

# **FCC Part 15B TEST REPORT**

*of*

## **GSM Dual-band Digital Mobile Phone**

**FCC ID :** Q78-ZTEA137

**Model No. :** ZTE A137

**Serial No. :** /

**Report No. :** FCC08-8004

**Date :** January 29, 2007

*Prepared for*

**ZTE Corporation**

Zhongxing Bldg, Hi-Tech Park, Nanshan, Shenzhen, P.R.China

*Prepared by*

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# 1 Test Report Certification

**Product:** GSM Dual-band Digital Mobile Phone

**FCC ID:** Q78-ZTEA137

**Model No.:** ZTE A137

**Applicant:** ZTE Corporation

**Applicant Address:** Zhongxing Bldg, Hi-Tech Park, Nanshan, Shenzhen, P.R.China

**Manufacturer:** ZTE Corporation

**Manufacturer Address:** Zhongxing Bldg, Hi-Tech Park, Nanshan, Shenzhen, P.R.China

**Test Standards:** 47 CFR Part 15, Class B

**Test Result:** PASS

We, Shenzhen Electronic Product Quality Testing Center, hereby certify that the submitted samples of the above item, as detailed in chapter 2.1 of this report, has been tested in our facility. The test record, data evaluation and test configuration represented herein are true and accurate accounts of measurements of the sample's EMC characteristics under the conditions herein specified.

Tested by: Sheng Yongpan, Date: Jan, 29, 2008  
Sheng Yongpan

Checked by: Smart Li, Date: Jan. 29. 2008  
Smart Li

Approved by: Wu Li An, Date: Jan. 29. 2008  
Wu Li An

## 2 General Information

### 2.1 Description of EUT

<b>EUT1</b>	
<b>Description:</b>	GSM Dual-band Digital Mobile Phone
<b>Model No.:</b>	ZTE A137
<b>Serial No.:</b>	/
<b>Hardware Version:</b>	g4sB
<b>Software Version:</b>	P103B5BA8V1.0.0B03
<b>EUT2</b>	
<b>Description:</b>	Lithium-ion Battery
<b>Model No.:</b>	Li3707T42P3h553447
<b>Serial No.:</b>	N.A.
<b>Manufacturer:</b>	ZTE CORPORATION
<b>Capacitance:</b>	770mAh
<b>Rated Voltage:</b>	3.7V
<b>Extreme Voltage:</b>	High, 4.2V; Low, 3.6V
<b>EUT3</b>	
<b>Description:</b>	AC/DC Adaptor (Charger)
<b>Model No.:</b>	STC-A22O50U8-C
<b>Serial No.:</b>	100710071704008
<b>Manufacturer:</b>	ZTE CORPORATION
<b>Rated Input:</b>	a.c. 100-240V, 50/60Hz, 200mA
<b>Rated Output:</b>	d.c. 5.0V, 700mA
<b>Length of DC cable:</b>	190cm

#### NOTE:

1. The EUT is Quad-band GSM mobile phone which supports GSM 850MHz and 1900MHz bands.
2. The report is issued as an appendix to test report SZ07120061E01 issued by Shenzhen Electronic Product Quality Testing Center Morlab Laboratory on January 8, 2008.
3. Please refer to Appendix I for the photographs of the EUT. For a more detailed features description about the EUT, please refer to User's Manual.
4. ZTE A137 is identical to ZTE A137+ except the new deletion of the FM receiver function Only Radiated Emission at GSM/GPRS mode was re-tested for ZTE A137.

## 2.2 Objective

Perform EMC test according to FCC Part 15 Subpart B (Class B digital device).

## 2.3 Test Standards and Results

The EUT has been tested according to 47 CFR Part 15, Radio Frequency Devices (10-1-07 Edition).

Test items and the results are as bellow:

?	FCC Rules	Test Type	Result	Test Date
1	§15.109	Radiated Emission	PASS	2008.1.25

## 2.4 List of Equipments Used

Description	Manufacturer	Model No.	Cal. Due Date	Serial No.
Test Receiver	Rohde & Schwarz	ESIB26	2008.06.02	A0304218
Ultra Broadband Ant.	Rohde & Schwarz	HL562	2008.06.02	A0304224
Universal Radio Communication Tester	Rohde & Schwarz	CMU200	2008.06.02	A0304212
Mobile Phone Tester	Willtek	4403	2008.02.10	0811211
3G Communication Antenna	European Antennas	PSA 75301R/170	2008.06.02	A0304213
Anechoic Chamber	Albatross	EMC12.8× 6.8× 6.4(m)	2008.04.10	A0304210

## 2.5 Test Facility

Shenzhen Electronic Product Quality Testing Center (SET) is a third party testing organization accredited by China National Accreditation Service for Conformity Assessment (CNAS), according to ISO/IEC 17025. The accreditation certificate number is L1659.

