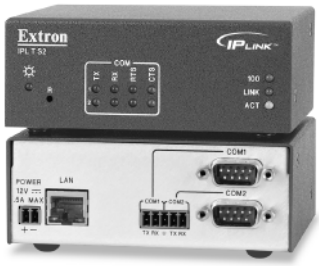
IPL T S2, IPL T S4 & IPL T S6

ETHERNET CONTROL INTERFACES

- Two, four, or six serial ports
- Integrated Web server with 1.25 MB of flash memory
- High performance architecture
- Multi-user support
- Multiple levels of security
- Free IP Link™ Global Viewer™ Web-based asset management software
- IEEE 802.3af Power over Ethernet (PoE) compliant



IPL T S2

IPL T S4

IPL T S6

The Extron IPL T S2, IPL T S4, and IPL T S6 are Ethernet control interfaces with integral high performance Web servers that enable almost any serially controlled A/V device to be managed and monitored over an existing high speed Local Area Network (LAN), Wide Area Network (WAN), or the Internet.

DESCRIPTION

The Extron **IPL T S2**, **IPL T S4**, and **IPL T S6** are compact Ethernet control interfaces with integral Web servers, designed to integrate Internet Protocol (IP) connectivity into A/V systems. IP Link interfaces give users the ability to remotely and proactively monitor and troubleshoot projectors, plasma displays, switchers, and other serially controlled (RS-232, RS-422, RS-485) products. The IP Link Series uses Extron's exclusive IP Link technology, a high performance intelligent network solution specifically engineered to meet the needs of professional A/V environments, from large universities and businesses to small home installations. Multiple Ethernet-enabled A/V products can be managed and supported by a technician or administrator at any time from any computer with a Web browser.

Web Server and Customizable Web Pages

IP Link interfaces use an integrated, high performance Web server with 1.25 MB of flash memory for storing HTML, JavaScript, Flash™ animation, and graphics files. Customizable Web pages can be created and stored using off-the-shelf software programs, such as Macromedia® Dreamweaver® and Microsoft® FrontPage®. Using intuitive Web-based software with a Graphical User Interface (GUI), users can access a variety of A/V products connected to a network. For example, users can check the activity and status of a projector's power, connections, lamp life, or temperature, or even turn off all projectors at once — all from the convenience of a single monitoring station.

Proactive Service and Security

Proactive service, support, and preventive maintenance are also possible with IP Link. With e-mail notification, technical support administrators can receive failure and service messages through an e-mail enabled cell phone, PDA, pager, or Internet e-mail account. For secure installations that do not allow Internet access, online monitoring can still be performed proactively. Within an existing secure infrastructure, e-mail notification of failures and repairs is possible without compromising the security of the A/V systems and facility.

IPL T S2

The IPL T S2 features two 9-pin D-sub serial ports that can control two RS-232, RS-422, or RS-485 serial devices directly. When configured for pass-through mode, the IPL T S2 can pass through commands from an existing control system and control a single device. The IPL T S2 also includes two captive screw serial ports that are connected in parallel with the 9-pin serial ports.

IPL T S4

The IPL T S4 features four 9-pin D-sub serial ports that can control four RS-232, RS-422, or RS-485 serial devices. When configured for pass-through mode, the IPL T S4 can pass through commands from an existing control system and control two different devices.

IPL T S6

The IPL T S6 features two 9-pin D-sub serial ports that can control two RS-232, RS-422, or RS-485 serial devices directly and four captive screw serial ports that can control four additional RS-232 devices. When configured for pass-through mode, the IPL T S6 can pass through commands from an existing control system and control three different devices.

