

**Technical Specifications  
Of  
ZTE MF23**

**ZTE CORPORATION**

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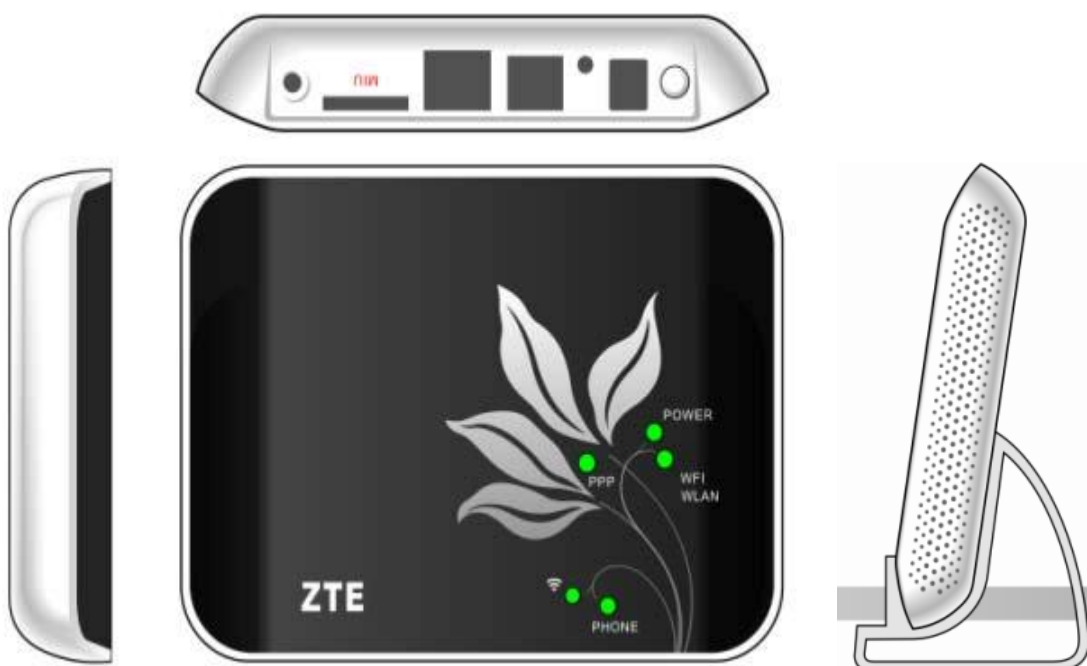
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## 1. Design

This document denotes the specifications and main characteristics of the MF23.

ZTE MF23 is a Fixed Wireless Terminal (FWT) providing wireless broadband Internet/Voice service over WCDMA/HSUPA network. The dimension of MF23 is 141 mm x104 mmx26mm.

The ID of ZTE MF23 is following:



## 2. Hardware Specifications

### 2.1 physical characteristics

Dimensions	141 mm x104mmx26mm	
Indicator light	LED	
Temperature	Storage: -20C ~ +60°C Operation: -10C ~ +55°C	

### 2.2 Power

Primary driven by an A C connection (uses an external adapter)	Input voltage:100V~240V, 50Hz~60Hz
Adapter Spec.	Rated voltage: 12V DC±10% Rated current: 1.5A
Power Consumption	ON State: MAX. 13W OFF State: MAX. 0.5W

### 2.3 Connectivity

LAN	RJ45 x 1 (10BaseT/100BaseTX ) with Auto-MDIX IEEE 802.3)
RJ11 Ports	1
UART	115200bps
USIM&SIM	Standard 6 PIN Interface

### 2.4 Main board for routing

#### RT3050

Soc Processor	<ul style="list-style-type: none"> <li>● Highly-integrated networking security/application processor</li> <li>● 300Mbps PHY data rate</li> <li>● Support boot from 8/16-bit parallel NOR type Flash</li> <li>● Embedded a 7-port Ethernet switch and a 5 shot 10/100Mbps PHY</li> <li>● Hardware packet processing acceleration</li> <li>● Support 16/32-bit SDR SDRAM</li> <li>● SDRAM data 31:16 sre pins shared with GPIO</li> </ul>
Memory	SDRAM 16MBYTE FLASH 8MBYTE
Internal Power	3.3V:2A 1.5V: 1A 1.8V:200mA 5V:500mA 12V: 0.8A
SLIC	Si3210x2

