

Voice Fax Modem Card

56Kbps with X2 Technology

ESS Solution

User Manual

Contents

FCC Compliance and trademarks	
Chapter 1: Introduction	1
Main Features	1
System Requirements	1
Latest Information	1
Chapter 2: Installation	2
Layout of the Modem Card.....	2
Before Installation	2
Card Installation	3
Check Installation	4
TeleConnect Application Software Installation	4
Appendix A: AT Commands	4
Appendix B: Troubleshooting	4
Customer Feedback Form	6

FCC Compliance Statement

The equipment complies with Part 68 of the FCC Rules.

On the opposite side of the component side of the PCB, there is a label which contains, among other information, the FCC registration number and Ringer Equivalence Number (REN) for this equipment. If requested, this information must be given to the telephone company.

The REN is useful to determine the quantity of devices you may connect to your telephone line and still have all of those devices ring when your telephone number is called. In most, but not all areas, the sum of the RENs of all devices connected to one line should not exceed five(5.0). To be certain of the number of devices you may connect to your line, as determined by the REN, you should contact your local telephone company to determine the maximum REN for your calling area. If your telephone equipment causes harm to the telephone network, the telephone company may discontinue your service temporarily. If possible, they will notify in advance. But if advanced notice isn't practical, you will be notified as soon as possible. You will be informed of your right to file a complaint with the FCC.

Your telephone company may make changes in its facilities, equipment, operations, or procedures that could affect proper functioning of your equipment. If they do, you will be notified in advance to give you an opportunity to maintain uninterrupted telephone service.

This equipment can not be used on coin service provided by the telephone company because of the FCC rules. Connection to party lines is subject to state tariffs.

Notice: The Telephone Consumer Protection Act of 1991 makes it unlawful for any person to use a computer or the electronic device to send any message via a telephone facsimile machine unless such message clearly contains, in a margin at the top or bottom of each transmitted page or on the first page of the transmission, the following information:

- (1) the date and time of transmission
- (2) identification of either business, business entity, or individual sending the message; and
- (3) telephone number of either the sending machine, business entity, or individual.

In order to program this information into your fax/modem, please refer to the appropriate instructions in your manual of the communication software.

• FCC Class B Statement

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.

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: (1) Reorient or relocate the receiving antenna. (2) Increase the separation between the equipment and the receiver. (3) Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. (4) Consult the dealer or an experienced radio/TV technician for help.

• PTT Compliance for Country is Applicable

• CAUTION

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Trademarks

Microsoft, MS and MS DOS are registered trademarks of Microsoft Corporation. As used in this manual, Windows refers to Microsoft Windows, Microsoft Corporation's implementation of a windowing system. IBM, DOS, PC, and VGA are trademarks of International Business Machines Corporation. All other brand and product names referred to in this manual are trademarks or registered trademarks of their respective holders.

Notice: Information in this manual is subject to change without notice. The software described in this manual is furnished under license and may be used or copied only in accordance with the license agreement. It is unlawful to copy the software except as specified in the license agreement. No part of this manual may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying or scanning, for any purpose, without our express written permission.

Chapter 1: Introduction

Main Features

Modem

- 56kbps with X2 technology
- ITU-T V.34bis, V.34, V.32bis, V.32, V.23, V.22bis, V.22, V.21, Bell 212/103
- V.42/MNP 2-4 Error Control
- V.42bis/MNP 5 Data Compression

Fax

- ITU-T V.17, V.29, V.27ter, V.21 Channel 2
- Group 3 Fax(TIA/EIA 578 Class 1, Class 2)

Voice

- Answering machine
- Caller ID
- Full duplex speaker phone

System Requirements

- CPU - Intel Pentium 100MHz, or above
- A free 8/16-bit ISA expansion slot
- Microsoft Windows95

Latest Information

Please check the README.TXT or README.DOC file on the *MultiMedia Software* CD-ROM for any updates made after this manual went to press.