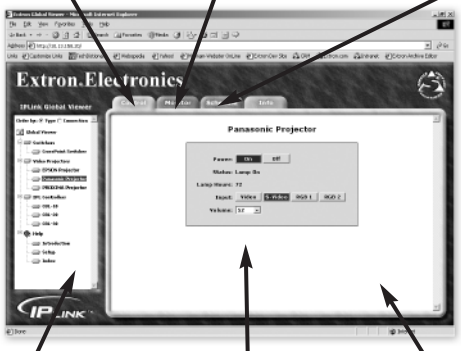
FEATURES

- **Bi-directional serial ports** – Each interface features two, four, or six 9-pin D-sub serial ports that can control RS-232, RS-422 or RS-485 serial devices directly. When configured for pass-through mode, each pair of ports on the interface can pass through commands and control a single device.
- **Global compatibility** – All IP Link models use industry standard Ethernet communication protocols, including ARP, DHCP, ICMP (ping) TCP/IP, Telnet, HTTP, and SMTP.
- **Integral Web server** – Each IP Link interface features a built-in Web server with 1.25 MB of flash memory for storing the Global Viewer management application and any user customized web pages.
- **High performance architecture** – Web pages are served many times faster (6 Mbit/sec transfer rate) than similar products, so data is refreshed at a consistently high speed.
- **Multi-user support** –Each IP Link device supports multiple concurrent users, improving system throughput by sending information in parallel.
- **Multiple levels of security with password protection** – User access level authorizes limited entry to only pre-designated functions, while administrator access level permits full access to advanced settings.
- **Real-time clock** – Programmable operating alerts, sequencing, and automatic monitoring with the internal real-time clock and calendar allow the interface to routinely check a device.
- **Power options** – For added reliability, users can power up the interfaces over existing Ethernet cabling (IEEE 802.3af), eliminating the need for a local power supply, or locally with the included external, international power supply.
- **Intuitive configuration utility** – The Global Viewer Configurator, a Windows® based program, makes product setup simple and easy. Based on information provided by the user, the Global Viewer Configurator creates all of the files needed to build the free Global Viewer application and uploads them to the interface; no HTML programming knowledge is required.
- **Extensive library of downloadable device drivers** – Drivers for a wide variety of projectors, A/V devices and Extron products are available for download from the Extron Web site (www.extron.com).
- **Global Viewer Web-based asset management application** – The Extron Global Viewer software is the free Web-based asset management and control application designed specifically for IP Link network interfaces. The Global Viewer enables asset management functions including proactive maintenance, event scheduling, remote technical support, and theft alerts.

Control Screen
Control basic functions such as power, volume, and inputs.

Monitor Screen
Monitor power and projector lamp hours.

Schedule Screen
Conveniently schedule troubleshooting, automatic monitoring, or system power.



Centralize management of all A/V equipment in the building or all over the world.

Web pages can be customized and tailored to meet customer needs and facilitate functionality.

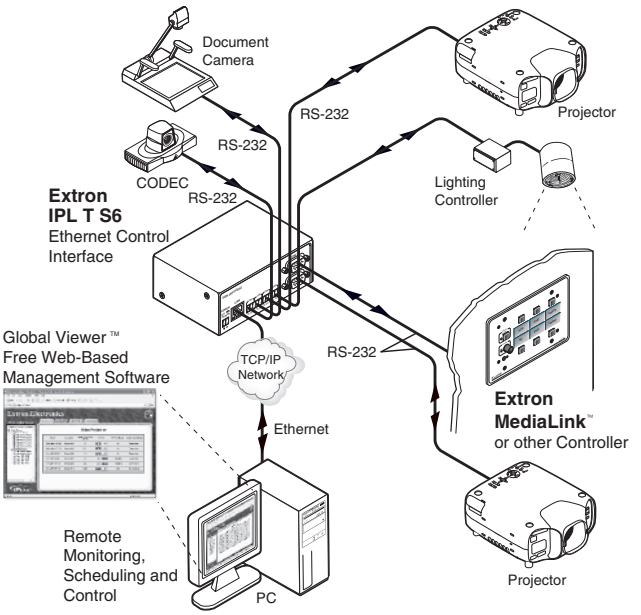
Intuitive interface makes operations easier.

