ND-8511

Serial to Ethernet Data Converter

Introduction

The ND-8511 is a single-port RS-232/422/485 to Ethernet data converter. This compact-sized communication module allows users to control serial devices (RS-232/422/485) over a TCP/IP-based Ethernet network. Users may connect host computer systems (Windows/2000/XP) to a native serial port through a TCP/IP Ethernet. With one asynchronous serial port connection on one end and a 10/100 Mbps Ethernet connection on the other, the ND-8511 also allows any device that supports asynchronous communications protocol to attach to a network. The ND-8511 works like an add-on single-port serial board to PC servers, but with advantages of the TCP/IP network protocol. With the ND-8511, you can control asynchronous serial devices from virtually any location. Serial devices connects through a virtual Ethernet link, but are recognized as a real COM port by Windows. The ND-8511 can be used with existing applications, and includes a utility program providing a simple step-by-step installation procedure and maintenance wizard that offers easy access to asynchronous devices.

Features

- **48 MHz, 186-based controller 12.5 MIPS**
- **Auto sensing 10/100Base-T Ethernet**
- **High speed serial port (up to 230 kbps) with hardware and modem flow controls**
- **Compact size for easy integration**
- **TCP/IP, UDP, DHCP, SNMP, Telnet, ARP, ICMP, and TFTP**
- **Protocol support**
- **Support for flow & modem control signals**
- **Module configuration utility**
- **Windows native COM drivers support, compatible with existing serial software**

Supported Serial Devices

- ATM machines
- CNC controllers
- Data collection devices
- Universal power supply (UPS) management units
- Telecommunications equipment
- Data display devices
- Security alarms and access control devices
- Handheld instruments
- Modems
- Time/attendance clocks and terminals

Applications

- **Industrial control and process systems**
- **CIM (Computer Integrated Manufacturing) systems**
- **Security control systems**
- **Remote control systems**

Specifications

CPU	48 MHz, 186-Based Controller 12.5 MIPS
Serial Interface	7 or 8 data bits; 1-2 stop bits; parity: odd, even, and none; software selectable baudrate (300 to 230400 bps)
Modem Control	DTR, DCD, CTS, RTS (Jumper selectable)
Flow Control	XON/XOFF (software), RTS/CTS (hardware)
Network Interface	RJ45 Ethernet 10base-T or 100base-TX (auto-sensing)
Compatibility	Ethernet: Version 2.0/IEEE 802.3
Protocols support	ARP, UDP/IP, TCP/IP, Telnet, ICMP, SNMP, DHCP, BOOTP, TFTP, AutoIP, SMTP, and HTTP
Temperature	Operating range: 0°C to 70°C
Relative Humidity	Operating: 5 % to 95 % non-condensing
Shock/Vibration	Non-operational shock: 500 G
Vibration	Non-operational vibration: 20 G
Power	10 to 30 V$_{DC}$

Ordering Information

- **ND-8511/230 V**
  1 port RS-232/RS-422/RS-485 to Ethernet data converter with power adapter (Euro spec.)

- **ND-8511/110 V**
  1 port RS-232/RS-422/RS-485 to Ethernet data converter with power adapter (USA spec.)