Under DOS environment:

1. Insert the *MultiMedia Software* CD-ROM to your CD-ROM drive (assume D is your CD-ROM drive).
2. Change to drive D (D:\>), then type "TYPE README.TXT | MORE".
3. Press <ENTER> key.

Under Windows 95 environment:

1. Insert the *MultiMedia Software* CD-ROM to your CD-ROM drive (assume D is your CD-ROM drive).
2. Double-click *My Computer*, then double-click *Mmcd[D:]* icon.
3. Double-click "README.DOC".

Chapter 2: Installation

Layout of the Modem Card

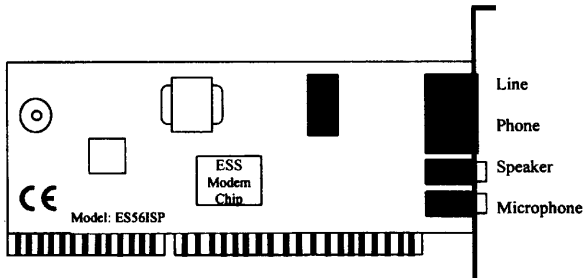


Fig. 1 ESS56ISP-x2

Before Installation

Before installing this modem card, we suggest that you must prepare and inspect your system. This is especially true if prior modem card have been installed.

To inspect a system, please follow the steps shown below:

1. Right mouse click on *My Computer* icon of Windows 95.
2. Left mouse click on menu item labeled "Properties" located in the bottom of the menu to display the "System Properties" dialog box.
3. Left mouse click on the tab labeled "Device manager" to display the "Device Manager" dialog.
4. Double click on item labeled "Modem"(if present) to display a list of installed modem. Remove any device labeled "ESS..." by selecting the device with a single mouse click on the label, clicking the "Remove" button, then selecting "OK" when prompted to "Confirm Device Removal".

Card Installation

Note: Assume this is the first installation after checking your system in **Before Installation**.

Installing Driver for Windows 95

1. Shut down Windows 95, turn power off, but leave the power cord connected to the power outlet.
2. Remove the cover from your computer by referring to the computer manufacturer's installation guide or user's guide for instructions.
3. Plug the internal modem into any free 16-bit ISA slot of the computer till the card is firmly seated in the slot.
4. Turn your computer on, and run Windows 95.
5. The "New Hardware Found: ESS Data Fax Voice Modem" utility pops up, select "Driver from disk provided by hardware manufacturer", then click on "OK".
6. Insert the *MultiMedia Software* CD-ROM into your CD-ROM drive. On the "Install From Disk", type or browse D:\DRIVER\ESSMODEM\ESS56ISP\X2\WIN95, then click "OK". (assume D is your CD-ROM drive)

Installing Driver for Windows 95 OSR2

1. Turn your computer on, and run Windows 95 OSR2
2. The "Update Device Driver Wizard" pops up and announces "This wizard will complete the installation of ESS Data Fax Voice Modem".
3. Insert *Multimedia Software* CD-ROM into your CD-ROM driver then click "Next".
4. Wizard shows "Windows was unable to locate a driver for this device". Please click "Other Locations" and type or browse D:\DRIVER\ESSMODEM\ESS56ISP\X2\WIN95 then click "OK". (assume D is your CD-ROM drive)
5. Wizard announces that device "ESS ES56V-X Data Fax Voice Modem " is found. Click "Finish".
6. "Insert Disk" message pops up. Click "OK"
7. "The file 'deless.bat' on Driver Disk could not be found" pops up. Please type or browse D:\DRIVER\ESSMODEM\ESS56ISP\X2\WIN95 again in "Copy files from" combo box then click "OK"
8. Wizard shows "This Wizard will complete the installation of: Wave Device for Voice Modem". Please continue to click "Next" and "Finish".