IP Link™ Applications

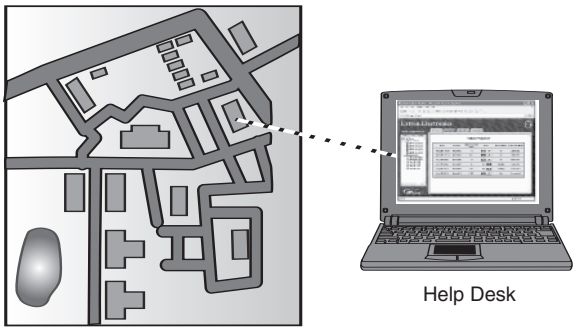
The role of the technical administrator in today's schools and businesses has expanded to include management and maintenance of A/V devices from multiple manufacturers, often spread out over great distances. IP Link makes it easier to integrate A/V systems into existing IP networks, providing Web-based monitoring and control that unifies A/V equipment under a single graphical user interface.

The Extron IPL T S2, IPL T S4, and IPL T S6 use Extron's exclusive IP Link™ technology, a high performance intelligent network solution specifically engineered to meet the needs of professional A/V environments, from large universities and businesses, to small presentation environments.

At its core, each IP Link Ethernet control interface is a small, high performance Web server with robust computing power. Each one contains a very fast processor, with a latency, or delay, of less than one millisecond from the time it receives a command to the time it acts on that command. As a result, Web pages are served many times faster than similar products, so data is refreshed at a consistently high speed. The core technology and high performance architecture of IP Link interfaces makes them ideal for implementing A/V system management over the most widely available transport medium today, the corporate IP network.



Centralized Asset Management and Monitoring
Using IP Link hardware along with the Global Viewer web-based asset management application, a technical administrator can track the activity and status of all connected A/V devices. Multiple rooms of equipment can be viewed simultaneously, by location or device type. IP Link makes up-to-the-minute data available, such as serial numbers, maintenance history, usage data, current status, and installed firmware, all viewable from any computer on the network. With IP Link's e-mail functionality, accessed via the Global Viewer, devices can be configured to proactively manage themselves. For instance, a projector can be polled routinely to track lamp usage and total life time. When lamp usage reaches a predetermined number of hours, the IP Link interface can send an e-mail, reminding technicians to replace the lamp.

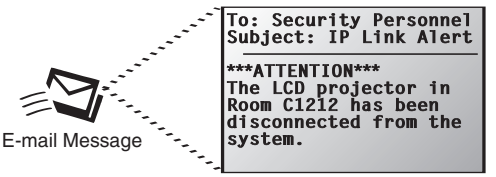


Remote Device monitoring, scheduling and control using Global Viewer Web-based asset management application

Automated Scheduling
IP Link interfaces include a real-time clock, allowing an administrator to program operating alerts, schedule routine equipment activity, or run maintenance checks on lamp hours, environmental conditions, connectivity, and other issues vital to operations. For instance, an administrator may want to configure projectors and other devices to power on or off at preset times. User-defined tasks are easy to configure and schedule with IP Link. Scheduling tasks and setting up e-mail reminders is simple and straightforward and doesn't require high-level programming skills.

Remote Technical Support
One of the biggest challenges facing technical administrators today is meeting the ever-growing demands for technical support with limited support staff. IP Link extends the support staff's reach, giving technicians the power to troubleshoot and solve many typical problems remotely. With access to real-time A/V device status like power on or off and current input selection technicians can often restore system operation in minutes. The result is time saved and a reduced level of frustration for users of the technology.

System Security and Loss Prevention
IP Link interfaces are always on and routinely poll their connected devices for status information. If a serially controlled device like a projector or document camera is physically disconnected from the network, the IP Link interface monitoring its status will know immediately. In such an event, the IP Link interface can be configured to send an e-mail message notifying security personnel of the problem.



