

# FEATURES

- Half-length, 16-bit ISA adapter card for LONWORKS<sup>®</sup> networks
- Plug-and-play capability with Microsoft<sup>®</sup> Windows<sup>®</sup> 95; a Windows NT driver is also available
- Downloadable firmware allows updates without accessing or changing hardware
- Integral FTT-10A, TPT/XF-78, or TPT/XF-1250 transceiver
- Supports network services interface (NSI) functionality for use with LNS-compliant applications
- Supports network interface functionality for use with LonManager<sup>®</sup> API-based applications
- CE Mark, UL, cUL, TÜV

## DESCRIPTION

The PCLTA-10 PC LonTalk Adapter is a high-performance LonWorks interface for laptop, desktop, and embedded personal computers equipped with a 16-bit Industry Standard Architecture (ISA) interface and a compatible operating system. Designed for use in LonWorks control networks that require a PC to monitor, manage, or diagnose the network, the PCLTA-10 adapter is ideal for industrial control, building automation, and process control applications. The PCLTA-10 adapter features an integral twisted pair transceiver, downloadable memory, a network management interface, and plug-and-play capability with Microsoft Windows 95. A Windows NT driver is also available.

The three versions of the PCLTA-10 adapter support the TP/FT-10, TP/XF-78, and TP/XF-1250 channels.

The PCLTA-10 adapter provides both network services interface (NSI) functionality for use with LNS-compliant applications, and network interface functionality for use with legacy LonManager® API-based applications.

The PCLTA-10 adapter provides any host processor equipped with a 16-bit ISA interface and compatible operating system with access to a LonWorks network. The adapter is a half-length ISA card, allowing it to fit into laptop and embedded PCs that will not accommodate a full-length ISA card.

Installation software for the PCLTA-10 adapter is provided in the Connectivity Starter Kit, and includes a softwarebased control panel and software drivers for Microsoft Windows 95 and Windows NT operating systems. The control panel provides a convenient means of setting and modifying installation parameters, as well as displaying error messages. The adapter supports Windows 95 plug-and-play operation, simplifying installation.

The PCLTA-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 32,000 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 used with the appropriate software, the network services interface (NSI) functionality of the PCLTA-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 PLCTA-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<sup>®</sup> Chip alone.

Firmware for the adapter is downloaded from the host PC. This allows the adapter to be updated as new versions of the software and firmware are released, without modifying or physically accessing the PCLTA-10 adapter. This feature

extends the useful service life of the adapter, and minimizes the cost and time associated with software and firmware updates.

### **PCLTA-10 SPECIFICATIONS**

Processor	Neuron 3150 <sup>®</sup> Chip
Processor Input Clock	10MHz
Network Connector	Weidmüller 2-conductor BLA
Operating Input Voltage	+5VDC ±5%
Operating Input Current	250 mA typical
PC Bus Interface	16-bit ISA slot, half-length, half-height
Neuron Chip Service Pin Function	Service pin message controlled by host application
Configuration State	Displayed on host
Temperature Operating Non-operating	0 to +70° C -45° to +85° C
Humidity (non-condensing) Operating Non-operating (12 hour)	25 to 90%RH @ 50° C 95%RH @ 50° C
Dimensions	154.9mmW x 62.2mmL (6.10" x 2.45")
EMI	FCC Part 15 Level B and EN55022 Level B
Listings	UL 1950, cUL 1950, TÜV EN60950, CE Mark

### DOCUMENTATION

The *LONWORKS PCLTA-10 PC LonTalk User's Guide* is included with the Connectivity Starter Kit and describes how to install and use the PCLTA-10 adapter.

**Document & Echelon Model Number** 

LONWORKS PCLTA-10 PC LonTalk User's Guide 078-0159-01A	
--	--

#### ORDERING INFORMATION

The Connectivity Starter Kit, which includes the documentation and software drivers, should be ordered with the initial PCLTA-10 adapter.

PCLTA-10 Adapter - TP/FT-10	73401
PCLTA-10 Adapter - TPT/XF-78	73402
PCLTA-10 Adapter - TPT/XF-1250	73403
Connectivity Starter Kit	58030-01

Disclaimer

Echelon Corporation assumes no responsibility for any errors contained herein. No part of this document may be reproduced, translated, or transmitted in any form without permission from Echelon.

© 1996-1997 Echelon Corporation.

Echelon, LON, LONWORKS, LONMARK, LonBuilder, LonManager, LonTalk, LonUsers, Neuron 3120, Neuron 3150, NodeBuilder, the LonUsers Logo, and the Echelon Logo are trademarks of the Echelon Corporation registered in the United States and other countries. LonResponse, LonSupport, and LonMaker are trademarks of the Echelon Corporation. Other product names may be trademarks of their respective companies.