

## **EXHIBIT 4**

### **User Manual**

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QTK99-F009

FCC ID: MQ4PLM56



**PCMCIA**

**10/100 Fast Ethernet  
&  
56K V.90 Fax/Modem**

**Multifunction PC Card**

**User Manual**

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**USER    MANUAL**

*PCMCIA*

*10/100 Fast Ethernet*

*&*

*56K V.90 Fax/Modem*

*Multifunction PC Card*

**First Edition (April, 1998)**  
**Document No. M-LF56M-rev1.0**  
**Printed in Taiwan**

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**Abocom Systems Inc**  
**Multifunction PC Card**  
**PCMCIA LAN CARD**  
**FCC ID: MQ4PLM56**

**Instruction Manual**  
**Federal Communication Commission Interference Statement**

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 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.

**FCC Caution:** To assure continued compliance, use only the provided snap-on ferrite cores to the LAN and telephone line connections next to this devices interface jacks as shown in the instructions. Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

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## FCC REGULATORY STATEMENTS

FCC ID: MQ4PLM56

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### **FCC Certification**

10/100 Fast Ethernet + 56K Fax/Modem PC Card FCC  
ID: MQ4PLM56  
Made in Taiwan

The United States Federal Communication Commission (FCC) and the Canadian Department of Communications have established certain rules governing the use of modems and other electronic equipment.

### **FCC Part 68 Registration**

This high speed 10/100 Fast Ethernet + 56K FAX/MODEM PC Card complies with FCC Part 68 rules, and the use of this modem is subject to the following restrictions:

1. The FCC has established rules which permit this device to be directly connected to the telephone network. Standardized jacks are used for these connections. This equipment should not be used on party lines or coin phones.
2. If this device is malfunctioning, it may also be causing harm to the telephone network; this device should be disconnected until the source of the problem can be determined and until repair has been made. If this is not done, the telephone company may temporarily disconnect service.
3. The telephone company may make changes in its facilities, equipment, operation and procedures; if such changes affect the compatibility or use of this device, the telephone company is required to give adequate notice of the situation with the FCC.
4. If the telephone company requests information on what equipment is connected to their lines, inform them of:
  - a. The telephone number to which this unit is connected.
  - b. The Ringer Equivalence Number (REN).
  - c. The USOC jack required.
  - d. The FCC Registration number.

Items (b) and (d) are indicated on the label. The Ringer Equivalence Number (REN) is used to determine how many devices can be connected to your telephone line. In most areas,

the sum of the REN's of all the devices on any one line should not exceed 5.0. If too many devices are attached, they may not ring properly.

FCC ID: MQ4PL456

### ***FCC Part 15 Registration***

This device complies with Part 15 of FCC rules. Operation is subject to the following two conditions:

- 1) This device may not cause harmful interface, and
- 2) This device must accept any interface received, including interface 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 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.
    - (a) Increase the distance between the equipment and receiver
    - (b) Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult an experienced radio/TV technician for help.

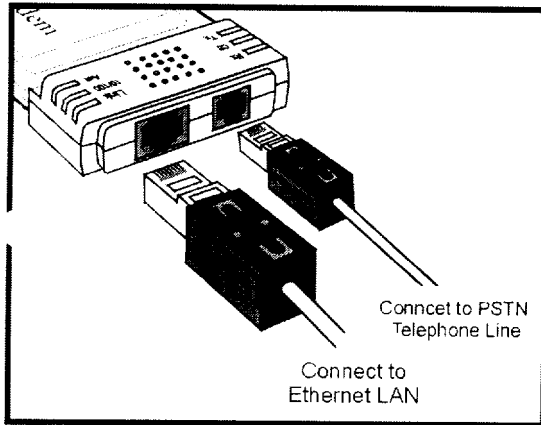
### ***CTR 21 pan-European Certification***

This equipment has been approved in accordance with Council Decision 98/482/EC for pan-European single terminal connection to the public switched telephone network (PSTN). However, due to differences between the individual PSTNs provided in different countries, the approval does not, of itself, give an unconditional assurance of successful operation on every PSTN network termination point. In the event of problems, you should contact your equipment supplier in the first instance.