Theft Alert

CONTROL/REMOTE — CONTROL INTERFACE

Serial port number/type
- IPL T S2 ..... 2 RS-232/RS-422/RS-485 configurable serial
- IPL T S4 ..... 4 RS-232/RS-422/RS-485 configurable serial
- IPL T S6 ..... 6 RS-232/RS-422/RS-485 configurable serial

Connectors
- IPL T S2 ..... (2) 9-pin male D and (1) 3.5 mm 5-pole captive screw connector
- IPL T S4 ..... (4) 9-pin male D
- IPL T S6 ..... (2) 9-pin male D and (2) 3.5 mm 5-pole captive screw connectors
- Baud rate and protocol ..... Default settings (adjustable): 9600, 8-bit, 1 stop bit, no parity

Pin configurations
- Serial analog, 9-pin D
  - RS-232 (default) ..... 2 = RX, 3 = TX, 5 = GND, 7 = RTS, 8 = CTS
  - RS-422 ..... 2 = RX-, 3 = TX-, 5 = GND, 7 = TX+, 8 = RX+
  - RS-485 ..... 2&3 = data- and tie 2&3, 5 = GND, 7&8 = data+ and tie 7&8
- Serial analog,
  - 5-pole captive screw ..... 1 = COM1/3/5 TX, 2 = COM1/3/5 RX, 3 = GND, 4 = COM2/4/6 TX, 5 = COM2/4/6 RX

Ethernet control port ..... 1 RJ-45 male connector

Ethernet data rate ..... 10/100Base-T, half/full duplex with autodetect

Ethernet protocol ..... ARP, DHCP, ICMP (ping), TCP/IP, Telnet, HTTP, SMTP

Program control ..... Extron's Simple Instruction Set™ – SIS™, Microsoft Internet Explorer, Netscape Navigator, Telnet

GENERAL

Power ..... 100VAC to 240VAC, 50/60 Hz, 10 watts, external, autoswitchable; to 12VDC, 1 A power supply. Product requires 0.5 A.

Temperature/humidity ..... Storage -40° to +158°F (-40° to +70°C) / 10% to 90%, non-condensing
Operating +32° to +122°F (0° to +50°C) / 10% to 90%, non-condensing

Rack mount ..... Yes, with optional 1U rack shelf, part #60-190-01, or the VersaTools® rack shelf, part #60-190-20; also under-furniture mountable with optional brackets #70-212-01 or projector mountable with optional brackets #70-217-01/70-077-04

Enclosure type ..... Metal

Enclosure dimensions ..... 1.7" H x 4.3" W x 3.0" D (1U, quarter rack width)
4.3 cm H x 10.9 cm W x 7.6 cm D (Depth excludes connectors.)

Product weight ..... 0.7 lbs (0.3 kg)

Shipping weight ..... 3 lbs (1.4 kg)

Vibration ..... ISTA/NSTA 1A in carton (International Safe Transit Association)

Listings ..... UL, CUL

Compliances ..... CE, FCC Class A, VCCI, AS/NZS, ICES

MTBF ..... 30,000 hours

Warranty ..... 3 years parts and labor

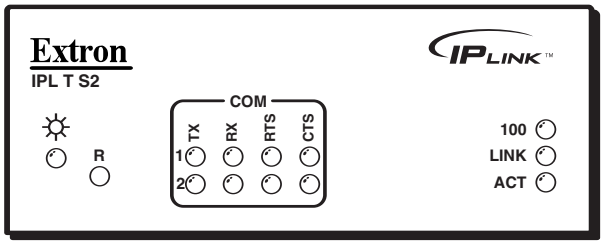
Model	Part Numbers
IPL T S2 (two serial ports)	60-544-01
IPL T S4 (four serial ports)	60-544-03
IPL T S6 (six serial ports)	60-544-04

