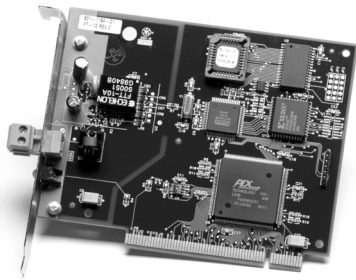


PCLTA-20 PCI LonTalk® Adapter Models 74401, 74402, 74403, 74404, and 74405



Description

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.

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 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

- ▼ 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 and Windows NT available

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 $\pm 5\%$ |
| 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 or may be ordered from Echelon's literature fulfillment department.

| 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 |

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