SocketEthernet IP®

Embedded Serial-to-Ethernet Device Server

Benefits

- IP-enable virtually any serial device
- Flexible IP protocol stack
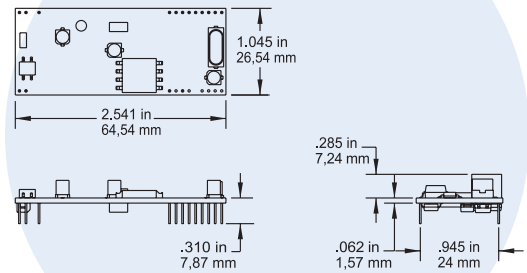- Universal socket connectivity

The SocketEthernet IP® device server connects serial devices to an IP network for remote monitoring, control and configuration. The space efficient module (1" x 2.5") integrates a high performance Ethernet bridge as well as a complete TCP/IP protocol stack into a single, universal socket design. It 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
- High performance 10/100BaseT Ethernet bridge over a serial connection
- Serial interface supports DTE speeds to 230K bps
- Space efficient universal socket connectivity
- Typical power consumption is 260mA with a maximum of 300mA (3.3V model)
- High performance processor runs ARP, Bridging, DHCP, DNS, FTP, HTTP, ICMP, IP, POP3, SMTP, TCP, Telnet, TFTP, SNMP, SNTP and UDP protocols
- LED driver outputs for visual monitoring speed, link, activity, collision and duplex mode
- 10/100BaseT auto-sensing Ethernet or configurable for 10MB, 100MB, half-duplex or full-duplex
- Web-based or command line configuration
- Central site setup and control of the remote modules
- Flash memory to update firmware with the latest enhancements
- Isolated Ethernet configurations available (-HV models)
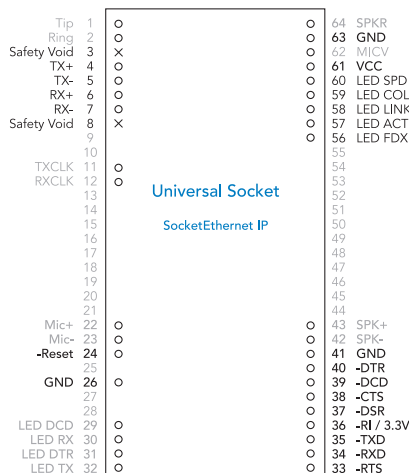- Developer's kit available for testing, programming and evaluation
- Two-year warranty

1.045 in
26,54 mm

2.541 in
64,54 mm

.285 in
7,24 mm

.310 in
7,87 mm

.062 in
1,57 mm

.945 in
24 mm

MultiTech® Systems

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 module integrates a processor, operating system, TCP/IP stack, web server and a network connection to provide a complete serial-to-Ethernet connectivity solution.

SocketEthernet IP Pin-Out. The SocketEthernet IP device server interfaces easily with existing products through a standard serial communication channel. The serial DTE channel is capable of transfer speeds to 230.4K bps and can be interfaced directly to a UART or microcontroller. The SocketEthernet IP device server also provides LED driver outputs for visual monitoring of speed, link, activity, collision and duplex mode.

Tip	1	○	○	64	SPKR
Ring	2	○	○	63	GND
Safety Void	3	×	○	62	MICV
TX+	4	○	○	61	VCC
TX-	5	○	○	60	LED SPD
RX+	6	○	○	59	LED COL
RX-	7	○	○	58	LED LINK
Safety Void	8	×	○	57	LED ACT
	9		○	56	LED FDX
	10			55	
TXCLK	11	○		54	
RXCLK	12	○		53	
	13			52	
	14			51	
	15			50	
	16			49	
	17			48	
	18			47	
	19			46	
	20			45	
	21			44	
Mic+	22	○	○	43	SPK+
Mic-	23	○	○	42	SPK-
-Reset	24	○	○	41	GND
	25		○	40	-DTR
GND	26	○	○	39	-DCD
	27		○	38	-CTS
	28		○	37	-DSR
LED DCD	29	○	○	36	-RI / 3.3V
LED RX	30	○	○	35	-TXD
LED DTR	31	○	○	34	-RXD
LED TX	32	○	○	33	-RTS

Universal Socket

SocketEthernet IP

Universal Socket Connectivity. Multi-Tech's universal socket flexible comm-port architecture provides analog dial-up, wireless or Ethernet socket connectivity with interchangeable modules. This allows you to utilize one system design and populate it with your communication module of choice. In addition, you are assured a seamless migration to future technologies.

Management and Configuration. The SocketEthernet IP device server has several means of management and configuration built into the design. It supports remote configuration, which means you can have central site setup and control of the remote modules via a built-in Web server, or a telnet command line interface.

Developer's Kit. The Developer's Kit allows you to plug in the module and use it for testing, programming and evaluation. The kit includes one development board with RS-232 DB-25 connector, universal power supply, RJ-45 jack and RS-232 cable.

Specifications

Interfaces
10/100BaseT Ethernet, Asynchronous Serial

Power Requirements
5VDC or 3.3VDC

Power Usage
Typical: 270mA @ 5V or 260mA @ 3.3V
Maximum: 310mA @ 5V or 300mA @ 3.3V

Processor
150 MHz; ARM 9

Memory
8 meg RAM; 2 meg Flash

Network Protocol Support
ARP, Bridging, DHCP, DNS, FTP, HTTP, ICMP, IP, POP3, SMTP, SNMP, SNTP, TCP, Telnet, TFTP, & UDP

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: 0° to +70° C

Approvals
EMC: FCC Part 15 Class B, Canada Class B, EN 55022 Class B, EN 55024
Safety: UL 60950, EN 60950, CSA 950, AS 3260

Ordering Information

Product	Description	Region
MTXCSEM	Embedded Device Server	Global

Ordering Codes

-L	3.3V Power Input (Default is 5V)
-HV	High Voltage 3KV Dielectric Isolation (EN 60601)

Made in Mounds View, MN, U.S.A.

Features and specifications are subject to change without notice.

Trademarks / Registered Trademarks: SocketEthernet IP, Multi-Tech, and the Multi-Tech logo: Multi-Tech Systems, Inc. / All other products and technologies are the trademarks or registered trademarks of their respective holders.

MultiTech®
Systems