### 2.5 HSUPA MODEM

Protocol	HSUPA/HSDPA/UMTS/ EDGE/GPRS/GSM
Frequency	HSUPAHSDPA/UMTS: 2100/850/1900MHz; EDGE/GPRS/GSM: 850/900/1800/1900MHz
Transmission (Max. data rate)	7.2Mbps DL 5.76Mbps UL
Rx Diversity	Support
Antenna	Inner antenna
Equalization	Support
Chipset	MSM6290

<b>Tr Power</b>	<b>24dBm(Max) in Band I mode 24dBm(Max) in Band II mode 24dBm(Max) in Band V mode</b>
<b>Rx Sen</b>	<b>Band I : -106.7dBm@0.1% PER Band II : -104.7dBm@0.1% PER Band V : -104.7dBm@0.1% PER</b>

## 2.6 Wi-Fi

<b>Main Chip</b>	<b>RT3050</b>
<b>Protocol</b>	<b>802.11b/g/n(1*1)</b>
<b>Frequency</b>	<b>2.4~2.4835GHz</b>
<b>Data Transfer Rates</b>	<b>11g:54/48/36/24/18/12/9/6 Mbps (Auto Rate Sensing) 11b:11/5.5/3/2/1 Mbps (Auto Rate Sensing)</b>
<b>Channel</b>	<b>1~13</b>
<b>Extend Frequency</b>	<b>DSSS</b>
<b>Modulation Type</b>	<b>1M DBPSK 2M DQPSK 5.5M, 11M CCK 6M, 9M, 12M, 18M, 24M, 36M, 4 8M, 54M OFDM</b>
<b>Transmission Distance</b>	<b>Indoors up to 50m, Outdoors up to 80m</b>
<b>RF Power</b>	<b>20dBm(Max) in 11b mode 16dBm(Max) in 11g mode</b>
<b>Receive Sensitivity</b>	<b>54M : -68dBm@10% PER 11M : -85dBm@8% PER 6M : -88dBm@10% PER 1M : -90dBm@8% PER</b>

## 3. General Features

### 3.1. IP Protocol

- RFC 791-IP
- RFC 793-TCP
- RFC 768-UDP
- RFC 792-ICMP
- RFC 826-ARP
- RFC 1661-Point-To-Point Protocol(PPP)
- RFC 1332-PPP IP Control Protocol (IPCP)
- PPP Authentication Protocols

- RFC 1334-PAP
- RFC 1994-CHAP

### 3.2. Networking Applications

- DHCP
- DHCP Server, RFC 2131, 2132, 1533

### 3.3. NAT

- NAT/NAPT, RFC 3022

### 3.4. Wireless LAN

- Comply with 802.11b and 802.11g
- Support 64/128/152 bits WEP encryption
- Support WPA/WPA2
  - Authentication: 802.1x, Pre-Shared Key (PSK)
  - Encryption: AES, TKIP

### 3.5. Voice

The MF23 support GSM voice call and CS(circuit-switching) voice call via WCDMA

### 3.6. Security

- Port Forwarding, DMZ support
- Firewall for URL filter, MAC filter, Dos
- Support PIN and PUK based SIM card security
- WAN Access Control
- Remote access control (HTTP)

### 3.7. Local WEB GUI

The Web GUI utilizes HTTP for logging on to the device, and it's easy to control the device.

### 3.8. Operating systems

Compatible with Microsoft Windows 2K / Windows XP / Windows Vista / Mac OS / Linux

### 3.9. Silent installation

User can directly use the device without installing any drivers.

### 3.10. Antenna

Internal antenna is a default configuration. External Antenna with SMA interface also can be installed.