

TEST REPORT

REPORT NUMBER: I10GC9112-FCC-PART15B

ON

Type of Equipment: USB MODEM
Type of Designation: MF659
Manufacturer: ZTE CORPORATION

ACCORDING TO
Part 15B: Radio Frequency Devices, Oct 1, 2009

China Telecommunication Technology Labs.

Month date, year

Jan 25, 2011

Signature

A handwritten signature in black ink, appearing to be 'He Guili', written in a cursive style.

He Guili
Director

FCC ID: Q78-MF659

Report Date: 2011-01-25

Test Firm Name: China Telecommunication Technology Labs

Registration Number: 840587

Statement

The measurements shown in this report were made in accordance with the procedures described on test pages. All reported tests were carried out on a sample equipment to demonstrate limited compliance with FCC CFR 47 Parts 15B. The sample tested was found to comply with the requirements defined in the applied rules.

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1 General Information

1.1 Notes

All reported tests were carried out on a sample equipment to demonstrate limited compliance with FCC CFR 47 Parts 15B.

The test results of this test report relate exclusively to the item(s) tested as specified in section 2.

The following deviation from, additions to, or exclusions from the test specifications have been made. See Annex C.

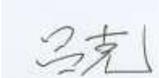
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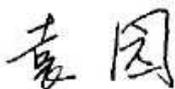
FCC Parts 15B
Equipment: MF659

REPORT NO.: I10GC9112-FCC-PART15B

1.2 Testers

Name: Lu Ke
Position: Engineer
Department: Department of EMC test
Signature: 

Editor of this test report:

Name: Yuan Yuan
Position: Engineer
Department: Department of EMC test
Date: 2011-01-25
Signature: 

Technical responsibility for area of testing:

Name: Zou Dongyi
Position: Manager
Department: Department of EMC test
Date: 2011-01-25
Signature: 

1.3 Testing Laboratory information

1.3.1 Location

Name: China Telecommunication Technology Labs.
Address: No. 11, Yue Tan Nan Jie, Xi Cheng District
BEIJING
P. R. CHINA, 100083
Tel: +86 10 68094053
Fax: +86 10 68011404
Email: emc@chinattl.com

1.3.2 Details of accreditation status

Accredited by: China National Accreditation Service for Conformity
Assessment (CNAS)
Registration number: CNAS Registration No. CNAS L0570
Standard: ISO/IEC 17025:2005

1.3.3 Test location, where different from section 1.3.1

Name: -----
Street: -----
City: -----
Country: -----
Telephone: -----
Fax: -----
Postcode: -----

1.4 Details of applicant or manufacturer

1.4.1 Applicant

Name: ZTE CORPORATION
Address: ZTE Plaza, Keji Road South, Hi-Tech Industrial Park,
Nanshan District, Shenzhen, Guangdong, 518057,
P.R.China
Country: China
Telephone: +86-21-68895196
Fax: +86-21-68895196
Contact: Zhao Yang
Telephone: +86-21-68895196
Email: zhao.yangxia@zte.com.cn

1.4.2 Manufacturer (if different from applicant in section 1.4.1)

Name: --
Address: --

1.4.3 Manufactory (if different from applicant in section 1.4.1)

Name: --
Address: --

2 Test Item

2.1 General Information

Manufacturer: ZTE CORPORATION
 Name: USB MODEM
 Model Number: MF659
 Serial Number: EMC1
 Production Status: Product
 Receipt date of test item: 2010-12-21

2.2 Outline of EUT

EUT is a USB modem.

2.3 Modifications Incorporated in EUT

The EUT has not been modified from what is described by the brand name and unique type identification stated above.

2.4 Equipment Configuration

Equipment configuration list:

Item	Generic Description	Manufacturer	Type	Serial No.	Remarks
A	handset	ZTE CORPORATION	MF659	EMC1	None

Cables:

Item	Cable Type	Manufacturer	Length	Shield	Quantity	Remarks
1	DC cable on Adapter	--	--	--	--	None

2.5 Other Information

3 Summary of Test Results

A brief summary of the tests carried out is shown as following.

Specification Clause	Name of Test	Result
15.109	Radiated Emission	Pass
15.107	Conducted Emission	Pass

Note: The EUT complies with the requirements of the Class B digital devices.

