MPEREPORT

No.2013TAR212

for

ZTE CORPORATION

HSPA+ Wireless Router

Model Name: MF25A

FCC ID:Q78-MF25A

with

Hardware Version: PCBMF25AV1.0.0

Software Version: CR_MF25AV1.0.0B04+

VIVO_BR_ZM5640V1.0.0B01

Issued Date: 2013-3-17

Note:

The test results in this test report relate only to the devices specified in this report.This report shall not be reproduced except in full without the written approval of TMC Beijing.

Test Laboratory:

TMC Beijing, Telecommunication Metrology Center of Ministry of Industry and Information Technology

No.51, Xueyuan Road, Haidian District, Beijing, P. R. China 100191.

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CONTENTS

1. Test Laboratory

1.1. TestingLocation

CompanyName: TMC Beijing, Telecommunication Metrology Center of MIIT
Address: No 51, Xueyuan Road, Haidian District, Beijing,P.R.China
Postal Code: 100191
Telephone: 00861062304633
Fax: 00861062304793

1.2. TestingEnvironment

Normal Temperature: 15-35℃
Relative Humidity: 20-75%

1.3. Project data

Project Leader: Xue Zhen
Testing Start Date: 2013-02-25
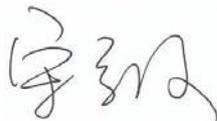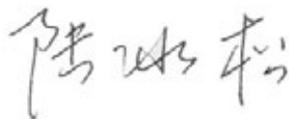Testing End Date: 2013-03-08

1.4. Signature

Xue Zhen

(Prepared this test report)

Song Chongwen

(Reviewed this test report)

Lu Bingsong

Deputy Director of the laboratory

(Approvedthis test report)

2. ClientInformation

2.1. Applicant Information

Company Name:	ZTE CORPORATION
Address/Post:	ZTE Plaza, Keji Road South, Hi-Tech Industrial Park, Nanshan District, Shenzhen, Guangdong, 518057, P.R.China
City:	Shenzhen
Postal Code:	518057
Country:	China
Telephone:	0086 21 68897541
Fax:	0086 21 61460600

2.2. Manufacturer Information

Company Name:	ZTE CORPORATION
Address/Post:	ZTE Plaza, Keji Road South, Hi-Tech Industrial Park, Nanshan District, Shenzhen, Guangdong, 518057, P.R.China
City:	Shenzhen
Postal Code:	518057
Country:	China
Telephone:	0086 21 68897541
Fax:	0086 21 61460600

3. Equipment Under Test (EUT) and Ancillary Equipment (AE)

3.1. About EUT

Description	HSPA+ Wireless Router
Model	MF25A
UMTS Frequency Band	FDD Band II/Band V
GSM Frequency Band	EGSM900/DCS1800/GSM850/PCS1900
Type of modulation	GMSK, 8PSK, QPSK, 16QAM
Power Class	EGSM900:4, DCS1800:1, GSM850:4, PCS1900:1
	FDD Band II:3, FDD Band V:3
GPRS Multislot Class	10
EGPRS Multislot Class	12
Extreme Temperature	-10/+55℃
Normal Voltage	4.8V
Extreme Low Voltage	5.0V
Extreme High Voltage	5.2V

Note1: Photographs of EUT are shown in ANNEX A of this test report.

3.2. Internal Identification of EUT

EUT ID*	SN or IMEI	HW Version	SW Version	Date of receipt
N05	869842010003577	PCBMF25AV1.0.0	CR_MF25AV1.0.0B04+ VIVO_BR_ZM5640V1.0.0B01	2013-02-20
N11	869842010003551	PCBMF25AV1.0.0	CR_MF25AV1.0.0B04+ VIVO_BR_ZM5640V1.0.0B01	2013-02-20
N15	869842010003593	PCBMF25AV1.0.0	CR_MF25AV1.0.0B04+ VIVO_BR_ZM5640V1.0.0B01	2013-02-20

*EUT ID: is used to identify the test sample in the lab internally.

3.3. Internal Identification of AE

AE ID*	Description	SN
AE1	RF cable	---
AE2	Charger	---

*AE ID: is used to identify the test sample in the lab internally.

4. Reference Documents

4.1. Reference Documents for testing

The following documents listed in this section are referred for testing.

ANSI C95.1–1999: IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz.

OET Bulletin 65 (Edition 97-01) and Supplement C(Edition 01-01): Additional Information for Evaluating Compliance of Mobile and Portable Devices with FCC Limits.

447498 23 D01 General RF Exposure Guidance v05: Mobile and Portable Devices RF Exposure ProceduresandEquipment Authorization Policies

5. RF Exposure Limit

Limits for General Population/Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm^2)	Averaging Time $|E|^2$, $|H|^2$ or S (minutes)
0.3-1.34	614	1.63	**(100)***	30
1.34-30	824/f	2.19/f	**(180/f^2)***	30
30-300	27.5	0.073	**0.2**	30
300-1500	--	--	**f/1500**	30
1500-100,000	--	--	**1.0**	30

f = frequency in MHz   *Plane-wave equivalent power density

6. Friis Formula

Friis transmission formula : Pd = (Pout*G) / (4*Pi*r^2)

where

Pd = power density in **W/m^2**

Pout = output power to antenna in **W**

G = gain of antenna in linear scale

Pi = **3.1416**

R = distance between observation point and center of the radiator in **m**

Pd is the limit of MPE. If we know the maximum Gain of the antenna and the total power input to the antenna, through the calculation, we will know the MPE value at distance 20cm.

7. Classification

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user. So, this device is classified as Mobile Device.

8. Test Results

8.1. the maximum antenna gain
The maximum antenna gain for internal antenna is
GSM 850:1.6dBi
GSM1900: 2.7dBi
UMTS 850: 1.6dBi
UMTS 1900: 2.7dBi
802.11/b: 1.9dBi
802.11/g: 1.9dBi
802.11/n: 1.9dBi

8.2. Output Power Into Antenna & RF Exposure value at distance 20cm
For GSM bands:

Frequency band	Output Power (dBm)	Duty cycle	Source-based timing average power(dBm)
GSM 850	32.92	12.5%	26.04
GSM 1900	29.00	12.5%	19.97

Then

Frequency band	Output Power (dBm)	Power Density (mW/cm^2)	Limit of Power Density (mW/cm^2)
GSM 850	26.04	0.1	0.57
GSM 1900	19.97	0.04	1
UMTS 850	22.58	0.05	0.57
UMTS 1900	22.81	0.07	1
802.11/b	21.56	0.04	1
802.11/g	21.79	0.05	1
802.11/n (Ant1)	19.91	0.03	1
802.11/n (Ant2)	20.50	0.04	1

Considering the simultaneous transmission of cellular and WLAN, sum of two worst cases MPE ratio is
0.1/0.57+0.07/1+0.04/1=0.18+0.07+0.04=0.18+0.11=0.29<1
So the limit is kept.

END OF REPORT