iServer MicroServer™

EIS-W

CE   c(UL)us LISTED

FCC-B

MADE IN THE U.S.A.

✔ **Connects any serial devices with RS-232, RS-485, or RS-422 to an Ethernet network and the Internet**
✔ **Replaces dedicated wiring and PC's for serial connections**
✔ **Digital input/output lines**
✔ **Well-developed TCP/IP Stack**
✔ **Web based interface for easy configuration and access without any special software**
✔ **Configuration option via Telnet and Serial**
✔ **Supports TCP, UDP, ARP, Telnet, DHCP, DNS, HTTP, and MODBUS protocols**
✔ **Includes COM port redirection software to redirect data destined for a serial COM port to the Ethernet port on a PC**
✔ **Password protection for Security**
✔ **Wall mount brackets for secure installation**
✔ **Firmware upgradeable**
✔ **Custom firmware and private labeling for OEM's**
✔ **OEM board-level iServer available**

The award-winning NEWPORT® i®**Server** is the simplest, easiest, most economical way to connect serial devices to an Ethernet network and the Internet.

When you type its name in a Web Browser, it serves Web pages that let you quickly and easily configure the device for your specific application without any special software.

Getting started with the **iServer** is very simple and easy because it can take a dynamically assigned IP address from a DHCP server on your network. This DHCP client capability is a valuable and unique feature of the NEWPORT **iServer** that makes it extremely easy and simple to start using this device on almost any Ethernet network.

You can easily assign a static IP address to the iServer instead of a dynamic one, if necessary. The IP address can be assigned locally through its serial connection, as well as remotely over an Ethernet network via Telnet or a web browser, using its factory default IP address.

The NEWPORT **iServer** connects to an Ethernet Network with a standard RJ45 connector. Serial devices connect to the iServer with a standard DB-9 connector. You can select RS-232, or RS-485 (and RS-422) Serial Communications from the configuration Web page.

The **iServer** can be used to make an existing Serial device a "node" on an Ethernet network with a unique IP address that's accessible from any authorized computer on the LAN, WAN, or Internet.

The **iServer** can instead be used to create a virtual tunnel on an Ethernet/Internet network simulating a local point-to-point serial connection between a serial device and a PC. This replaces dedicated point-to-point wiring limited to 50 feet on an RS-232 connection. The NEWPORT **iServer** packages the Serial data in standard TCP/IP packets that can travel anywhere on the Ethernet LAN or over the Internet.

The NEWPORT **iServer** is compatible with almost any device with a Serial interface such as: time clocks, security alarms, card-key access controllers, telecommunications equipment, vending machines, bar code readers, electric power meters, UPS systems, test & measurement instrumentation, PLC's, serial printers, cash registers, and many more.

You do not need to rewrite the firmware for your serial devices to work with the **iServer**, and in some cases might not need to change your application software. Your serial devices will function over the Ethernet network or the Internet as if they were connected directly to a PC. The COM port on the **iServer** simulates a local COM port on the PC.

The NEWPORT **iServer** is compatible with wireless Ethernet. In settings where wires of any kind are not possible, the EIS-W can be connected to a Wireless Ethernet Access Point enabling simple, economical Wireless connectivity of Serial Devices.

With the NEWPORT **iServer**: A facilities manager can monitor electric power usage over the LAN from a desk anywhere in the facility, or from anywhere on the Internet with the proper passwords and authorization. A payroll clerk can download data from time clocks to a PC anywhere on a local area network, or anywhere in the world. A manufacturing technician can use a handheld computer with Wireless Ethernet connectivity to change settings on a process controller.

MicroServer™

The NEWPORT **iServer** model **#EIS-W** comes complete with full documentation, firmware, and AC power adapter.

For OEM's, NEWPORT offers custom labeling as well as customized application specific firmware and design engineering.

NEWPORT also offers printed circuit board-level products (powered by 5 Vdc) that OEM's can incorporate in their product to add embedded Ethernet/Internet connectivity to products with existing serial interface. (Contact the NEWPORT OEM Engineering Group.)

For industrial applications, NEWPORT offers other **iServer** Device Servers in polycarbonate enclosures for DIN rail mounting and a 10-32 Vdc power source.

