

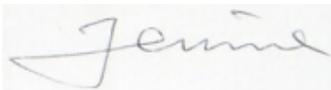
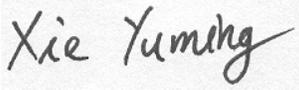
FCC MEASUREMENT AND TEST REPORT

For

ZTE Corporation

ZTE Plaza, Hi-tech Park, Nanshan District, Shenzhen,
Guangdong, China 518057

FCC ID: Q78-R8984ES3600

This Report Concerns: <input checked="" type="checkbox"/> Original Report	Equipment Type: LTE Remote Radio Unit
<p>Test Engineer: </p> <p>Report No: RF2015605RP</p> <p>Test Date: AGU10 – Sep 8, 2015</p> <p>Reviewed By: </p> <p>Prepared By: ZTE Corporation. ZTE Plaza, Hi-tech Park, Nanshan District, Shenzhen, Guangdong, China 518057, P.R.China Tel: +86-755-26770000 Fax: +86-755-26771999</p>	

Note: The test report is specially limited to the above company and this particular sample only. It may not be duplicated without prior written consent of ZTE Corporation. This report must not be used by the client to claim product certification, approval, or endorsement by any agency of the US Government.

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1 GENERAL INFORMATION

Product Description for Equipment Under Test (EUT)

The ZTE Corporation's product, model number: ZXSDR R8984E S3600 or the "EUT" as referred to in this report is a LTE Remote Radio Unit.

Technical specification:

Total Weight: 19kg

Volume: 19L

Dimensions (H*W*D): 425 mm x300 mm x 150 mm

Input voltage: -48VDC (-57VDC to -37VDC)

Frequency range: 3650MHz~3700 MHz

Carrier and bandwidth: 1carrier, 20MHz; 3carriers, 20+20+10MHz

Max RF output power: 100mW for 1carrier 20MHz; 250mW for 3carriers 20+20+10MHz

Modulation type of emission: LTE

Appearance of EUT:



Figure 1 External View of the ZXSDR R8984E S3600

Objective

This Type approval report is prepared on behalf of ZTE Corporation in accordance with Part 2, Part 15, Part 90 of the Federal Communication Commission rules.

Related Submittal(s)/GrPort(s)

No related submittal(s).

Test Methodology

All tests and measurements indicated in this document were performed in accordance with the Code of federal Regulations Title 47 Part 2. as well as the following parts:

Part 24 Wireless Communication Services

Applicable Standards: TIA EIA 137-A, TIA EIA 97-D, TIA/EIA 603-C, Land Mobile FM or PM Communications Equipment Measurement and Performance Standards.

All radiated and conducted measurement was performed at ZTE Corporation Reliability Testing Center. The radiated testing was performed at an Portenna-to-EUT distance of 3 meters.

Test Facility

The Test site used by ZTE Corporation to collect test data is located in the 1/F,B2 Wing, ZTE Plaza, Keji Road South, Shenzhen, Guangdong, 518057, P.R.China, Tel: +86-755-26771609,Fax: +86-755-26770347. Test site at ZTE Corporation has been fully described in reports submitted to the Federal Communication Commission (FCC). The details of these reports have been found to be in compliance with the requirements of Section 2.948 of the FCC Rules. The facility also complies with the radiated and AC line conducted test site criteria set forth in ANSI C63.4-2009.

The Federal Communications Commission has the reports on file and is listed under FCC Registration No.: 373926. The test site has been approved by the FCC for public use and is listed in the FCC Public Access Link (PAL) database.

