

ZTE MZ16 USB Wireless Network Modem User Guide

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1. Introduction of the ZTE MZ16 USB EDGE MODEM

1.1 Features of the ZTE MZ16 USB Wireless Network Modem

- Dimensions: 109mm×46mm×14mm
- Weight: approx. 41g
- Data interface: USB 2.0
- EDGE multi-slot class 12 (up to 4Tx, 4Rx, 5 total)
- Field Firmware Upgradeable
- Quad-band GSM850/GSM900/DCS1800/PCS1900
- Support GSM/GPRS/EDGE
- Coding schemes: CS1~4; MCS1~9
- Data, voice and SMS support
- Easy to integrate
- LED display
- Wide input voltage range
- Highly compact, light and powerful
- Integrated SIM card holder
- Extended AT commands for industrial applications
- USB bus-powered ,requires no external power supply
- Firmware upgrade available.
- Operation Temperature: -20 to +55°C
- Storage Temperature: -30 to +70°C
- Vibration (non-operation): 15g peak, 10Hz to 2KHz
- Humidity: < 95% (non-condensing)

1.2 Overview of the ZTE MZ16 USB Wireless Network Modem

The ZTE MZ16 USB EDGE MODEM is a Quad-band wide area wireless network modem supporting all different frequencies used by EDGE and GSM/GPRS networks worldwide. Users around the globe can enjoy the freedom to have access to critical information wherever they are located on both EDGE and GSM/GPRS networks. The ZTE MZ16 provides users with ease of use to transfer large files, download graphic heavy information, send/receive SMS messages and receive large amounts of data quickly, to stay connected during their busy day. With the ZTE MZ16, users can stay connected on EDGE networks at average speeds between 100-130 kbps, supporting speeds up to 216 kbps. The ZTE MZ16 provides the ability of field firmware upgrade.

1.3 System Requirements of the ZTE MZ16 USB Wireless Network Modem

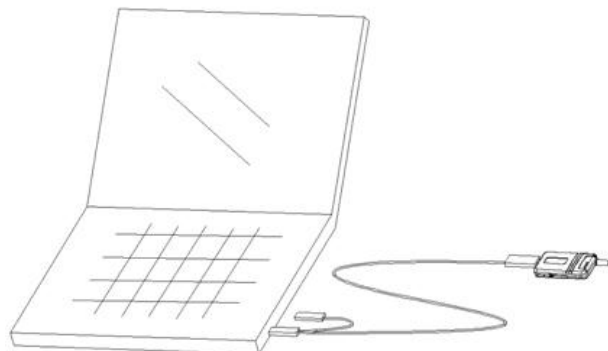
- Computer running Windows 2000 or Windows XP
- ZTE MZ16 Manager Software for computer
- USB Ports
- Memory: 32 MB
- Disk Space: 10 MB
- Disk Drive: CD ROM (Installation only)
- External antenna
- Earphone with microphone for voice call
- SIM card
- Web Explorer for Internet

2. Introduction of the ZTE MZ16 Wireless Network Modem Manager Software

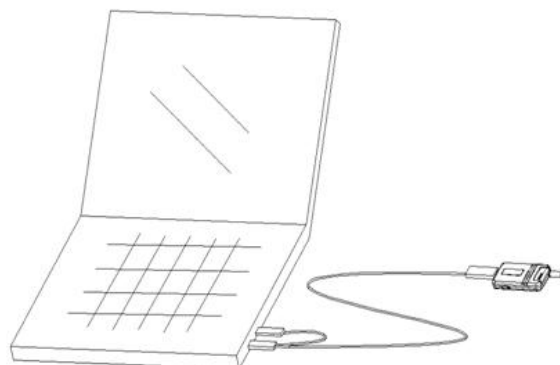
The ZTE MZ16 Wireless Network Modem Manager software is designed to help you set up a wireless connection to the Internet and mobile network. Your ZTE MZ16 Wireless Network Modem can act for Internet from your personal computer, so you can use SMS, browse the Web, and chat using wireless connections. The ZTE MZ16 Wireless Network Modem Manager Software has friendly man-machine interface and thus it is possible for you to use the strong function of the ZTE MZ16 Wireless Network Modem easily.

3. Inserting the ZTE MZ16 Wireless Network Modem

- **Step 1:** insert the SIM card into the SIM card slot of the ZTE MZ16.
Note: specially make sure the right direction of SIM card slot.
- **Step 2:** insert the ZTE MZ16 into the USB Port of the computer, as shown in the following.



