xPress™ DR+

Industrial Device Servers



NETWORK ALL YOUR INDUSTRIAL EQUIPMENT – QUICKLY AND EASILY

RoHS WEEE COMPLIANT

For demanding factory applications, Lantronix introduces the xPress™ DR+ industrial device server. The xPress DR+ enables users to remotely configure, monitor and control PLCs, drives, motion controllers, power equipment, barcode scanners and other serial devices from anywhere over the Net. A versatile, powerful tool for remote management of automation and assembly/packaging equipment at manufacturing sites, automated distribution centers, refinery plants – or any industrial setting – it provides complete access and control of virtually any type of equipment with a serial port!

Extending Network Connectivity with SwitchPort+

Supporting two serial ports and two 10/100 Ethernet ports, the xPress DR+ features patent-pending SwitchPort+™ technology which enables multiple industrial serial devices to be daisy chained (cascaded) from a single network backbone connection. SwitchPort+ combines Lantronix advanced device server technology with Ethernet switching technology to provide a robust and reliable method for networking equipment. Saves time and money by avoiding unnecessary cable runs and eliminates serial cable distance limitations.

Standards Based Communications

Using an open Ethernet architecture as a standard for device communication provides the flexibility to communicate to virtually any type of industrial equipment. Additionally it enables new equipment to be quickly and easily incorporated into existing network system designs.

When used in conjunction with an OPC server, most Windows® based HMI, SCADA and PC-based control applications have full access to information in the connected device. Existing COM-port based Windows applications can access network-enabled devices using Lantronix Com Port Redirector™. This specialized software creates virtual serial ports, which are mapped to the xPress DR+ over Ethernet.

Thrives in the Industrial Environment

The xPress DR+ meets the demanding, complex industrial environment head on. Packaged in a rugged DIN-rail mount case, it's equipped with isolated serial and Ethernet ports and screw terminal connectors for serial and power. It supports industrial protocols such as Modbus TCP, Modbus ASCII, Modbus RTU and DF1.

- 15KV serial ESD protection and 2.5KV Ethernet isolation protects circuitry from overcurrent conditions
- Wide -40°– 70°C operational temperature range
- 9-30 VDC and 9-24 VAC power input options

Configuration Flexibility

Flexible configuration options allow the unit to be set up locally using the serial port, or remotely over Ethernet using Telnet or browser. The included DeviceInstaller™ software simplifies the process of installing industrial protocols and configuring them for use with attached devices. The CPU's flash memory provides maintenance-free, non-volatile storage and easily accommodates future system upgrades. Complete with an auto MDI/MDIX Ethernet interface, the xPress DR+ is a powerful device communication solution that's perfect for your most demanding industrial applications.

xPress DR+ Highlights

- Cascade multiple devices from a single network connection
- Connect enterprise systems (ERP,MES) to factory floor devices without disturbing existing control networks
- Enables remote firmware upgrades, saving time and money
- Supports industrial protocols
- Configurable serial interface supports RS-232, RS-422, or RS-485
- Maximizes flexibility with an internal 2-Port 10Base-T/100Base-TX Ethernet switch
- 15KV serial ESD protection and 2.5KV Ethernet isolation
- Wide -40°– 70°C operational temperature range
- RoHS compliant

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xPress™ DR+

Industrial Device Servers

Features and Specifications

Serial Interface
- 2 RJ45 RS-232 Serial Ports
- Baud rate selectable from 300 to 230 Kbps
- 1 screw terminal RS-422/485 interface on Serial Port 2 (2 and 4-wire support)
- LED indicators for TXD and RXD activities

Serial Line Formats
- Characters: 7 or 8 data bits
- Stop Bits: 1 or 2
- Parity: odd, even, none

Flow Control
- Hardware: RTS/CTS
- Software: XON/XOFF

Modem Control
- DTR, DSR

Network Interface
- 2 RJ45 10Base-T/100Base-TX Ethernet ports
- Embedded, unmanaged, fully compliant 802.3u non-blocking Ethernet switch
- Store and forward architecture with 1K MAC address lookup table
- Automatic MDI/MDI-X crossover
- Full duplex IEEE 802.3x flow control
- Half duplex back pressure flow control
- IEEE 802.1d spanning tree

LED Indicators
- TX/RX activity per serial
- Link/Activity per Ethernet port
- Power/System OK

