ECHELON®

i.LON® 600 LonWorks®/IP Server
Models 72601R, 72602R, 72603R, and 72604R

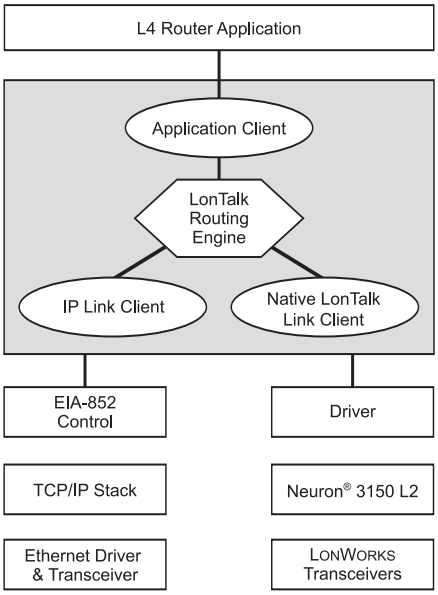


- Transforms the Internet (or any IP-based LAN or WAN) into a pathway for carrying LonWorks control information locally, nationally, or around the world
- Provides highest performance Layer 3 routing of LonWorks control packets
- Supports LonWorks/IP channels up to 256 devices
- Supports multiple units behind NAT firewalls
- EIA-852 & ANSI/EIA 709.1 compliant
- Security features include MD5 authentication for secure access
- 8T DIN packaging
- 24V AC or DC or 90V-240V AC or DC power input options
- CE Mark, U.L. Listed, cU.L. Listed, TÜV Certified, RoHS

Description

The *i*.LON 600 LonWorks/IP Server is an EIA-852 compliant, LonTalk®-to-IP router that provides reliable, secure Internet access to everyday devices like pumps, motors, valves, sensors, actuators, and lights. Offering unparalleled packet throughput, rugged construction, and simple commissioning, the *i*.LON 600 is ideal for demanding process control, building automation, utility, transportation, and telecommunications applications. U.L and cU.L. Listed, TÜV certified, and FCC, RoHS, and CE Mark compliant, the i.LON 600 server meets worldwide regulatory agency requirements.

The *i*.LON 600 LonWorks/IP Server transforms the Internet—or any 10 or 100 BaseT IP-based LAN or WAN—into a pathway for carrying LonWorks control information locally or remotely. Secure access is ensured by the use of MD5 authentication, while a 32-bit RISC processor and Echelon's LonWorks/IP architecture provide best-of-class performance for high-speed control, display, and monitoring applications.



Up to 256 *i*.LON 600 servers may be used on the same channel, and multiple servers can operate behind a Network Address Translation (NAT) firewall. The *i*.LON 600 LonWorks/IP Server is backward compatible with the *i*.LON 1000 Internet Server, and both *i*.LON 600 LonWorks/IP Servers and *i*.LON 1000 Internet Servers can co-exist in the same network. This feature ensures that existing applications can be fully supported while providing an expansion pathway to accommodate adds, moves, and changes.

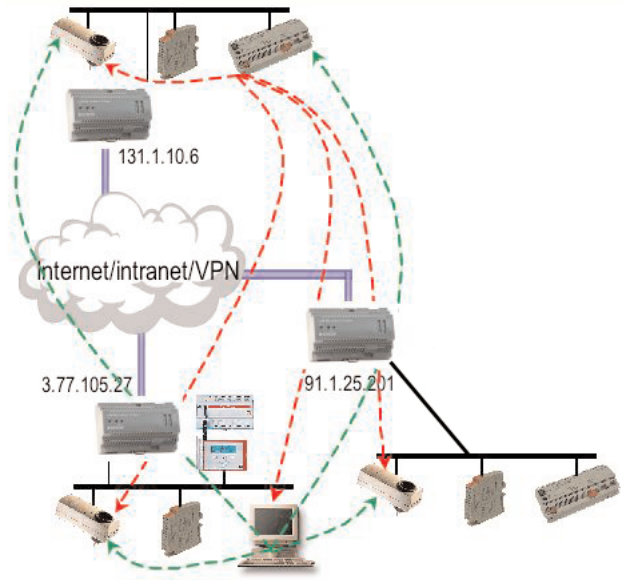
Both TP/FT-10 and TP/XF-1250 LonWorks channel options are available. The free topology TP/FT-10 channel provides the greatest wiring flexibility. The TP/XF-1250 channel is most commonly used for high performance industrial controls and high-speed backbone channels, and provides high throughput for applications with a large number of devices.

The *i*.LON 600 server includes an LNS Remote Network Interface (RNI) that can be used to create a local or remote network connection for LNS or OpenLDV applications including the LonMaker Integration Tool. A single LNS application can simultaneously manage, monitor, and control many remote LonWorks networks by installing an *i*.LON 600 server in each remote network.

Model 65202R 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.

Peer-to-Peer and Master-Slave Support

The *i*.LON 600 LonWorks/IP Server supports both peer-to-peer and master-slave networks, allowing remotely located devices to communicate over IP networks as if they were co-located. Devices on different floors of a building, scattered across different manufacturing pods, or located in retail branches around the world can be seamlessly and transparently linked together – and connected to far-flung corporate data and ERP networks.



Network Installation

The *i*.LON 600 LonWorks/IP Server is installed using standard LonWorks installation tools such as the LonMaker Integration Tool. For pre-configured LonWorks installations, the *i*.LON 600 LonWorks/IP Server can be self-installed by setting parameters on a set-up web page. Whether part of an engineered or pre-configured system, the *i*.LON 600 LonWorks/IP Server is the ideal means to connect everyday devices through an IP-based network.