For get the better performance of connecting network, we recommend that insert the ZTE MZ16 into the USB Ports of the computer, as shown in the following.



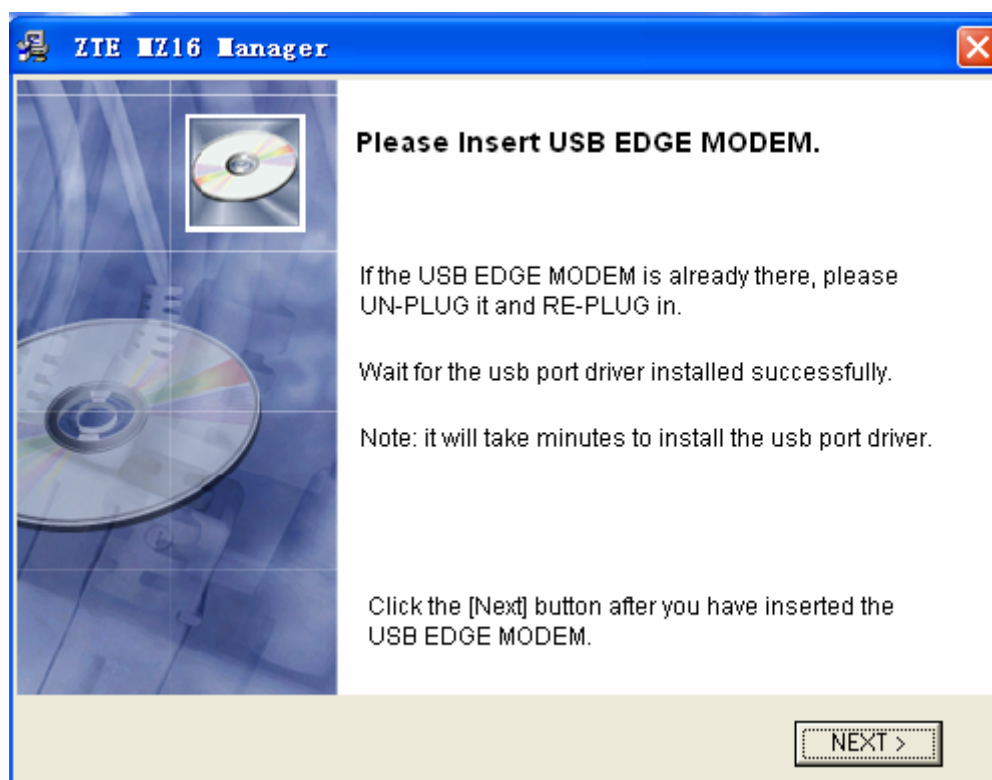
Note:

1. The above steps are a recommendatory order. You may also complete these operations in your own order before using the ZTE MZ16.
2. Do not insert or remove the SIM card while the ZTE MZ16 has been connected to a working computer, as the SIM card and USB EDGE MODEM ZTE MZ16 would be damaged.

4. ZTE MZ16 Manager Software Installation guide

Please NOT insert the ZTE MZ16 USB Modem only after the prompt appears when installing Manager Software

1. Insert the CD of ZTE MZ16 Manager Software into the CD-ROM.
2. If the program does not run automatically, please click MY COMPUTER, double-click CD-ROM DRIVER, and then double-click ZTE_ MZ16 _Manager.EXE to start the installing SW.
3. Please connect the ZTE MZ16 modem to the USB port of the computer, click "next" to continue the driver installation when the following picture is shown during the installing process.



Attention:

1. Click "Next" to start installing the Manager Software when the MODEM drivers are installed.
2. Click "Next" to install to the default path, or click "Browse" to select the installing path and the program name.
3. Click "Next", continue to install Manager Software.
4. Click "Finish" to finish installing.

Attention:

1. Make sure at least one COM port is available before installing the ZTE MZ16 Manager Software.
2. The ZTE MZ16 Driver is also installed while the ZTE MZ16 Manager Software is installed. You can check whether the driver of the ZTE MZ16 has been installed successfully with Windows' device manager. If you may see "MZ16 Edge Modem" in modem item of Windows' device manager, it indicates you have installed the driver of the ZTE MZ16 successfully.
3. Please select "Continue to install" or "Yes" to continue if the warning dialog box pop up while installing the ZTE MZ16 Manager Software.
4. Please pull out and insert the MZ16 USB MODEM again before using Manager Software.