Check Installation

The Plug and Play resource ROM should yield the following devices after proper installation:

- Sound, video, and game controllers:
 - Wave Device for Voice Modem (only installed under Windows 95 OSR2 version)
- Modem:
 - ESS ES56V-X Data Fax Voice Modem

To check the completeness, please select *Start* → *Settings* → *Control Panel*, then double click on "Modems", select "Diagnostics" (under "Modem Properties"), highlight "ESS ES56V-X Data Fax Voice Modem" then select "More Info...". Communications will occur with the modem, and it will respond with the appropriate AT11, AT12, AT13, AT14, AT15, AT16 and AT17 responses.

TeleConnect Application Software Installation

1. Start Windows 95 or Windows 95 OSR2
2. Insert *MultiMedia Software* CD-ROM into your CD-ROM drive.
3. Click *Start* → *Run* on task bar of Windows 95.
4. Type or Browse D:\APP\TC\SETUP.EXE then click "OK".
5. Please follow the instruction on the screen step-by-step for installation.
6. About TeleConnect User Guide, please refer to the "Help" function on TeleConnect program after successful installation.

Appendix A: AT Commands:

Please refer to the README.TXT or README.DOC file on the *MultiMedia Software* CD-ROM for AT command sets.

Appendix B: Troubleshooting

Q1. Installation problem:

When experiencing problems during the installations of your modem card, please check the following:

1. All connections (card, cabling, etc.)
2. Read **Before Installation** to check your system again.

Q2. Can not detect Dial Tone Detection

Note: This problem is mostly experienced when you use this card with some PBX system which will not generate the standard dial tone signal.

If you found that the following message shown within your communication program:

"NO DIAL TONE" or any similar message .

Please try the following steps to resolve this issue:

1. Make sure that the telephone cable (RJ-11 line) is correctly plugged into the phone connector marked as LINE on the bracket.
2. Either use ATX3 command to bypass the detection of dial tone or un-mark the check box of "Wait for dial tone before dialing" by clicking *Start* → *Settings* → *Control Panel* → *Modem* → *Properties* → *Connection*.

Q3. Can not see the "Phone" icon on TeleConnect communication software.

Because old version Windows 95(4.00.950) does not include unimodem driver file, it causes "Wave Device for Voice Modem" device can't be installed in Windows 95. TeleConnect needs "Wave Device for Vmoice Modem" device to invoke Phone function. Please install well your ES56ISP and TeleConnect application software . first, then follow the steps as below to install unimodem driver:

1. Start Windows 95.
2. Insert *MultiMedia Software* CD-ROM into your CD-ROM drive.
3. Click *Start* → *Run* on task bar of Windows 95.
4. Type or Browse D:\DRIVER\ESSMODEM\UNIMODEM\SETUP.EXE then click "OK".
5. Restart Windows 95.
6. The "New Hardware Found: Wave Device for Voice Modem" pops up.
7. Select "Driver from disk provided by hardware manufacture", then click "OK".
8. Insert *MultiMedia Software* CD-ROM into your CD-ROM drive. Type or Browse D:\DRIVER\ESSMODEM\ESS56ISP\X2, then click "OK".
9. Double-Click "Voice Modem Serial Wave Device" item
10. Restart Windows 95.
11. Now you can see "Wave Device for Voice Modem" item under "Sound, Video and Game Controllers" in *System of Control Panel*.

Customer Feedback Form

If you still cannot resolve your problem after going through the troubleshooting section, please have the following information ready before getting your customer support. In addition, please print out a copy of your Config.sys and Autoexec.bat, because it will help the troubleshooting process.

Voice/Fax/Modem Information

ES336ISP ES56ISP with X2 K56flex Technology
COM Port: _____ IRQ #: _____
IO: _____

PC Information

PC Model: _____ Motherboard Model: _____
CPU Type: _____ RAM Size: _____
VGA Graphics Card: _____ Monitor: _____
Windows:
 3.1 NT 95 Non-English Language: _____

Additional Hardware Information

Sound Card Model No.: _____
 Network Card Model No.: _____
 Others _____

Hardware Settings Information Sheet

Please use this sheet to fill in your add-on hardware information. Refer back to this sheet when you add new hardware.

Add-on Card	I/O Port	IRQ	DMA	Remark