NEWPORT **iServer** products are designed and manufactured in Santa Ana, California. NEWPORT provides generous technical support.

Specifications

Serial Interface
Interface: Software selectable RS-232, RS-422 or RS-485 (2 wire)
Connector: DB-9 (male DTE)
Data Rates: 300 to 115.2 Kbps
Characters: 7 or 8 data bits
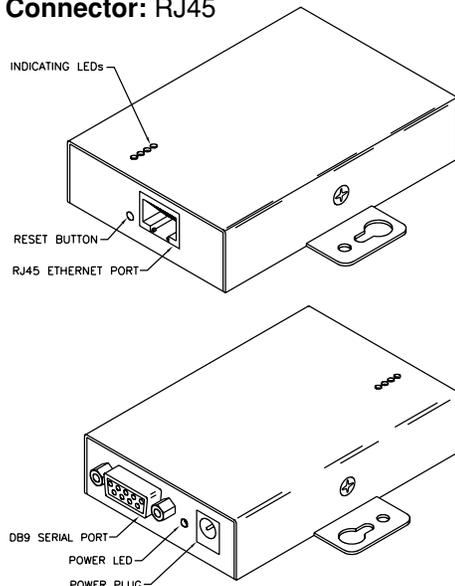**Parity:** odd, even, or none
Stop Bits: 1 or 2
Flow Control: Hardware (RTS/CTS) and Software (Xon/Xoff)
Digital I/O's: 4 digital input/output lines

Network Interface
Interface: Ethernet 10Base-T
Connector: RJ45

Protocols: TCP/IP, UDP/IP, ARP, ICMP, DHCP, DNS, HTTP, Telnet, and MODBUS/TCP

Indicators (LED's)
Power, Network Activity, and Serial Transmit/Receive

Processor
CPU: Enhanced 8051, 22 MHz
Memory: 512 Kbyte Flash, 16 Kbyte SRAM

Management
Embedded Web server, Telnet login, Serial login

Embedded Web Server
Serves dynamic Web pages and Java applets (256 Kbyte capacity)

Power
Input: 9-12 Vdc
Consumption: 2 W max. (AC adapter included)

Environmental
Operating Temperature: 0 to 70°C (32 to 158°F)
Storage Temperature: -40 to 125°C (-40 to 257°F)

Packaging
Material: Metal case with flange mount
Dimensions: 20.8H x 61.6W x 90.3D mm (0.83 x 2.93 x 3.56 in)
Weight: 0.18 kg (0.4 lbs.)

### Agency Approvals
FCC-B, C/UL, CE

Software
Firmware upgradeable (for iServer firmware upgrade package (**EIS-FW-CA** and **EIS-FW-CD**) contact Newport oem@newportUS.com or 714-540-4914)
Compatible with Windows 9x/ME/NT/2000/XP software and related utilities