The EMC chamber site No.1 (EMC12.8×6.8×6.4(m)), and the radiated and conducted Emission test equipments of SET are constructed and calibrated to meet the FCC requirements ANSI C63.4:2001 and CISPR 22/EN 55022. The FCC Registration Number is **261302**.

The EMC chamber site No.1 (EMC12.8×6.8×6.4(m)) also complies with Canada standard RSS 212, and acceptable to Industry Canada for the performance of radiated measurements. The Industry Canada Registration Number is **IC 5915**.

## 2.6 Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

- Temperature: 15-35°C
- Humidity: 30-60 %
- Atmospheric pressure: 86-106 kPa



### 3 Radiated Emission Test

#### 3.1 Limits of Radiated Emission

According to FCC §15.109, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:

Frequency of Emission (MHz)	Field Strength (µV/m)	Field Strength (dBµV/m)
30 - 88	100	40
88 - 216	150	43.5
216 - 960	200	46
Above 960	500	54

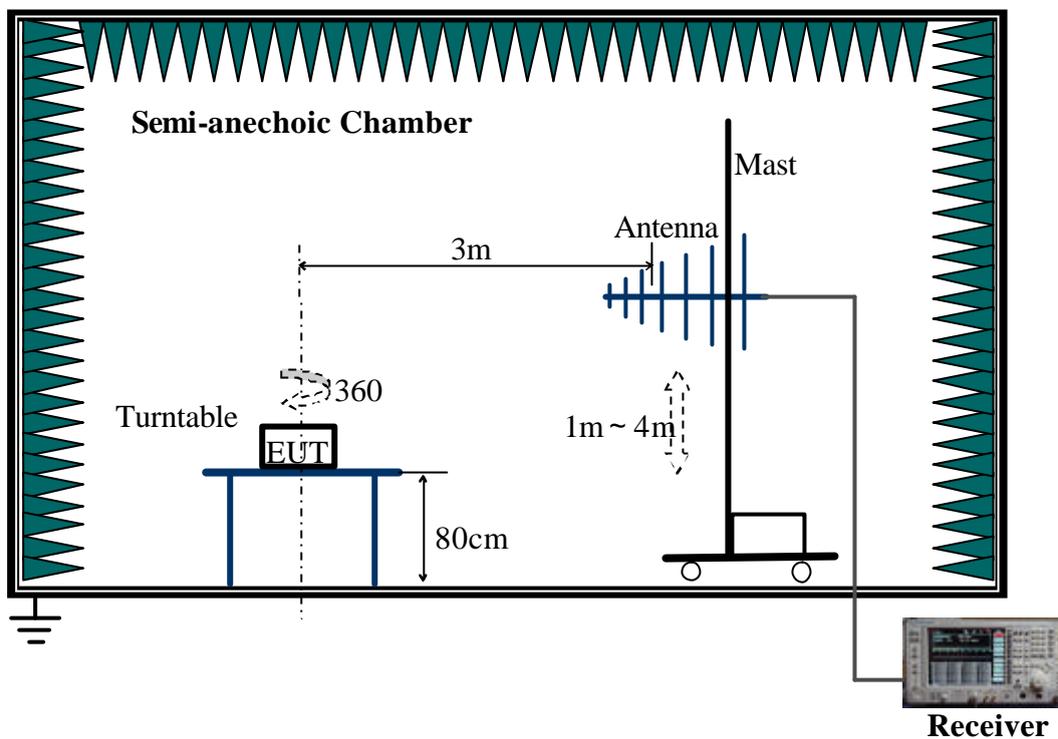
**NOTE:**

1. Field Strength (dBµV/m) = 20log Field Strength (µV/m).
2. In the emission tables above, the tighter limit applies at the band edges.

#### 3.2 Test Procedure

- a. The EUT was placed on the top of a ratable 0.8 meters above the ground at a semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna is a broadband antenna, and its height is varied from one meter to four meter above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to the heights from 1 to 4 meters and the ratable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detector Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was 10 dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emission that did not have 10 dB margins would be retested one by one using the quasi-peak method.

### 3.3 Test Setup



For the actual test configuration, please refer to the related item-Photographs of the Test Configuration.

### 3.4 EUT Setup and Operating Conditions

The EUT configuration was MS + Battery + Charger. □

During the measurement, the EUT was charging empty battery. The charger was powered by □ 120V 60Hz AC mains supply. □

A communication link was established between the MS and a System Simulator (SS). The MS operated at PCS 1900MHz mid ARFCN (661) and maximum output power (level 0). □

