U10/U20 USB Network Interface
Models 75010, 75020-1, 75020-2, 75010R, and 75021R



U10 USB Network Interface – TP/FT-10 Channel



U20 USB Network Interface – PL-20 Channel

- 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

Description

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.

Models 75010R, 75110R, 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. An optional 3 meter cable accessory is available for the U10; this cable accessory allows easy network connection between the U10 and LonPoint® Routers, the MPR-50 Multi-Port Router, and the numerous third-party devices that implement the 3.5mm mono phone plug standard.

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.
Optional Cable Assembly (U10 Interface)	3 meter cable with 3.5mm mono phone plug and spring clamp connector
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.

Document	Echelon Part Number
LonWorks USB Network Interface User's Guide	078-0296-01
U10/U20 USB Network Interface Quick Start Guide	078-0304-01

Ordering Information

Product	Echelon Model Number
U10 USB Network Interface – TP/FT-10 Channel	75010, 75010R
U10 Cable with Phone Plug (3m)	75110, 75110R
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
U20 USB Network Interface – PL-20 Channel (90-240VAC, 50/60Hz power supply, includes both US/Japan and Continental Europe Plugs)	75021R

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