This device is designed to work with the notified networks in all EC member states. Nevertheless, some of the network services in individual countries might not be supported, but they will not affect the normal data and fax applications. For example, the metering charge service in Germany. Besides you may encounter difficulty of using PULSE dialing function in some of the countries, such as Nordic countries. This kind of network compatibility is dependent on the physical and software settings of this device. If the users are desired to use this device on those networks, they should contact the vendor or supplier first.

**Note:**

If you have EMI (electromagnetic interference) issues. Attached the Ferrite Cores on this two cables as shows:



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# **1. INTRODUCTION**

## **1.1. ABOUT THIS MANUAL**

This manual will explain how to install and use your multifunction 10/100 Fast Ethernet + 56K Fax/Modem PC Card

## **1.2. ABOUT THIS PRODUCT**

The 10/100 Fast Ethernet + 56K Fax/Modem PC Card is a multifunction communication device that lets you perform multiple communication tasks at the same time:

- (1) transmit and receive data up to 56,000 bps
- (2) send and receive FAXes from computers or FAX machines
- (3) connect to an 10/100 Fast Ethernet LAN

And it uses only one PCMCIA socket while it can provide the functions listed above.

This PC Card is a credit-card-size Type II PCMCIA adapter that complies with the PCMCIA 2.1 and JEIDA 4.1 standards and works with computers that incorporate a compatible interface.

It is Bell, ITU-T (formerly CCITT) and Hayes AT commands compatible, allowing it to be used worldwide with today's popular communication software programs. You will be able to send and

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receive faxes with any Group 3 fax machine. Using standard phone lines and 10/100 Fast Ethernet, the data communication functions of the 10/100 Fast Ethernet + 56K Fax/Modem PC Card will enable you to successfully access to the servers on 10/100 Fast Ethernet LAN and hook up to the Internet, transmit E-Mail, send and receive information and communicate with other PCs, Bulletin Board Services (BBS) or on-line computer networks such as CompuServe and America On line.

### 1.2.1. Specifications

#### PC Card Interface

PCMCIA Type II.

#### Dimension

120 mm X 54 mm X 5 (or 18) mm

#### Weight

60 g

#### Power

+5V  $\pm$ 5%

#### Cable and Connector

One with a RJ-11 6-pin jack for 56K Fax/Modem and one with a RJ-45 8-pin jack for 10/100 Fast Ethernet LAN connections.

#### Links

Link, Activity, 10/100Mbps (lit if 100), Modem Carrier Detect, Modem Transmit, Modem Receive

#### Environmental Specifications

Operating Temperature	32°F-120°F
Storage Temperature	-4°F-158°F
Operating Humidity	10%-85%N.C.
Storage Humidity	5%-90%N.C.

#### Network

IEEE 802.3 10BaseT, 10Mbps.  
IEEE 802.3u 100BaseTX, 100Mbps.

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receive faxes with any Group 3 fax machine. Using standard phone lines and 10/100 Fast Ethernet, the data communication functions of the 10/100 Fast Ethernet + 56K Fax/Modem PC Card will enable you to successfully access to the servers on 10/100 Fast Ethernet LAN and hook up to the Internet, transmit E-Mail, send and receive information and communicate with other PCs, Bulletin Board Services (BBS) or on-line computer networks such as CompuServe and America On line.

### **1.2.1. Specifications**

#### **PC Card Interface**

PCMCIA Type II.

#### **Dimension**

12 mm X 58 mm X 17.5 mm

#### **Weight**

60 g

#### **Power**

+5V  $\pm$ 5%

#### **Cable and Connector**

One with a RJ-11 6-pin jack for 56K Fax/Modem and one with a RJ-45 8-pin jack for 10/100 Fast Ethernet LAN connections.

#### **LEDs**

Link, Activity, 10/100Mbps (lit if 100), Modem Carrier Detect, Modem Transmit, Modem Receive

#### **Environmental Specifications**

Operating Temperature	32°F-120°F
Storage Temperature	-4°F-158°F
Operating Humidity	10%-85%N.C.
Storage Humidity	5%-90%N.C.

