

***NC-812 PC/104 Ethernet Module***  
***WITH M-sys DOC, Boot ROM***

***USER'S MANUAL***

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Thank you for purchasing our high performance Ethernet Adapter (NC-812) This guide is to provide the installation and usage of The NC-812 for network installers or users. The Product combines three type of Ethernet cabling-RJ45, BNC and AUI connectors for maximum flexibility. Extensive driver support for commonly used network operating systems is available.

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## Hardware Overview

The Product is a 16-bit Ethernet PC/104 Module which offers users the highest performance in the Full-Duplex architecture. It is a PC/104 bus and plug & play + jumperless + Full-Duplex Ethernet card, you can use the enhance drivers provided for the LAN cards or the same Novell NE2000 drivers. Furthermore, by using the single Ethernet Chipset, this card consumes only 10% of the power of a typical Ethernet card so that you can keep your computer's "Energy Star Logo" by using this Green Ethernet Card. The Product is a 3 in 1 card with BNC, RJ45 and AUI connector. It allows users to configure the hardware by using software, or Plug & Play mode and the auto-setup feature makes the Ethernet Card to be truly " Plug & Play " . The NC-812 has support another 2 in 1 connector with M-system DOC and Boot ROM Socket. If use M-sys DOC then you can't use Boot ROM, the same if you use Boot ROM then you can't use M-sys DOC connector.

## Technical Specifications

Topology	:	Star / Bus
Protocol	:	CSMA / CD ( Carrier Sense Multiple Access with Collision Detection ) .
Connector Supported	:	RJ-45,BNC and AUI.
Standard	:	IEEE 802.3 10 Base-2 and 10 Base-T
Transmission Rate	:	10Mbps or 20Mbps
Hardware	:	PC/104 compliant PCs
Cable	:	Thin RG-58 A/U Coaxial, Trunk cable RG-11, AWG 22-26 Unshielding Twister Pair cable .
Distance	:	Thin-Cable network 1000 meters(3300 feet) With repeaters. 200 meters (660 feet) without Repeater. : UPT cable 100 meters for link segment . 500 multiple Hubs .
Node per segment	:	30 nodes (thin network).
IRQ Line	:	2, 3, 4, 5, 10, 11, 12, 15
I/O Address	:	200-21FH , 220 – 23FH , 240-25FH , 260 –27FH 280-29FH , 2A0– 2BFH , 2C0-2DFH ,2E0 –2FFH 300-31FH , 320 – 33FH , 340-35FH , 360 –37FH 380-39FH , 3A0– 3BFH , 3C0-3DFH ,3E0 –3FFH

<b>Boot ROM Address</b>	<b>:</b>	<b>C000H to DC00 H</b>
<b>Software</b>	<b>:</b>	<b>Novell NetWare 3.X, 4.X, NDIS driver for Microsoft LAN Manager, Windows for Workgroups, Microsoft Windows NT, Packet driver for TCP/IP. Win95, SCOUNIX driver, Artisoft Lantastic driver.</b>
<b>Temperature</b>	<b>:</b>	<b>0°C to 60°C ( Operating ) .</b>
<b>Humidity</b>	<b>:</b>	<b>10% to 90% ( Non –condensing ) .</b>
<b>Power</b>	<b>:</b>	<b>1.5 Watts ( MAX ) .</b>

## **Features & Benefits**

- **16-bit high performance PC/104 Module Ethernet Card.**
- **Support Plug & Play (BNC or UPT or AUI) and Full-Duplex (UPT only) function.**
- **Using turbo drivers to enhance transfer rate.**
- **Configuration by software.**
- **Plug & Play, auto-setup IRQ and I/O address.**
- **Media type auto detection BNC,AUI and UTP.**
- **Support 8 IRQ and 16 level I/O address.**
- **Compliance with IEEE 802.3 CSMA/CD 10Base-2 10Base-5 and 10Base-T standard, 10M/20Mbps data transfer rate.**
- **Support Netware ODI & IPX, NDIS driver for LAN Manager, Microsoft Windows for Workgroups, Microsoft NT, Win95, SCOUNIX driver & Packet driver for TCP/IP.**
- **Provides diagnostic software and two LEDs to indicate network activity.**
- **Supports BNC,AUI and UPT connectors.**
- **Supports remote boot ROM socket (U10).**

## **LED Indicators**

The NC-812 is equipped with two LED indicators to provide for display the NC-812 status and enable diagnostic of system problem.

## 1. Link status LED: Green.

When a link window is detected, this LED will light up, showing that the link is good. If this indicator is OFF, check RJ-45 twister pair cabling connections.

## 2. Network Status LED: Yellow or Red.

This LED will light up when power ON, and It will flashing at certain time intervals when network at active.

### Socket For Boot ROM (U10)

NC-812 supports a socket for Boot ROM which location is U10.

### Socket For DiskOnChip and Address Selector (U8)

NC-812 support a socket for M-sys DiskOnChip which location is U8.

### Hardware Configuration

**B1:** It's BNC connector.

**P1:** It's AUI connector.

**RJ1:** It's RJ-45 connector.

**U10:** It's Boot ROM Socket.

**U8:** It's DiskOnChip Socket.

**J7:** It's DiskOnChip Address Selected.

## **Appendix: DiskOnChip Address Setting (JP7)**

**JP7: M-System DiskOnChip Address can be selected as C000, C800, D000 or D800 by JP7.**

ADDRESS SELECTION	JUMPER SETTING			
	PIN1&2	PIN3&4	PIN5&6	PIN7&8
C000	ON	OFF	OFF	OFF
C800	OFF	ON	OFF	OFF
D000	OFF	OFF	ON	OFF
D800	OFF	OFF	OFF	ON