Ordering Information
MicroServer™: serial interface (RS-232, RS-422, RS 485), 10Base-T/Ethernet, diagnostic LEDs, AC power adapter, CD-ROM with documentation, and printed Quick Start Guide
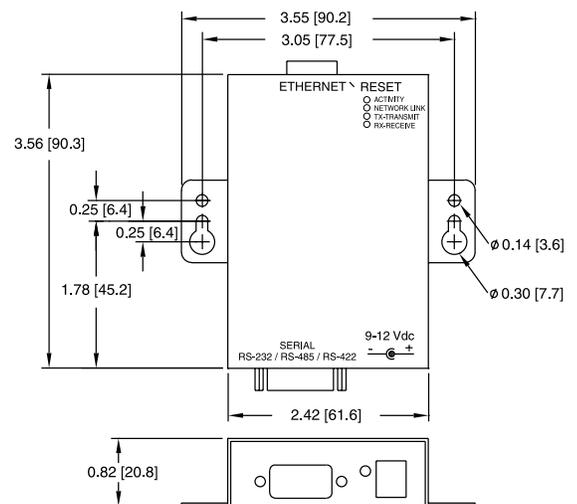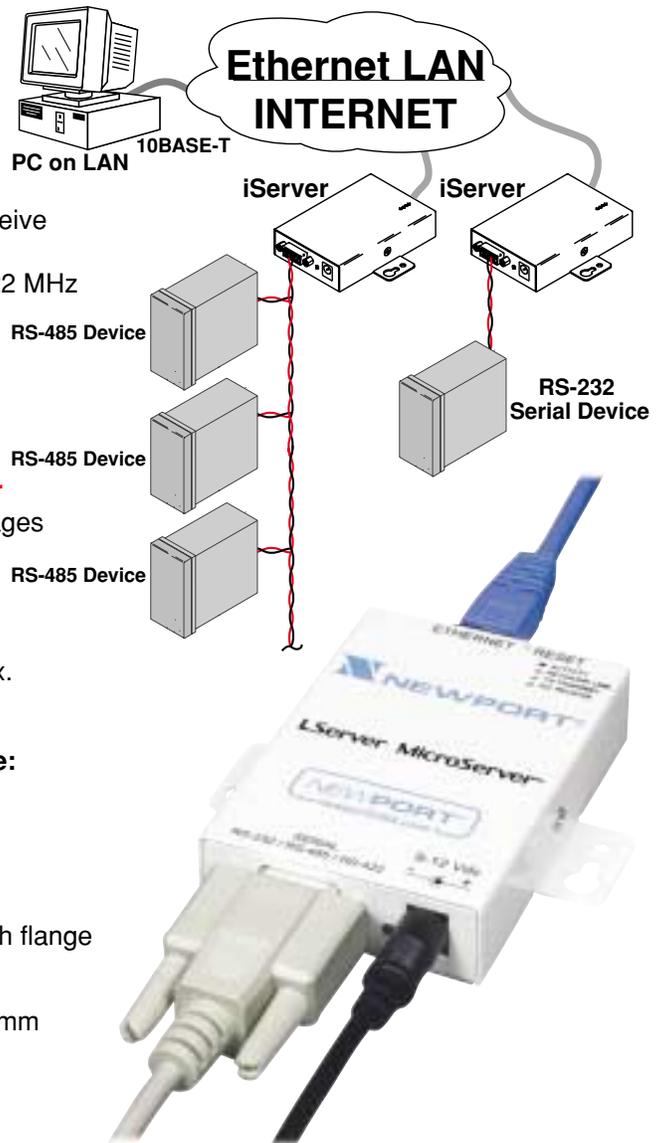
Model No.	Price*	Description
EIS-W-110	195	iServer MicroServer™ for Serial-to-Ethernet applications 110 Vac, 60 Hz adapter
EIS-W-240	195	iServer MicroServer™ for Serial-to-Ethernet applications 240 Vac, 50/60 Hz adapter

* Volume discounts are available

iServer
Industrial MicroServer™
EIS-2

✔ **Connects industrial serial devices with RS-232, RS-485, or RS-422 to an Ethernet network and the Internet**

✔ **Replaces dedicated wiring and PC's for serial connections**

✔ **Digital input/output lines**

✔ **Well-developed TCP/IP Stack**

✔ **Web based interface for easy configuration and access without any special software**

✔ **Configuration option via Telnet and Serial**

✔ **Supports TCP, UDP, ARP, Telnet, DHCP, DNS, HTTP, and MODBUS protocols**

✔ **Includes COM port redirection software to redirect data destined for serial COM port to the Ethernet port on a PC**

✔ **Password protection for Security**

✔ **Snaps easily into DIN Rail mounting rack**

✔ **Firmware upgradeable**

✔ **Custom firmware and private labeling for OEM's**

✔ **OEM board-level iServer available**

MADE IN THE U.S.A.   C E   c(UL)us LISTED   **FCC-B**

The award-winning NEWPORT® **i®Server** is the simplest, easiest, most economical way to connect serial devices to an Ethernet network and the Internet.

When you type its name in a Web Browser, it serves Web pages that let you quickly and easily configure the device for your specific application without any special software.

Getting started with the **iServer** is very simple and easy because it can take a dynamically assigned IP address from a DHCP server on your network. This DHCP client capability is a valuable and unique feature of the NEWPORT **iServer** that makes it extremely easy and simple to start using this device on almost any Ethernet network.

You can easily assign a static IP address to the iServer instead of a dynamic one, if necessary. The IP address can be assigned locally through its serial connection, as well as remotely over an Ethernet network via Telnet or a web browser, using its factory default IP address.