#### **Network**

IEEE 802.3 10BaseT, 10Mbps.  
IEEE 802.3u 100BaseTX, 100Mbps.

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NE2000 compatible.

**Modem**

V.90, K56flex 56Kbps, V.34+ 33.6Kbps, V.34  
28.8Kbps, V.32bis 14.4Kbps.  
V.42bis/V.42, MNP 2-5 data compression and  
error correction.  
AT command set.

**Fax**

Group 3, V.17 14400bps, V.29 9600bps  
Fax Service Class 1 compliant.

**Modem COM Port**

COM2, COM3, COM4

**IRQ**

3, 4, 5, 7, 9, 10, 11, 12, 15

**I/O Address**

220, 300, 320, 340

**Features**

1. Compatible with most notebook computers and PCMCIA Card and Socket Service drivers.
2. High degree of reliability letting you out of trouble.
3. Easy to install and play.
4. Support most of the popular Network Operating Systems.
5. Include popular 56K Fax/Modem communication programs.
6. Hot swappable.
7. Feature concurrent use of 10/100 Fast Ethernet LAN and 56K Fax/Modem.

### 1.3. SYSTEM REQUIREMENTS

- An IBM compatible PC or notebook computer with 386SX or faster processor

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- At least one type II PCMCIA socket
  - PCMCIA release 2.1 compliant Card Services and Socket Services
  - Drivers and utilities provided with this product
  - RJ11 jack for connecting to a phone plug
  - RJ45 jack for 10/100Tx connectivity to your network resources
  - Driver software loaded on your PC
  - Data and/or fax communications software.

#### **1.4. CONTENTS INCLUDED IN THE PACKAGE**

- Multifunction 10/100 Fast Ethernet + 56K Fax/Modem PC Card
- A 3-1/2" driver diskette
- User Manual
- Two Ferrite Cores
- Windows-based 56K Fax/Modem application program

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## 2. INSTALLATION

This chapter describes how to install your 10/100 Fast Ethernet + 56K Fax/Modem multifunction PC Card. Installation procedures also cover many popular Network Operating Systems.

### 2.1. HARDWARE INSTALLATION

1. Hold the card label up and insert the card into the computer's PCMCIA slot with the 68 pin connector facing the computer.
2. Connect the RJ-45 (8-pin) plug to the LAN and the RJ-11 (6-pin) plug to the telephone wall outlet.

#### LEDs

Your Fast Ethernet 10/100+56K Modem PC Card has six diagnostic performance LED indicators on the coupler housing.

LINK :

ON when a link is detected on the RJ-45 port.

10/100:

ON when the Fast Ethernet PC Card is communicating with the LAN at 100Mbps.

ACT:

Flickers when activity is detected on the RJ-45 port (either receiving or transmitting data).

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CD:

ON when a carrier is detected and the modem has established a link.

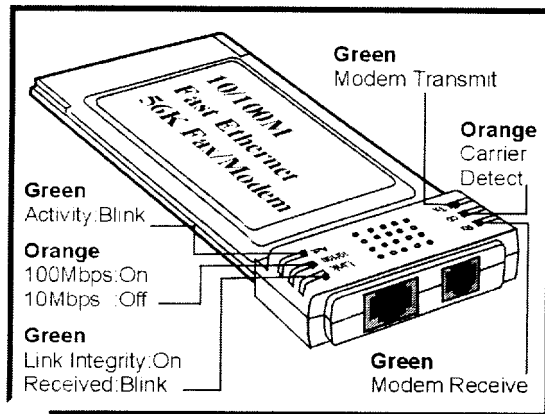
TX:

Flickers when the modem is transmitting data.

RX:

Flickers when the modem is receiving data.

As shows:



## 2.2. INSTALLING THE SOFTWARE

**For Non-Windows 95/98 & Non-Windows NT System**

Plug the driver diskette into the floppy drive and set the current drive to the floppy drive (A:\). Then run **INSTALL** to install the driver.