LANTRONIX®

RoHS WEEE COMPLIANT

WiPort NR Embedded Ethernet Device Server

- Same form factor and pinout as our 802.11 b/g wireless WiPort offering ability to implement wired or wireless solution with the same board design
- Build Ethernet or IP networking into your products – quickly and easily
- Proven operating system, embedded web server complete network protocol stack
- 256-bit AES encryption for secure communications
- EMC/EMI-compliant; RoHS-compliant

Seamless Migration Path between Ethernet and 802.11 Wireless Connectivity

WiPort NR: Serial-to-Ethernet Connectivity Module

Pin Compatible with the Lantronix WiPort Serial-to-802.11 Wireless Module

The matchbook-sized WiPort NR is the newest member of our pin compatible module solutions family which also includes the popular WiPort. Designers now have the flexibility of enabling wired and wireless layout compatibility on a single PCB design. With this product, Lantronix offers manufacturers a seamless transition path between Ethernet and 802.11 wireless connectivity – without the need for any board re-design.

Lantronix has long recognized that engineers need a simple, cost-effective and reliable way to seamlessly embed network connectivity into their products. Networking a product can be a complex task adding months or even years to the development cycle. Lantronix embedded modules enable OEMs to keep pace with the expanding complexities of networking technology by easily adding connectivity at a fraction of the time of an in-house solution. Rather than devoting resources to develop in-house networking expertise, engineers are free to concentrate their efforts on their core competency to develop higher quality products and simply drop in the Lantronix networking module.

The new WiPort NR network processor module enables manufacturers to create a board design for Ethernet networking that can be migrated to 802.11 wireless without having to change the design. Designed for the same form factor and pinout as the company's popular 802.11 wireless module, WiPort NR can be easily replaced with the WiPort wireless module.

WiPort NR features Include:

- Two serial ports.
- 10Base-T/100Base-TX Ethernet connectivity (using external RJ45 jack).
- 2MB of Flash memory for OEM web pages.
- 11 GPIOs.
- Available CAN, SPI and I2C interfaces
- PoE-capable with external circuitry.
- Programmable e-mail alerts.
- 256-bit AES Rijndael encryption for secure communications.
- Extensive networking protocol including full TCP/IP stack.

Robust, Feature-Rich Software Suite

Eliminating the need to negotiate the intricacies of Transmission Control Protocol (TCP) or Internet Protocol (IP), WiPort NR incorporates a:

- Robust Real Time Operating System (RTOS).
- Full featured network protocol stack.
- Proven, ready-to-use serial-to-ethernet/TCP-IP application.
- Built-in CGI web server for device communication and configuration via a standard browser.

Additionally, the Windows-based DeviceInstaller™ makes configuring one or more units in a subnet quick and easy.

- Install and configure WiPort and load firmware.
- Assign IP & other network specific addresses.
- Set wireless parameters.
- Load custom web pages and view specific device data.
- Enable web-based configuration of the device.
- Ping or query the attached device(s) over the network.
- Allow Telnet communication with the device(s).

Features and Specifications

Serial Interface

Interface: CMOS (Asynchronous, 5V tolerant)
Data Rates: 300 bps to 921,600 bps
Characters: 7 or 8 data bits
Parity: odd, even, none
Stop Bits: 1 or 2
Control Signals: DTR/DCD, CTS,RTS
Flow Control: Hardware, software
Programmable I/O: 11 GPIO pins (software selectable)

Network Interface

Interface: Ethernet 10Base-T or 100Base-TX (Using external RJ45 Jack)
Protocols: TCP/IP, UDP/IP, ARP, ICMP, SNMP, TFTP, Telnet, DHCP, BOOTP, HTTP and AutoIP

Management

Internal web server
SNMP (read only)
Serial login
Telnet login
DeviceInstaller software
Setup records

Encryption

256-bit AES Rijndael encryption

Internal Web Server

Serves web pages
Storage capacity: 1.2 MB

Architecture

CPU: DSTni-EX enhanced 16-bit x86 architecture
Memory: 256 KB SRAM and 2048 KB Flash
Firmware: upgradeable via TFTP and serially

Power

Input voltage: 3.3 VDC, less than 1 watt

Environmental

Operating Temp: -40° to 85°C (-40° to 185°F)
Storage: -40° to 85°C (-40° to 185°F)

Packaging

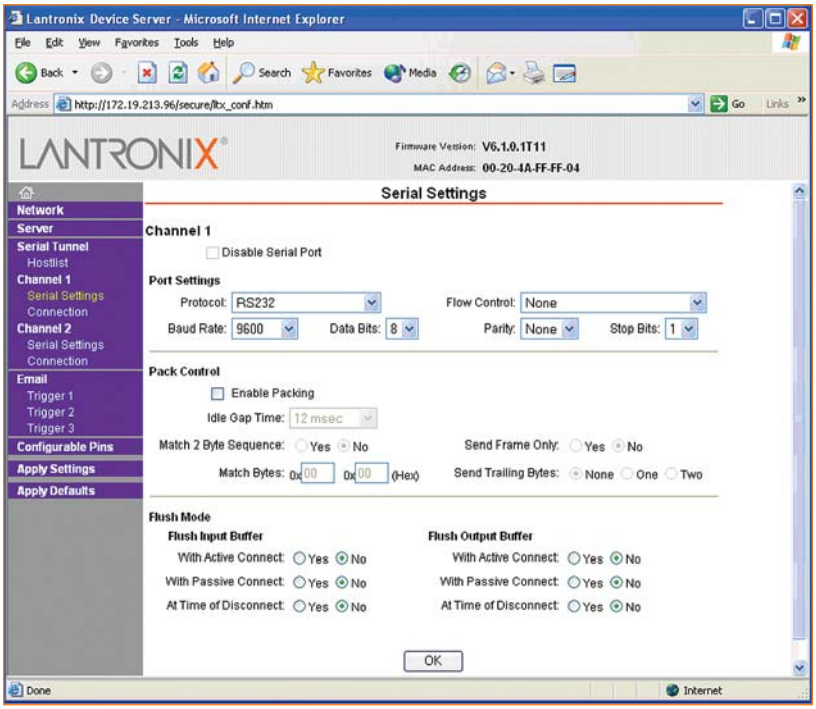
Dimensions: 33.9 x 32.5 x 10.5 mm (1.335 x 1.28 x .415 in)
Weight: 22g
Material: Metal shell

Warranty

2-year limited warranty

Included Software

Windows® 98/NT/2000/XP based DeviceInstaller configuration software and Com Port Redirector



The included DeviceInstaller software makes configuring WiPort quick and easy!

Ordering Information

Model	Part Number	Description
WiPort NR	WP5001000-01	WiPort NR Extended Temp. AES Option Bulk Pack Minimum order: 25 units
WiPort NR SMPL	WP500100S-01	WiPort NR Sample with AES Option ✓ 1 WiPort NR enclosed ✓ Free 30-day Secure Com Port Redirector™ evaluation license Order quantities of up to 10
WiPort Evaluation Kit	WP200200KG-02	WiPort B/G Evaluation Kit ✓ 1 WiPort B/G enclosed ✓ Free 30-day Secure Com Port Redirector™ evaluation license ***NOTE:*** This evaluation kit supports both wireless and wired networking capability on one board

WiPort Evaluation Kit

The WiPort Evaluation Kit includes everything you need to integrate the WiPort into your next product design, including:

- WiPort evaluation board
- WiPort Device Server
- RS-232 cable, DB9F, null modem
- Cat5e UTP RJ45M/M Ethernet cable
- CD with software utilities and PDF documentation
- 3.3V power supply
- Antenna

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