# ECHELON®



## Description

The *i*.LON 600 LONWORKS/IP Server is an EIA-852 compliant, LonTalk<sup>®</sup>-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.



# *i*.LON<sup>®</sup> 600 LONWORKS<sup>®</sup>/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

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 peerto-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		
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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	$0^{\circ}$ 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>i</i> .LON 600 LONWORKS/IP Server, TP/FT-10 channel, 24V AC or DC	72603R
<i>i</i> .LON 600 LONWORKS/IP Server, TP/XF-1250 channel, 24V AC or DC	72604R

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