



## XPort® Embedded Device Server

- ▶ Minimal engineering effort required to web enable a serial device
- ▶ Remote command and control of edge devices
- ▶ Real-time edge device status via e-mail alerts
- ▶ 256-bit AES encryption for secure communications
- ▶ EMC/EMI-compliant; RoHS-compliant
- ▶ Everything you need – all in a single RJ45 package

## Build Ethernet/IP Connectivity into Your Products, Quickly and Simply



XPort® is the most compact, integrated solution available to web-enable any device with a serial interface. By simply adding XPort to a product design, device manufacturers can now offer Ethernet connectivity as a standard feature within weeks—instantly increasing product value, enhancing end-user experience and facilitating new service delivery options.

As the demand for device connectivity increases exponentially, Lantronix removes the complexity manufacturers face by incorporating all of the required hardware and software inside a single embedded solution. Although it is smaller than your thumb, the XPort incorporates all essential networking features, including a 10Base-T/100Base-TX Ethernet connection, proven operating system, an embedded web server, e-mail alerts, a full TCP/IP protocol stack, and 256-bit AES encryption for secure communications. The XPort adds profit immediately to your bottom line by significantly reducing product development time, risk and cost.

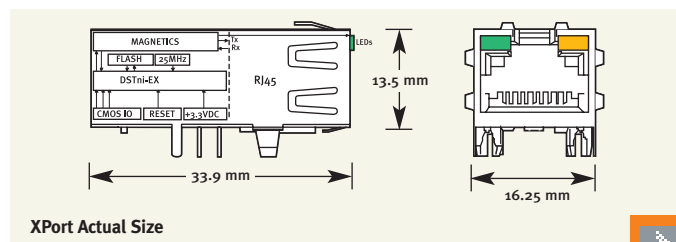
XPort is powered by Lantronix's own DSTni™ networking chip, which includes a 10/100 MAC/PHY and 256 KB of SRAM. The efficient XPort architecture requires only 512 KB of on-module Flash. This Flash memory provides nonvolatile storage of web pages, and allows system software upgrades via the Internet. XPort also offers a built-in web server using interactive data communications to and from a device through a standard Internet browser. Web capability can be used for configuration,

remote monitoring or troubleshooting — including real-time device performance notification via e-mail alerts. Additionally, the XPort acts as a dedicated co-processor to optimize network activities, permitting the host microprocessor to function at maximum efficiency.

By integrating the XPort into your design, you can make any electronic product a smart device with embedded network intelligence, enabling it to deliver innovative applications such as:

- Remote diagnostics and upgrades
- Asset tracking and replenishment
- Automation and control
- Power management
- Remote collaboration
- Personalized content delivery

XPort is RoHS-compliant, fully meeting the standards set on restricted use of hazardous substances in electronic equipment. And it's easy to implement into your design. The unique form factor of the XPort allows OEMs to cost-effectively embed networking into a wide array of products. The complex task of web-enabling “edge devices” has never been so simple!





## 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: XON/XOFF, RTS/CTS  
 Programmable I/O: 3 PIO pins (software selectable)

### Network Interface

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

### Indicators (LED)

10Base-T connection  
 100Base-TX connection  
 Link & activity indicator - Full/half duplex

### Management

SNMP, Telnet, serial, internal Web server, and Microsoft Windows<sup>®</sup>-based utility for configuration

### Security

Password protection  
 Optional 256-bit AES Rijndael encryption

### Internal Web Server

Storage capacity: 384 KB for web pages

### Architecture

CPU: Based on the DSTni-EX enhanced 16-bit, 48MHz or 88MHz x86 architecture  
 Memory: 256 KB SRAM and 512 KB Flash  
 Firmware: upgradeable via TFTP and serially

### Power

Input voltage: 3.3 VDC

### Environmental

Extended Temp: -40° to 85°C (-40° to 185°F)  
 Commercial Temp: 0° to 70°C (32° to 158°F)  
 Storage: -40° to 85°C (-40° to 185°F)

### Packaging

Dimensions: 33.9 x 16.25 x 13.5 mm (1.33 x .64 x .53 in)  
 Weight: 9.6 g (0.34 oz)

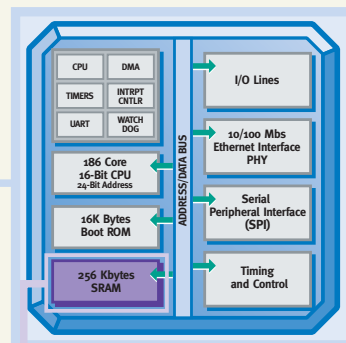
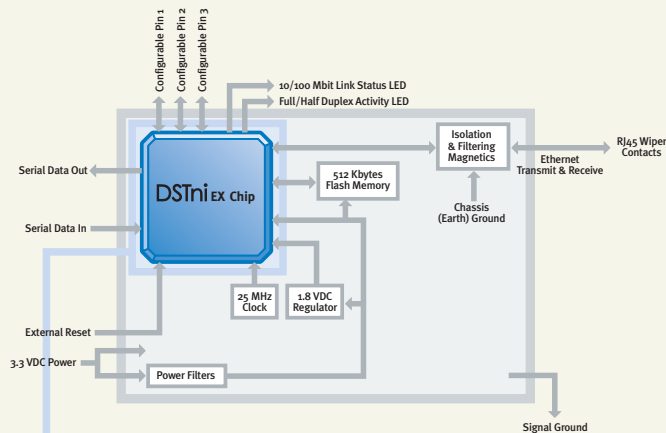
### Warranty

2-year limited warranty

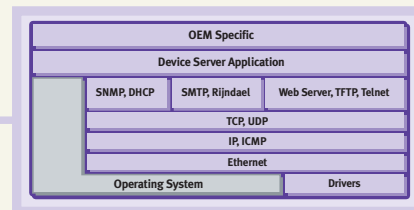
### Included Software

MS Windows-based DeviceInstaller software and MS Windows-based Com Port Redirector

## XPoRT Block Diagram



EX Chip Hardware Diagram



Internal Software Portfolio

Model	Part Number	Description
XPoRT XE	XP1001000-03R	XPoRT RoHS Extended Temperature
Min. Quantity: 50 Units	XP1001001-03R	XPoRT RoHS Commercial Temperature
	XP1001000M-03R	XPoRT XE RoHS Extended Temperature, with MODBUS
XPoRT SE	XP1002000-03R	XPoRT RoHS Extended Temperature, with Encryption
Min. Quantity: 50 Units	XP1002001-03R	XPoRT RoHS Commercial Temperature, with Encryption
XPoRT SE SMPL	XP1002005-03R	XPoRT RoHS Extended Temperature, with Encryption - Sample
XPoRT 485	XP1004000-03R	XPoRT RS-485 RoHS Extended Temperature, with Encryption
Min. Quantity: 50 Units		
XPoRT 485 SMPL	XP1004005-03R	XPoRT RS-485 RoHS Extended Temperature, with Encryption - Sample
XPoRT Development Kit	XP100200K-03	XPoRT Development Kit, with Encryption

## XPoRT Development Kit

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

- An XPoRT Evaluation Board and reference design including CAD PCB files and complete BOM
- Universal AC power adapter
- Network (CAT5) and serial cable
- Connector adapter
- Data sheet
- Lantronix utilities CD containing new Com Port Redirector, DeviceInstaller
- Sample code and application notes
- Complete user manual

# LANTRONIX<sup>®</sup>

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