Optional Accessories

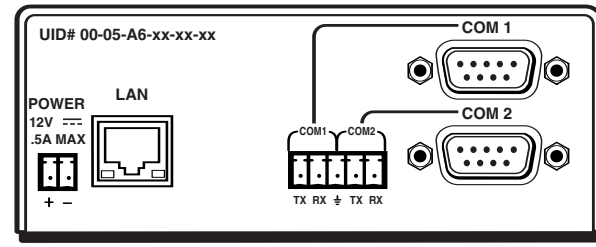
1U 19" VersaTools Rack Shelf Kit	60-190-20
1U 19" Rack Shelf Kit	60-190-01
Under Desk Mount	70-077-01
Projector Mount Kit	70-217-01

Specifications are subject to change without notice.

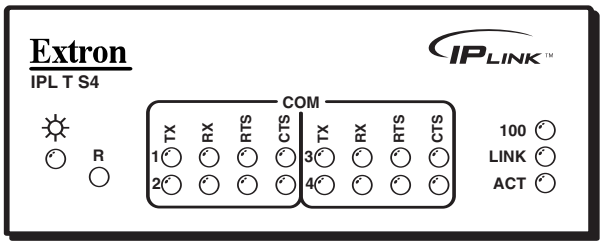
PANEL DRAWINGS



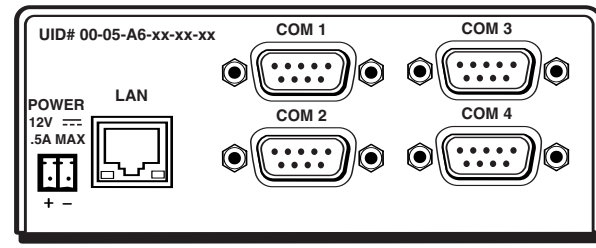
IPL T S2 (Front)



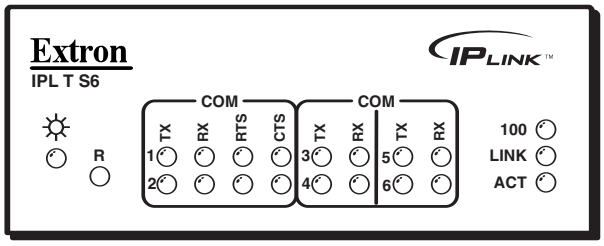
IPL T S2 (Back)



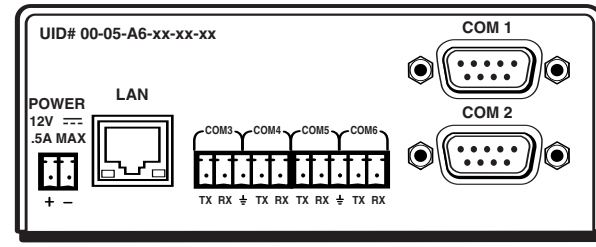
IPL T S4 (Front)



IPL T S4 (Back)

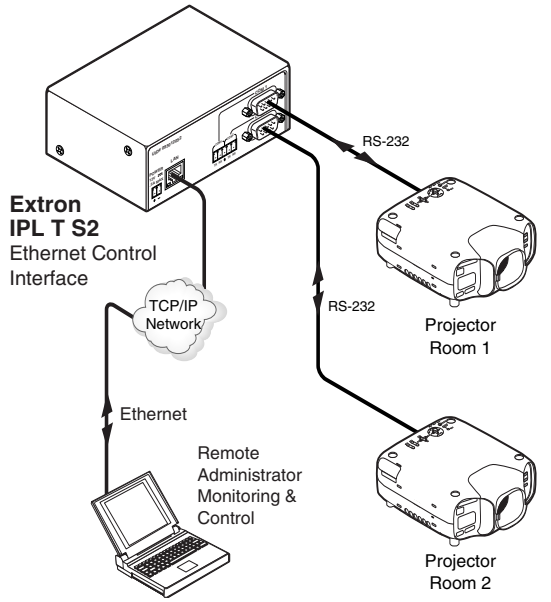


IPL T S6 (Front)