TTL Test Report

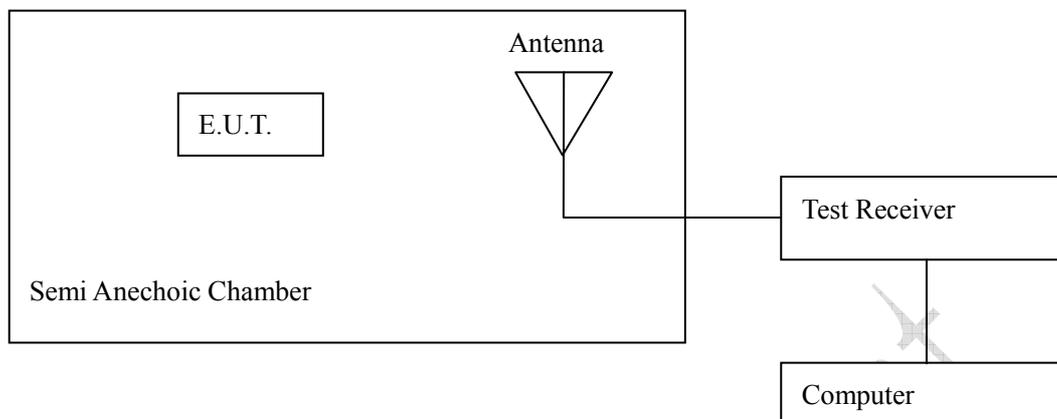
4 Test Results

4.1 Radiated Emission

Specifications:	15.109, ANSI C63.4-2003					
Date of Tests	2011-01-17					
Test conditions:	Ambient Temperature:15°C-35°C Relative Humidity:30%-60% Air pressure: 86-106kPa					
Operation Mode	Transfer data					
Test Results:	Pass					
Test equipment Used:						
Asset Number	Description	Manufacturer	Model Number	Serial Number	Cal Due	State
7805	EMI Test Receiver	R/S	ESI26	100211	2012-01-12	Normal
7330	Ultra Broadband Antenna	SCHWARZBECK	VULB 9160	--	2013-11-24	Normal
7330	Double-Ridged Horn Antenna	R/S	HF906	100037	2013-01-24	Normal
713	Fully-Anechoic Chamber	ETS	11.8m×6.5m×6.3m	--	2013-11-16	Normal

Limit Level Construction: According to Part 15.109(a).			
Limits			
Frequency [MHz]	Field Strength [μ V/m]	Field Strength [dB μ V/m]	Measurement distance [m]
30 -88	100	40.0	3
88-216	150	43.5	3
216 - 960	200	46.0	3
Above 960	500	54.0	3
Note: The tighter limit applies at the band edges.			

Test Configuration



The measuring distance between E.U.T and antenna is 3m.

Test Setup:

The EUT was placed in an anechoic chamber, see figure RE. The EUT is tested as tabletop EUT. The EUT is positioned on an 80cm height wood table.

The EUT is used as the peripheral equipment of the PC.

The setup is according to Figure 11a of ANSI C63.4-2003.

The Wireless Communications Test Set (Test Simulator) was used to set the TX channel and power level and modulate the TX signal with different bit patterns.

The test was done using an automated test system, where all test equipments were controlled by a computer.



Figure RE

Test Method

During the test, the EUT was operating in its typical mode. The test method is according to ANSI C63.4-2003. The measurement was done by the automated test system.