The NEWPORT **iServer** connects to an Ethernet Network with a standard RJ45 connector. Serial devices connect to screw terminals on removable connectors. You can select RS-232, or RS-485 (and RS-422) Serial Communications from the configuration Web page.

The **iServer** can be used to make an existing Serial device a "node" on an Ethernet network with a unique IP address that's accessible from any authorized computer on the LAN, WAN, or Internet.

The **iServer** can instead be used to create a virtual tunnel on an Ethernet/Internet network simulating a local point-to-point serial connection between a serial device and a PC.

This replaces dedicated point-to-point wiring limited to 50 feet on an RS-232 connection. The NEWPORT **iServer** packages the Serial data in standard TCP/IP packets that can travel anywhere on the Ethernet LAN or over the Internet.

The NEWPORT **iServer** is compatible with almost any device with a Serial interface such as: time clocks, security alarms, card-key access controllers, telecommunications equipment, vending machines, bar code readers, electric power meters, UPS systems, test & measurement instrumentation, PLC's, serial printers, cash registers, and many more.

You do not need to rewrite the firmware for your serial devices to work with the **iServer**, and in some cases might not need to change your application software. Your serial devices will function over the Ethernet network or the Internet as if they were connected directly to a PC. The COM port on the **iServer** simulates a local COM port on the PC.

The NEWPORT **iServer** is compatible with wireless Ethernet. In settings where wires of any kind are not possible, the EIS-2 can be connected to a Wireless Ethernet Access Point enabling simple, economical Wireless connectivity of Serial Devices.
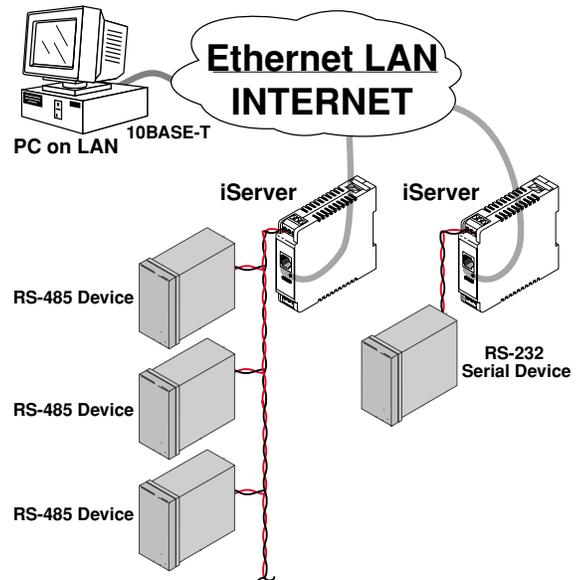
With the NEWPORT **iServer**: A manufacturing manager can monitor PLC's over the LAN from a desk anywhere in the facility, or from anywhere on the Internet with the proper passwords and authorization. A technician can use a handheld computer with Wireless Ethernet connectivity to change settings on a process controller.

The NEWPORT **iServer** model # **EIS-2** comes complete with full documentation, and firmware.

For OEM's, NEWPORT offers custom labeling as well as customized application specific firmware and design engineering. NEWPORT also offers printed circuit board-level products (powered by 5 Vdc) that OEM's can incorporate in their product to add embedded Ethernet/Internet connectivity to products with existing serial interface. (Contact the NEWPORT OEM Engineering Group.)

For IT and commercial applications, NEWPORT offers other **iServer** Device Servers in steel enclosures for rack mounting. The EIS-W models feature a DB-9 connector and come complete with a 110 or 240 Vac power adapter.

Industrial MicroServers™

Ethernet LAN INTERNET

PC on LAN 10BASE-T

iServer   iServer

RS-485 Device

RS-485 Device

RS-485 Device

RS-232 Serial Device

NEWPORT **iServer** products are designed and manufactured in Santa Ana, California. NEWPORT provides generous technical support.