5. Uninstalling the ZTE MZ16 Manager Software

If you want to remove the ZTE MZ16 Manager from your computer, use the uninstall program, which permanently removes its program components.

To remove the software from your computer:

- Close Monitor ZTE MZ16 from the application panel bar of your computer
- Click the Windows Start button, and then choose “**Control Panel**”.
- Open “**Add/Remove Programs**”.
- Choose the “**ZTE MZ16 Manager**” from the listed applications.
- Click “**Change/Remove**”.
- Click “**Next**” to confirm it when system pops up the query dialog window.
- Click “**Finish**” to Complete uninstall.




6. Using the ZTE MZ16 Manager Software

After installing the ZTE MZ16 Manager Software successfully, run the ZTE MZ16 Manager application in the desktop or the Program Manager group. The ZTE MZ16 will automatically search for a useable network. When the connection to mobile network is made, the names of the network provider and available network (EDGE, GPRS) as well as network signal strength indicator will appear in the main interface. At this point the ZTE MZ16 is on standby. You may send and receive a short message, set up the connection to the internet, use the phonebook function and so on.



The main interface of the ZTE MZ16 Manager application is shown below:



6.1 To use voice call function

- Click the number buttons including 0-9, *, # on the keyboard area to enter the telephone number.
- Click the “clear” button  to delete a character to the left of the cursor.
- Click the “dial” button  to dial the entered telephone number or answer an incoming call.
- Click the “refuse” button  to refuse an incoming call or end the call.


6.2 To Use SMS Function

- Click the “**new SMS**” Button  to create a new short message in the “Send SMS” dialog window. After editing the content of the short message and recipient's telephone number, click the “**Send**” button to send the short message.
- Click the “**SMS**” button  to pop up the “SMS” dialog window. Here you may view received SMS in “inbox” and sent SMS in “outbox”. You may also perform the following operations on the selected SMS in inbox and outbox: delete, reply, transmit and call back (if your ZTE MZ16 support this feature). At one time you may create a new short message, set SMS center's number and view the capacity and occupied space of the short messages for the SIM card.


Note:

1. You may select the recipient's telephone number from your phone book for a short message.
2. You may edit and send the long message up to 480 characters.


6.3 To use phone book function

Click the “phone book” button  to pop up the “phone book” dialog window. Here you may view phone book entries saved in both SIM card and computer. At one time you may add a new record to the phonebook and send a short message to the telephone number in the selected phone book entry. Of course, you may also delete, modify and call (if your ZTE MZ16 supports this feature) the current phone book entry.

6.4 To use call Record function


Click the “**Call Record**” button  to pop up the “phone Record” dialog window. Here you may view missed calls, received calls, last dialed calls. At the same time you may make a call and send a short message to the telephone number of the selected call record.

6.5 To make a series of personalized settings

Click the **“Setting”** button  to pop up the **“Option”** dialog window. Here you may make a series of personalized settings including **“SMS”**, **“PIN”**, **“Connection”**, **“Dial Set”**, **“Ring Set”**, **“Eons Set”**, **“Network”**, options.

- **“SMS”**: to set SMS center number, SMS valid period, SMS status report and system-auto-start switch. If you mark the **“Auto Start”** option with a tick, when you restart your computer next time, the ZTE MZ16 Manager Software will start up automatically.
- **“PIN”**: to lock or unlock the SIM card with the correct PIN code.
Note: If you lock the SIM card, then every time you use the ZTE MZ16 Manager, you must enter the PIN code so as to unlock the SIM card. If you successively enter your PIN code three times incorrectly, your SIM card will be locked. At this time you need the PUK number to unlock the SIM card. The PIN and PUK codes may have been provided to you together with the SIM card. If you do not have it, please contact your network provider. The default PIN code is usually 1234.
- **“Connection”**: to set the default Dial-up attributes on EDGE and CSD.
- **“Dial Set”**: to make the default connection settings on EDGE and CSD. The option **“Show Average Rate”**, if active, shows the average speed in byte of sent and received data.
- **“Ring Set”**: to set the incoming call and SMS rings (if your ZTE MZ16 supports this feature).
- **“Eons Set”**: to redefine a personalized network name for your network provider. You may add a personalized network name to the **“EONS”** list or delete it from the list. To add a personalized network name to the **“EONS”** list, enter the default network name for your network provider in the **“Network”** edit box and a personalized network name in the **“name”** edit box, and then click the **“add”** button. To delete a personalized network name from the **“EONS”** list, select it in the list and then click the **“delete”** button. If you want to make one of its personalized network names effective, you must delete all personalized network names in front of it in the **“EONS”** list. To display the default network name for your network provider after having made one of its personalized network names effective, you must delete all of its personalized network names in the **“EONS”** list.
- **“Network”**: to set band frequency of network and type of network search. That tri-Band functionality is a network dependent feature. Check with your local operator to use this functionality.

