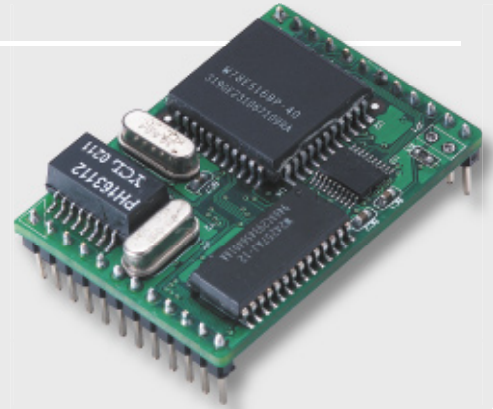*Embedded Network Enabler Solutions*

NE-4000T

10Mbps Embedded Network Enabler for Serial Devices

Features

- **Ready-to-go Serial-to-Ethernet module to network enable any serial (TTL) device**
- **10 Mbps Ethernet interface, 115.2 Kbps Serial interface**
- **Supports TCP Server/Client, UDP, and Real COM modes**
- **Supports DHCP, Static IP**
- **The most compact size, only 44 × 31.48 mm**
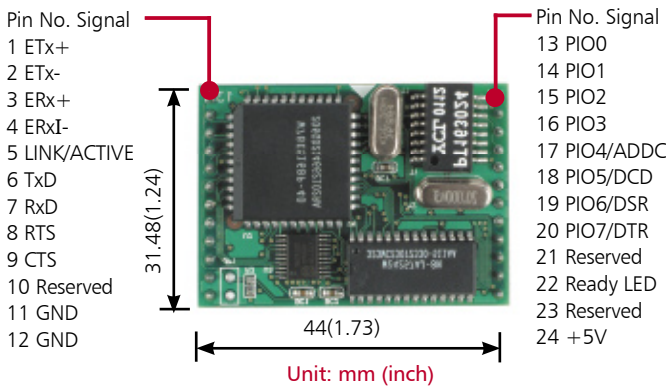- **Single +5V input, 0.3W low power consumption**

CE FC

Overview

NE-4000T is a low-cost embedded Serial-to-Ethernet module in 24-pin DIL (dual-in-line) form factor, which measures only 44 × 31.48 mm, allowing device manufacturers to build "truly embedded" network connectivity into their products —no cabling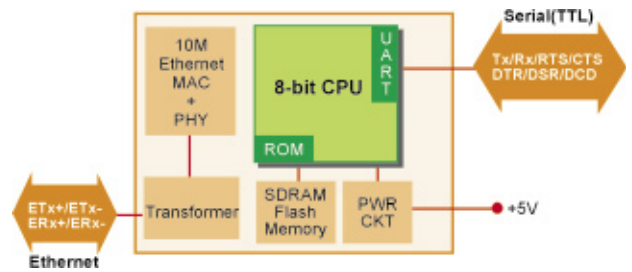 or wiring required. Moxa's NE-4000T provides full serial signals, in standard TTL level, to support communication with any manufacturer's product. And NE-4000T consumes only 0.325W (65 mA @ +5V) of power.

Dimensions and Pin Assignments

Pin No. Signal
1 ETx+
2 ETx-
3 ERx+
4 ERxI-
5 LINK/ACTIVE
6 TxD
7 RxD
8 RTS
9 CTS
10 Reserved
11 GND
12 GND

Pin No. Signal
13 PIO0
14 PIO1
15 PIO2
16 PIO3
17 PIO4/ADDC
18 PIO5/DCD
19 PIO6/DSR
20 PIO7/DTR
21 Reserved
22 Ready LED
23 Reserved
24 +5V

31.48(1.24)

44(1.73)

Unit: mm (inch)

(44 × 31.48 mm, 24-pin DIL package, 2.54 mm pitch)

Block Diagram

Specifications

Form Factor
Type: 24-pin dual-in-line (DIL) package
Dimensions: 44 × 31.48 mm

LAN Interface (TTL)
Type: 10 Mbps
Protection: 1.5 KV isolation

Serial Interface (TTL)
TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND

Serial Parameters
Parity: None, Even, Odd **Data Bits:** 7, 8 **Stop Bits:** 1, 2
Speed: 50 bps to 115.2 Kbps
Flow Control: RTS/CTS, XON/XOFF

Digital I/O Pins
Eight programmable IO pins (GPIO)

TCP/IP Protocols
ICMP, ARP, IP, TCP, UDP, DHCP, HTTP

Operation Modes
TCP Server, TCP Client, UDP, Real COM modes (Windows 98/2000/XP)

Management Utilities
Windows Administration Utility, Web browser, telnet console, serial console, and NECI Library (.DLL) for developing users' own management utility

Power Requirements
Power input: 5 VDC, +/- 5%
Power consumption: 290 mA @ 5 VDC (max.)

