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# MultiModem® ZPX

MT5634ZPX

Internal ISA Data/Fax Modem

Quick Start Guide



## Quick Start Guide

MT5634ZPX -V92 Internal ISA Data/Fax Modem  
82084605L, Rev F

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Revision Date	Description
C	04/01/05 Manual released. New designed board.
D	07/07/05 Manual revised to include TNV Circuit protection.
E	01/24/07 Corrected .inf reference.
F	05/10/07 Revised tech support listing

### Tech Support Contact

Country	By Email	By Phone
France:	<a href="mailto:support@multitech.fr">support@multitech.fr</a>	+(33) 1-64 61 09 81
Europe, Asia, Africa:	<a href="mailto:support@multitech.co.uk">support@multitech.co.uk</a>	+(44) 118 959 7774
U.S., Canada, all others:	<a href="mailto:support@multitech.com">support@multitech.com</a>	(800) 972 -2439 (763) 717-5863

### Recording Your Modem Information

Record the following information about your Multi-Tech modem before calling Technical Support. These numbers are printed on the bottom of the modem.

Modem Model No.:

Modem Serial No.:

### Trademarks

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## Product Description

The MultiModem<sup>®</sup>ZPX is an internal, half-length, data/fax modem card that can be plugged into any ISA expansion slot. It incorporates the ITU-T-V.92 protocol which provides quick connections, downstream transmissions at speeds up to 56 Kbps\*, and downstream transmissions at speeds up to 46Kbps when connected to V.92 compatible Internet service providers.

\***Note:** While this modem is capable of 56 Kbps download performance, line impairments, public telephone infrastructure, and other external technological factors currently prevent maximum 56 Kbps connections.

## Unpacking your MultiModem

Your MultiModem package contains:

- One MultiModem internal modem.
- One telephone cable.
- One MultiModem CD, which includes modem drivers, User Guide, Phone Tools, and Adobe Acrobat Reader.
- This Quick Start Guide.
- One brochure with a warranty card.

If any item is missing, please contact Multi-Tech Systems or your dealer/distributor.

## What You'll Need

Before you start, make sure you have everything you need:

- The contents of your MultiModem package.
- A PC with Windows or Linux operating system installed.
- CD-ROM drive.
- An available ISA expansion slot.
- Tools to open your computer.
- A nearby telephone line jack.

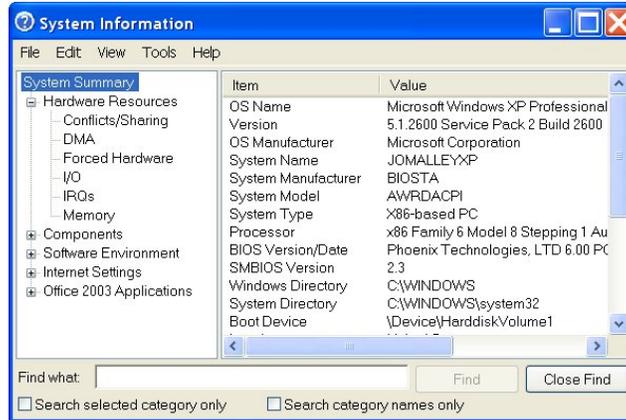
## Safety Warnings

- Never install telephone wiring during a lightning storm.
- Never install a telephone jack in wet locations unless the jack is specifically designed for wet locations.
- This product is to be used with UL and cUL listed computers.
- Never touch uninsulated telephone wires or terminals unless the telephone line is disconnected at the network interface.
- Use caution when installing or modifying telephone lines.
- Avoid using a telephone (other than a cordless type) during an electrical storm. There may be a remote risk of electrical shock.
- Do not use the telephone near a gas leak to report the leak.
- To reduce the risk of fire, use only 26 AWG or larger telecommunications line.
- The telephone cord is to be disconnected before accessing the inside of the equipment.