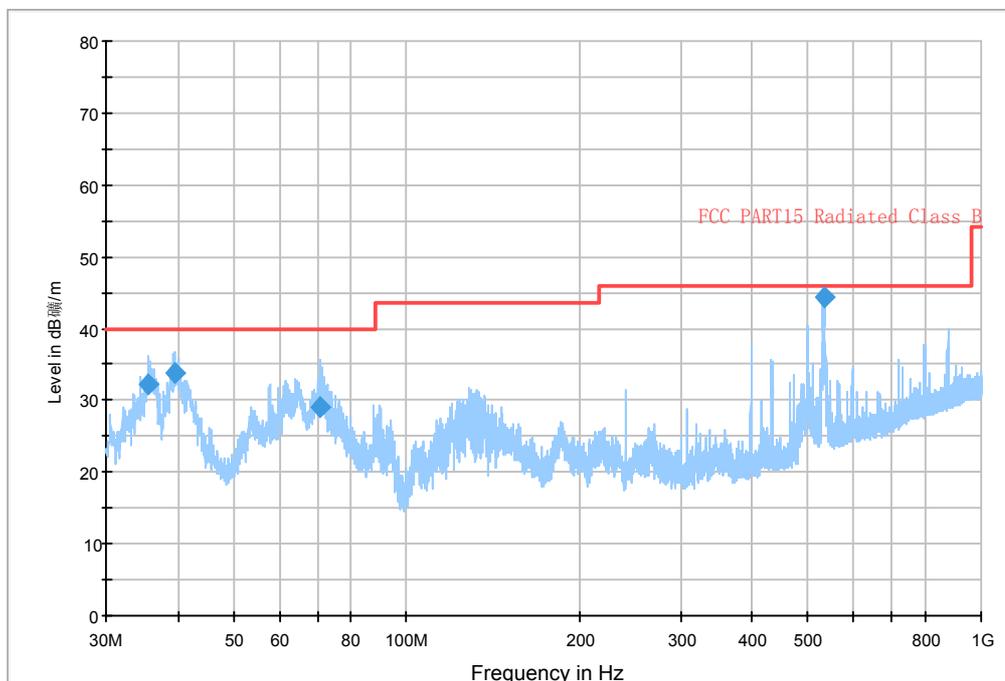
Note: --

Test Data:

Frequency [MHz]	Level [dBμV/m]	Limit [dBμV/m]	Antenna Height [cm]	Turntable Azimuth [degree]	Antenna Polarisation (V/H)
35.600000	32.2	40	100	269	V
39.440000	33.8	40	100	237	V
70.600000	29.0	40	100	9	V
533.000000	44.2	46	100	107	V
Remarks: --					

Graphical Results:

GB 9254



Graphical results

4.2 Conducted Emission

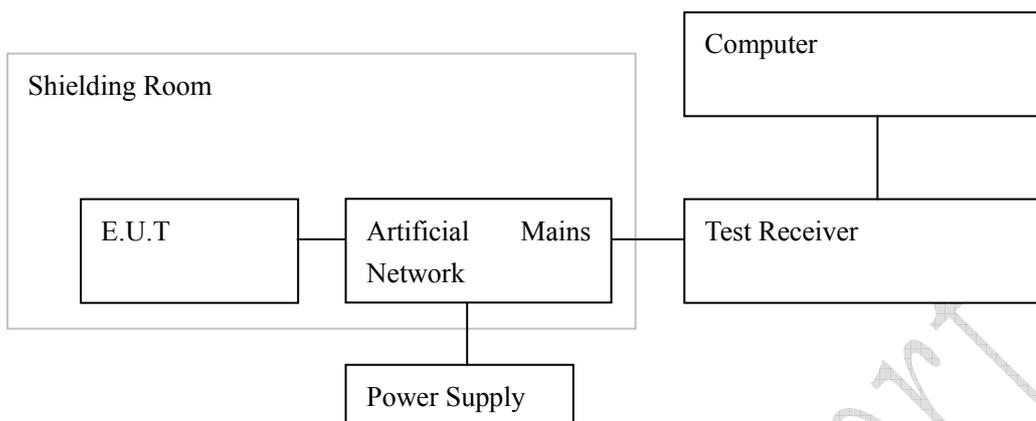
Specifications:	15.107, ANSI C63.4-2003					
Date of Tests	2011-01-17					
Test conditions:	Ambient Temperature:15°C-35°C Relative Humidity:30%-60% Air pressure: 86-106kPa					
Operation Mode	Transfer data					
Test Results:	Pass					
Test equipment Used:						
Asset Number	Description	Manufacturer	Model Number	Serial Number	Cal Due	State
7330	EMI Test Receiver	R/S	ESI40	839283/007	2011-02-25	Normal
7330	Artificial Mains Network	R/S	ESH2-Z5	837480/002	2012-01-07	Normal
714	Shielding Room	ETS	--	19003	2013-11-15	Normal

Limit Level Construction: According to Part 15.107 (a)
--

Limits for Conducted Emission		
Frequency of Emission [MHz]	Conducted limit [dBµV]	
	Quasi-peak	Average
0.15 - 0.5	66 to 56*	56 to 46*
0.5 - 5	56	46
5 - 30	60	50

* Decreases with the logarithm of the frequency.

Test Configuration



Test Setup:

The EUT was placed in a shielding room, see figure CE. The EUT is positioned on an 80cm height wood table. The EUT is used as the peripheral equipment of the PC.

The setup is according to Figure 10a of ANSI C63.4-2003.

The Wireless Communications Test Set (Test Simulator) was used to set the TX channel and power level and modulate the TX signal with different bit patterns. The test was done using an automated test system, where all test equipments were controlled by a computer.