Management
- Internal web server (standard tunneling firmware only)
- SNMP (read only)
- Serial login
- Telnet login
- DeviceInstaller software

Isolation
- 8 kV direct contact, 15kV air discharge, ESD protection on all Serial ports (IEC 1000-4-2, IEC 61000-4-2)
- 2 K VAC / 2.8K VDC galvanic isolation between Power Input port to Ethernet ports (except Chassis ground)
- 2 K VAC / 2.8K VDC galvanic isolation between Power Input port to Serial ports
- Transient Voltage protection and ESD with max non-repetitive surge current 800 Amp (8/20 µs) (IEC 61000-4-2)
- 2 K VA / 2.8K VDC galvanic isolation between Ethernet ports (except chassis ground)
- 2 K VA / 2.8K VDC galvanic isolation between Ethernet ports to Serial ports
- 40 A (5/50 ns) EFT protection (IEC 61000-4-4), 12 A (8/20 µs) lightning protection (IEC 61000-4-5) on all Ethernet ports

Power Input
- Removable screw terminal block connector
- 9-30 VDC or 9-24 VAC with chassis ground
- 2.3 Watts maximum

Environmental (Operating)
- Temperature: -40°C to +70°C (-40° to 158°F)
- Humidity: 20% to 90% relative humidity, noncondensing

Agency Approvals
- UL, CSA, FCC, CE, TUV, CTick, VCCIs

Protocols Supported
- ARP, UDP/IP, TCP/IP, Telnet, ICMP, SNMP, DHCP, BOOTP, TFTP, and HTTP

Installable Industrial Application Protocols
- ModBus TCP, ModBus ASCII/RTU, DF1 Multi-Master

CPU
- Lantronix DSTNI-EX 48 MHz clock, 256 KB SRAM Internal CPU Memory

Flash Memory
- 2 MB Flash

EEPROM
- 2 KB

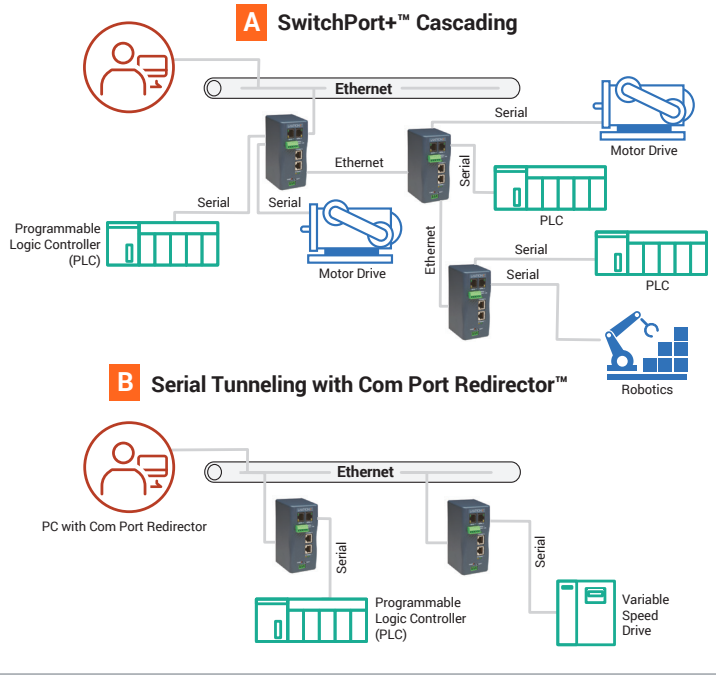
Reset
- Front panel recessed push button

Packaging
- Case: High-impact plastic case with integrated DIN Rail (35 mm) mount – IP30 enclosure rating
- Dimensions (L x W x H): 8.76 x 5.7 x 12.31 cm (3.45 x 2.25 x 4.85 in), terminal blocks included
- Weight: 0.21 kg (0.46 lb)

Shipping Dimensions (L x W x H)
- 18.7 x 22.9 x 11.1 cm (7.375 x 9.0 x 4.375 in)

Warranty
- 2-Year Limited Warranty

xPress DR+ Example Configurations



Ordering Information

Part Number	Description
XSDR22000-01	xPress DR+ two port industrial device server with dual switched Ethernet ports and industrial protocols

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