Specifications

Serial Interface

Interface: Software Selectable RS-232, RS-422 or RS-485 (2 wire)

Connector: screw terminal plugs (EIS-2) RJ45 (EIS-2-RJ)

Data Rates: 300 to 115.2 Kbps

Characters: 7 or 8 data bits

Parity: odd, even, or none

Stop Bits: 1 or 2

Flow Control: Hardware (RTS/CTS) and Software (Xon/Xoff).
The hardware flow control is available only with the EIS-2-RJ model

Digital I/O's: 4 digital input/output lines

Network Interface

Interface: Ethernet 10Base-T

Connector: RJ45

Protocols: TCP/IP, UDP/IP, ARP, ICMP DHCP, DNS, HTTP, Telnet, and MODBUS/TCP

Indicators (LED's)

Network Activity, Network Link, and Serial Transmit/Receive

Processor

CPU: Enhanced 8051, 22 MHz

Memory: 512 Kbyte Flash, 16 Kbyte SRAM

Management

Embedded Web server, Telnet login, Serial login

Embedded Web Server

Serves dynamic Web pages and Java applets (256 Kbyte capacity)

Power Input - DIN Rail Enclosure

(AC Power supply sold separately)

Input: 10-32 Vdc

Consumption: 2 W max.

Environmental

Operating Temperature: 0 to 70° (32 to 158°F)

Storage Temperature: -40 to 125°C (-40 to 257°F)

Packaging
DIN Rail Enclosure

Material:
Polycarbonate case with DIN Rail mount

Dimensions:
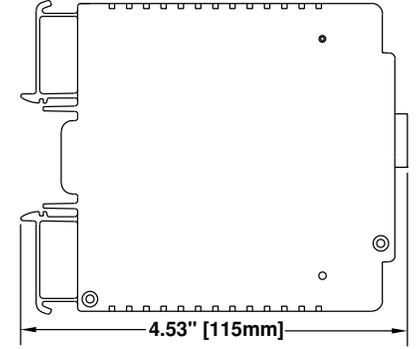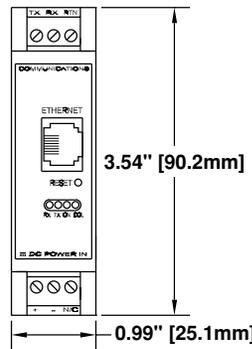90.2H x 25.1W x 115.0D mm (3.54 x .99 x 4.53 in)

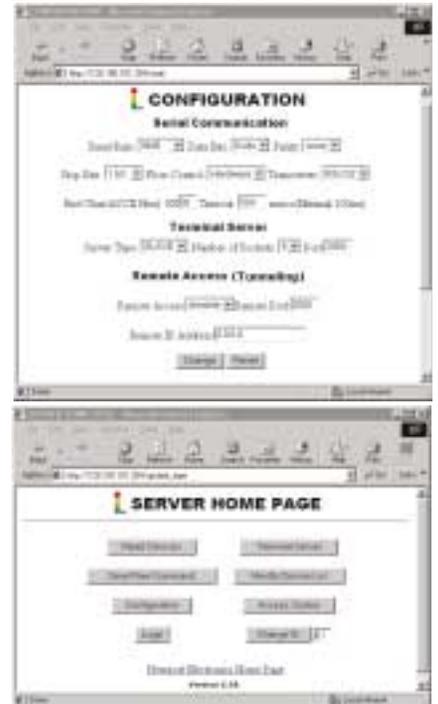**Weight:** 113 kg (0.25 lbs.)

Agency Approvals

FCC-B, C/UL, CE

Software

Firmware upgradeable (for iServer firmware upgrade package (**EIS-FW-CA** and **EIS-FW-CD**) contact Newport oem@newportUS.com or 714-540-4914)
Compatible with Windows 9x/ME/NT/2000/XP software and related utilities

3.54" [90.2mm]

0.99" [25.1mm]

4.53" [115mm]

Ordering Information

MicroServer™: serial interface (RS-232, RS-422, RS-485), 10Base-T/Ethernet, diagnostic LEDs, DIN Rail mountable, CD-ROM with documentation, and printed Quick Start Guide

Embedded Web Server Screen Shots

Model No.	Price*	Description
EIS-2	195	iServer Industrial MicroServer™ with screw terminal serial port
EIS-2-RJ	195	iServer Industrial MicroServer™ with RJ45 serial port
iDRN-PS-1000	150	Power Supply (switching), 95 to 240 Vac input, 24 Vdc output @ 850mA (power up to 7 units)

