



Variant FCC RF Test Report

APPLICANT : ZTE CORPORATION
EQUIPMENT : CDMA 1X-EVDO Digital Mobile Phone
BRAND NAME : ZTE
MODEL NAME : ZTE N861
FCC ID : Q78-ZTEN861
STANDARD : FCC 47 CFR Part 2, 24(E)
CLASSIFICATION : PCS Licensed Transmitter Held to Ear (PCE)

The product was received on Sep. 17, 2012 and completely tested on Oct. 11, 2012. We, SPORTON INTERNATIONAL (KUNSHAN) INC., would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI / TIA / EIA-603-C-2004 and shown compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL (KUNSHAN) INC., the test report shall not be reproduced except in full.

Reviewed by:

Jones Tsai / Manager



SPORTON INTERNATIONAL (KUNSHAN) INC.
No. 3-2, PingXiang Road, Kunshan, Jiangsu Province, P.R.C.



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SUMMARY OF TEST RESULT

Report Section	FCC Rule	IC Rule	Description	Limit	Result	Remark
2.1	§2.1046	N/A	Conducted Output Power	N/A	PASS	-



1 General Description

1.1 Applicant

ZTE CORPORATION

ZTE Plaza, Keji Road South, Hi-Tech, Industrial Park, Nanshan District, Shenzhen, Guangdong, 518057, P.R.China

1.2 Manufacturer

ZTE CORPORATION

ZTE Plaza, Keji Road South, Hi-Tech, Industrial Park, Nanshan District, Shenzhen, Guangdong, 518057, P.R.China

1.3 Feature of Equipment Under Test

Product Feature	
Equipment	CDMA 1X-EVDO Digital Mobile Phone
Brand Name	ZTE
Model Name	ZTE N861
FCC ID	Q78-ZTEN861
EUT supports Radios application	CDMA/EV-DO/WLAN 11bgn/Bluetooth 2.0/Bluetooth4.0 – LE
HW Version	c7xB
SW Version	N861V1.0.0B05
EUT Stage	Identical Prototype

Remark: The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

Product Specification subjective to this standard	
Tx Frequency	1851.25 MHz ~ 1908.75 MHz
Rx Frequency	1931.25 MHz ~ 1988.75 MHz
Maximum Output Power to Antenna	23.87 dBm
Antenna Type	PIFA Antenna
Type of Modulation	CDMA2000 : QPSK CDMA2000 1xEV-DO : 8PSK



1.4 Testing Site

Test Site	SPORTON INTERNATIONAL (KUNSHAN) INC.	
Test Site Location	No. 3-2, PingXiang Road, Kunshan, Jiangsu Province, P.R.C. TEL: +86-0512-5790-0158 FAX: +86-0512-5790-0958	
Test Site No.	Sporton Site No.	FCC/IC Registration No.
	TH01-KS	149928/4086E-1

1.5 Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- Preliminary Guidance for Receiving Applications for Certification of 3G Device. May 9, 2006.
- FCC 47 CFR Part 2, 24(E)
- ANSI / TIA / EIA-603-C-2004
- FCC KDB 971168 D01 Power Meas. License Digital Systems v01
- IC RSS-133 Issue 5

Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.

1.6 Ancillary Equipment List

Item	Equipment	Trade Name	Model No.	FCC ID	Data Cable	Power Cord
1.	System Simulator	R&S	CMU200	N/A	N/A	Unshielded, 1.8 m
2.	DC Power Supply	GWINSTEK	GPS-3030D	N/A	N/A	Unshielded, 1.8 m

2 Test Result

2.1 Conducted Output Power Measurement

2.1.1 Description of the Conducted Output Power Measurement

A base station simulator was used to establish communication with the EUT. Its parameters were set to transmit the maximum power on the EUT. The measured power in the radio frequency on the transmitter output terminals shall be reported.

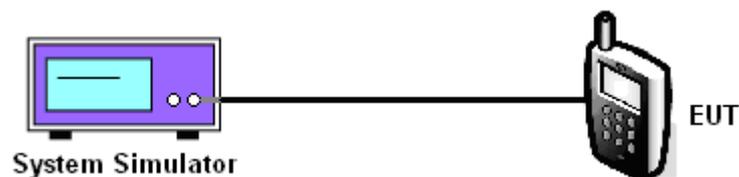
2.1.2 Measuring Instruments

See list of measuring instruments of this test report.

2.1.3 Test Procedures

1. The transmitter output port was connected to base station.
2. Set EUT at maximum power through base station.
3. Select lowest, middle, and highest channels for each band and different modulation.

2.1.4 Test Setup





2.1.5 Test Result of Conducted Output Power

The conducted power table is as follows:

Conducted Power (*Unit: dBm)			
Band	CDMA2000 BC1		
Channel	25	600	1175
Frequency	1851.25	1880	1908.75
1xRTT RC1+SO55	23.87	23.73	23.65
1xRTT RC3+SO55	23.84	23.72	23.58
1xRTT RC3+SO32(+ F-SCH)	23.86	23.69	23.58
1xRTT RC3+SO32(+SCH)	23.87	23.72	23.74
1xEV-DO RTAP 153.6K	23.76	23.66	23.70
1xEV-DO RETAP 4096K	23.82	23.69	23.63

Note: maximum average power for CDMA2000.



3 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSP40	100319	9kHz~40GHz	Dec. 30, 2011	Sep. 20, 2012	Dec. 29, 2012	Conducted (TH01-KS)
System Simulator	R&S	CMU200	837587/066	2G Full-Band	Dec. 30, 2011	Sep. 20, 2012	Dec. 29, 2012	Conducted (TH01-KS)
DC Power Supply	GWINSTEK	GPS-3030D	E1884515	N/A	Aug. 22, 2012	Sep. 20, 2012	Aug. 21, 2013	Conducted (TH01-KS)
Thermal Chamber	Ten Billion	TTC-B3S	TBN-960502	N/A	Dec. 30, 2011	Sep. 20, 2012	Dec. 29, 2012	Conducted (TH01-KS)



4 Uncertainty of Evaluation

Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	2.54
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Uncertainty of Radiated Emission Measurement (1 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	4.72
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Appendix A. Photographs of EUT

Please refer to Sporton report number EP251502-04 as below.



Appendix B. Product Equality Declaration

ZTE CORPORATION**Product Change Description**

As the applicant of the below model, [ZTE Corporation] declares that the product,

[ZTE N861]
[ZTE Corporation]
FDD ID: Q78-ZTEN861

is the variant of the initial certified product,

[ZTE N861]
[ZTE Corporation]
FDD ID: Q78-ZTEN861
[Project Number: 12ZTE032]

SOFTWARE MODIFICATIONS:

Protocol Stack changes: NO
MMS/STK changes: NO
JAVA changes: NO
Other changes detailed: NO

HARDWARE MODIFICATION:

Band changes: NO
Power Amplifier changes: NO
Antenna changes: No, but N861 cut glue from the bottom of the antenna as below screen snap, in order to improve MP efficiency.



PCB Layout changes: NO

Components on PCB changes: NO

LCD changes: NO

Speaker changes: NO

Camera changes: YES, new camera vendor.

Vibrator changes: NO

Bluetooth changes: NO

FM changes: NO

Other changes: New LCD FPC chipset.

MECHANICAL MODIFICATIONS:

Use new metal front/back cover or keypad: NO

Mechanical shell changes: NO

Other changes detailed: NO

ACCESSORY MODIFICATIONS:

Battery changes: NO

AC Adaptor changes: NO

Earphone changes: NO

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