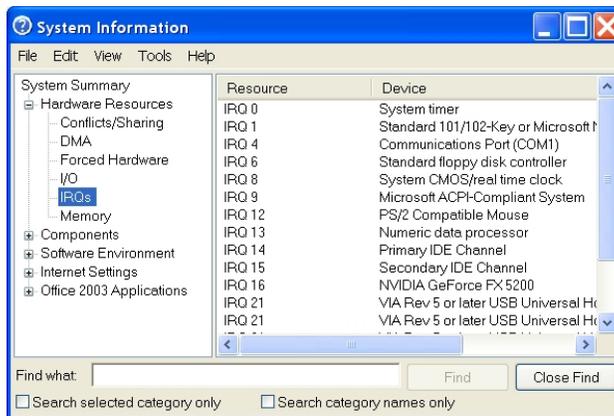
## Step 1 - Determine System Resources

Before you physically install your new MultiModem, you need to determine what system resources are in use on your system. The best way to check what resources are in use and which ones are available, run WINMSD Utility.

1. To check the system resources, click Start | Run.
2. Enter WINMSD in the Open: window and click OK. The operating system then displays the System Information dialog box.
3. Click on Hardware Resources in the left window of System Information to expand the selection.

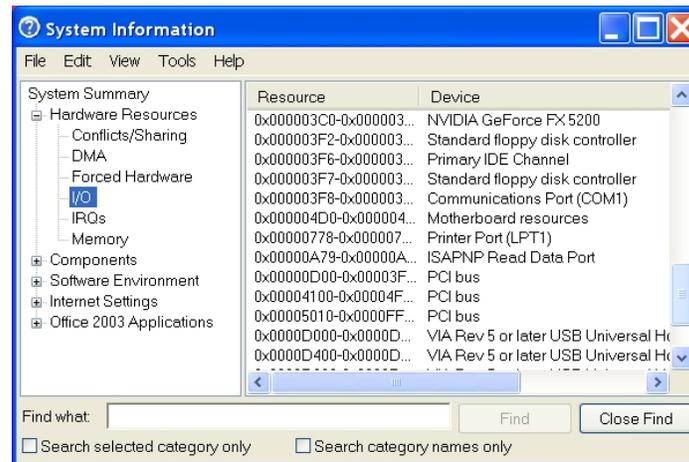


4. Click on **IRQs** to display the used IRQs.



The MultiModem only uses IRQs 3,4,and 5 so you need to check in the above screen to see if any of these IRQs are available. The MultiModem is defaulted to IRQ 5.

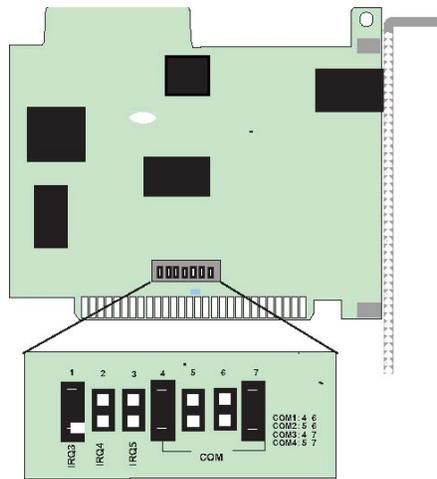
5. Record the available IRQ that you are going to use \_\_\_\_\_.
6. Now, click on I/O to display the available I/O addresses.



7. The MultiModem uses the following I/O addresses:  
COM1: 3F8-3FF  
COM2: 2F8-2FF  
COM3: 3E8-3EF  
COM4: 2E8-2EF  
and is defaulted to COM 4.
8. Record the **available I/O address** that you are going to use \_\_\_\_\_.

## Step 2 - Configure Jumpers

The MT5634ZPX board contains seven Berg jumpers for setting the interrupt request (IRQ) number and COM port assignment. The jumpers are located on the lower part of the PC board as shown below. The IRQ number is set using jumpers 1, 2, and 3 and the COM port assignment is set using jumpers 4 through 7. The default IRQ number is IRQ5 and the default COM port assignment is COM4.



PC Board Jumpers

1. Before handling the MT5634ZPX, discharge static in your body by touching a metal piece of the computer chassis. Carefully remove the MultiModem from its antistatic bag, handling it only by the mounting bracket and edges. Do not touch the gold-plated connectors along the bottom edge.
2. To change the IRQ from the default IRQ5, move the berg jumper from the default position to your new position that supports your application.
3. To change the COM port assignment from the default COM4, move the two berg jumpers from their default positions to your new positions that supports your application.