2 SYSTEM TEST CONFIGURATION

Description of Test Configuration

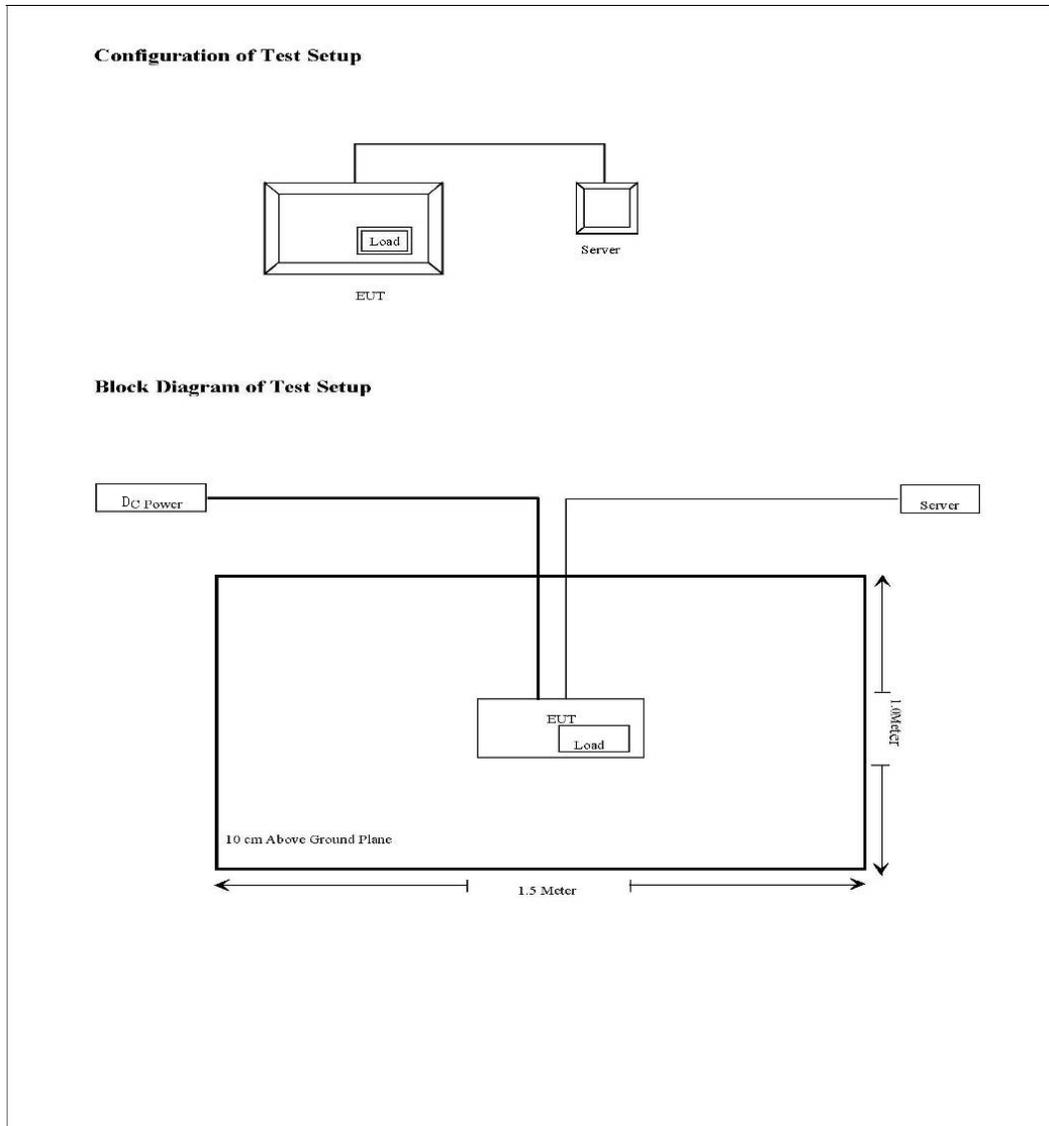
Justification

The EUT was configured for testing according to TIA/EIA-603C.

The final qualification test was performed with EUT operating at normal mode.

Equipment Modifications

ZTE Corporation has not done any modification on the EUT.



