

# **Serial PCMCIA Cards** RS-232 and RS-422/485

Quatech serial PCMCIA cards (PC Cards) provide a simple yet robust solution for adding multiple serial ports to laptops, notebooks, tablets, handhelds and embedded systems.



Quatech serial PCMCIA cards add one, two or four RS-232 or RS-422/485 ports to portable computers.

## The most complete serial PCMCIA product line available

Quatech offers more choices in serial I/O PC cards than any other manufacturer, including several exclusive models. In addition, our PCMCIA cards use a single driver set for all models, making them an extremely practical choice for applications with multiple configurations that span several operating systems including Windows, Linux and OS/2.

Quatech PC Cards are small, light and have low power requirements to reduce battery drain. They are available with one to four independent RS-232 or RS-422/485 serial ports that share a single interrupt. The standard version comes with a convenient detachable cable. For extreme computing environments, permanently attached ruggedized cables are available.

## Multiple serial ports for portable devices, mobile applications, and embedded systems

Quatech serial PCMCIA cards are a flexible, low-cost way to interface serial peripherals in a wide variety of portable, PC-based mobile applications. They are also ideally suited for embedded systems, where achieving maximum functionality in a minimum of space is essential. For example:

- POS Systems
- Field data collection
- Medical testing
- Kiosks
- GPS tracking
- Mobile office
- Industrial monitoring & control

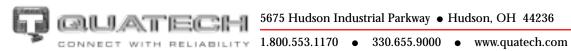
## Industry leading speeds mean exceptional performance

Quatech serial PCMCIA cards provide industry leading speeds of up to 921.6 kbps by employing a clock multiplying feature in conjunction with 16750 UARTs.

To further increase performance, we have created an auto toggle feature for the RS-422/485 transmitter that permits the hardware itself to regulate data flow by only driving lines while actively transmitting--providing increased speed and convenience over the older software controlled method.

### **Features and Benefits**

- One, two or four independent serial ports
- RS-232 or RS-422/485 cards
- Speeds up to 921.6 kbps
- Auto enable/disable feature for RS-422/485 transmitter
- Ruggedized case with removable cable standard
- Permanently attached ruggedized cable option for one and two port RS-232 cards
- 3.3V and 5V compatible
- RoHS compatible
- Plug & Play and Hot Swap capability
- Low power requirements
- Linux support
- Windows CE and Pocket PC support
- Windows 9x/Me/NT/2000/ XP/Vista and OS/2 support
- 5 year warranty



#### **RS-232 SPECIFICATIONS**

Bus Interface: 16-bit PCMCIA, Release 8 &

backward compatible

OS Support: Windows CE, Pocket PC,

Windows 95/98/Me/NT/2000/ XP/Vista, Linux, OS/2

Data Rate:

SSP/DSP/QSP: 921.6 kbps (max)\*

\* Actual baud rates can be affected by cabling and other factors

Ports: SSP: 1 DSP: 2 QSP: 4

**UARTs: SSP/DSP/QSP:** 16750 UARTs with 64-byte FIFOs (1 per port)

Transceivers:

SSP/DSP/QSP: ICL 3245 or compatible

Drivers:

High Level Output: +5V (min), +5.4V (typ) Low Level Output: -5V (min), -5.4V (typ) Transition Time: (THL-TLH): 25 ns (typ)

**Receive Buffers:** 

Voltage Range: +25V (max), -25V (min) Transition Time: (THL-TLH): 25 ns (typ)

**Environment:** 

Operating: 0°C to 70°C Storage: -50°C to 70°C Humidity: 10% to 90%

**Power Requirements:** 

**SSP/DSP/QSP:** compatible with 3.3V & 5V systems

**SSP:** 20mA @ 5V (typ), 35mA (max) **DSP:** 30mA @ 5V (typ), 45mA (max) **QSP:** 45mA @ 5V (typ), 50mA (max)

Size: Type II PCMCIA Card package

Connectors:

**SSP:** Detachable cable with one DB9 male connector

**SSPR:** Permanently attached cable with one DB9 male connector

**DSP:** Detachable cable with two DB9 male connectors

**DSPR:** Permanently attached cable with two DB9 male connectors

**QSP:** Detachable cable with four DB9 male connectors

Certifications: CE, FCC Class B, RoHS

**Ordering Information:** 

SSP-100: 1-port RS-232 card with cable

SSPR-100: 1-port RS-232 card with attached cable

DSP-100: 2-port RS-232 card with cable

DSPR-100: 2-port RS-232 card with attached cable

QSP-100: 4-port RS-232 card with cable

#### **RS-422/485 SPECIFICATIONS**

Bus Interface: 16-bit PCMCIA, Release 8 &

backward compatible

OS Support: Windows CE, Pocket PC,

Windows 95/98/Me/NT/2000/XP

Linux, OS/2

Data Rate:

SSP/DSP/QSP: 921.6 kbps (max)\*

\* Actual baud rates can be affected by cabling

and other factors

**Ports:** (each configurable for RS-422 or RS-485 for full or half duplex communication)

**SSP:** 1 **DSP:** 2 **QSP:** 4

UARTs: SSP/DSP/QSP: 16750 UARTs with 64-byte FIFOs (1 per port)

Transceivers:

**SSP/DSP/QSP:** MAX 3076E or compatible (Auto enable/disable of RS-422/485 transmitter

on SSP/DSP)

**Drivers:** 

Differential Voltage: +/- 3.3V Transition Time: (TLH): 52 ns (typ) Transition Time: (THL): 60 ns (typ)

**Receive Buffers:** 

Differential Input Threshold +/-0.2V Voltage Range: -7V to +12C CMI Transition Time: (THL-TLH): 65 ns (typ)

**Environment:** 

Operating: 0°C to 70°C Storage: -50°C to 70°C Humidity: 10% to 90%

Power Requirements:

SSP/DSP/QSP: compatible with 3.3V & 5V

systems

**SSP:** 20mA @ 5V (typ), 35mA (max) **DSP:** 30mA @ 5V (typ), 45mA (max) **QSP:** 45mA @ 5V (typ), 50mA (max)

Size: Type II PCMCIA Card package

Connectors:

**SSP:** Detachable cable with one DB9

female connector

DSP: Detachable cable with two DB9

female connectors

QSP: Detachable cable with four DB9

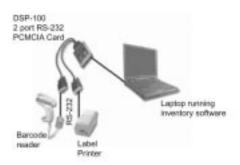
female connectors

**Ordering Information:** 

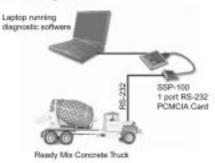
SSP-200/300: 1-port RS-422/485 card with cable DSP-200/300: 2-port RS-422/485 card with cable QSP-200/300: 4-port RS-422/485 card with cable

### TYPICAL APPLICATIONS

POS Application:



Vehicle Diagnostics:



**Building Automation:** 



