



UDS1100-IAP

Device Servers



INDUSTRIAL DEVICE SERVERS

REMOTELY MONITOR, MANAGE AND CONTROL INDUSTRIAL EQUIPMENT OVER THE NET

The UDS1100-IAP is a rugged and powerful tool which enables users to connect, manage and control just about any piece of industrial equipment from virtually anywhere over Ethernet or the Internet. This single-port Device Server is a quick, simple and inexpensive way to bring the advantages of real-time or on-demand information access.

Standards Based Communications

Using an open Ethernet architecture as a standard provides the flexibility for equipment to communicate to virtually any type of industrial device.

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 industrial equipment networked by the UDS1100-IAP.

Extending Communications Across the Globe

Our approach to network-enabling devices is transparent to your attached equipment and software so you won't need to change the way you work. Using a method called serial tunneling, the UDS1100-IAP encapsulates serial data into packets and transports it over Ethernet. Serial tunneling can be done in multiple ways:

- Using Lantronix supplied Com Port Redirector™ software, Windows device applications not designed for network communications are re-directed to communicate to devices connected to the UDS1100-IAP.
- Connecting two UDS1100-IAP Device Servers configured to automatically talk to each other over the network creates virtual serial connections that can extend serial communications across a facility or around the world.

Built-in Web Server

The built-in web server enables users to access and configure the UDS1100-IAP from a standard web browser. Web pages enabling the UDS1100-IAP to be customized for unique applications can be built using Lantronix development tools. On-board Flash memory provides room for future system software upgrades and maintenance-free, nonvolatile web page storage.

Easy to Set Up and Use

The UDS1100-IAP can be set up locally through its serial port, or remotely using Telnet or a web browser. The included DeviceInstaller™ Windows-based configuration software simplifies setup and provides an easy way to:

- Assign IP & other network specific addresses
- Load custom web pages
- Enable web-based configuration of the Device Server
- Ping or query the attached device(s) over the network
- View specific device data files
- Upgrade firmware
- Simplify process of installing industrial protocols

Complete with an auto MDI/MDIX Ethernet interface, the UDS1100-IAP is a powerful device communication solution that's perfect for your most demanding industrial applications.

Modem Replacement

In modem emulation mode, the UDS is used to replace dialup modems. The unit accepts modem AT commands on the serial port. It then establishes a network connection to the end device, leveraging network connections and bandwidth to eliminate dedicated modems and phone lines.

RoHS-compliant, the UDS1100-IAP meets Directive 2002/95/EC on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

If you're looking for a transparent, cost-effective, and scalable means to network-enable your industrial automation equipment, look no further than the UDS1100-IAP.

- In minutes, securely connect factory floor devices to enterprise systems
- Access, monitor and control equipment over Ethernet
- Replace dedicated PCs and/or modem lines with fast and reliable Ethernet networking
- Supports RS-232, RS-422 and RS-485 communications
- Includes Modbus TCP, ASCII, RTU protocols
- 15KV serial ESD protection
- Wide -40° – 70°C operating temperature range
- Environmentally-friendly RoHS and WEEE-compliant

LANTRONIX



Features and Specifications

Serial Interface

- Interface: Software-selectable RS232, RS422 or RS485 (2 and 4 wire support)
- Connectors: 1 DB25F DCE serial port
- Data Rates: Software-selectable baud rate from 300 to 230 Kbaud
- Characters: 7 or 8 data bits
- Parity: odd, even, none
- Stop Bits: 1 or 2
- Control Signals: CTS/RTS (Hardware)
- Flow Control: XON/XOFF (Software)

Network Interface

- Interface: 10Base-T/100Base-TX Ethernet port
- Software selectable Ethernet speed 10/100/Auto
- Software selectable Half/Full/Auto duplex
- Connector: RJ45
- Standards: ARP, UDP, TCP, ICMP, Telnet, TFTP, AutoIP, DHCP, HTTP, SNMP, TCP, UDP, and Telnet, TFTP

LED Indicators

- Power, 10/100 Link/Activity (green), 100/100
- Link/Activity (green), Diagnostics (red), Status (green)

Processor

- CPU: Lantronix DSTNI-EX 48 MHz clock
- Memory: 256 KB zero wait state SRAM, 2 MB Flash

Management

- Lantronix DeviceInstaller™ GUI, Serial login, SNMP, Telnet login, HTTP

Power

- 9-30 VDC or 9-24 VAC on barrel connector (1.5 Watts maximum consumption)
- 9-30 VDC on DB25F serial interface
- 3.3vdc on serial interface

Environmental

- Operating: -40° to 70° C (41° to 158° F)
- Storage: -40° to 85° C (-40° to 185° F)

Packaging

- Material: Metal enclosure with integrated wall mounts; optional 35 mm DIN-rail mount available
- Dimensions (LxWxH): 9.0 x 6.4 x 2.3 cm (3.5 x 2.5 x 0.9 in)
- Weight: 0.20 kg (0.45 lb)
- IP Rating: 30

