

U10/U20 USB Network Interface

Low-cost and rugged design



Low Cost, High Performance USB interface for PCs provides an effective interface for a Free Topology twisted pair LONWORKS® channel.

Certified USB 2.0 compatible by the USB Implementers Forum. In addition, the U10 and U20 interfaces carry the Designed for Windows XP logo compatibility certification.

FEATURES

- Low-cost USB to LONWORKS (ANSI/CEA-709.1) network interface.
- Free topology twisted pair (TP/FT-10) and power line (PL-20 C-Band) LONWORKS channel support.
- Highest possible network throughput and performance.
- Rugged design, removable connectors.
- Plug-and-play drivers for Windows XP, 2000, and Server 2003.
- Functions as an LNS® High Performance Network Interface when used with LNS 3 and LNS Turbo Edition.
- Compatible with OpenLDV™ applications and the LonScanner™ Protocol Analyzer.
- CE, UL, cUL, and TÜV.

The U10 and U20 USB Network Interfaces are low-cost, high-performance LONWORKS interfaces for USB-enabled PCs. The U10 USB Network Interface connects to a TP/FT-10 Free Topology Twisted Pair (ANSI/CEA-709.3) LonWorks channel through a removable connector, and is fully compatible with link powered channels.

The U20 USB Network Interface connects to a PL-20 Power Line (ANSI/CEA-709.2) LONWORKS channel through a wall plug coupling circuit/power supply (included). The U20 interface may also be connected directly to 10.8-18VDC power lines without a coupling circuit, or to virtually any powered line with a customer-supplied coupling circuit/power supply.

The U10 and U20 interfaces are ideal for industrial control, building automation, process control, home automation, and transportation applications. The interfaces feature easy-to-install, auto-configuring drivers for Microsoft Windows XP, 2000, and Server 2003, and are compatible with LNS 3 and Turbo Edition applications, including the LonMaker® Integration Tool. When used with LNS 3 or LNS Turbo Edition, the U10 and U20 interfaces

function as LNS High Performance Network Interfaces—you get the highest possible performance at the lowest cost in the market. Apart from the superior performance when used with LNS, the U10 and U20 interfaces are compatible with OpenLDV based applications, as well as the LonScanner Protocol Analyzer.

In addition to being certified to quality standards such as CE, UL and TÜV, models 75010R, and 75021R 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 U10 and U20 interfaces are certified USB 2.0 compatible by the USB Implementers Forum. In addition, the U10 and U20 interfaces carry the Designed for Windows XP logo compatibility certification.

A 60cm USB extension cable is included with both the U10 and U20 interfaces, to allow for easy connection in various laptop and desktop environments.

Installation software and a user's guide are included on the CD-ROM, and may also be downloaded from Echelon's Web site.

SPECIFICATIONS

Transceiver

U10 Interface:
TP/FT-10 (ANSI/CEA-709.3 and LONMARK® standard channel type); link power compatible.

U20 Interface:
PL-20 (ANSI/CEA-709.2 and LONMARK standard channel type); EN50065.1 C-Band protocol software configurable.

Network Connector

U10 Interface:
Removable spring clamp and screw terminal connectors included.

U20 Interface:
2.1mm barrel connector with positive tip. Wall plug coupling circuit/power supply included. May be connected directly to 10.8-18VDC power line, or to customer-supplied coupling circuit/power supply.

Operating Input Voltage (U20 Interface)

10.8-18VDC at 2.1mm barrel connector; powered line voltage varies with application

Operating Input Current (U20 Interface)

250mA maximum @ 18VDC

Operating Input Current (USB)

50mA maximum @ 5VDC

USB Compatibility

Certified USB 2.0 compatible. Compatible with USB 1.1 and Hi-Speed USB systems, peripherals and cables.

LED Indicators

Service (amber),
Transmit (green), Receive (green)

Temperature

Operating
0 to +70°C
Non-operating
-20° to +85°C

Humidity

Operating (Non-condensing)
25 to 90% RH @ +50°C
Non-operating (Non-condensing)
95% RH @ +70°C

Shock and Vibration

ETSI300 019-2-3 T3.2

Dimensions

18.2mm high x
113.2mm long x
22.4mm wide

EMC

FCC Part 15 Level B, EN55022 Class B, EN55024, CISPR 22 Class B, VCCI Class B

Agency Listings

U.L. 60950, cU.L. C22.2 No. 60950-00, TÜV EN60950, CE, C-Tick

DOCUMENTATION

The *LONWORKS USB Network Interface User's Guide* and *U10/U20 USB Network Interface Quick Start Guide* are provided in PDF format on the included CD-ROM. These guides are also available from www.echelon.com.

LONWORKS USB Network Interface User's Guide
078-0296-01

U10/U20 USB Network Interface Quick Start Guide
078-0304-01

ORDERING INFORMATION

U10 USB Network Interface–
TP/FT-10 Channel
75010R

U20 USB Network Interface–
PL-20 Channel (90-240VAC, 50/60Hz power supply, includes both US/Japan and Continental Europe Plugs)
75021R

U20 USB Network Interface–
PL-20 Channel (120V, US Plug)
75020-1

U20 USB Network Interface–
PL-20 Channel (230V, Continental Europe Plug)
75020-2