

NPort Server Lite



Easy-to-Use, Industrial Serial Device Server for Distributed Applications



Overview

The NPort Server Lite Series is an industrial-strength, network-based serial device server for connecting up to four RS-232 or RS-422/485 devices, such as CNCs, PLCs, scales, and scanners, directly to a 10/100 Mbps Ethernet network running TCP/IP.

The NPort Server Lite Series has a revolutionary built-in human machine interface with an LCM (Liquid Crystal Module) for displaying data/status. This includes buttons for inputting data or for selecting the mode, and allows easy set up of the server, such as IP addresses, net mask, and gateway. Furthermore, it can also monitor server status and data transmission. This eliminates the need to prepare additional PCs during installation.

In addition to allowing serial devices to be networked, any PC Server or Workstation host without network access can be set up to allow access to remote serial devices by adding NPort Server Lite to its existing serial port. In

other words, a pair of 1-port NPort Server Lites can be configured over the Ethernet and serve as a transparent serial channel without platform and distance limitations.

Features

- Supports all Windows native COMs and UNIX/Linux fixed tty drivers
- Automatic network connection recovery
- Built-in human machine LCD interface for setting up the server and displaying its IP address
- Provide security mechanism to prevent from unauthorized access
- Auto-detecting 10/100 Mbps Ethernet interface
- Industrial strength design with DIN rail mounting rack; surge protection for all ports (15 KV ESD)
- Comes with PComm Pro, the professional RS-232 communication development tool, including an easy to use API, Data Scope utility, and Performance Analyzer

- RS-485 ADDC (Automatic Data Direction Control) intelligence Includes Network Management utility
- No host reboot required after adding a new NPort Server Lite
- Provides pair-connection mode and host-based mode

Benefits

- Can control RS-232 or RS-422/485 devices located virtually anywhere via the Ethernet or Internet
- Easy to install and configure in 15 minutes, saving engineer's time
- Highly reliable network to serial solution—simplified troubleshooting
- No need to change existing COM's application software, saving hardware upgrade costs

Applications

- Industrial/Factory/Laboratory automation
- SCADA systems
- Automatic warehouse control systems
- Building automation systems
- Wafer fabrication systems
- Self-service banking systems
- Retail systems
- Other remote and distributed serial device control

Ports	1	2	4	8	16	32
Interface						
RS-232	✓	✓	✓			
RS-422	✓	✓	✓			
RS-485	✓	✓	✓			

Specifications

Hardware

Processor	16 bit CPU
I/O controller	
DE-301/331	16C550C or compatible x 1
DE-302/332	16C550C or compatible x 2
DE-304/334	16C550C or compatible x 4
Memory	512 KB
Connector type	DB9

Interface

LAN	Auto-detecting 100Base-TX (10/100 Mbps)
Serial	RS-232 or RS-422/485
No. of ports	1/2/4
Signals	RS-232: TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND RS-422: TxD+/-, RxD+/-, RTS+/-, CTS+/-, GND RS-485: Data+/-, GND

Performance

Speed	50 bps - 230.4 Kbps
Max. No. of ports	256 (per Windows NT) 128 (per Windows 95/98)

Configuration

Parity	None, even, odd, space, mark
Data bits	5, 6, 7, 8
Stop bits	1, 1.5, 2
IRQ	Nil
I/O address	Nil

OS Supported

DE-301	Windows 2000, Windows NT,
DE-302	Windows 95/98/ME, UnixWare
DE-304	SVR4.2, UnixWare 7 SVR5, SCO
DE-331	Open Server, SCO UNIX, Linux 2.2.
DE-332	x/2.0.x (Intel x86) (running TCP/IP)
DE-334	

Power and Environment

Power requirements	9-30 V DC, 1.05A /9V
Operating temp.	0-55°C
Dimensions	155 x 105 x 33 mm (W x D x H)
Surge Protection	15 KV ESD for serial port
Magnetic Isolation	1.5 KV for Ethernet
Regulatory approvals	FCC, CE

If you need a product with optical isolation, see the *Optional Accessories* list below for more information.

Ordering Information

DE-301/110V	1 port RS-232 device server
DE-301/230V	1 port RS-232 device server
DE-302/110V	2 port RS-232 device server
DE-302/230V	2 port RS-232 device server
DE-304/110V	4 port RS-232 device server
DE-304/230V	4 port RS-232 device server
DE-331/110V	1 port RS-422/485 device server
DE-331/230V	1 port RS-422/485 device server
DE-332/110V	2 port RS-422/485 device server
DE-332/230V	2 port RS-422/485 device server
DE-334/110V	4 port RS-422/485 device server
DE-334/230V	4 port RS-422/485 device server
All items include	<ul style="list-style-type: none"> Windows NT, Windows 2000, Windows 95/98, UNIX, Linux drivers and manual PCComm Pro CD (professional serial comm development tool) 10/100 Mbps cross-over Ethernet cable

Optional Accessories

A52	Smart RS-232 to RS-422/485 Bi-Directional Converter
A53	Smart RS-232 to RS-422/485 Bi-Directional Converter, supports optical isolation protection (2 KV)