IT Manager Friendly

The *i*.LON 600 LonWorks/IP Server behaves like a typical IP host from the perspective of the IT network to which it is connected. Like other IP hosts, the *i*.LON 600 LonWorks/IP Server supports standard internetworking protocols including TCP/IP, DHCP, ICMP, SNTP, MD5, HTTP, and FTP. Adjustable packet aggregation and bandwidth utilization parameters ensure that the *i*.LON 600 LonWorks/IP Server is a "good citizen" on the IP network. These parameters, as well as addressing and security functions can all be adjusted via the IP network.

Power Supply and Enclosure

Two power supply options enable the *i*.LON 600 LonWorks/IP Server to operate from 90V -240V AC or DC, or as a safety-agency approved low-voltage 24V AC or DC device. The fully-isolated high-voltage power supply allows Line-to-Line or Line-to-Neutral connections across the entire voltage range.

The low-voltage option provides a number of unique advantages:

- ▼ Powering the server from a 24VDC rechargeable power supply permits non-stop operation in the event of a power failure.
- ▼ Supporting both 24V AC or DC input power permits the use of a wide range of power supplies including both plug-in and hard-wired options.
- ▼ Eliminating high voltage wiring can reduce wiring costs and eliminate the need for an insulated, protective enclosure.

The *i*.LON 600 LonWorks/IP Server is supplied in a compact 8T DIN package manufactured from flame-resistant plastic, and is suitable for mounting to a 35mm DIN rail. Screw terminals simplify power and LonTalk channel wiring connections, while an array of front panel status LEDs provide valuable information about the status of the server.

Specifications

Minimum PC Requirements for Configuration Server Software	Pentium II @ 600 MHz, 128KB RAM, 10MB free disk space
Processor	AMD Au1000 32-bit RISC
Channel Type	TP/FT-10 (Models 72601 & 72603)
	TP/XF-1250 (Models 72602 & 72604)
LonWorks Twisted Pair Connector	Screw Terminals
Ethernet Port	10/100 BaseT, auto-selecting, auto polarity
Ethernet Connector	RJ-45
Console Interface	EIA-232, 9600 baud (8 data bits, no parity, 1 stop bit)
Console Connector	DB-9

Operating Input Voltage	+24V AC or DC, ±33%, <15 Watts (Models 72603 & 72604)
	90V - 240V AC or DC, 50-60 Hz (Models 72601 & 72602)
Power Connector	Screw Terminals
Controls (Switches)	Reset & Service switches
Indicators (LEDs)	Power On, Ethernet Link, Activity, 10/100 Mbps, LONWORKS Tx/Rx, Connect
Neuron Chip Service Pin Function	Service pin message controlled by console application or hardware service switch
Temperature	
Operating	0° to +50° C
Non-operating	-40° to +85° C
Humidity (non-condensing)	
Operating	10% to 90% RH @ 50°C
Non-operating	90% RH max @ 50°C
Enclosure	8TE DIN
Dimensions	8.9cm x 13.8cm, x 6.6cm HxWxD (3.51" x 5.47" x 2.60" HxWxD)
EMC	FCC Part 15 Class B and EN55022 Class B, EN55024, CISPER 22 Class B, VCCI Class B
Agency Listing	UL 60950, cUL, C22.2 No. 60950-00, TÜV EN60950, CE, C-Tick

Documentation

The *i.LON 600 LONWORKS/IP Server User's Guide* is provided in PDF format on the product CD or may be downloaded from www.echelon.com/ilon. A printed version of the *i.LON 600 LONWORKS/IP Server Quick Start Guide* ships with each unit.

Document	Echelon Part Number
i.LON *600 LONWORKS/IP Server User's Guide*	078-0272-01
i.LON *600 LONWORKS/IP Server Quick Start Guide*	005-0153-01

Ordering Information

Product	Echelon Model Number
i.LON 600 LONWORKS/IP Server, TP/FT-10 channel, 90V - 240V AC or DC	72601R
i.LON 600 LONWORKS/IP Server, TP/XF-1250 channel, 90V - 240V AC or DC	72602R
i.LON 600 LONWORKS/IP Server, TP/FT-10 channel, 24V AC or DC	72603R
i.LON 600 LONWORKS/IP Server, TP/XF-1250 channel, 24V AC or DC	72604R

Copyright © 2002-2006, Echelon Corporation. Echelon, LON, LONWORKS, LONMARK, LonBuilder, NodeBuilder, LonManager, LonTalk, LonUsers, LonPoint, Digital Home, Neuron, 3120, 3150, LNS, i.LON, LONWORLD, ShortStack, Panoramix, LonMaker, the Echelon logo, and the LonUsers logo are trademarks of Echelon Corporation registered in the United States and other countries. LonLink, LonResponse, LonSupport, LONews, Open Systems Alliance, OpenLDV, Powered by Echelon, LNS Powered by Echelon, Panoramix Powered by Echelon, LONWORKS Powered by Echelon, Networked Energy Services Powered by Echelon, NES Powered by Echelon, Digital Home Powered by Echelon, Pyxos, and Thinking Inside the Box are trademarks of Echelon Corporation. Other trademarks belong to their respective holders.

Disclaimer

Neuron Chips, Free Topology Twisted Pair Transceiver Modules, and other OEM Products were not designed for use in equipment or systems which involve danger to human health or safety or a risk of property damage and Echelon assumes no responsibility or liability for use of the Neuron Chips or Free Topology Twisted Pair Transceiver Modules in such applications. ECHELON MAKES AND YOU RECEIVE NO WARRANTIES OR CONDITIONS, EXPRESS, IMPLIED, STATUTORY OR IN ANY COMMUNICATION WITH YOU, AND ECHELON SPECIFICALLY DISCLAIMS ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. 003-0379-01C