Figure CE

Test Method:

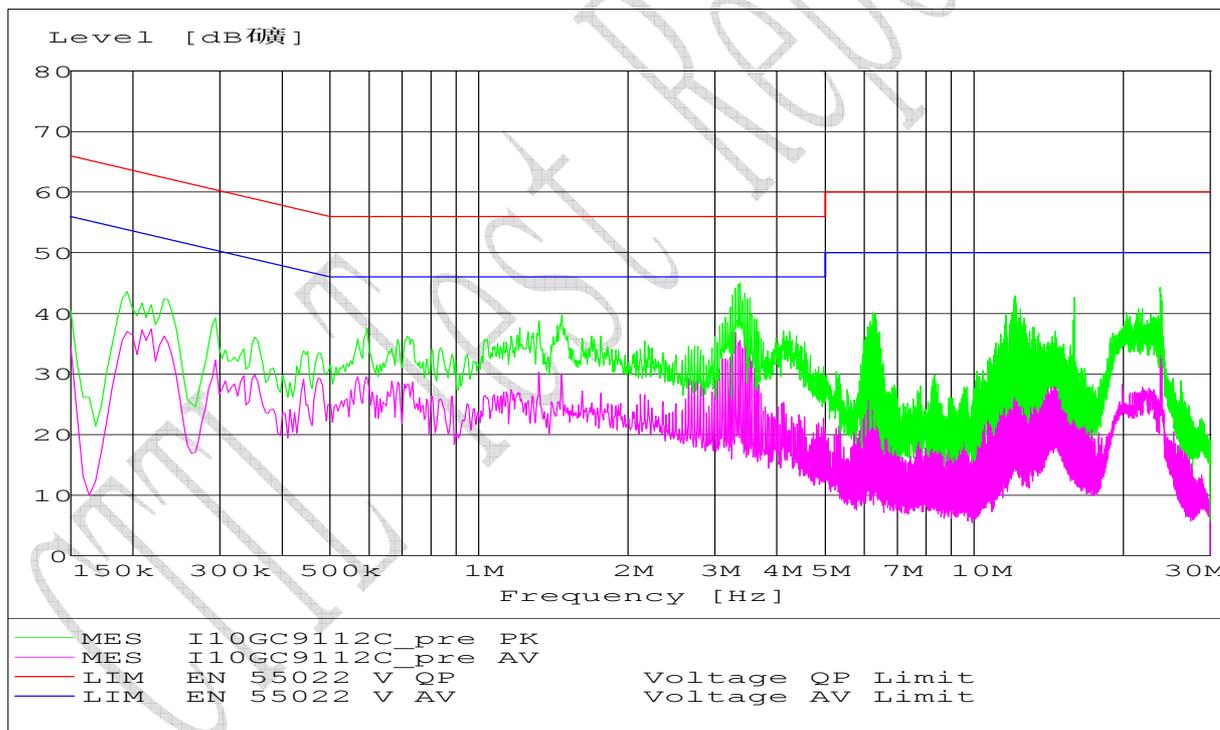
During the test, the EUT was operating in its typical mode. The test method is according to ANSI C63.4-2003. The AC power line of the Notebook was connected to the artificial mains network then to EMI receiver. The measurement was done by the automated test system.

Note: --

Test Data:

Detector (QP/AV)	Frequency (MHz)	Level (dBµV)	Limit (dBµV)	Margin (dB)	Line	PE
--	--	--	--	--	--	--
Remarks: --						

Graphical results:



