MultiModem®ZPX

MT5634ZPX
Internal ISA Data/Fax Modem

Quick Start Guide

MultiTech®
Systems

Quick Start Guide

MT5634ZPX -V92

82084606L, Rev G

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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.
G	7/27/11	Remove all references to CDs.

Tech Support Contact

Country	By Email	By Phone
Europe, Asia, Africa:	support@multitech.co.uk	+(44) 118 959 7774
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Trademarks

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Recording Your Modem Information

Record the Modem Model Number and Serial number before calling
Technical Support. These numbers are printed on the bottom of the modem.

Product Description

The MultiModem® ZPX V.92 internal modem is the ideal choice for small- to medium-sized businesses that are looking for a remote device management solution. The MultiModem ZPX internal modem provides higher speeds and reduces transfer times. It includes a built-in processor to enhance performance and data throughput. It is approved for use in many countries around the world. This means one model can ship virtually anywhere.

*Note: Though this modem is capable of 56K bps download performance, line impairments, public telephone infrastructure, and other external technological factors may prevent the maximum 56K bps connections.

Unpacking your MultiModem

Your MultiModem package contains:

- An MT5634ZPX-V92 data/fax internal modem
- An RJ-11 telephone cable.
- 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 100-MHz or faster Pentium personal computer with an unused ISA expansion slot with Windows 98, NT, 2000, ME, XP or Linux (2.2.x kernel) operating system installed. For video conferencing, we recommend a 166-MHz or faster computer.
- Tools to open your computer.
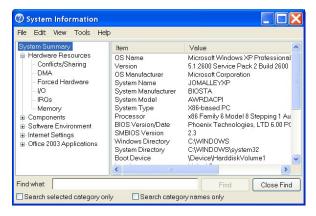- A nearby telephone line jack.

Safety Warnings

- Never install telephone wiring during a lightning storm.
- Use this product only with UL- and CUL-listed computers.
- To reduce the risk of fire, use only 26 AWG or larger telecommunications line.
- Never install a telephone jack in wet locations unless the jack is specifically designed for wet locations.
- 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 during an electrical storm; there is a remote risk of electrical shock from lightening.
- Do not use a telephone near a gas leak, even to report the leak.
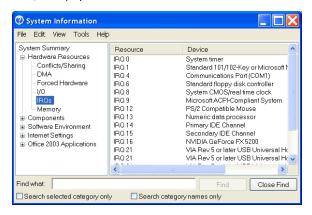- Disconnect the telephone cord before accessing the inside of the equipment.

Step 1 - Determine System Resources

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

1. Click **Start I Run**.

2. Type **WINMSD** in the Open field and click **OK.** The operating system then displays the System Information dialog box.
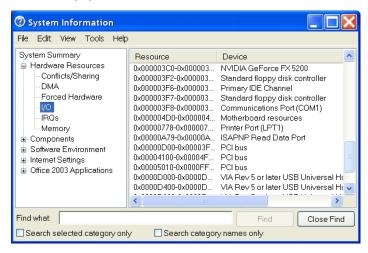

3. Click on **Hardware Resources** in the left window of System Information to expand the selection.

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. Click **I/O** to display the available I/O addresses.

7. The MultiModem uses the following I/O addresses:
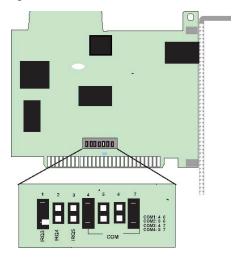
COM1: 3F8-3FF

COM2: 2F8-2FF

COM3: 3E8-3EF

COM4: 2E8-2EF

and defaults 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 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 jumper from the default position to the position that supports your application.

3. To change the COM port assignment from the default COM4, move the 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 ZPX 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 ZPX 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 **Start I Control Panel** and double-click **Add Hardware** to open the Add Hardware Wizard.

2. Click **Next.** 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. Select **Yes, I have already connected the hardware** and click **Next**.

