

## Quatech Wireless Device Servers

When looking for the ultimate in wireless device server ease of use and performance, look no further than the new Wireless Series models from Quatech.



*Quatech wireless device servers are the fastest and easiest way to connect a standard serial device to an 802.11b wireless network.*

An intuitive Installation Wizard gets the wireless device server up and running in just minutes, automatically searching local *and* remote subnets for the correct model attached.

Network settings automatically assigned by DHCP networks are displayed for confirmation, or change to a static IP address easily using the Installation Wizard – no Telnet sessions, MAC address data entry or special cables are needed.

The wireless device servers can be managed through the Windows® Device Manager interface or a Web browser, for continued ease of configuration and maintenance long after the initial installation is completed. Infrastructure or Ad-Hoc modes are supported, even serial tunneling without an access point!

## Why Network A Serial Device?

Serial (RS-232/422/485) protocols are a mature and reliable form of data transfer, used in millions of products in industries as diverse as:

- Industrial Automation
- Point-of-Sale
- Banking & Finance
- Building Automation
- Security & Access Control
- Governemnt & Defense
- Information Technology
- Transportation & Logistics

Yet, while these protocols have proven to be reliable and robust, there are drawbacks – cable lengths are limited, COM ports are often in short supply on the host PC, and the attached serial devices are not remotely accessible for service and support.

Quatech wireless device servers can overcome all these limitations. Its hardware and drivers are invisible to connected serial devices and their software applications, routing data through “virtual” COM ports added to the host PC by the Installation Wizard. Within minutes, anyone with proper authorization can access serial devices over a wireless LAN, an Intranet or even the Internet!

The 100 Series is designed for RS-232 applications and includes an available +5V output option. The 400 Series models introduce a new software-selectable, RS-232 / 422 / 485 multi-electrical interface (MEI) to the Quatech product line. Unlike some multi-port models on the market, the 400 Series has MEI on all ports. Already the performance leader, Quatech is now the flexibility leader as well.

## Features and Benefits

- A built-in Web server makes configuration and support available via Web browser
- Serial baud rates to 921kbps and 11 Mb/S wireless radio support means fast serial and network data transfers
- A choice of local COM port emulation, serial tunneling, broadcasting, multicasting and Raw TCP/UDP modes allows true flexibility when integrating into a variety of applications and operating systems
- A Freescale™ PowerPC® processor eliminates data bottlenecks and common latency issues



- The tightly integrated DPAC Technologies™ radio features the Conexant® Prism™ 3 chipset, the gold standard in wireless radio components



- An available option provides 5V out on Pin 9 to power peripheral devices from DB9 connector
- SNMP support for simple network management
- 5 year limited warranty
- Designed, manufactured and supported by Quatech in the USA

## SPECIFICATIONS

### LAN interface

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

| Model        | Ports | Interface      |
|--------------|-------|----------------|
| SSEW-100D    | 1     | RS-232         |
| SSEW-100D-5V | 1     | RS-232 w/+5V   |
| SSEW-400D    | 1     | RS-232/422/485 |
| DSEW-100D    | 2     | RS-232         |
| DSEW-100D-5V | 2     | RS-232 w/+5V   |
| DSEW-400D    | 2     | RS-232/422/485 |

### Wireless Specifications

Technology: IEEE 802.11b DSSS, WiFi Compliant

#### Frequency:

2.4 – 2.4835 GHz (US/Can/Europe/Japan)  
2.471-2.497 GHz (Japan)

#### Channels:

USA & Canada: 11 channels  
Europe: 13 channels  
Japan: 14 channels  
France: 4 channels

Data Rates Supported: 11, 5.5, 2, 1 Mbps

RF Power: 65 mW (Typical)

#### Sensitivity:

-82 dBm @ 11Mbps, -86 dBm @ 5.5 Mbps  
-88 dBm @ 2 Mbps and -90dBm @ 1 Mbps

Security: WEP standard encryption, 64/128-bit WPA encryption available soon

Antenna: 2.2 dBi Rubber Duck Antenna, supplied and attached to RP-SMA bulkhead connector

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

Each port is a fully independent asynchronous DTE serial port, with:

- ❖ Full modem control
- ❖ Hardware flow control
- ❖ Optional 10-pin RJ-45 adapters for DB-9M connections are available

#### Speed:

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

### Certifications

FCC, Industry Canada, CE

### Serial Connectors

DB-9 Male, External View



Signal Information:

| RS-232 | DB-9 Pin # | RS-422/485 4 wire mode |
|--------|------------|------------------------|
| DCD    | 1          | AuxIn-                 |
| RxD    | 2          | RxD+                   |
| TxD    | 3          | TxD+                   |
| DTR    | 4          | AuxOut-                |
| GND    | 5          | GND                    |
| DSR    | 6          | RxD-                   |
| RTS    | 7          | AuxOut+                |
| CTS    | 8          | AuxIn+                 |
| RI     | 9          | TxD-                   |

2-wire mode supported, see owner's manual

### Surge Suppression Option (Standard on 5V Models)

Surge suppressor is capable of sustaining up to 40-A peak, 8 x 20- $\mu$ s transient surges, a clamping voltage of 30V (RS-232 mode) or 15.5V (RS-422/485 mode), and a peak energy dissipation of 0.1 Joules

### Protocols and software

Management: UDP, TCP/IP, HTTP, DHCP, ARP, SNMP

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

Quatech provides several ways to manage, monitor and configure wireless 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 or Intellisock TCP socket services

### OS support

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

Raw TCP, Raw UDP, Tunneling, AutoTCP and Intellisock™ modes are O/S independent

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

### Power Supply

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

Typical power consumption: +5V, 0.7A(3.5W)

### Hardware

Conexant Prism™ 3 Wireless Chipset

CPU: Freescale™ PowerPC®  
SDRAM: 8 MB  
FLASH Memory: 2 MB (FLASH is field upgradeable)

+5V models limited to 500mA max current draw per port (fuse-protected)

### Environment

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

### Dimensions

Length: 4.69" (11.91 cm)  
Width: 3.33" (8.46 cm)  
Depth: 1.18" (2.99 cm)  
Weight: 15.1 oz. (428.0 g)

### Accessories

Surge Suppression  
DB-9 to RJ-45 Adapters  
International Power Cords  
DIN Rail Mounting Kit  
RS-422 & 485 Termination Blocks

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