



# QUATECH

## Quatech 100 Series Device Servers

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.



Quatech device servers are available in 1, 2, 4 and 8-port configurations.

**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-free configuration and maintenance long after the initial installation is completed.

The 100 Series is available in 1, 2, 4 and 8-port configurations. The one and two port models are optionally available with +5V at pin 9 to power external devices. Each and every 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-232/422/485) devices are used in thousands of diverse industries including:

- CNC/DNC Applications
- Energy Management
- Security & Access Control
- Government & Defense
- Materials Handling & Logistics
- Intelligent Traffic Systems

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 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 100 Series models offer the same low latency, high throughput performance as our flagship 400 Series device servers, but its RS-232-only interface is an economical choice for those who don't require the flexibility of a multi-electronic interface for their applications. You won't find a device server with a better price:performance ratio anywhere!

### Features and Benefits

- 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 921 kbps and auto-negotiating 10/100 Ethernet support means fast serial and network data transfers
- Freescale™ architecture is the industry standard in networking solutions



- 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
- Backed by a 5 Year Limited Warranty
- Designed, manufactured and supported by Quatech in the USA



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## SPECIFICATIONS

### LAN interface

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

### Serial interface (RS-232/422/485)

| Model       | Ports | Connector                |
|-------------|-------|--------------------------|
| SSE-100D    | 1     | DB-9 Male                |
| SSE-100D-5V | 1     | DB-9 Male (+5V at pin 9) |
| DSE-100D    | 2     | DB-9 Male                |
| DSE-100D-5V | 2     | DB-9 Male (+5V at pin 9) |
| QSE-100D    | 4     | DB-9 Male                |
| ESE-100D    | 8     | 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

**Port-Power:** SSE-100D-5V and DSE-100D-5V provide +5V at Pin 9 on the DB-9 serial port connector

### Receiver inputs:

#### RS-232:

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

### Transmitter outputs:

#### RS-232:

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

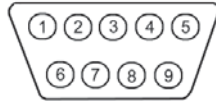
### Speed:

Each serial port supports data transfer speeds of up to **921.6 kbps**, depending on flow control protocols used, cable length and condition, and other factors

### Surge Suppression (SS)

Standard for "5V" models, optional for others. Surge suppressor is capable of sustaining up to 40-A peak, 8 x 20- $\mu$ s 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           |

### 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

### 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 independent

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

### Hardware

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

### Power supply

+5V, 2A (10 W) max DC, with auto-sensing AC adapter provided for 100VAC–240VAC, 50Hz–60Hz worldwide operation

Typical power consumption: +5V, 0.8A (4W)

### Environment

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

### Dimensions

#### SSE/DSE-400D:

Height: 1.18" (2.99 cm)  
Width: 3.33" (8.46 cm)  
Depth: 4.69" (11.91 cm)

#### QSE-400D:

Height: 1.50" (3.40 cm)  
Width: 9.96" (25.30 cm)  
Depth: 4.69" (11.91 cm)

#### ESE-400D:

Height: 1.96" (4.97 cm)  
Width: 9.96" (25.30 cm)  
Depth: 5.40" (13.72 cm)

### Certifications

FCC, CE

### Accessories

Surge Suppression  
DB-9M to RJ-45 Adapters  
DB-9M to Screw Terminal Adapters  
International Power Cords  
DIN Rail Mounting Kit

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