Agency Approvals

- UL, CSA, FCC, CE, TUV, CTick, VCCI

Warranty

- 2-year limited warranty

Shipping Dimensions

- Dimensions (LxWxH): 242 x 191 x 115 mm (9.5 x 7.5 x 4.5 in)
- Weight: 1.5 kg (3.0 lbs)

Included Software

- Windows® 98/ME/NT/2000/XP-based DeviceInstaller™ configuration software, Com Port Redirector™ software and related utilities

Emissions

- FCC Part 15 Subpart B Class A Radiated Emissions 30MHz – 1000MHz
- ICES-003 Issue 4 February 2004 Class A Radiated Emissions 30MHz – 1000MHz
- AS/NZS CISPR 22: 2004 Class A Radiated Emissions 30MHz – 1000MHz
- EN55022: 1998 + A1: 2000 + A2: 2003 Class A Radiated Emissions 30MHz – 1000MHz
- VCCI V-3/2005.04 Class A Radiated Emissions 30MHz – 1000MHz
- EN61000-3-2: 2000 Class A Harmonic Current Emissions
- EN61000-3-3: 1995 + A1: 2001 Fluctuations and Flicker

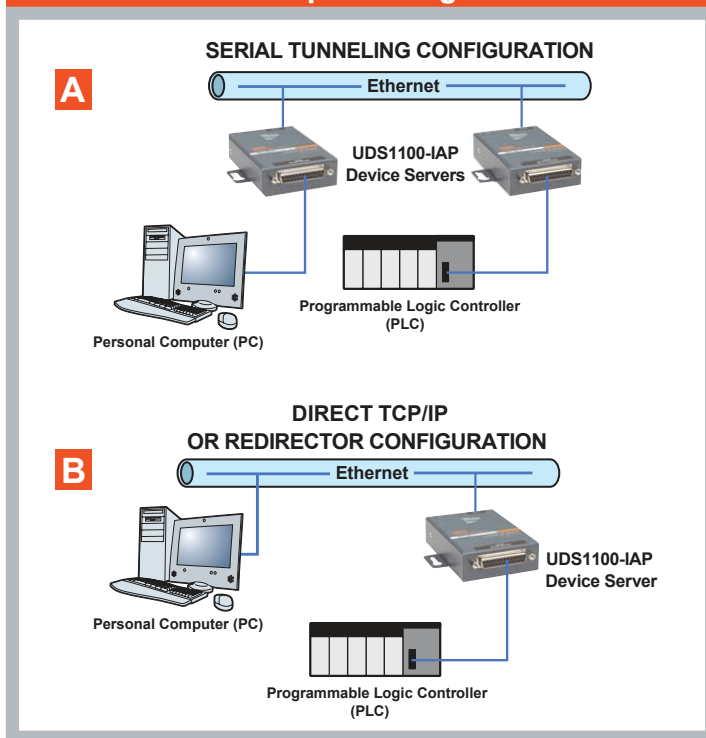
Immunity

- EN55024: 1998 +A1: 2001 +A2: 2003
- IEC_61000-4-2: 1995 ESD 8KV Air Discharge (Direct), 4KV Contact Discharge (Direct/Indirect)
- IEC_61000-4-3: 1995 Radiated Immunity 3.0V/m, 1KHz AM Sine Wave at 80%
- IEC_61000-4-4: 1995 EFT/Burst 1.0KV Power Lines, 0.5KV I/O Lines
- IEC_61000-4-5: 1995 Surge Immunity 1.0KV Common Mode, 1.0 KV Differential Mode
- IEC_61000-4-6: 1996 Conducted Immunity 3.0 Vrms, 80% AM Modulated (1KHz)
- IEC_61000-4-8: 1993 Magnetic Field Immunity 50Hz 1.0 Arms/m
- IEC_61000-4-11: 1994 Voltage Dips and Interrupts (>95%,0.5 periods), (30%,25 periods), (>95%,250 periods)

Isolation

- Designed with protection against transients and ESD for use under harsh environments
- Serial Port: 15 KV ESD protection on RS232 and RS422/485 transceivers
- Power Input: Up to non-repeated 600 W 10/100 usec pulse protection against transient over voltages
- Ethernet Port: 1500 VAC isolation shielded with shield connected to chassis ground for signal integrity and ESD protection

UDS1100-IAP Example Configurations



Ordering Information

Part Number	Description
UD1100IA2-01	UDS1100-IAP Device Server, 100-240 VAC International power supply with regional adapters, includes 500-163 cable and ACDIN1001-01 Din rail mount

Accessories	Description
500-163	DB25M to DB9F serial cable (included)
ACDIN1001-01	Optional DIN-rail mount (included)
500-171-R	DB25M to RS485 and power input screw terminal adapter (order separately)