Temperature/Humidity
Operation: 0 to 70°C (32 to 158°F), 5 to 95% RH
Storage: -20 to 85°C (-4 to 185°F), 5 to 95% RH

Regulatory Approvals FCC Class A, CE Class A
Warranty 5 years

Ready-to-go Software for Easy Integration

Totally integrated hardware & TCP/IP software, ready-to-go module

Moxa's NE-4000T Embedded Network Enabler provides robust and ready-to-use software. NE-4000T supports various and operation modes, such as TCP Server, TCP Client, UDP, COM driver modes that can seamlessly integrate network connectivity into your device and PC software.
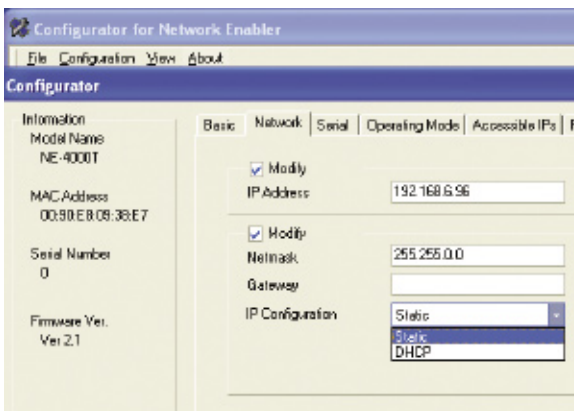
Application-Ready Firmware!!
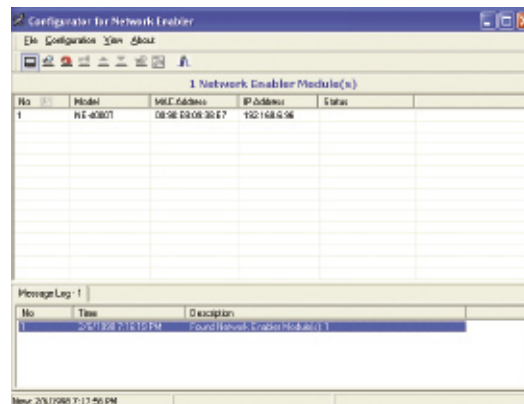
| ☑ TCP Server | ☑ UDP |
| ☑ TCP Client | ☑ COM Driver |

Configure and Manage Network Enablers with Moxa's Windows Utility

For configuration and management purposes, NE-4000T comes with a powerful Windows-based administration utility for IP address configuration, communication parameters settings, etc. The main features include:

• Search and locate installed Network Enablers over the network
• Export/ import configuration parameters

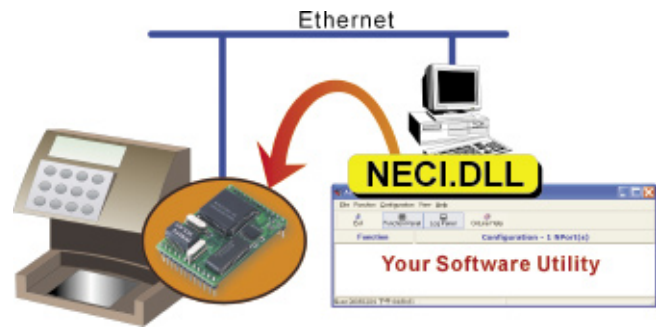*Configure network, serial, and operation mode parameters from anywhere on a TCP/IP network.
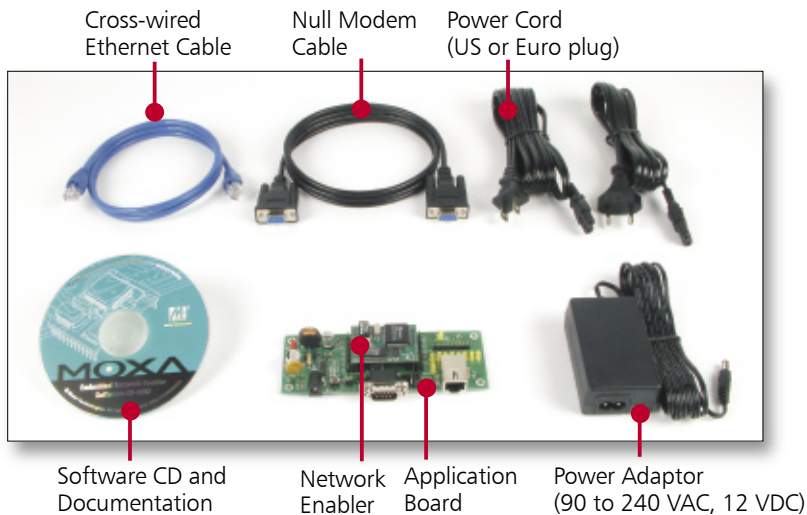
*User-friendly Windows configurator for NE-4000T

