



# **RF Exposure Evaluation Report**

**APPLICANT : ZTE CORPORATION**  
**EQUIPMENT : Wireless Access Terminal**  
**BRAND NAME : ZTE**  
**MODEL NAME : WF723**  
**FCC ID : SRQ-Z723EL**  
**STANDARD : 47 CFR Part 2.1091**

We, Sporton International (Kunshan) Inc., would like to declare that the device has been evaluated in accordance with 47 CFR Part 2.1091, and pass the limit. Without written approval of Sporton International (Kunshan) Inc., the test report shall not be reproduced except in full.

A handwritten signature in black ink, reading "Mark Qu".

Approved by: Mark Qu / Manager

***Sporton International (Kunshan) Inc.***

***No.3-2 Ping-Xiang Rd, Kunshan Development Zone Kunshan City Jiangsu Province 215335 China***



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**Revision History**

| REPORT NO.  | VERSION | DESCRIPTION             | ISSUED DATE   |
|-------------|---------|-------------------------|---------------|
| FA710507-01 | Rev. 01 | Initial issue of report | Sep. 20, 2017 |
|             |         |                         |               |
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**1. Administration Data****1.1. Testing Laboratory**

| Testing Laboratory |                                                                                                                                                  |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| Test Site          | Sporton International (Kunshan) Inc.                                                                                                             |
| Test Site Location | No.3-2 Ping-Xiang Rd, Kunshan Development Zone Kunshan City Jiangsu Province<br>215335 China<br>TEL : +86-512-57900158<br>FAX : +86-512-57900958 |

| Applicant    |                                                                                                                   |
|--------------|-------------------------------------------------------------------------------------------------------------------|
| Company Name | ZTE CORPORATION                                                                                                   |
| Address      | ZTE Plaza, Keji Road South, Hi-Tech, Industrial Park, Nanshan District, Shenzhen,<br>Guangdong, 518057, P.R.China |

| Manufacturer |                                                                                                                   |
|--------------|-------------------------------------------------------------------------------------------------------------------|
| Company Name | ZTE CORPORATION                                                                                                   |
| Address      | ZTE Plaza, Keji Road South, Hi-Tech, Industrial Park, Nanshan District, Shenzhen,<br>Guangdong, 518057, P.R.China |

**2. Description of Equipment Under Test (EUT)**

| Product Feature & Specification                                                                   |                                                                                                                         |
|---------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| EUT Type                                                                                          | Wireless Access Terminal                                                                                                |
| Brand Name                                                                                        | ZTE                                                                                                                     |
| Model Name                                                                                        | WF723                                                                                                                   |
| FCC ID                                                                                            | SRQ-Z723EL                                                                                                              |
| IMEI Code                                                                                         | 863579030001274                                                                                                         |
| Wireless Technology and Frequency Range                                                           | WCDMA Band II: 1852.4 MHz ~ 1907.6 MHz<br>WCDMA Band IV: 1712.4 MHz ~ 1752.6 MHz<br>WCDMA Band V: 826.4 MHz ~ 846.6 MHz |
| Mode                                                                                              | AMR/RMC 12.2Kbps<br>HSDPA<br>HSUPA<br>HSPA+ (uplink is not supported)                                                   |
| Antenna Type                                                                                      | Fixed External Antenna                                                                                                  |
| HW Version                                                                                        | Z723ELHWV1.0                                                                                                            |
| SW Version                                                                                        | WF723V1.0.0B01                                                                                                          |
| EUT Stage                                                                                         | Identical Prototype                                                                                                     |
| <b>Remark:</b>                                                                                    |                                                                                                                         |
| 1. There are two antennas for EUT, one is Tx/Rx function, another is Rx function only.            |                                                                                                                         |
| 2. The report is in accordance with C2PC rule and the product equality declaration as Appendix A. |                                                                                                                         |

**3. Maximum RF average output power among production units**

| Mode            | Average Power (dBm) |               |               |
|-----------------|---------------------|---------------|---------------|
|                 | WCDMA Band V        | WCDMA Band II | WCDMA Band IV |
| AMR 12.2Kbps    | 25.0                | 23.0          | 24.5          |
| RMC 12.2Kbps    | 25.0                | 23.0          | 24.5          |
| HSDPA Subtest-1 | 24.0                | 22.0          | 23.5          |
| HSDPA Subtest-2 | 24.0                | 22.0          | 23.5          |
| HSDPA Subtest-3 | 23.5                | 21.5          | 23.0          |
| HSDPA Subtest-4 | 23.5                | 21.5          | 23.0          |
| HSUPA Subtest-1 | 23.5                | 22.0          | 23.5          |
| HSUPA Subtest-2 | 23.0                | 20.0          | 22.5          |
| HSUPA Subtest-3 | 23.0                | 21.0          | 22.5          |
| HSUPA Subtest-4 | 23.5                | 20.0          | 23.0          |
| HSUPA Subtest-5 | 24.5                | 22.0          | 23.5          |

