



QUATECH

USB Serial Adapters

Upgrade to USB connectivity without replacing peripheral hardware or application software

Technology advances and the trend towards closed box systems are significantly impacting port expansion options. In some cases the



Quatech USB Serial Adapters are the industry's fastest with 1-16 independent ports for desktop use, and embedded versions for custom enclosures.

USB port is the only choice, which can be a problem if your network relies on serial devices. Quatech has the solution.

Industry-leading features include fastest speeds

Quatech's USB Serial Adapters are based on the idea that taking advantage of new technology should not necessitate abandoning legacy devices and the applications written for them. Features like industry-leading speed, plug-and-play and surge suppression make Quatech USB Serial Adapters the ideal solution for a wide variety of industries such as banking, retail and industrial automation where PCs have significantly shorter lifecycles than the peripherals used with them.

Quatech USB Serial Adapters enumerate themselves as standard COM ports

that are compatible with all standard RS-232 or RS-422/485 devices and the software created for them. The adapters also have a unique industrial surge suppression feature. This "IND" option is ideal for implementing USB-to-serial networks in factories, power plants, and other potentially harsh industrial environments.

Embedded USB Serial Adapters for custom enclosures

If you're looking to seamlessly connect multiple serial peripherals via a single USB port in a custom enclosure, try Quatech's Embedded USB Serial Adapters. These reliable units use the same technology as our standard products and enable manufacturers and integrators to easily incorporate multiple serial interface devices such as keypads, displays, card readers, and printers into custom enclosures that lack native serial support without changing software written for serial port communications.

Available with 4 or 8 independent ports, the small-footprint boards have built-in surge suppression at each serial port, necessary for maximum reliability and robustness. Mounting holes allow easy installation into cabinets and kiosks. For maximum flexibility, each port on 200/300 models can be configured as RS-422 or RS-485 in any combination, meaning a single adapter can be used to implement multiple full-duplex and half-duplex multi-drop networks.

Features and Benefits

- One, two, four, eight or 16 independent serial ports
- RS-232 or RS-422/485
- Embedded (board only) units available with 4 or 8 independent ports
- Plug-and-play capability
- Devices enumerate themselves as standard COM ports
- Speeds up to 460.8 kbps
- Standard 16550 UARTs with 16-byte FIFOs to boost data rates
- Optional surge suppression package (standard on Embedded products)
- Full modem control and hardware and software flow control
- Bus powered: no external power required
- Windows 98/Me/NT/2000/XP
- Five year warranty

USB SERIAL ADAPTER SPECIFICATIONS

Bus Interface

USB 1.1, USB 2.0 compatible

Ordering Information

Model	Ports	Interface
SSU-100	1	RS-232 w/ cable
DSU-100	2	RS-232 w/ cable
DSU-200/300	2	RS-422/485 w/ cable
QSU-100	4	RS-232 w/ cable
QSU-200/300	4	RS-422/485 w/ cable
ESU-100	8	RS-232 w/ cable
ESU-200/300	8	RS-422/485 w/ cable
HSU-100	16	RS-232 w/ 2 cables
HSU-200/300	16	RS-422/485 w/ 2 cables

OS Support

Windows 98/Me/NT/2000/XP
SunRay Server (SSU/DSU/QSU-100)
Linux

Data Rate

460.8 kbps (max)

Serial Ports Provided

SSU:1 DSU:2 QSU:4 ESU:8 HSU:16
(For 200/300 models, each configurable as RS-422 or RS-485 for full or half duplex communication)

USB Ports Required

SSU:1 DSU:1 QSU:1 ESU:1 HSU:2

UARTs

16550 UARTs with 16-byte FIFOs (1 per port)

Transceiver (RS-232)

SP211HB

Transceiver (RS-422/485)

MAX491 or compatible

Differential Driver Output (500 Load):

+2V (min)

Differential Driver Output (270 Load):

+1.5V (min), +5V (max)

High Input: +2V (min)

Low Input: +0.8V (max)

Driver Rise/Fall Time: 5ns (min), 15ns (typ), 25 ns (max)

Driver Input to Output Delay: 10ns (min), 30ns (typ), 60ns (max)

Receiver Input to Output Delay: 20ns (min), 90ns (typ), 150ns (max)

RS-232 Output

Voltage Swing: ±5V (min), ±7V (typ)

RS-232 Input

Voltage Range: -15V (min), ±15V (max)

Input Threshold Low: 0.8V (min), 1.2V (typ)

Input Threshold High: 2.4V (max), 1.7 (typ)

IND Option: Surge suppression applied to each line that is capable of sustaining up to 40A peak, 8 x 20µs transient surges, a clamping voltage of 30V and a peak energy dissipation of 0.1 Joules.
(NOTE: The "IND" option limits data rate to 115.2 kbps)

Environment

Operating: 0° to 70°C

Storage: -50° to 80° C

Humidity: 10% to 90%

Power Requirements

Bus-powered device, no external power supply required

Suspend power: < 500 µA

Unconfigured power: < 100 mA

Configured power: < 500 mA

Size

SSU: 3.6" L x 1.7" W x 1" H

DSU/QSU: 9.18" L x 5.25" W x 1.675" H

ESU: 9.18" L x 5.25" W x 2.363" H

HSU: 9" L x 6.5" W x 4.5" H

Connectors (RS-232)

DB-9 male

Connectors (RS-422/485)

DB-9 female

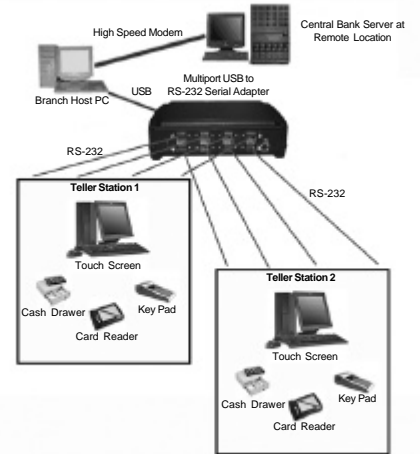
Certifications

CE, FCC Class B

Retail Application



Banking Application



5675 Hudson Industrial Parkway, Hudson, OH 44236

1.800.553.1170 • www.quatech.com

