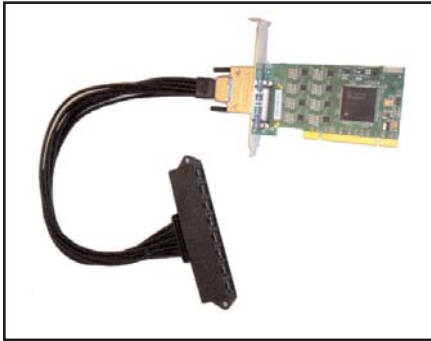




QUATECH

Multiport Serial PCI Boards

Seamless system expansion solutions for adding multiple serial ports to PC-based systems



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

Serial connectivity is the backbone of many commercial and industrial applications such as POS networks, ATMs, bank teller stations and CNC-based production lines. PCI is the standard for board level expansion slots in PC-based systems.

Quatech has specialized in quality data communication products for over 20 years. We have a proven failure rate of only .002% after burn-in. And, Quatech's meticulously designed boards strictly adhere to the PCI specification, so you can rest assured that our products will consistently function properly in your systems.

Quatech PCI boards offer extensive choices for adding serial functionality to a system using minimal system resources. They also provide a peace of mind.

Quatech RS-232 PCI boards utilize a single PCI slot to provide two, four, or eight independent asynchronous serial ports that share a single interrupt. All PCI registers are properly implemented, so you can be assured that Quatech boards will be good citizens on the PCI bus. Serial

port connections are made via DB-9 male connectors, DB-25 male connectors, or RJ-45 modular connectors (8 port only).

In addition, industrial surge suppression may be added as an option.

The QSC-200/300 (4 port RS-422/485) and ESC-100 (8 port RS-232) boards implement 16750 UARTs containing 64-byte FIFOs, while the DSC-100 (2 port RS-232), DSC-200/300 (2 port RS-422/485) and QSC-100 (4 port RS-232) achieve 16550 UARTs. They use a clock multiplying feature allowing the boards to achieve data rates as high as 921.6 kbps.

To maintain maximum signal integrity, Quatech uses a four-layer board design. For better protection in industrial environments, we offer a surge suppression package option that applies a surge suppressor to each line that is capable of sustaining up to 40A peak, 8 x 20 μ s transient surges, a clamping voltage of 30V and a peak energy dissipation of 0.1 Joules. (Note that implementing the IND option restricts the board's speed to 115.2 kbps.)

With Quatech's five year warranty and our customer support team providing expert pre-sales, technical and customization support -- you truly have the industry's most reliable serial PCI board.

KEY FEATURES

- 2, 4 or 8 independent serial ports
- RS-232 or RS-422/485
- Speeds up to 921.6 kbps
- Standard 16750 UARTs with 64-byte FIFOs
- PCI 3.0 compliant
- Optional surge suppression package
- Full modem control
- Hardware and software flow control
- All ports share a single PCI interrupt
- DB-9, DB-25 or RJ-45 connectors
- Four-layer board design enhances signal integrity
- Plug & play
- Windows 9x/Me/NT/2000/XP, Linux, OS/2, DOS compatibility
- RoHS compatible
- 5 year warranty

PCI SERIAL BOARD SPECIFICATIONS

Ordering Information

Model	Ports	Connector
DSC-100	2	RS-232 with DB-9 connectors
DSC-200/300	2	RS-422/485 with DB-9 connectors
QSC-100	4	RS-232 with DB-25 cable
QSC-100D9	4	RS-232 with DB-9 cable
QSC-200/300	4	RS-422/485
ESC-100D	8	RS-232 with DB-25 cable
ESC-100-D9	8	RS-232 with DB-9 cable
ESC-100M	8	RS-232 with RJ-45 connectors
CP-QSC-D25		D-44 to 4 D-25 cable for QSC-100/200/300
CP-ESCLP-M		HD-68 to 8 RJ-45 module connectors for ESC-100M
CP-QS-D9		D-37 to 4 D-9 cable for QSC series
CP-ESCLP-D9		HD-68 to 8 D-9 cable for ESC-100
CP-ESCLP-D25		HD-68 to 8 D-25 cable for ESC-100
IND		Surge suppression package

Bus Interface

32-bit, 33 MHz PCI Bus specification 3.0 compliant

Moschip Bus Interface:

PCI 2.1 32bit, 33MHz

OS Support

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

Data Rate: Up to 921.6 kbps (max*)

Serial Ports

DSC: 2 **QSC:** 4 **ESC:** 8
(each configurable as RS-422 or RS-485 for full or half duplex)

Moschip Serial Ports:

DS: 2 **QS:** 4 (requires 2 PC bracket slots)
HS: 6 (requires 3 PC bracket slots)

UARTS

DSC & QSC-100: 16550 UARTs; 16-byte FIFOs (1 per port)
QSC-200/300 & ESC: 16750 UARTs; 64-byte FIFOs (1 per port)

Transceiver: MAX3076E or compatible

Drivers - RS-232

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

Drivers - RS-422/485

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

Receive Buffers - RS-232

Voltage Range: -25V (max), -25V(min)
Transition Time (THL-TLH): 50ns (typ)

Receive Buffers - RS-422/485

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

IND Option: Surge suppressor 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 .1 Joules. (NOTE: The "IND" option limits data rate to 115.2 kbps due to capacitive loading.)

Environment

Operating: 0° C to 70° C
Storage: -50° C to 80° C
Humidity: 10% to 90%

Power Requirements

260mA (+5V) (typ)

Protocols and software

Size:

DSC: 4.725" x 3.5"
QSC/ESC: 4.275" x 2.5"

Connectors

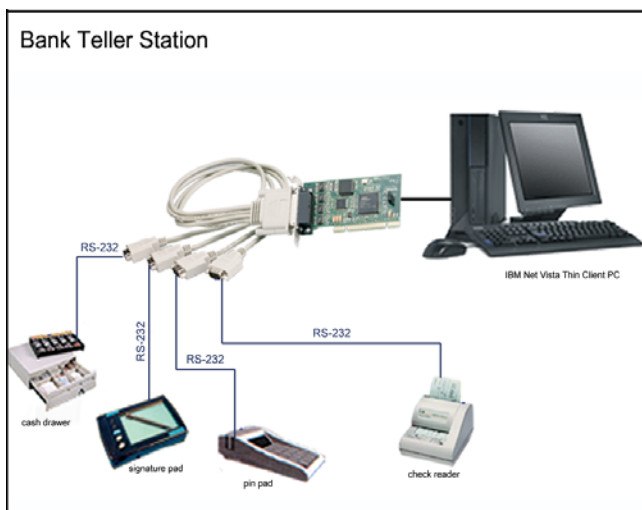
DSC-100: 2 DB-9 male
QSC-100/200/300: HD-44 female or cable with 4 DB-9 male
QSC-100-D9: HD-44 female with DB-9 cables
ESC-100D: VHDCI-68 female with cable to 8 DB-9 male
ESC-100-D9: VHDCI-68 male or with DB-9 cable
ESC-100M: VHDCI-68 female with cable to 8 RJ-45
IND: Add surge suppression package to any of the above

Certifications

CE, FCC, Class B, RoHS and WEEE compliant

PRODUCT APPLICATIONS

Bank Teller Station



Point of Sale System