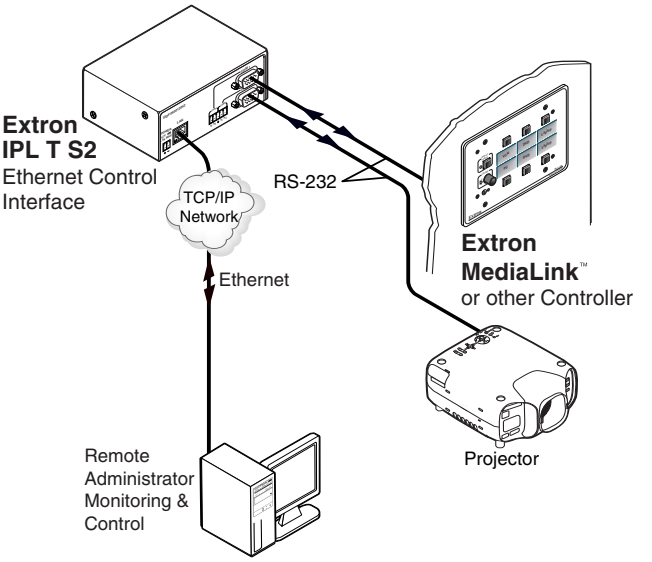


IPL T S6 (Back)

Application Diagrams

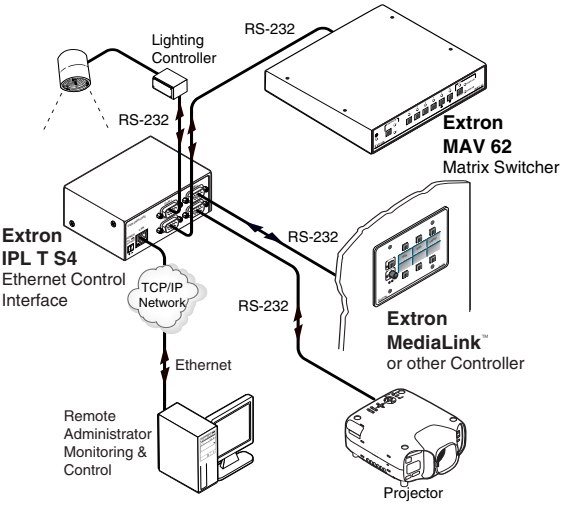


IPL T S2 configured for two bi-directional serial ports

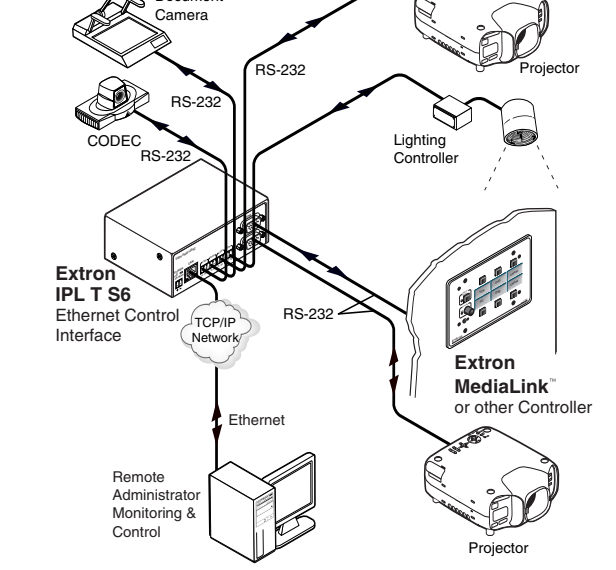


IPL T S2 configured for pass-through mode

IPL T S2



IPL T S4



IPL T S6

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