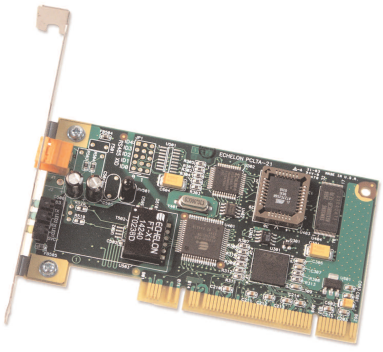
PCLTA-21 PCI Network Adapter Models 74501, 74502, 74503, 74504, 74501R, 74502R, 74503R, and 74504R



- Universal 32-bit PCI adapter card for LonWorks® networks for PCs with 3.3V or 5V PCI
- Plug-and-play network driver compatible with Microsoft Windows® 98/2000 and Windows XP / Server 2003
- Downloadable firmware allows updates without accessing or changing hardware
- Integral FT 3150® Free Topology Smart Transceiver, RS-485, TPT/XF-78, or TPT/XF-1250 transceiver
- LNS® Network Services Interface (NSI) supports LNS applications
- Layer 5 MIP for use with OpenLDV™ driver
- CE Mark, U.L. Listed, cU.L. Listed

Description

The PCLTA-21 Network Adapter is a high-performance LonWorks interface for personal computers equipped with a 3.3V or 5V 32-bit Peripheral Component Interconnect (PCI) interface and a compatible operating system. Designed for use in LonWorks control networks that require a PC for monitoring, managing, or diagnosing the network, the PCLTA-21 adapter is ideal for industrial control, building automation, and process control applications. The PCLTA-21 adapter features an integral twisted pair transceiver, downloadable memory, a network management interface, and plug-and-play capability with Microsoft Windows 98/2000 and Windows XP.

Models 74501R, 74502R, 74503R, and 74504R 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 PCLTA-21 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 or OpenLDV drivers.

Installation software is included with each PCLTA-21 adapter or may be downloaded from the Download Center of the Echelon web site. The software includes a control panel and driver for Microsoft Windows 98/2000 and Windows XP. 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 NSI mode of the PCLTA-21 adapter is used with applications based on the LNS network operating system such as the LonMaker Tool, or the LNS DDE Server.

The MIP mode of the PCLTA-21 adapter is used with applications based on OpenLDV.

In both NSI and MIP modes, the adapter permits the host PC to act as a LonWorks application device, such that the PC is 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.

Firmware for the adapter is downloaded from the host PC by the PCLTA-21 driver. This allows the adapter to be updated as new versions of firmware are released, without modifying or physically accessing the PCLTA-21 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 74501, 74502, 74503: Weidmüller 2-conductor BLZ Series (Weidmüller Part Number 1526460000) Model 74504: Weidmüller 3-conductor BLZ Series Plug (Weidmüller Part Number 1562656000)
Operating Input Current	350mA Max @ 5VDC
PC Bus Interface	Universal 32 bit PCI (3.3V, 5V, 32 bit, 64 bit PCI and PCI-X)
Indicator	Service LED, TX LED, RX 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	
Operating (Non-condensing)	25 to 90%RH @ 70° C
Non-operating (24 hour, Condensing)	95%RH @ 70°C
Shock and Vibration	ETSI300 019-2-3 T3.2
Dimensions (excluding card edge fingers)	2.54" (9.8cm) H x 4.72" (13.2cm) L
EMI	FCC Part 15 Level B and EN55022 Level B
Immunity	EN55024,1998 EN61000-4-2,1995, Electrostatic Discharge 4kV Contact, 8kV air EN61000-4-3,1997, Radiated Immunity, 3V/m EN61000-4-4: , 1995, Electrical Fast Transient Burst, 1kV Power, 0.5kV I/O EN61000-4-5, 1995, Surge, 2kV Common Mode, 1kV Differential EN61000-4-6, 1996, Conducted Immunity, 3V rms EN61000-4-8, 1994, Magnetic Immunity, 1A/m EN61000-4-11, 1994, Voltage Dips and Interrupts, > 95%, 30%, >95%
Agency Listings	U.L. 60950, 2000, CSA C22.2 #60950, 2000 EN 60950, 200 Safety for Information Technology Equipment

Documentation

The *LonWorks PCLTA-21 Network Adapter User's Guide* is provided in PDF format with the driver software or may be downloaded from Echelon's web site.

Document	Echelon Part Number
LonWorks PCLTA-21 Network Adapter User's Guide	078-0271-01

Ordering Information

Product	Echelon Model Number
PCLTA-21 Adapter - TP/FT-10 Channel	74501, 74501R (RoHS-compliant)
PCLTA-21 Adapter - TP/XF-78 Channel	74502, 74502R (RoHS-compliant)
PCLTA-21 Adapter - TP/XF-1250 Channel	74503, 74503R (RoHS-compliant)
PCLTA-21 Adapter - TP-RS485 Channel	74504, 74504R (RoHS-compliant)

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