6.6 To create or delete a connection profile with Connection Wizard

Click the “**Connect Wizard**” button  to pop up the “Connect Wizard” dialog window. Here you may create or delete a connection profile which defines how your connections will be made.

- Click the “**New**” button to create a connection profile.
 1. Enter a unique name for this connection profile.
 2. Enter the APN (Access Point Name) and phone number for this connection. This information will be supplied by your network provider.
 3. If your network provider has supplied you with a User Name and Password, type the information in the spaces provided.
 4. Choose an option for the connection IP address, as instructed by your network provider:

Auto Get IP: click if your network provider will assign IP addresses dynamically each time you open the connection.

Use Following IP: click if your network provider has assigned you an IP address that will be used every time you open this Connection. Type the IP address in the text box.

5. Choose an option for the DNS server, as instructed by your network provider:

Auto Detect DNS: Click if your network provider will assign name server IP addresses dynamically each time you open the connection.


Use Following DNS: Click if your network provider has assigned you one or more DNS server IP addresses to use when you open this Connection. Type each server address in its corresponding text box. Typically the First DNS server is queried at first, and the Second DNS server is only used if the First DNS server is unavailable or cannot translate the URL.

Note: A DNS (Domain Name Service) server is a computer that maintains a database of locations on the Internet. Name servers translate a URL you type into its corresponding IP address, so the Web site's content can be found and displayed.

6. Click the “**Confirm**” button to save it. You may see the created connection profile in the connection profile drop-down box in the main interface
- Choose a connection profile except the two built-in connection profiles in the “Dial Connect” drop-down box and click the “**Delete**” button to delete the selected connection profile.

Note: There are two built-in connection profiles for CSD and EDGE in the connection profile drop-down box in the main interface. You may modify your own created settings in the “Connect Wizard” dialog window.


6.7 To open the connection to internet

- Choose a desired connection profile in the connection profile drop-down box in the main interface and click the “**Connect Net**” button  to open the connection to internet. The information such as connection status, duration, each average rate of received and sent data is shown at the top right corner of the main interface. If the connection status is shown as “**connected**”, it indicates the connection to internet is open. At this time you may use the service related to internet.


Note:

1. **You may also use the default connection profile to open the connection to internet.**
 2. **If you mark the “Show Average Rate” item with a tick in the “Dial Set” option in the “Option” dialog window, each average rate of received and sent data is shown at the top right corner of the main interface.**
- Click the “**Connect Net**” button again to close the connection to internet.

6.8 To access more help information on line

Click the “**help**” button  at the top right corner of main interface.

Attention:

- The ZTE MZ16 is a mobile wireless communications device; please obey related safety regulations when using it.
- Before use the ZTE MZ16 Manager Software, assure that SIM card have been inserted into your ZTE MZ16 correctly. If the SIM card have not inserted, the LED on the ZTE MZ16 will be red. When the ZTE MZ16 is searching for a network, the indicator light of the ZTE MZ16 will flash at intervals of about 1 second. If the indicator light flashes at intervals of about 3 seconds, it indicates the ZTE MZ16 has searched for a usable network successfully.
- Before using the function related to internet or mobile network, assure you are within the EDGE, GPRS or GSM network area. The icon “

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6.9 To use the shortcut menu function

In the main interface, click the right key of your mouse to pop up the shortcut menu and select the following options:

Phone Book: to pop up the “phone book” dialog window.

SMS: to create a new short message in the “Send SMS” dialog window.

Phone Record: to view Missed calls, Received calls and Dialed calls.

Option: to pop up the “Option” dialog window and make a series of personalized settings.

History: to view network connection information and set the limitation of data flow quantity.

Show Average Rate: to set whether to show each average rate of received and sent data in the current connection. If the “Show Average Rate” is not marked with a tick, the respective accumulated quantity of sent and received data in the current connection is shown at the top right corner of the main interface.

Connect Wizard: to pop up the “Connect Wizard” dialog window.

About: to view the version information of the ZTE MZ16 Manager application.

Exit: to close the ZTE MZ16 Manager application.

