LANTRONIX®

SecureBox™ SDS2101 Secure Device Server

- ▶ **Securely network-enable serial devices with 128-256 bit AES-certified encryption**
- ▶ **Transparent communications - no need to develop special software**
- ▶ **Two RS-232 DTE serial ports pinned the same as PC for easy connection**
- ▶ **10/100 Ethernet Interface**

RoHS
WEEE COMPLIANT

The Most Secure Way to Connect, Monitor, Manage and Control Devices Over a Network or the Internet

The SecureBox family of device servers offers the most secure way to add formerly isolated electronic equipment to the Ethernet network. With this capability, virtually any device with a serial port can be remotely accessed and controlled securely over the network or the Internet. This adds an unprecedented level of flexibility and efficiency to your business, and breathes new life into your existing equipment.

With the proliferation of information in today's electronic world, businesses are more concerned than ever about protecting data from unwanted intrusion as it is transferred over a network or the Internet. SecureBox device servers feature the most robust security available on the market with a National Institute of Standards and Technology (NIST) certified implementation of 128-256 bit AES (Advanced Encryption Standards; Rijndael) as specified by FIPS-197 (Federal Information Processing Standards).

Easy to install and implement, SecureBox device servers are ideal for commercial applications where secure data communications are essential, medical facilities, government agencies and financial institutions. Using a method called serial tunneling, SecureBox encrypts and encapsulates serial data into packets and transports it over Ethernet. Using two device servers connected by a network, secure virtual serial connections can be extended across a facility or around the world.

The Lantronix approach to secure communications is transparent to your attached devices and software. There is no need to change the way you work or develop special software to encrypt/decrypt information over the network. The Windows-based configuration software, user-friendly web interface and on-line help simplify and streamline the set-up process. SecureBox can also be set up locally through its serial port, or remotely over a network using Telnet or a web browser. For added security, the web interface can be disabled.

SecureBox device servers can be used as a faster, less expensive and more reliable alternative to dial-up modems. In modem emulation mode, the unit accepts modem AT commands on the serial port and establishes a secure network connection to the end device, eliminating the need for dedicated modems and phone lines.

Available in single port (SDS1101) or dual port (SDS2101) configurations, SecureBox can also work with Lantronix's Secure Com Port Redirector (SCPR) software to extend the functionality of COM port-based Windows® applications across Ethernet. SCPR creates encrypted virtual COM port connections to transport data to a remote SecureBox over the network or the Internet. This provides secure access and control of COM port-based applications from anywhere, at any time.

Built to expand as your needs grow, SecureBox's Flash memory provides maintenance-free, non-volatile web page storage and facilitates easy future system upgrades. If you're looking for the most cost-effective and scalable solution for securely network-enabling your equipment, look no further than SecureBox.

Features and Specifications

Serial Interface
Interface: Software-selectable RS232, RS422 or RS485 (2 and 4 wire support)
Connectors: 2 DB9M DTE serial ports
Data Rates: Software-selectable baud rate from 300 to 921 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)
Data Encryption: 128-256 Bit AES encryption, NIST AES Cert #120

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 and RFC2217

LED Indicators
Power (blue)
RXI Serial (Activity) (green)
TXI Serial (Activity) (yellow)
RX2 Serial (Activity) (green)
TX2 Serial (Activity) (yellow)
RJ45 LEDs Link (100=green, 10=yellow)
Act (Full=green, Half duplex=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 on barrel connector (1.8 Watts maximum consumption)

Environmental
Operating: 0° to 60° C (32° to 140°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): 9.5 x 7.2 x 2.3 cm (3.7 x 2.8 x 0.9 in)
Weight: 0.4 kg (0.9 lb)
IP Rating: 30

Agency Approvals
FCC, C/UL, CSA, VCCI, CE, TUV, CTick

Warranty
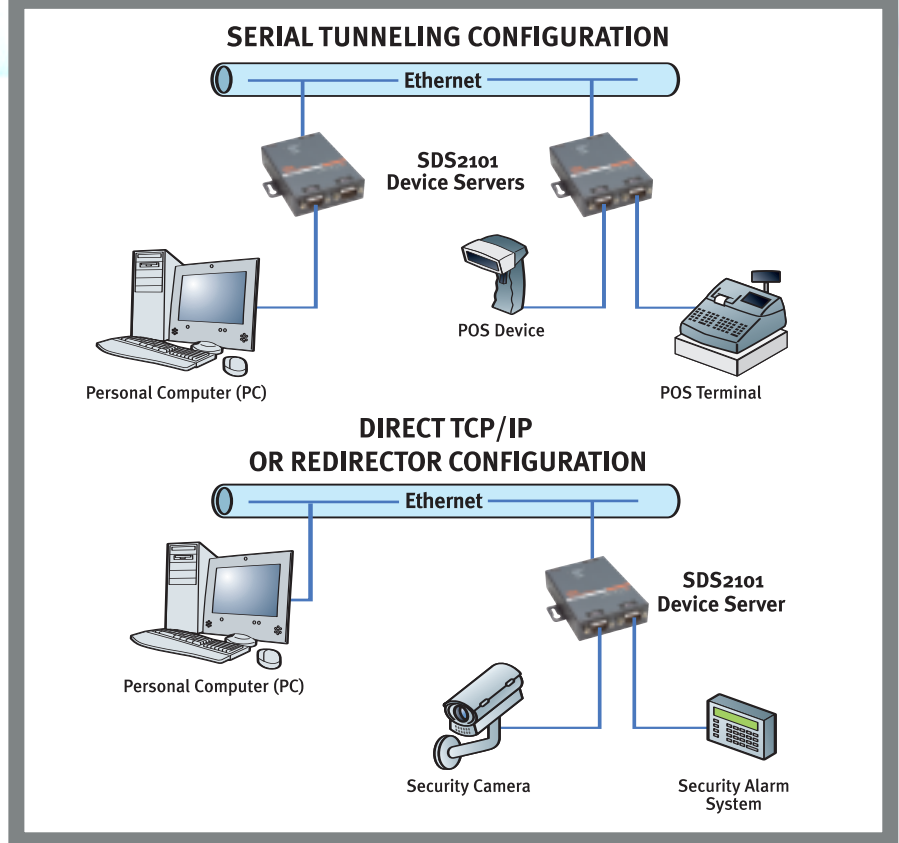2-year limited warranty

Shipping Dimensions
Dimensions (LxWxH): 35.5 x 17.1 x 7.6 cm (14 x 6.75 x 3 in)
Weight: 1.5 kg (3.0 lbs)

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

SDS2101 Example Configurations

SERIAL TUNNELING CONFIGURATION

Ethernet

SDS2101 Device Servers

POS Device

Personal Computer (PC)

POS Terminal

DIRECT TCP/IP OR REDIRECTOR CONFIGURATION

Ethernet

SDS2101 Device Server

Personal Computer (PC)

Security Camera

Security Alarm System

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: 2006 Class A	Radiated Emissions 30MHz – 1000MHz
EN55022: 1998 + A1: 2000 + A2: 2003 Class A	Radiated Emissions 30MHz – 1000MHz
VCCI V-3/2006.4 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

Ordering Information

Part Number	Description
SD2101002-11	SDS2101 two-port 10/100 secure device server RoHS compliant; universal power supply with regional adapters

Accessories

500-164-R	DB9F to DB9F Null modem cable (included)
500-163-R	DB25M to DB9F serial cable
ACDIN2001-01	Optional DIN-rail mount

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