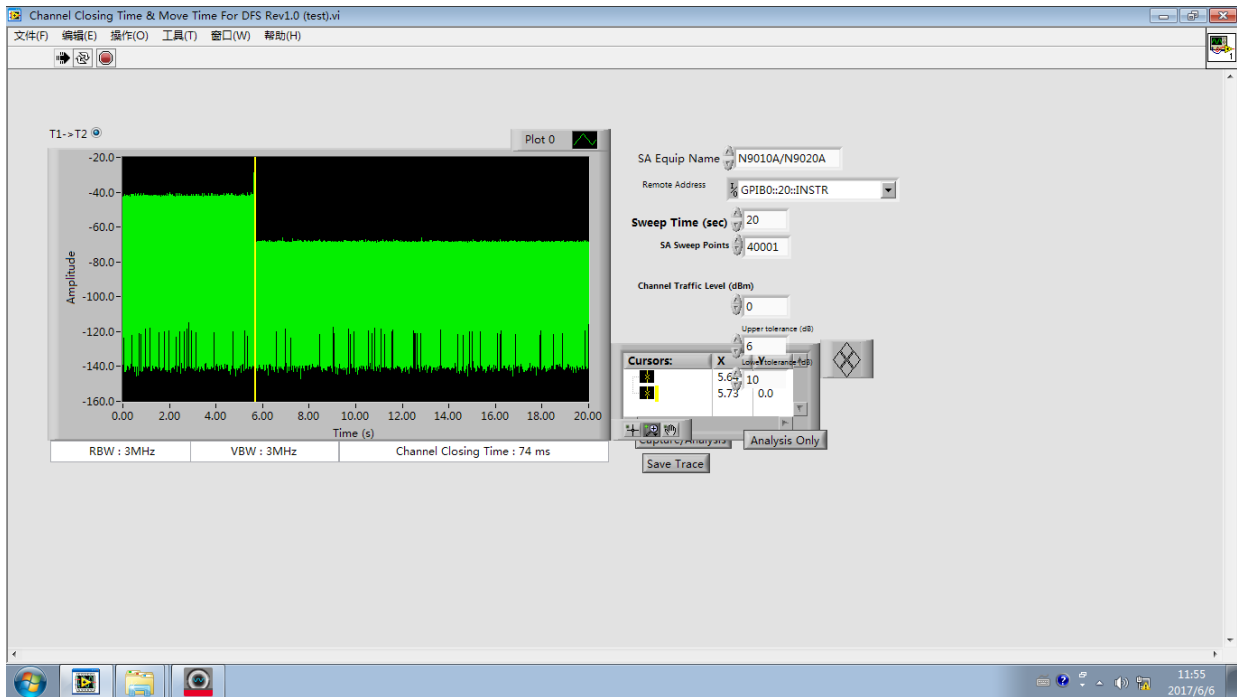
C is the closing time, N is the number of spectrum analyzer sampling bins showing a U-NII transmission and dwell is the dwell time per bin.

$$D_{well} = S/B$$

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Where Dwell is the dwell time per spectrum analyzer sampling bin, S is the sweep time and B is the number Of spectrum analyzer sampling bins.