#### **4. RF Exposure Limit Introduction**

According to ANSI/IEEE C95.1-1992, the criteria listed in Table 1 shall be used to evaluate the environmental impact of human exposure to radio frequency (RF) radiation as specified in §1.1310.

| Frequency range (MHz)                                          | Electric field strength (V/m) | Magnetic field strength (A/m) | Power density (mW/cm <sup>2</sup> ) | Averaging time (minutes) |
|----------------------------------------------------------------|-------------------------------|-------------------------------|-------------------------------------|--------------------------|
| <b>(A) Limits for Occupational/Controlled Exposures</b>        |                               |                               |                                     |                          |
| 0.3-3.0                                                        | 614                           | 1.63                          | *(100)                              | 6                        |
| 3.0-30                                                         | 1842/f                        | 4.89/f                        | *(900/f <sup>2</sup> )              | 6                        |
| 30-300                                                         | 61.4                          | 0.163                         | 1.0                                 | 6                        |
| 300-1500                                                       |                               |                               | f/300                               | 6                        |
| 1500-100,000                                                   |                               |                               | 5                                   | 6                        |
| <b>(B) Limits for General Population/Uncontrolled Exposure</b> |                               |                               |                                     |                          |
| 0.3-1.34                                                       | 614                           | 1.63                          | *(100)                              | 30                       |
| 1.34-30                                                        | 824/f                         | 2.19/f                        | *(180/f <sup>2</sup> )              | 30                       |
| 30-300                                                         | 27.5                          | 0.073                         | 0.2                                 | 30                       |
| 300-1500                                                       |                               |                               | f/1500                              | 30                       |
| 1500-100,000                                                   |                               |                               | 1.0                                 | 30                       |

The MPE was calculated at 20 cm to show compliance with the power density limit.

The following formula was used to calculate the Power Density:

$$S = \frac{PG}{4\pi R^2}$$

Where:

S = Power Density

P = Output Power at Antenna Terminals

G = Gain of Transmit Antenna (linear gain)

R = Distance from Transmitting Antenna



## **5. Radio Frequency Radiation Exposure Evaluation**

### **5.1. Standalone Power Density Calculation**

| Band          | Frequency (MHz) | Antenna Gain (dBi) | Maximum Power (dBm) | Maximum EIRP (dBm) | Maximum EIRP (W) | Average EIRP (mW) | Power Density at 20cm (mW/cm <sup>2</sup> ) | Limit (mW/cm <sup>2</sup> ) |
|---------------|-----------------|--------------------|---------------------|--------------------|------------------|-------------------|---------------------------------------------|-----------------------------|
| WCDMA Band V  | 826.4           | -1.3               | 25.0                | 23.70              | 0.23             | 234.42            | 0.05                                        | 0.55                        |
| WCDMA Band II | 1852.4          | 1                  | 23.0                | 24.00              | 0.25             | 251.19            | 0.05                                        | 1.00                        |
| WCDMA Band IV | 1712.4          | -0.5               | 24.5                | 24.00              | 0.25             | 251.19            | 0.05                                        | 1.00                        |

**Note:** For conservativeness, the lowest frequency of each band is used to determine the MPE limit of that band.

### **Conclusion:**

According to 47 CFR §2.1091, the RF exposure analysis concludes that the RF Exposure is FCC compliant.





## **Appendix A .Product Equality Declaration**

**ZTE CORPORATION****Product Change Description**

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

[WF723 UMTS B2\B4\B5]

[ZTE Corporation]

is the variant of the initial certified product,

[Z723EL LTE B2\4\12\13]

[ZTE Corporation]

**SOFTWARE MODIFICATIONS:**

Protocol Stack changes: NO

MMS/STK changes: NO

JAVA changes: NO

Other changes detailed: Software open WCDMA Band 2/4/5 and disable LTE band 2/4/12/13

**HARDWARE MODIFICATION:**

Band changes: NO

Power Amplifier changes: NO

Antenna changes: NO

PCB Layout changes: NO

Components on PCB changes: NO

LCD changes: NO

Speaker changes: NO

Camera changes: NO

Vibrator changes: NO

Bluetooth changes: NO

FM changes: NO

Other changes: NO

**MECHANICAL MODIFICATIONS:**

Use new metal front/back cover or keypad: NO

Mechanical shell changes: NO

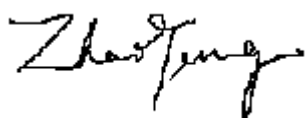
Other changes detailed: NO

**ACCESSORY MODIFICATIONS:**

Battery changes: yes, add 2<sup>nd</sup> source battery

AC Adaptor changes: NO

Earphone changes: NO



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