

SLTA-10 Serial LonTalk[®] Adapter Models 73351, 73352, 73353, 73354, 73351R, 73352R, 73353R, and 73354R



Description

The SLTA-10 Serial LonTalk Adapter is a high-performance LONWORKS interface for use with laptop, desktop, or embedded computers equipped with an EIA-232 serial interface and a compatible operating system. Designed for use in LONWORKS control networks that require remote dial-in/dial-out network access or a host processor to monitor, manage, or diagnose the network, the SLTA-10 adapter is ideal for industrial control, building automation, and process control applications.

Models 73351R, 73352R, 73353R, and 73354R are compliant with the European Directive 2002/95/EC on the restriction of the use of certain hazardous substances (RoHS) in electrical and electronic equipment.

The SLTA-10 adapter provides both network services interface (NSI) functionality for use with LNS-compliant tools, such as the LonMaker for Windows Integration Tool, and network interface functionality for use with legacy LonManager[®] API-based tools.

The SLTA-10 adapter is supplied in a metal enclosure with rubber feet for desk mounting, and key-hole slots for wall mounting. Configuration DIP switches are accessible without disassembly of the chassis, simplifying configuration of the adapter.

The SLTA-10 adapter operates at 10MHz and includes an integral twisted pair transceiver. The network wiring is polarity-insensitive, and is connected to a removable screw terminal block.

The LONWORKS Network Services (LNS[®]) architecture allows over 16,000 installation, maintenance, monitoring, and control devices to exist in a system and to adapt to network configuration changes automatically. Users can reconfigure the system from user interface devices anywhere on the network and ensure that all monitoring and control stations are always up-to-date with respect to the system's configuration. When

- ▼ Serial EIA-232 interface connects host processors and modems to LONWORKS[®] networks
- ▼ 1200 to 115,200bps serial bit rate with autobaud detection
- ▼ Automatic dial-out with compatible modem
- ▼ DIP switch selectable NSI and parallel MIP (SLTA/2 compatible) operating modes
- ▼ Integral FTT-10A, TPT/XF-78, or TPT/XF-1250 transceiver
- ▼ Color-coded, removable screw terminals for network and power wiring
- ▼ Configuration DIP switches accessible without opening chassis
- ▼ 9-30V AC or DC power input via removable screw terminals or barrel connector
- ▼ Metal enclosure for desk or wall mounting
- ▼ CE Mark, UL, cUL, TÜV

used with the appropriate software, the network services interface (NSI) functionality of the SLTA-10 adapter allows the attached host to tap into the LNS infrastructure as a client or server application.

The adapter also permits the host PC to act as an application node, running application-specific programs while the adapter handles lower layer functions such as media access control, collision avoidance, message validation, authentication, and priority processing. The host application, including its network variables, can be changed at any time without modifying the adapter. The SLTA-10 adapter combined with the host PC can also be used with nodes that require more processing power, memory, input/output capability, or network variable connections than are provided by the Neuron[®] Chip alone.

Input power needs a galvanically isolated 9-30V AC or DC power supply. Power wiring is polarity-insensitive and is connected to a color-coded, removable screw terminal block. An alternate input power option accepts a US, UK, Continental European, or Japanese power supply for desktop use.

A DB-9 connector is provided for connection to the host. The adapter is configured as a Data Circuit-terminating Equipment (DCE) device; a custom null modem cable allows the SLTA-10 adapter to be connected to a modem. This cable is documented in the user's guide and may also be purchased from Echelon (Model 73380).

The SLTA-10 adapter can be used with any modem recognizing the Hayes AT-command set to provide remote access to a LONWORKS network. The SLTA-10 adapter supports LonTalk network management messages for controlling an attached modem. Any node can initiate an outgoing call to a remote host by sending network management dialing messages to the adapter. Network management messages can be used to define a dialing directory stored in the SLTA-10 adapter, enabling application nodes to dial out to remote hosts without requiring host phone numbers to be maintained in each node.

Any node can use network management messages to configure the SLTA-10 adapter to automatically answer incoming calls so that remote hosts can call in to monitor, control, or manage the network at any time. Network management messages can be used to install a password in the adapter so that a remote user must enter the password before accessing any nodes on the network. For additional security, the SLTA-10 can be configured to call back only a pre-programmed phone number.

The interface with the SLTA-10 adapter is managed by the SLTALink Manager software. The SLTALink Manager is a standalone application that can monitor a modem line, answer an incoming phone call, associate the incoming call's SLTA-10 Adapter (and hence its network) with a LONWORKS based device, and then launch a predetermined application for that particular network or SLTA-10 Adapter. The SLTALink Manager software is used to control a remote SLTA-10 via a set (2) of modems by using the telephony Application Programming Interface (TAPI) services that are built into the Windows 95/98/2000/XP, and Windows NT 4.0 operating systems. When attached directly to a PC, SLTA-10 Adapters use so-called "local" links. In this case, the SLTALink Manager software interacts with the driver and configures the necessary parameters. The SLTALink Manager software and driver isolate the host application from implementation dependencies of the SLTA-10. This allows the same host application to be used with virtually any network interface, and preserves investment in host application development.

Specifications

Processor	Neuron 3150® Chip
Processor Input Clock	10MHz
Transceiver Type	Varies by model: FTT-10A, TPT/XF-78, TPT/XF-1250, or RS-485
Network Connector	Weidmüller 2-conductor BLA
Bus Polarity	Polarity insensitive
Operating Input Voltage	9-30V AC or DC, galvanically isolated power supply, such as Echelon Models 78010, 78020,78030, and 78040
Power Polarity	Polarity insensitive
Operating Input Current	250mA typical
Power Supply	Provided by customer
Service Interface	Service switch and LED
Serial Port	EIA-232 (formerly RS-232)
Serial Bit Rate	1200, 2400, 9600, 14.4k, 19.2k, 38.4k, 57.6k, and 115.2k - DIP switch selectable
Serial Modem Control	DTR and DSR
Serial Connector Type	Female DB-9
Temperature	
Operating	-40 to +85°C
Non-operating	-40 to +85°C
Humidity (non-condensing)	
Operating	25 to 95% RH @ 50°C
Non-operating	95% RH max @ 50°C
Dimensions	101.6mmW x 138.2mmL x 34.0mmH (4.00" x 5.44" x 1.34")
EMI	FCC Part 15 Level B, EN55022 Level B (PCB version designed to comply with FCC Part 15 Level B, EN55022B Level B)
Listings	UL 1950, cUL 1950, TÜV EN60950, CE Mark

The SLTA-10 does not support the SLTA/2 sleep mode and requires a special null modem cable to be used with a DCE device whereas the SLTA/2 required only an internal jumper change.

Documentation

The *SLTA-10 Adapter User's Guide* may be downloaded from Echelon's web site.

Document	Echelon Part Number
LONWORKS SLTA-10 Adapter User's Guide	078-0160-01

Ordering Information

Product	Echelon Model Number
SLTA-10 Adapter - TP/FT-10	73351, 73351R (RoHS-compliant)
SLTA-10 Adapter - TPT/XF-78	73352, 73352R (RoHS-compliant)
SLTA-10 Adapter - TPT/XF-1250	73353, 73353R (RoHS-compliant)
SLTA-10 Adapter - TR-RS485	73354, 73354R (RoHS-compliant)
SLTA-10 Null Modem Cabling (Male DB-9 to Male DB-25 Null Modem Cabling)	73380

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