4. Scroll to the bottom of the list and select **Add a new hardware device**. Click **Next.**

5. Select **Install the hardware that I manually select from a list [Advanced]** and click **Next**.

6. Scroll down and select **Ports [COM & LPT]**. Click **Next**.

7. Select **Communications Port** under Model and click **Next** twice.

8. Click **View or change resources for this hardware [Advance]** to open the Add Hardware Wizard Properties.

9. Click **Set Configuration Manually** and click **OK**.

10. Select a **Basic configuration ###** option from the Setting based on drop-down list. When you select a basic configuration, the details appear in the Resource settings field and hardware conflicts appear in the Conflicting device list field. For example Basic configuration 0003 has an I/O range 02F8-02FF used by Communications Port [COM2].

11. To change either of the settings, click either **I/O Range** or **IRQ** in the Resource type field and then click Change Setting.

    *   If you change the **I/O Range**, click the up or down arrow to select a range in the **Value** field and click **OK**.

- If you change **IRQ,** click the up or down arrow for the **Value** field to select the interrupt value that you recorded earlier. Click **OK.**

12. Click **Finish.** A restart Windows prompt appears. Click **Yes** to restart.

13. After the system reboots, verify that your com port is available and your IRQ is correct. Click **Start |Control Panel** and double-click **System.** Then, click the **Hardware** tab.

14. Click **Device Manager**. Click **Ports (COM & LPT)** to display the Communications Ports. If either a yellow Exclamation point or Red Question mark appears, there is either a conflict with another resource or that the device is disabled. If there are no yellow exclamation points or red question marks, there are no conflicts.

Step 5 - Run Add Modem Wizard

1. Download the driver zip file for modem model MT5634ZPX-V92 from www.multitech.com/setup/product.go. Extract the zpxisa.inf file to your hard drive. Note the location where you saved the zpxisa.inf file.

2. Click on **Start I Control Panel** and double-click **Phone and Modem Options**.

3. Click the **Modems** tab of the Phone and Modem Options window.

4. Click **Add**.

5. Check **Don't detect my modem; I will select it from a list** and click **Next**.

6. Click **Have Disk**.

7. Browse to the location where you saved the zpxisa.inf file. Click on **zpxisa.inf** and click **Open**. Click **OK.**

8. In the Models field, select **MT5634ZPX-V92** and click **Next**.

9. Click **Selected Ports** for the On which ports do you want to install it field and select the COM port from the list shown. This is the COM port that you selected in Determine System Resources. Click **Next.**

10. Windows will display the logo compatibility test screen, click **Continue Anyway**.
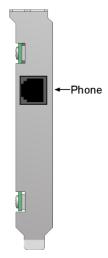
11. Click **Finish**.

Step 6 - Query Modem

To verify that the system can access the modem:

1. Select the **MT5634ZPX-V92** from the Modem tab of the Phone and Modem Options window. Click **Properties.** The MT5634ZPX-V92 Properties window displays.

2. Click the **Diagnostics** tab.

3. Click **Query Modem**. 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 display in the **Command I Response** pane.

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. Go to **www.multitech.com/setup/product.go** and select the software tab for modem model MT5634ZPX-V92. Click the link for the Global Wizard exe file. The File Download window opens.

2. Click **Run**. A Security Warning window opens.

3. Click **Run**. The Global Wizard Setup window opens.

4. Click **Next**.

5. Click **Yes** to accept the License Agreement.

6. Click **Next** to install the Global Wizard.

7. Click **Finish** to exit.

8. Click **Start | Global Wizard** to run the Global Wizard.

9. Click **Next**. The Global Wizard searches for your modem and identifies it.

10. Click **Next**.

11. Select the country in which the modem will be used and then click **Next**.

12. Review your choice of country. If it is correct, click **Next** to configure the modem.

13. 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 on the Multi-Tech Systems Installation Resources Website at www.multitech.com/setup/product.go.

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 **ATI9**, and then press **Enter**. The country code is displayed in decimal format.

4.   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/en_US/PRODUCTS/Categories/Device_Networking/global_mo dems/configuration.aspx.

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.