## Step 3 - Install the Modem into Your Computer

Installing the MultiModem requires you to open your computer. Please consult your computer manual in addition to the following instructions:

1. Turn off the computer and unplug it. Failure to do so may result in damage to both the MultiModem and the computer. Do not turn on the computer until the instructions tell you to do so.

2. Remove the cover from the computer as instructed in the computer manual.
3. Select an empty ISA expansion slot. Remove the expansion slot cover and save the retaining screw.
4. Place the MultiModem directly above the expansion slot and gently, but firmly, push it into the connector until the card's retaining bracket is flush against the computer chassis.
5. Fasten the retaining bracket to the computer chassis with the screw saved in step 3.
6. Replace the cover of the computer.

#### Step 4 - Run Add Hardware Wizard

1. Click on Start | Control Panel | Add Hardware and the Add Hardware Wizard screen is displayed.
2. Click on the **Next** button on the Add Hardware Wizard screen. The wizard will pause a few seconds trying to detect the new device. Windows will not detect any device, if the system does, it may be some other device that has not been properly installed.
3. When **Is the hardware connected?** screen displayed, click on **Yes, I have already connected the hardware** option and click **Next**.
4. The following hardware is already installed on your computer screen is displayed. Scroll down to **Add a new hardware device** and highlight. Click **Next**.
5. Click on **Install the hardware that I manually select from a list [Advanced]** and click **Next**.
6. **From the following list below, select the type of hardware you are installing** screen is displayed. Scroll down to **Ports [COM & LPT]** option. Click **Next**.
7. **Select the device driver you want to install for this hardware.** In the **Model** window, select **Communications Port** and click **Next**.
8. When the **Completing the Add Hardware Wizard** screen appears, click on **View or change resources for this hardware [Advance]** option and the **Add Hardware Wizard Properties** screen appears, click on **Set Configuration Manually** option and click **OK**.
9. The **Add Hardware Wizard Properties** window for **Communications Port [COM3]** is displayed. In the **Setting based on:** window, chose the basic configuration that mostly matches your situation. For example Basic configuration 0003 has an I/O range 02F8-02FF used by: Communications Port [COM2].
10. To change either of the settings, click on either I/O Range or IRQ in the **Resource type** window and then click on **Change Setting** button.
11. If you need to change the IRQ, the **Edit Interrupt Request** window is displayed. In the **Value:** window click on either the up arrow or the down arrow to choose your interrupt value that you recorded in Step 5. Click **OK**.

12. Click Finish in the **Completing the Add Hardware Wizard** window and Windows wants to restart your computer in order for the changes to take effect. Click **Yes**.
13. After the system reboots, verify that your com port is available and your IRQ is correct by selecting the **Control Panel | System** and clicking on the **Hardware tab** in the **System Properties** screen.
14. Click on the **Device Manager** button. Click on the **Ports (COM & LPT)** to display the Communications Ports. If either a yellow Exclamation point or Red Question mark appears, a conflict with some of the resources or that the device is disabled in the system. If no yellow Exclamation point or Red Question mark, no conflicts are present.

### Step 5 - Run Add Modem Wizard

1. Place the MT5634ZPX-V92 CD in the CDROM drive and allow time for the CD to spin up. The MT5634ZPX-V92 AutoRun screen will appear.
2. Click on **Start | Control Panel | Phone and Modem Options**.
3. In the **Phone and Modem Options** screen with the Dialing Rules tab active, click on the **Modems** tab.
4. Click on the **Add** button.
5. In the **Install New Modem** screen, click on **Don't detect my modem; I will select it from a list**. Click **Next**.
6. In the next **Install New Modem** screen, click on the **Have Disk** button.
7. Browse to the location of the CDROM drive, usually CD Drive(D:). The Locate File screen appears, click on the Look in: down arrow and choose the CDROM drive. Click on **zpxisa.inf** file.
8. In the **Models** window of the Install New Modem screen, click on the **MT5634ZPX-V92** option and click Next.
9. The Select the port(s) you want to install the modem on screen appears. Highlight the COM port On which ports do you want to install it? This is the COM port that you choose in step 8 in Determine System Resources. Click Next.
10. Windows will display the logo compatibility test screen, click **Continue Anyway** button.
11. The **Modem installation is finished** screen appears, click **Finish**.