### Test Plots



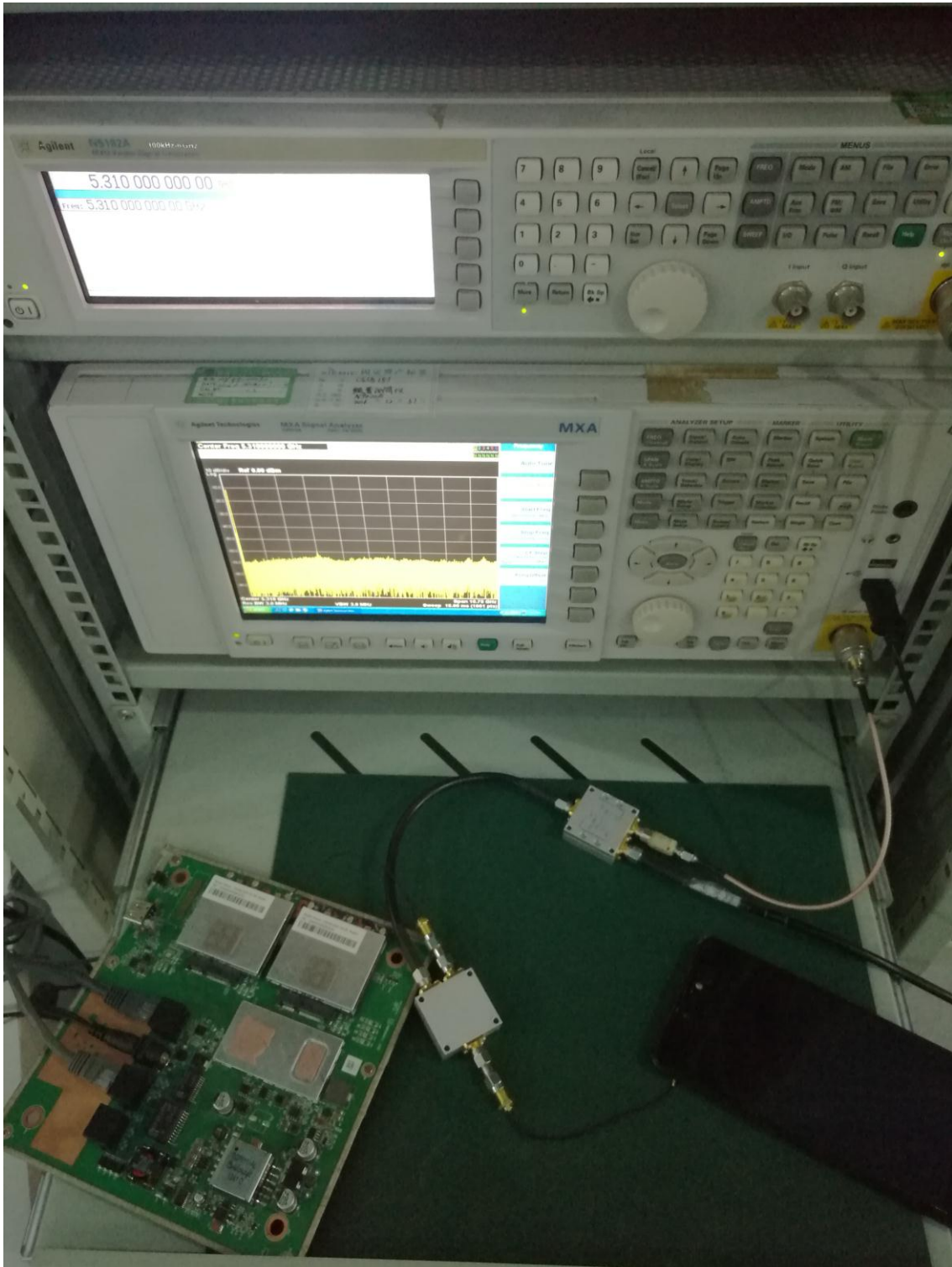
## Annex A. TEST INSTRUMENT

### Annex A.i. TEST INSTRUMENTATION & GENERAL PROCEDURES

Instrument	Model	Serial #	Cal Date	Cal Due	In use
<b>Radiated DFS Measurement</b>					
Keysight Signal Analyzer	N9020A	MY49100060	11/15/2016	11/14/2017	<input checked="" type="checkbox"/>
Splitter/Combiner (Mini-Circuit)	PD-2/8-2S	XA022154	11/15/2016	11/14/2017	<input checked="" type="checkbox"/>
Splitter/Combiner (Mini-Circuit)	PD-2/8-2S	XA022155	11/15/2016	11/14/2017	<input checked="" type="checkbox"/>
Splitter/Combiner (Mini-Circuit)	PD-2/8-2S	XA022159	11/15/2016	11/14/2017	<input checked="" type="checkbox"/>
Agilent Signal Generator	MXG N5182A	MY50140530	11/17/2016	11/16/2017	<input checked="" type="checkbox"/>

**Annex B. TEST SETUP AND SUPPORTING EQUIPMENT**

**Test Setup Photo**



### Annex C. i. SUPPORTING EQUIPMENT DESCRIPTION

The following is a description of supporting equipment and details of cables used with the EUT.

#### Supporting Equipment:

Manufacturer	Equipment Description	Model	Serial No
Agilent	Signal Analyzer	N9020A	N/A
Agilent	Signal Generator	N5182A	N/A



### **Annex C.ii. EUT OPERATING CONDITIONS**

The following is the description of how the EUT is exercised during testing.

<b>Test</b>	<b>Description Of Operation</b>
<b>Emissions Testing</b>	The EUT was continuously transmitting to stimulate the worst case.

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## Annex D. User Manual / Block Diagram / Schematics / Partlist

See attachment

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## Annex E. DECLARATION OF SIMILARITY

N/A