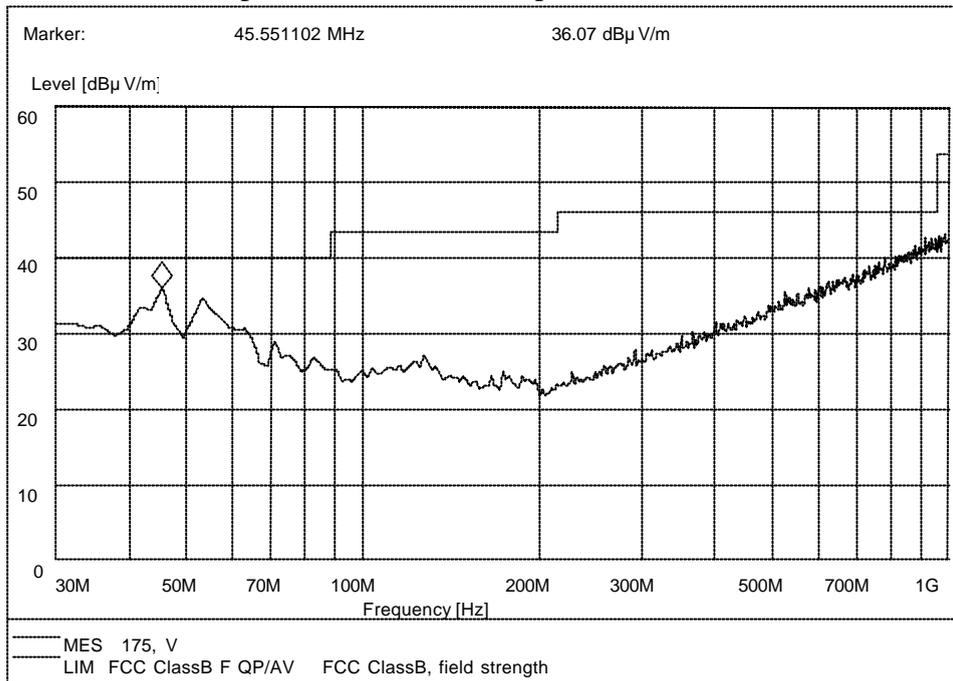
### 3.5 Test Results

No.	Frequency (MHz)	Antenna Polarization	QP Limits (dBmV/m)	Emission Level (dBmV/m)
1	30.00	Vertical	40	16.23
2	45.5	Vertical	40	27.72
3	100	Vertical	43.5	8.43
4	300	Vertical	46	11.16
5	600	Vertical	46	20.03
6	1000	Vertical	54	25.44
7	30.00	Horizontal	40	16.16
8	45.5	Horizontal	40	14.42
9	100	Horizontal	43.5	8.37
10	300	Horizontal	46	11.04
11	600	Horizontal	46	20.05
12	1000	Horizontal	54	27.68

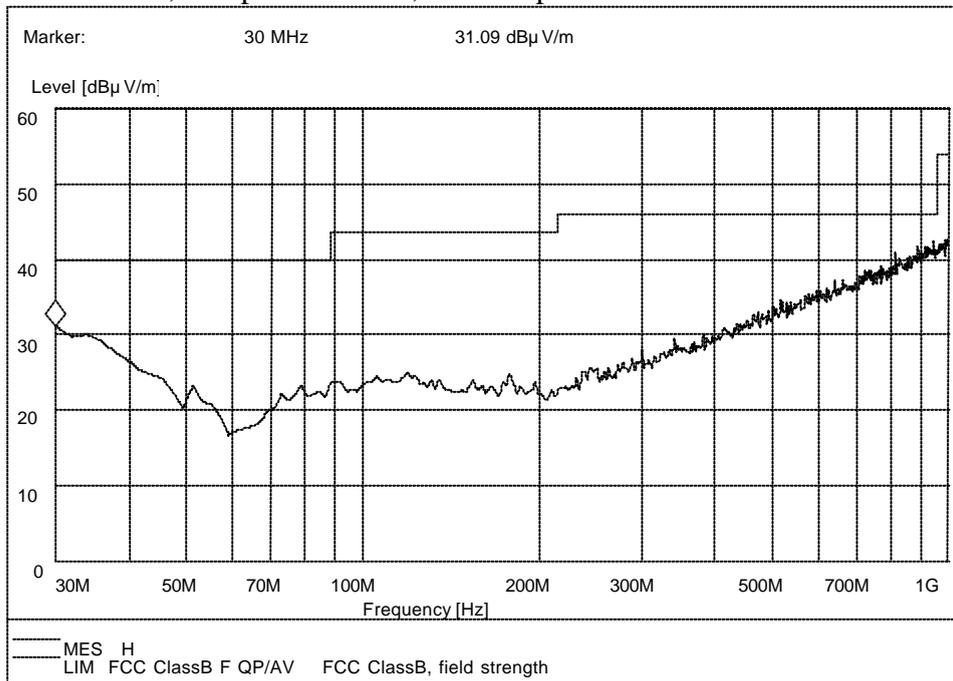


**Test Plots**

**1. Radiation disturbances, maxpeak detector, antenna polarization: Vertical**



**2. Radiation disturbances, maxpeak detector, antenna polarization: Horizontal**



## Appendix I : Photographs of the Test Configuration

### 1. Radiated Emission Test

