



MPE REPORT

Report No.: SRTC2011-H024-E0090

Product Name: CDMA 1X Wireless Phone

Product Model: ZTE WP228

Applicant: ZTE Corporation

Manufacturer: ZTE Corporation

Specification: FCC Part2.1093

OET Bulletin 65 Supplement C[June 2001]

FCC ID: Q78-ZTEWP228

The State Radio_monitoring_center Testing Center (SRTC)

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1. General information

1.1 Notes of the test report

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The test results relate only to individual items of the samples which have been tested.

1.2 Information about the testing laboratory

Company: The State Radio_monitoring_center Testing Center (SRTC)
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1.3 Applicant's details

Company: ZTE Corporation
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Grantee Code: Q78
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Email: zhang.min13@zte.com.cn

1.4 Manufacturer's details

Company: ZTE Corporation
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Country or Region: P.R.China
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Fax: +86-021-50801070
Email: li.dezi@zte.com.cn

1.5 Application details

Date of reception of test sample: 2nd Nov 2011

Date of test: 5th Nov 2011 to 25th Nov 2011

1.6 Reference specification

FCC Part2.1093, OET Bulletin 65 Supplement C [June 2001]

1.7 Information of EUT

1.7.1 General information

Name of EUT	CDMA 1X Wireless Phone
FCC ID	Q78-ZTEWP228
Frequency range	Tx:824~849MHz Rx:869~894MHz
Rated output power	24.0dBm
E.R.P.	22.2dBm
Modulation type	OQPSK
Emission Designator	1M25F9W
Duplex mode	FDD
Duplex spacing	45MHz
Antenna type	Fixed External
Power Supply	Battery or charger
Rated Power Supply Voltage	3.7V
Extreme Temperature	Lowest: -30°C Highest: +50°C
Extreme Voltage	Minimum: 3.4V Maximum: 4.2V
HW Version	fd9A
SW Version	CT_WP228V1.0.0B03

1.7.2 EUT details

Name	Model	SN
CDMA 1X Wireless Phone	ZTE WP228	323612034574

1.7.3 Auxiliary equipment details

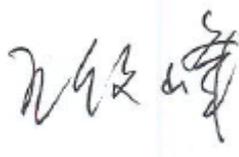
Equipment	Charger
Manufacturer	ZTE
Model Number	STC-A22O50C35
Input Voltage	100V-240V a.c.
Output Voltage	5.0V d.c.
Frequency	50/60Hz

Equipment	Battery
Manufacturer	ZTE
Model Number	Ni3607T30P3S473211
Capacity	700mAh
Rated Voltage	3.6V d.c.

2. Test information

2.1 Summary of the calculation results

No.	Test case	FCC reference	Verdict
1	MPE Calculation	FCC Part2.1093, OET Bulletin 65 Supplement [June 2001]	Pass

This Test Report Is Issued by: Mr. Song Qizhu Director of the test lab 	Checked by: Mr. Wang Junfeng Deputy director of the test lab 
Tested by: Mr. Li Boyu Test engineer 	Issued date: <p style="text-align: center;">2011.12.12</p>

2.2 Calculation result

2.2.1 Maximum Permissible Exposure (MPE)

Limit:

FCC LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

(A) Limits for Occupational/Controlled 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)
0.3-3.0	614	1.63	100*	6
3.0-30	1842/f	4.89/f	(900/f ²) *	6
30-300	61.4	0.163	1.0	6
300-1500	--	--	f/300	6
1500-100,000	--	--	5	6

(B) 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

Calculation procedure:

In accordance with 47CFR FCC Part 2.1091, the product has been defined as a mobile device where a distance of 0.2m normally can be maintained between the user and product.

Calculation formula:

$$\text{Power Density: } P_d (\text{W/m}^2) = E^2/377$$

$$E (\text{V/m}) = (30 \cdot P \cdot G)^{0.5}/d$$

E: Electric Field Strength (V/m)

P: Peak RF Output Power (W)

G: Antenna Numeric Gain (Numeric)

d: Separation Distance Between the Radiator and Human Body (m)

So the calculation formula can be changed as:

$$P_d = (30 \cdot P \cdot G) / (377 \cdot d^2)$$

Calculation result:

Channel No.	Effective Radiated Power (E.R.P.) (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Verdict
1013	154.9	0.0505	0.550	Pass
384	166.0	0.0542	0.558	Pass
777	141.2	0.0461	0.566	Pass