* Volume discounts are available

iServer
Embedded MicroServer™

EIS-PCB

✔ **Embedded solution for Serial-to-Ethernet communications**
✔ **Connects any serial device with RS-232, RS-485, or RS-422 to an Ethernet network and the Internet**
✔ **Replaces dedicated wiring and PC's for serial connections**
✔ **Small enough to fit into almost any size device**
✔ **Well-developed TCP/IP Stack**
✔ **Web based interface for easy configuration and access without any special software**
✔ **Configuration option via Telnet and Serial**
✔ **Supports TCP, UDP, ARP, Telnet, DHCP, DNS, HTTP, and MODBUS protocols**
✔ **Includes COM port redirection software to redirect data destined for a serial COM port to the Ethernet port on a PC**
✔ **Digital input/output lines**
✔ **Password protection for Security**
✔ **Firmware upgradeable**
✔ **Custom firmware and private labeling for OEM's**

The award-winning NEWPORT® **i®Server** is the simplest, easiest, most economical way for Original Equipment Manufacturers to network enable their products. Any device with Serial Communications capability (RS-232, 422, 485, or TTL) can now connect to an Ethernet network and the Internet.

The world's smallest World Wide Web Server, the NEWPORT **iServer-PCB** is a printed circuit board, half the size of a business card, powered by 5 Vdc from the product's main board. It connects the manufacturer's product to an Ethernet Network with a standard RJ45 connector.

The OEM product can now become a node on an Ethernet network, or the Internet. The **iServer** is compatible with DHCP servers (Dynamic Host Configuration Protocol) and DNS servers (Domain Name System). This means that the OEM product can take a dynamically assigned IP address from a DHCP Server on a LAN or the Internet, and can be identified by name or IP address.

This DHCP client capability is a valuable and unique feature of the NEWPORT **iServer** that makes it extremely easy and simple for the manufacturer's customers to start using their product on almost any Ethernet network.

The OEM or end users can easily assign a static IP address to the product instead of a dynamic one, if necessary. The IP address can be assigned locally through its serial connection, as well as remotely over an Ethernet network via Telnet or a Web browser, using its factory default IP address.

The NEWPORT **iServer** is compatible with almost any device with a Serial interface such as: time clocks, security alarms, card-key access controllers, telecommunications equipment, vending machines, bar code readers, electric power meters, UPS systems, test & measurement instrumentation, PLC's, serial printers, cash registers, and many more.

Users of these OEM products will be able to type the product's IP address or unique name in the address line of a Web Browser such as Internet Explorer and access the iServer's configuration pages as well as the serial device attached to the **iServer**. NEWPORT offers custom firmware engineering services for each application to enable the OEM product to serve a Web page with a custom template and actively changing data.

For example, an electric power meter could serve a Web page that displays whatever data is available from the meter such as current Kilowatts, accumulated Kilowatt Hours, Peak Rate, or any other information.

A burglar alarm could serve a custom Web page that displays current alarm status, log history, or anything else the alarm is capable of displaying. The OEM product can also be programmed to trigger an email or page to report an alarm or to update the current status.

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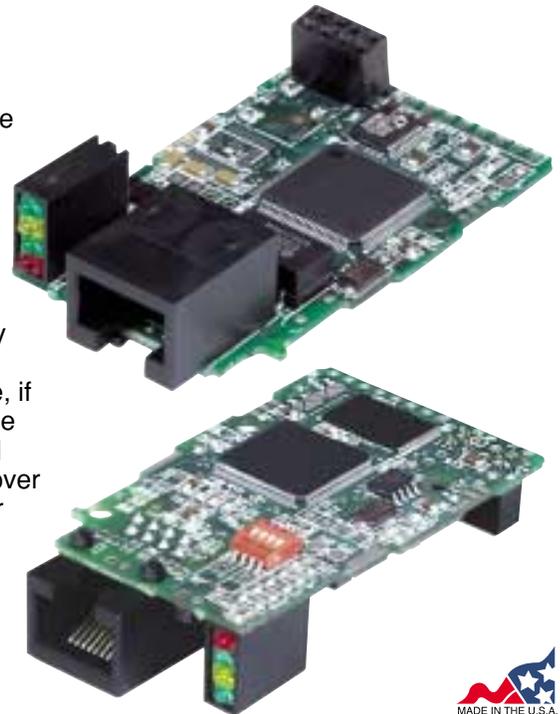
Alternatively, the **iServer** can be used to create a virtual tunnel on an Ethernet/Internet network simulating a local point-to-point serial connection between a manufacturer's device and a PC. This replaces dedicated point-to-point wiring limited to 50 feet on an RS-232 connection. The NEWPORT iServer packages the Serial data in standard TCP/IP packets that can travel anywhere on the Ethernet LAN or over the Internet.