Note: the option name of “STK” is different with various kinds of SIM card. If an option name is grey, it indicates the option function is not available.

7. ZTE MZ16 Quick Start Guide

To master the use of your ZTE MZ16 quickly, we recommend that you follow a few simple steps:

- Read the system requirements of the ZTE MZ16.
- Insert the SIM card into your ZTE MZ16 correctly.
- Install the ZTE MZ16 Manager Software.
- Run the ZTE MZ16 Manager Software to use.
- If you need to use the service related to internet, click the “Connect Net” button to open the connection to internet with the default connection profile. Click the “Connect Net” button again to close the connection to internet.
- Close it when you do not use the ZTE MZ16 Manager Software.

8. Troubleshooting

If anything unusual occurs while using your ZTE MZ16, please refer to the following table.

| Problems | Cause | Solution |
|--|---|--|
| Can't detect the ZTE MZ16 | ZTE MZ16 is inserted into USB Port of the computer incorrectly. | Insert it correctly according to the requirement. |
| | The Driver is installed incorrectly. | Reinstall ZTE MZ16 Manager Software for the correct driver. |
| | The USB port of the computer is damaged. | Fix or Replace USB port. |
| Failure connection to internet and mobile network | SIM card is not properly inserted. | Confirm SIM card is properly inserted. |
| | The other applications are using the USB communications port of the computer. | Confirm that no other application or process is using this communications port. |
| | Outside the EDGE, GPRS or GSM service area | Consult your network provider on the service area. |
| | Expired SIM card | Contact your network provider. |
| | SIM card is damaged. | Contact your network provider |
| | There is a foreign substance on the metal surface of the SIM card. | Use a clean cloth to wipe off the metal contact point of the SIM card. |
| | Poor signal | Please move to a place with a better signal and try again. |
| | The application software isn't compliant with the USB Modem. | Reinstall the application software. |
| Connection is successful but unable to open the webpage. | Incorrect system setting | If in Windows 2000/XP, check the DNS settings and don't Select "Register the address of this connection in DNS". |
| Quality of connection isn't unstable. | Poor signal | Either disconnect and then connect with network again or move to a place with a better signal. |
| SIM card is locked. | Consecutively enter the wrong PIN code three times. | Use the PUK code to unlock the SIM card or contact your network provider. |
| Unable to use SMS service | SMS centre's number is incorrect. | Contact your network provider to get the correct short message centre's number and set it. |
| Unable to receive a new SMS | The memory of your SIM card for SMS is full. | Delete some useless short messages. |
| Unable to add new phone book entries to SIM card | The memory of your SIM card for phone book is full. | Delete some useless phone book entries. |
| Unable to connect with EDGE or GPRS network | Your network provider does not support this service or you have not applied for it. | Contact your network provider. |
| | You are not within EDGE or GPRS network area. | Consult your network provider on the EDGE or GPRS service area. |
| Unable to use CSD service | You have not applied for this service. | Contact your network provider. |

9. Terminology

| | |
|-------------|---|
| APN | Access Point Name |
| CSD | Circuit Switch Data Service |
| DNS | Domain Name Service |
| EDGE | Enhanced Data rate for GSM Evolution |
| EONS | Enhanced Operator Name String |
| GSM | Global System for Mobile |
| GPRS | General Packet Radio Service |
| IP | Internet Protocol |
| MS | Mobile Station |
| PIN | Personal Identification Number |
| PUK | Personal Unblocking Key Code |
| SIM | Subscriber Identity Module |
| SMS | Short Message Service |
| USB | Universal Serial Bus |

Exposure to radio frequency energy

Radio wave exposure and Specific Absorption Rate (SAR) information

- The Wireless Data card is designed to comply with safety requirements for exposure to radio waves. This requirement is based on scientific guidelines that include safety margins designed to assure the safety of all persons, regardless of age and health.
- The radio wave exposure guidelines employ a unit of measurement known as the Specific Absorption Rate, or SAR. Tests for SAR are conducted using a standardized method with the phone transmitting at its highest certified power level in all used frequency bands.
- While there may be differences between the SAR levels of various ZTE Wireless Data card, they are all designed to meet the relevant guidelines for exposure to radio waves.
- The SAR limit recommended is 1.6W/kg averaged over one(1) gramme of tissue.
- The highest SAR value for this Wireless Data card tested by MORLAB for use at the body is 1.530W/kg(1g)

This device complies with Part 15 of the FCC Rules.

Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help