level one

FNC-0103FX
FNC-0104FX

100Mbps Fiber
Ethernet Adapter

User's Manual

1.   Overview
FNC-0103/0104FX is a PCI Fast Ethernet Board that fully complies with all IEEE 802.3u and 100Base-FX standards. Two LED indicators (LINK/ACT, FDX) on the bracket will help oversee the network/board link, activities, collision and full-duplex status.

2.   Checklist
Before you start installing the FNC-0103/0104FX, verify that the package contains the following items:
— FNC-0103/0104FX Board
— LAN Driver Diskette
— This User's Manual

Please notify your sales representative immediately if any of the aforementioned items is missing or damaged.
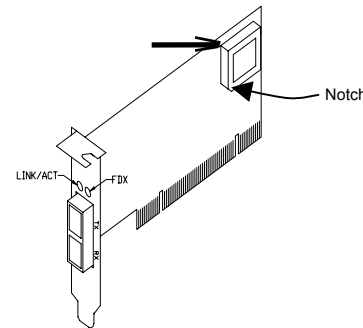
Fig. 1 Diagnostic LEDs and Boot ROM

3.   FNC-0103/0104FX PCI Configuration
For motherboards with automatic PCI configuration:
— No specific setup is needed
— You can enter the system BIOS setup menu to view or specify the interrupt line of the PCI slots
For motherboards with bus master & interrupt jumpers:
— Enable bus master operation in a selected PCI slot and select an interrupt (IRQ) level using the appropriate motherboard jumper
— Enable I/O on the FNC-0103/0104FX PCI slot

4.   PCI Bus System & Configuration
- Ensure that the PCI machine does support master slots, INT multiple sharing and timing compatibility.
- Do not install FNC-0103/0104FX in PCI slave slots. Please refer to your PCI system manual and select the appropriate configuration settings.
- When installing multiple FNC-0103/0104FX boards at the server station, you should correctly configure the IRQ settings of the PCI slot. Up to four FNC-0103/0104FX boards can be installed in a PCI file server running NetWare system. The FNC-0103/0104FX server boards share the same interrupt line with the driver supporting multiple INT services at a time. Each FNC-0103/ 0104FX's IRQ should not conflict with other boards.
- Operation in full or half-duplex (**Default**) mode is configured by LAN driver options. The operating mode should match the remote link device's working status.
- You must use **EMM386** version **4.49** or **higher**, and install both **DOS & EMM386** that came from the same DOS package to avoid software problems.

5.   Diagnostic LEDs & Boot ROM
The LINK/ACT LED lights when fiber cable connection is good and blinks to indicate the activity. Collision and full-duplex LED report the board's operating status. To add the Remote Boot feature to a workstation, you can insert the Boot ROM into the socket (See Fig.1).

6. Network Connection

100Base-FX network allows 512-bit time delay between any two-node stations in a collision domain. The Fiber cable with devices' bit-time delay (round trip) is as below:

100Base-FX	DTE↔DTE	Class II Hub	Fiber Cable
	100	92	1.0/m

The overall bit-time of Fiber wires and devices must be within 512 bit in a segment. You may use Switching Hub to break up collision domain and extend the cabling distance.

● **Fiber Cable**(multi-mode) **Limitations:**

Half-duplex Class II Hub	Node to Node	205m
	Node to Hub	100m
	Hub to Hub	5m
Half-duplex Switching Hub	Node to Node	412m
	Node to Hub	412m
	Hub to Hub	412m
Full-duplex Switching Hub	Node to Node	2Km
	Node to Hub	2Km
	Hub to Hub	2Km

7. Technical Specifications

- **Standard :** IEEE 802.3u Fast Ethernet 100Base-FX
- **Data Transfer Mode / Speed:**
  - — PCI bus master
  - — Full or half-duplex(**Default**) mode
  - — 100Mbps speed
- **LED Indicators:** LINK/ACT, FDX on the bracket
- **Power Requirement** : 1.0A @+5V
- **Ambient Temperature :** 0 to 50°C
- **Humidity :** 5% to 90%
- **PCB Dimensions:** 22.5(H) × 80(W) ×138(D) mm
- **Complies with FCC Part 15 Class A and CE Mark**

Note: For connecting this device to Router, Bridge or Switch, please refer to the corresponding device's Technical Manual.