Using the embedded **iServer**, a manufacturer of time clocks will enable a payroll clerk to download data to a PC anywhere on a LAN or anywhere in the world. A manufacturer of process controllers would enable its customer to use a handheld computer with Wireless Ethernet connectivity to log data and change settings on the controller.

OEM's do not need to rewrite the firmware for their serial devices to work with the **iServer**, and in some cases might not need to change their application software. The OEM's serial devices will function over the Ethernet network or the Internet as if they were connected directly to a PC. The COM port on the **iServer** simulates a local COM port on the PC.

NEWPORT **iServer** products are designed and manufactured in Santa Ana, California.

Embedded MicroServer™

Specifications

Serial Interface
Interface: RS-232, RS-485, RS-422, CMOS, or TTL
Connector: Pin header holes (0.1" pitch)
Data Rates: 300 to 115.2 Kbps
Characters: 7 or 8 data bits
Parity: odd, even, or none
Stop Bits: 1 or 2
Flow Control: Hardware (RTS/CTS) and Software (Xon/Xoff)
Digital I/O's: 4 digital input/output lines

Network Interface
Interface: Ethernet 10Base-T
Connector: RJ45
Protocols: TCP/IP, UDP/IP, ARP, ICMP, DHCP, DNS, HTTP, Telnet, and MODBUS/TCP

Indicators (LED's)
Network Activity, and Serial Transmit/Receive

Processor
CPU: Enhanced 8051, 22 MHz
Memory: 512Kbyte Flash, 16Kbyte SRAM

Management
Embedded Web server, Telnet login, Serial login

Embedded Web Server
Serves dynamic Web pages and Java applets (256 Kbyte capacity)

Power
Input: 5 Vdc
Consumption: 0.7 W avg. / 1 W max.

Environmental
Operating Temperature:
0 to 70°C (32 to 158°F)
Note: -40 to 85° also available
Storage Temperature:
-40 to 125°C (-40 to 257°F)
Weight: 23 g (0.05 lbs.)

