Serial Device Servers - Embedded Boards

Embedded High Speed USB 2.0 Serial Adapters for custom enclosures

When you need the ultimate in device server performance, ease of use and reliability, specify Quatech, featuring the highest throughput and lowest latency available in device server technology

Now, Quatech offers Embedded Device Server Boards. Ideal for OEM solutions, custom enclosures and other situations where the external Device Server shell is not needed, Quatech Embedded Device Servers offer all the industry-leading features as an external line.

Quatech, the performance leader in device networking, makes it easy to get started

An intuitive Installation Wizard gets you up and running quickly, automatically searching local and remote subnets for installed device servers within seconds of inserting the installation CD-ROM.

Any network settings automatically assigned by DHCP networks are displayed for confirmation, or enter a static IP address easily using the Installation Wizard – you won't need to bother with telnet sessions, MAC address data entry or special cables.

Quatech device servers may be managed through the Windows® Device Manager interface or a Web browser, so you can count on trouble-freeconfiguration and maintenance long after the initial installation is completed.

The EMB Series is available RS-232 with 1 and 2 port configurations. Surge suppression is standard. Each model is designed to use the same drivers, manuals and installation wizard to simplify deployment and use.

Overcome the limitations of serial protocols by networking-enabling your devices

Serial (RS-232) devices are used in virtually all industries. Yet, while serial protocols have proven to be reliable and robust, there are drawbacks – cable lengths are limited and expensive, COM ports are often in short supply on the host PC, and the attached serial devices are not remotely accessible for monitoring, service or support.

A Quatech Embedded Device Server overcomes all these limitations. Its hardware and drivers are invisible to connected serial devices and their software applications, routing data through an IP network to "virtual" COM ports installed on the host PC by the Installation Wizard.

Industry-leading performance at a budget-friendly price

The EMB Series models offer the same low latency, high throughput performance as our flagship 100 and 400 series device servers. You won't find a device server with a better price:performance ratio anywhere!

KEY FEATURES

- Includes the fastest and easiest Installation Wizard available

- A built-in Web server makes configuration and support available via Web browser

- Serial baud rates to 115.2kbps and auto-negotiating 10/100 Ethernet support means fast serial and network data transfers

- Freescale™ architecture is the industry standard in networking solutions

- Surge suppression standard

- Operating modes such as serial tunneling, IP multicast, virtual COM ports and other protocols provides true flexibility and easy integration

- A PowerPC® processor eliminates data bottlenecks and common latency issues

- SNMP support for simple network management

- 5 year warranty

- Designed, manufactured and supported by Quatech in the USA

EMBEDDED SERIAL DEVICE SERVER SPECIFICATIONS

Ordering Information

Model	Ports	Interface
SSE-100D-EMB	1	RS-232 w/ DB-9 Male
DSE-100D-EMB	2	RS-232 w/ DB-9 Male

Each port is a fully independent asynchronous DTE serial port with:
* Full modem control
* Hardware flow control
* Available 10-pin RJ-45 adapter for DB-9M connector

LAN Interface
10/100 Base T (IEEE 802.3) auto-negotiation, auto MDI/MDIX and RJ-45 Ethernet connector

OS Support
Device drivers provided for Windows NT, Windows 2000, Windows XP and Linux

Raw TCP, Raw UDP (including broadcast and multicast), Tunneling, AutoTCP and Intellisock modes are O/S dependent

Please check Quatech's web site for the latest O/S driver support information

Speed
Each serial port supports data transfer speeds of up to 115.2 kbps, depending on flow control protocols used, cable length and condition, and other factors

Surge suppression standard for EMB models
Surge suppressor is capable of sustaining up to 40-A peak, 8 x 20μs transient surges, a clamping voltage of 30V and a peak energy dissipation of 0.1 Joules.

DB-9 Male Serial Connector, External View

Signal Information:

RS-232	DB-9M Pin #
DCD	1
RxD	2
TxD	3
DTR	4
GND	5
DSR	6
RTS	7
CTS	8
RI	9

Receiver Inputs:
RS-232

Voltage Rating: -15V, +15V
Receiver Skew: 120 ns (typical), 250 ns (max)

Transceiver Outputs:
RS-232

High Level Output: +5V (min), +5.4V (typ)
Low Level Output: -5V (min), -5.4V (typ)
Transmitter Skew: 50 ns (typ), 200 ns (max)

Parity, Stop Bits:
Parity configurable as: None, Even, Odd
Data bits configurable as: 5, 6, 7, 8
Stop bits configurable as: 1, 1.5, 2

Protocols and Software:

Management: UDP, TCP/IP, HTTP, DHCP, ARP, ICMP, SNMP (MIB II)

Initial IP address configuration: DHCP, static IP (set through Installation Wizard) or a custom UDP datagram utility (with command line interface) for unattended installations

Quatech provides several ways to manage, monitor and configure device servers after installation:

* Windows® Device Manager (Quatech Device Manager in Windows NT)
* On-board HTML pages accessible from a standard web browser
* Simple Network Management Protocol (SNMP)
* Intellisock™ TCP socket services
Communication modes: Normal, Tunneling, Raw TCP, Auto TCP, Raw UDP and Intellisock TCP advanced socket services

Hardware:
Processor: Freescale™ PowerPC®
SDRAM: 8 MB
FLASH Memory: 2 MB
Firmware stored in FLASH may be upgraded via LAN interface

Typical Power Consumption
+5V, 0.4A (4W)

Environment
Operating: 0° to 70°C
Storage: -40° to780° C
Humidity: 10% to 90% non-condensing

Size
SSE/DSE-100D-EMB:
Height: .61" (1.54 cm)
Width: 3.50" (8.89 cm)
Depth: 4.50" (11.43 cm)

Certifications
FCC, CE

Accessories
DB-9M to Screw Terminal Adapters
International Power Cords

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