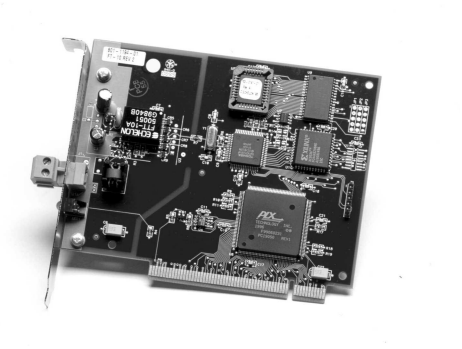
PCLTA-20 PCI LonTalk® Adapter
Models 74401, 74402, 74403, 74404, 74405, and 74405R



- 32-bit PCI adapter card for LONWORKS® networks
- Plug-and-play capability with Microsoft® Windows® 95/98/2000 and Windows NT®
- Downloadable firmware allows updates without accessing or changing hardware
- Integral FTT-10A, RS-485, TPT/XF-78, or TPT/XF-1250 transceiver; optional SMX™ transceiver for PLT-22, and custom transceivers
- LNS® network services interface (NSI) supports LNS applications
- CE Mark, U.L. Listed, cU.L. Listed
- Network driver for Windows 95/98/2000/XP/Server 2003 and Windows NT available

Description

Models 74401, 74402, 74403, and 74404 are replaced with a newer version of PCLTA product line called PCLTA-21 PCI Network Adapter.

The PCLTA-20 PC LonTalk Adapter is a high-performance LONWORKS interface for personal computers equipped with a 32-bit Peripheral Component Interconnect (PCI) 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-20 adapter is ideal for industrial control, building automation, and process control applications. The PCLTA-20 adapter features either an integral twisted pair transceiver or an SMX transceiver interface, downloadable memory, a network management interface, and plug-and-play capability with Microsoft Windows 95/98/2000 and Windows NT.

Model 74405R is 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 PCLTA-20 adapter provides both LNS network services interface (NSI) functionality for use with LNS tools, and Microprocessor Interface Program (MIP)-compatible network interface functionality for use with LonManager® API-based tools.

Installation software for the PCLTA-20 adapter is provided with the LonMaker® Integration Tool, LNS DDE Server, and LNS Application Kit software distributions, or may be downloaded from the developer's tool box section of the Echelon web site. It includes a software-based control panel and a software driver for Microsoft Windows 95/98/2000/XP/Server 2003 and Windows NT. The control panel provides a convenient means of setting and modifying installation parameters, diagnosing card operation, and displaying error messages. The adapter supports plug-and-play operation, simplifying installation.

The LNS network operating system allows any number of 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 any user interface device 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 LNS network services interface (NSI) functionality of the PCLTA-20 adapter allows the attached host to run LNS applications.

In both NSI mode and MIP modes, the adapter also permits the host PC to act as an LONWORKS application device, 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 PCLTA-20 adapter combined with the host PC can also be used with applications that require more processing power, memory, input/output capability, or network variable connections than are provided by the Neuron® 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-20 adapter. This feature extends the useful service life of the adapter, and minimizes the cost and time associated with software and firmware updates.

Specifications

Processor	Neuron 3150® Chip
Processor Input Clock	10MHz
Memory	58Kbytes SRAM
Twisted Pair Network Connector	Models 74401, 74402, 74403: Weidmüller 2-conductor BLA Model 74404: Weidmüller 3-conductor BLA Model 74405: Varies with SMX transceiver
Operating Input Voltage	+5VDC ±5%
Operating Input Current	Models 74401, 74402, 74403, 74404: 300 mA typical, 1A maximum Model 74405: 300 mA typical, 3A maximum
PC Bus Interface	32-bit PCI
Indicator	Service LED
Neuron Chip Service Pin Function	Service pin message controlled by host application
Configuration State	Displayed on host
Temperature	
Operating	0 to +70° C
Non-operating	-45° to +85° C
Humidity (non-condensing)	
Operating	25 to 90%RH @ 50° C
Non-operating (12 hour)	95%RH @ 50°C
Dimensions (excluding card edge fingers)	Models 74401, 74402, 74403, 74404: 3.87" (9.8cm) H x 5.20" (13.2cm) L Model 74405: 3.69" (9.4cm) H x 7.36" (18.7cm) L
EMI	FCC Part 15 Level B and EN55022 Level B
CE Immunity	EN50082-1:1997 EN61000-4-2: 8K air discharge, 4K contact discharge EN61000-4-3: 3V/m EN61000-4-4: 1KV power, 5KV 5/0 EN61000-4-5: 2KV common mode, 1KV differential mode EN61000-4-6: 3Vrms EN61000-4-8: 3A/m EN61000-4-11: 30%, 60%, and >95% ENV50240 (900MHz Key): 3V/m
Listings	U.L. 1950, cU.L. per CSA C22-2 No. 950

Documentation

The *LonWorks PCLTA-20 PC LonTalk User's Guide* may be downloaded from Echelon's web site.

Document	Echelon Part Number
LonWorks PCLTA-20 PC LonTalk User's Guide	078-0179-01

Ordering Information

Product	Echelon Model Number
PCLTA-20 Adapter - TP/FT-10A	74401
PCLTA-20 Adapter - TP/XF-78	74402
PCLTA-20 Adapter - TP/XF-1250	74403
PCLTA-20 Adapter - TP-RS485	74404
PCLTA-20 Adapter - SMX adapter	74405, 74405R (RoHS-compliant)

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