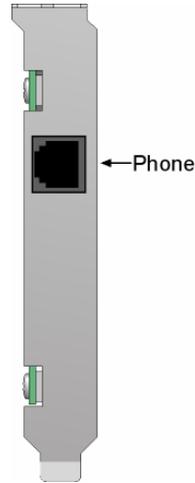
### Step 6 - Query Modem

1. To be sure the system can access the modem, highlight the **MT5634ZPX-V92** in the Modem window of the Phone and Modem Options screen. Click the Properties button.
2. The **MT5634ZPX-V92 Properties** screen is displayed, click on the Diagnostics button.
3. In the Modem Information area, click on **Query Modem** button. The system will pause for a few seconds while trying to access the modem. The modem will respond to the AT commands sent by the system.

4. The modem response will be displayed in the **Command I Response** window of the MT5634ZPX-V92 Properties screen.

### Step 7 - Connect Your Modem to the Telephone Line

The MultiModem communicates over public-switched telephone network lines. Use the modular telephone cable provided with the modem to connect the MultiModem to your telephone wall jack. If you don't have a standard modular wall jack near your computer, install one or have one installed for you by your telephone company. In the U.S., installation kits and adapters are available wherever telephones are sold.



MT5634ZPX Internal ISA Modem

1. Plug one end of the supplied modular telephone cable into the LINE jack.
2. Plug the other end of the telephone cable into a working wall jack.

### Step 8: Configure the Modem for Your Country

Before you use your modem, you must configure it for the country in which it will be used. You must also do this if you move the modem to another country after it has been configured for the first country. You can use one of two configuration methods: the Global Wizard utility or AT commands.

## The Global Wizard Utility

The Global Wizard configuration utility is recommended for computers running Windows 98 or newer.

1. Insert the MultiModem CD into the CD-ROM drive. The **Autorun** menu should appear.
2. Click **Initial Setup and Country Selection**.
3. In the **Global Wizard** dialog box, select either **Run from CD** or **Install on your PC**. Choose the former to configure your modem without installing the Global Wizard on your computer. Choose the latter to install the Global Wizard on your computer and Start menu.
4. Click **Next**. The Global Wizard searches for your modem and identifies it.
5. Click **Next**.
6. Select the country in which the modem will be used, and then click **Next**.
7. Review your choice of country. If it is correct, click **Next** to configure the modem.
8. When Global Wizard announces that the parameters have been set, click **Finish** to exit.

## AT Commands

Non-Windows users can configure the modem using AT commands. You must enter these commands in your communication program's terminal window.

There is a separate document of AT Commands provided for reference on the MultiModem system CD.

1. Run your favorite communication program, and open the program's terminal window.
2. To configure the modem for a specific country, type **AT%T19,0,nn**, where **nn** is the country code in hexadecimal notation, and then press Enter.
3. To verify the change, type **AT19**, and then press Enter. The country code is displayed in decimal format.

Example of country, command and result codes

Country	AT command (hexadecimal)	Result code (decimal)
Euro/NAM	AT%T19,0,34 (default)	52
Japan	AT%T19,0,10	16

A complete list of country codes can be found on the Multi-Tech Web site at:  
<http://www.multitech.com/GlobalModem/config>.

## **Data Communications Software**

Data communications software is designed to send and receive messages. Multi-Tech includes a data communications software with your modem. However, the modem will work with most data communications software. To install the software, insert the CD into the CD-ROM drive; click the Phone Tools icon. You will be asked to choose your language. The software automatically loads onto your PC.

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### Patents

This device is covered by one or more of the following patents: 6,031,867; 6,012,113; 6,009,082; 5,905,794; 5,864,560; 5,815,567; 5,815,503; 5,812,534; 5,809,068; 5,790,532; 5,764,628; 5,764,627; 5,754,589; D394,250; 5,724,356; 5,673,268; 5,673,257; 5,644,594; 5,628,030; 5,619,508; 5,617,423; 5,600,649; 5,592,586; 5,577,041; 5,574,725; D374,222; 5,559,793; 5,546,448; 5,546,395; 5,535,204; 5,500,859; 5,471,470; 5,463,616; 5,453,986; 5,452,289; 5,450,425; D361,764; D355,658; D355,653; D353,598; D353,144; 5,355,365; 5,309,562; 5,301,274. Other patents pending.