CE graphical results

Annex A External Photos



Picture 1 Front view of the handset

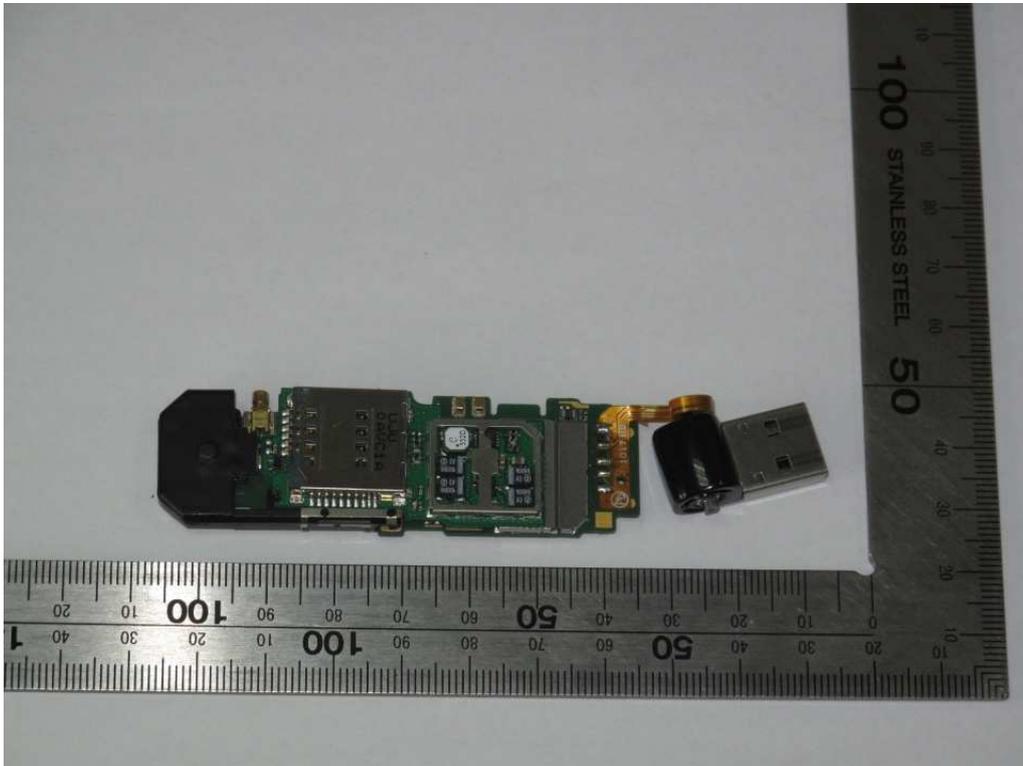
FCC Parts 15B
Equipment: MF659

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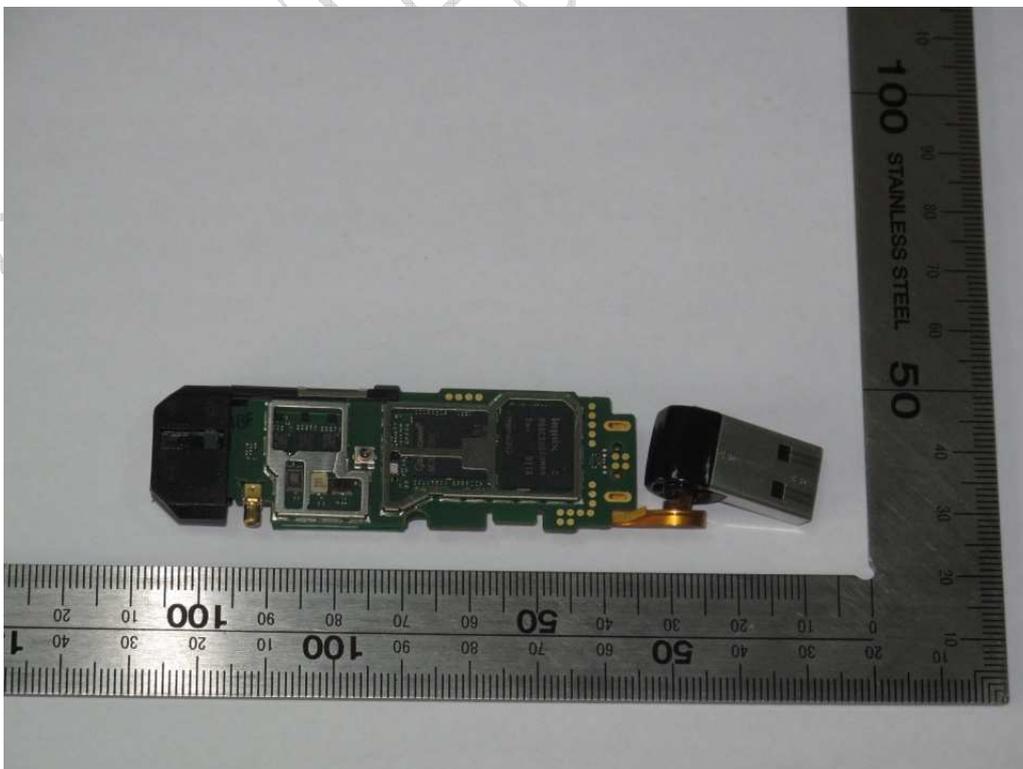


Picture 2 Back view of the handset

Annex B Internal Photos



Main board (face)



Main board (back)

ANNEX C Deviations from Prescribed Test Methods

No deviation from Prescribed Test Methods.

————— **The End of this Report** —————

China Test Report