# SocketEthernet IP®

# Intelligent Serial-to-Ethernet Device Server

The SocketEthernet IP® intelligent device server connects serial devices to an IP network via a 10/100BaseT Ethernet interface. It enables you to build IP networking into virtually any device allowing for remote monitoring, control and configuration. The space efficient communications device (1" x 2.5") integrates Multi-Tech's intelligent Universal IP® stack, and can make your existing and next generation device, machine or system, IP-ready while you focus on developing its core features.

# **Features**

- Complete serial-to-Ethernet connectivity solution including network
  processor, media access controller and physical interface
- Serial interface supports DTE speeds to 230K bps
- Universal Socket connectivity
- Intelligent Universal IP stack for enhanced M2M functionality
- LED driver outputs for visual monitoring of speed, link, activity, collision and duplex mode
- 10/100BaseT auto-sensing Ethernet or configurable for 10MB, 100MB, halfduplex or full-duplex
- Models with medical/high voltage isolation (EN60601)
- AT command compatible
- · Flash memory to update firmware with the latest enhancements
- · Developer's kit available for testing, programming and evaluation
- Two year warranty

# **Universal Socket Benefits**

• Interchangeable communications devices

MultiTech

- Intelligent Universal IP stack
- Quick-to-market
- Easy migration to future



M2M Simplified.<sup>™</sup> Innovative Designs, Innovative Solutions.

# **Specifications**

### Interfaces

10/100BaseT Ethernet, Asynchronous Serial

**Power Requirements** 

5VDC or 3.3VDC

# Power Usage

Typical: 137mA (.41w @ 3.3VDC)

Maximum: 168mA (.50w @ 3.3VDC)

Typical: 187mA (.94w @ 5VDC) Maximum: 194mA (.97w @ 5VDC)

#### Physical Description

2.541" L × 1.045" W × 0.680" H; 0.6 oz.

(6.45 cm × 2.65 cm × 1.7 cm; 0.017 kg.)

**Operating Environment** 

Temperature Range: -40° to +85° C

## Approvals

EMC: FCC Part 15 Class B, Canada Class B, EN 55022 Class B, EN 55024 Safety: UL 60950, cUL 60950, EN 60950, CSA 950, AS/NZS 6950:2000 RoHS 2002/95/EC Compliant

# Highlights

## Applications.

The SocketEthernet IP device server will IP-enable any serial device to provide remote monitoring, control and configuration of any system. It is ideal for:

- Appliances
- ATM terminals
- Credit card and check verification systems
- Data collection
- Gas pumps
- Industrial and medical remote monitoring systems
- Point-of-sale terminals
- Remote diagnostics
- Remote metering
- Security systems
- Television set-top boxes
- Ticketing machines
- Vending/gaming machines

## Serial-to-Ethernet Technology.

The SocketEthernet IP device server provides the powerful ability to IP-enable serial devices allowing more options for data acquisition, device management, and industrial control than would otherwise be available. The communications device integrates a processor, operating system, Universal IP stack and a network connection to provide a complete serial-to-Ethernet connectivity solution.

## Universal Socket Connectivity.

Multi-Tech's Universal Socket is a flexible, commport architecture that provides cellular, Ethernet, PSTN or Wi-Fi network access with interchangeable communications devices. This means you can utilize one system design and populate it with your connectivity device of choice accommodating multiple connectivity requirements. In addition, you are assured a seamless migration to future technologies.

## Universal IP for Enhanced M2M Connectivity

Multi-Tech's Universal IP® stack consists of a common set of TCP/IP and other common modem functions that are implemented using a standard set of AT commands. The result for customers is reduced development time when using more than one cellular technology or when a cellular module/radio goes end-of-life. Multi-Tech products with Universal IP are designed for applications needing enhanced M2M communications connectivity, including:

- Auto Connect/Persistent Connectivity Allows a modem to connect and stay connected without being managed by an intelligent device. It can also work with remote wake up to start a connection, as well as ping and TCP keep alive to keep the connection active.
- Device Monitoring Acts as a watchdog to monitor and manage the connection. If the device becomes unresponsive, the device monitor can perform a reset to get it back to a known state.
- Event Monitoring and Reporting via GPIO Uses general purpose input/outputs to monitor the state of a connected device. Universal IP can be configured to send status updates when the state of the connected device has passed pre-configured thresholds.