Configure and Manage with User Application

The above NE-4000T Windows configuration utility functions can be easily integrated into manufacturers application software with Moxa's royalty-free NECI (Network Enabler Configuration Interface) APIs. These Windows .DLL format APIs support a Visual C++, Borland C++ Builder programming environment.
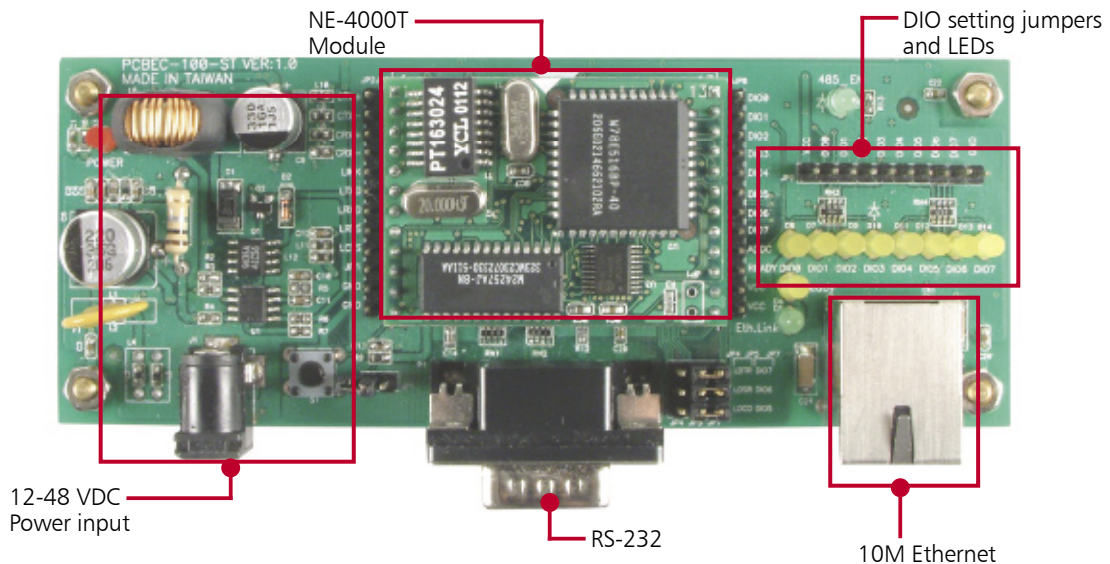
NE-4000T-ST Starter Kit

Cross-wired Ethernet Cable

Null Modem Cable

Power Cord (US or Euro plug)

Software CD and Documentation

Network Enabler

Application Board

Power Adaptor (90 to 240 VAC, 12 VDC)

The Moxa Network Enabler Starter Kit lets you evaluate all Network Enabler functions right away. The Starter Kit supplies an application board, power adaptor, Ethernet and serial cable, along with a software CD-ROM. The application board, which is equipped with serial, Ethernet, digital I/O, and power circuit, helps you evaluate the network enabler module.

NE-4000T Application Board

NE-4000T Module

DIO setting jumpers and LEDs

12-48 VDC Power input

RS-232

10M Ethernet

Ordering Information

NE-4000T: Network Enabler for Serial (TTL) devices, DIL package
NE-4000T-ST: Starter Kit for NE-4000T Network Enabler