Agency Listing
FCC-B, CE, C/UL

Software
Firmware upgradeable (for iServer firmware upgrade package (**EIS-FW-CA** and **EIS-FW-CD**) contact NEWPORT oem@newportUS.com or 714-540-4914)
Compatible with Windows 9x/ME/NT/2000/XP software and related utilities
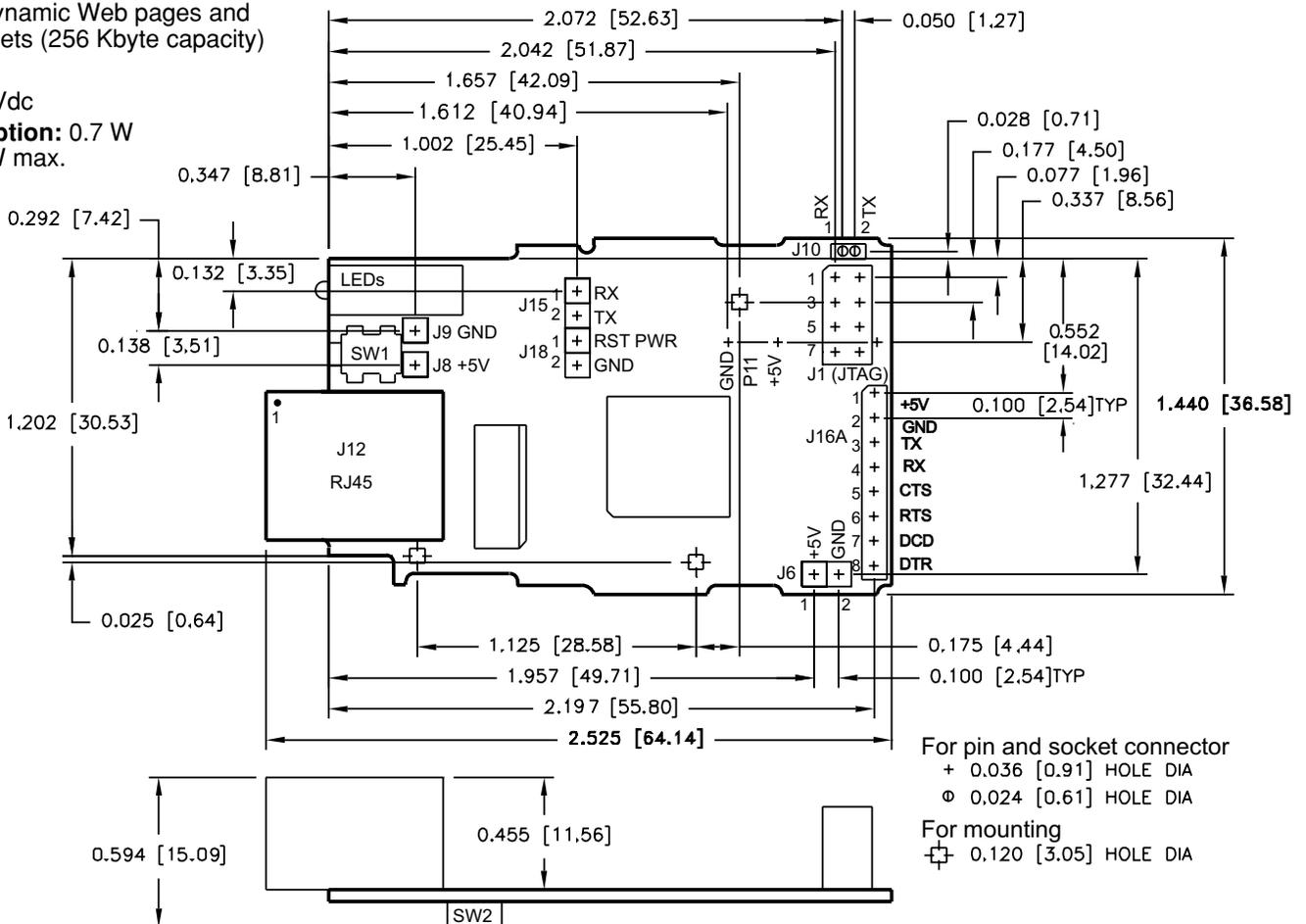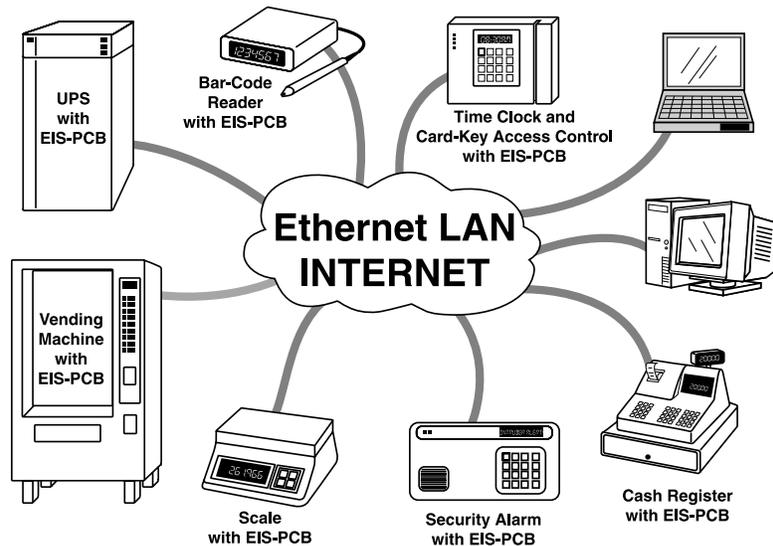
Model No.	Description
EIS-PCB	**Consult NEWPORT OEM team for application assistance & quantity pricing. oem@newportUS.com - 714-540-4914**