3 SUMMARY OF TEST RESULTS

FCC RULES	DESCRIPTION OF TEST	RESULT
§ 2.1046 , §90.1321	RF power output	Compliance
§ 2.1047	Modulation characteristics	Compliance
§ 2.1049	Occupied Bandwidth	Compliance
§ 2.1051, §90.1323	Spurious emissions at Portenna terminals	Compliance
§ 2.1055	Frequency stability	Compliance

4 RF POWER OUTPUT

Applicable Standard: FCC § 2.1046 , §90.1321

According to FCC §2.1046 & 90.1321

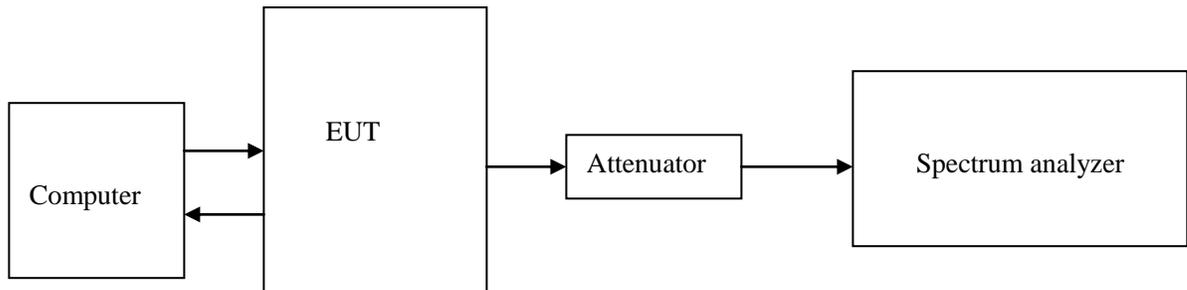
(a) Base and fixed stations are limited to 25 watts/25 MHz equivalent isotropically radiated power (EIRP). In any event, the peak EIRP power density shall not exceed 1 Watt in any one megahertz slice of spectrum..

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Agilent	MXA Series Spectrum Analyzer	N9020A	MY51240300	2014.12.10	2015.12.10
DTS	DTS 40dB Attenuator	DTS100-40-3-1	09112005	2015.06.13	2016.06.13

***statement of traceability:** ZTE Corporation Reliability Testing Center attests that all calibration has been performed per the NVLAP requirements, traceable to NIST.

Test Procedure



The RF output of the transmitter was connected to the input of the spectrum analyzer through sufficient attenuation. External attenuation Loss is 20dB, Cable Loss is about 6.7dB, the detector is peak.

Radiated power (dBm) = Conducted power (dBm) + Portenna gain (dBi) – Signal attenuation in the connecting cable between the transmitter and Portenna (dB)

Portenna gain (dBi):17dBi

Signal attenuation in the connecting cable between the transmitter and Portenna (dB):0dB

Environmental Conditions

Temperature:	20 °C
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Relative Humidity:	53 %
ATM Pressure:	1009 mbar

Test Result: Pass

Test Mode: Transmitting LTE

Test Data:

Output Power: 20MHz(1 port)

Port	Carrier Freq. (MHz)	Output Power		
		QPSK	16QAM	64QAM
		dBm/20MHz	dBm/20MHz	dBm/20MHz
0	3660	19.69	19.87	19.8
1		19.89	19.97	19.9
2		20	19.87	20
3		19.9	19.96	19.91
0	3675	19.89	19.78	19.99
1		19.98	19.78	19.6
2		19.89	19.78	19.89
3		19.99	19.68	19.99
0	3690	19.88	19.8	19.81
1		20	19.98	19.72
2		19.9	19.9	19.82
3		20.01	19.98	19.82

Output Power: 20+20+10MHz(1 port)

Port	Carrier Freq. (MHz)	Output Power		
		QPSK	16QAM	64QAM
		dBm/50MHz	dBm/50MHz	dBm/50MHz
0	3660+3680+3695	23.83	23.98	23.95
1		23.88	23.89	23.93
2		23.96	23.92	23.84
3		23.86	23.94	23.96

Output Power: (4 port)

Carrier Freq.(MHz)	Output Power						Limit (dBm/MHz)
	QPSK		16QAM		64QAM		
	dBm /MHz	EIRP (dBm/MHz)	dBm /MHz	EIRP (dBm/MHz)	dBm /MHz	EIRP (dBm/MHz)	

3660	12.89	29.89	12.94	29.94	12.92	29.92	<30
3675	12.96	29.96	12.78	29.78	12.89	29.89	<30
3690	12.97	29.97	12.94	29.94	12.81	29.81	<30
3660+3680+3695	12.90	29.90	12.95	29.95	12.94	29.94	<30

