

***EXHIBIT C***

***User Manual***

*10/100*  
*Ethernet Hub Card*  
*for PCI*

Auto-Configurable

**Installation and Configuration Guide**

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**FCC Compliance 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.

**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.

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations. Cet appareil numérique de la Classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

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### **Section 1 Introduction**

Your Ethernet hub card is a high performance network device that is designed to easily link four 10/100Mbps hub with a 100Mbps PCI interface card. The hub card consists of four (4) 10/100BASE-TX hub port to linking and forwarding packets in one segment, it also includes a 32-bit PCI interface to provide an additional connection with the network segment.

The Ethernet hub card is designed for plug-and-play installation and easy managements with all 10/100Mbps ports and LEDs on the bracket.

### **Summary of features**

- o Compliant with the 10BASE-T, 100BASE-TX specification of the IEEE 802.3 standard
- o All 10/100Mbps hub port supports auto-negotiation and ato-detection for 10 or 100Mbps
- o Equipped with four LEDs for easy viewing and troubleshooting
- o Equipped with a 100Mbps MAC interface to provides a connection with the 10/100Mbps hub segment
- o Diagnostic software and network drivers on the diskette
- o 32-bit bus mastering for high throughput and low processor utilization

## **Section 2 Installation**

This section describes how to install your Ethernet hub card. Perform the following steps to install the adapter.

1. Turn off your computer and all peripherals.
2. Make a note of the cables and cords that are connected to the computer and disconnect them.
3. Remove your personal computer's cover (refer to the owner's manual of your personal computer).
4. Select any available PCI slot, and remove the slot cover.
5. Carefully install the Ethernet hub card into the expansion slot by firmly pressing the card into the edge of the connector slot until the card is snugly seated in the expansion slot and fasten the retaining bracket with screw from the slot cover.
6. Reinstall your personal computer's cover and reconnect the power cord and all cables.
7. Connect the Ethernet cable to your personal computer.

Note:

System Requirements:

A PC and BIOS that support the PCI Local Bus Specification 2.x.

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### **Section 3 Configuration and Diagnostics**

Your Ethernet hub card has built-in a 100Mbps MAC interface which is automatically configured when you power-up your computer. In certain computers, however, you must modify your BIOS by entering your CMOS SETUP utility.

To view the configuration parameters assigned by the BIOS, insert the software diskette into your drive and execute the utility software, EZRTS.

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### **Section 4 Drivers Installation**

Be sure to install the proper driver for the hub card to provides a connection between the 100Mbps MAC interfaceand the four 10/100Mbps nodes.

You can use the drivers supplied by the software diskette that is compatible with your Networking Operating System. The driver for each Networking Operating System is under a separate directory. Each directory includes a README.TXT file to describe the detailed installation procedure. A RELEASE.TXT file under root directory lists the information of all the available drivers.

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### **Section 5 Cable Specifications**

The Ethernet adapter is equipped with for RJ-45 connectors, the RJ-45 connector requires a corresponding cable. This section describes each cable's specification.

- Cable for RJ-45 connector for 10Mbps network

Cable type:	UTP with 2 twisted pairs of 22, 24 or 26 AWG
Category:	3, 4, or 5
Twists per foot:	2 to 3(min.)
Nominal impedance:	100 ohms
Maximum cable length:	300(100m)
Maximum Attenuation:	8 to 10 dB per 100m at 10Mz

Cable for RJ-45 connector for 100Mbps network

Cable type:	UTP with 2 twisted pairs of 26 AWG
Category:	5
Twists per foot:	2 to 3(min.)
Nominal impedance:	100 ohms
Maximum cable length:	300(100m)

## **Section 6 Troubleshooting**

This section describes reasons for some adapter's failures and the actions to be taken to resolve the problems.

- PCI scan specified, device not found

Action: Verify that the PCI Ethernet adapter is physically installed properly. Otherwise, replace the adapter.

- Connection failure if using an unshielded twisted pair (UTP) cable

Action: Verify that the UTP cable is firmly attached and the cable type is correct for use.

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**Section 7 Specifications**

IEEE 802.3 Standard:	10BASE-T 100BASE-TX
Wiring Connector:	RJ-45
Bus Characteristics:	32 bits ; PCI Local Bus specification 2.x
I/O address:	being assigned by the BIOS to a free I/O address block
IRQ line:	INTA ; being assigned by the BIOS to a free IRQ (interrupt) number
Dimensions:	
FCC Compliance:	FCC Class B
CE Compliance:	Yes
Power Consumption:	1.5A, @5V
Operating Temperature:	0 to 55 degrees centigrade
Operating Humidity:	10 to 90%, non-ondensing

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USER INFORMATION

INFORMATION TO THE USER  
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This booklet is available from the US government Printing Office  
\*washington, DC 20402, Stock NO. 004-000-00345-4.

**CAUTION:** Any changes of modifications not expressly approved by the grantee of this device could void the users authority to operate the equipment.

The shielded RS-232 cabel are to be used in order to ensure compliance with FCC Part 15, and it is the responsibility of theuser to provide and use shielded RS-232 cabel from modem to personal computer.