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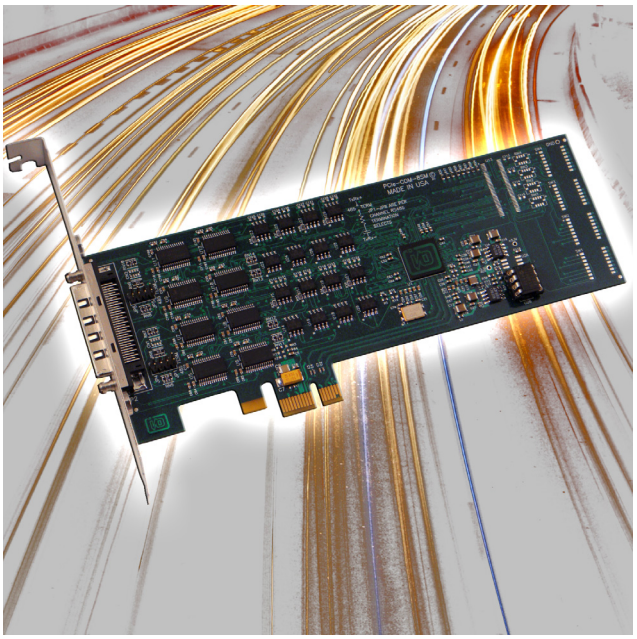
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Find the *Acces PCIe-COM-4SMNC* at our website: ***Click HERE***

# PCIe-COM-8SM & PCIe-COM-4SM Family

PCI Express Multi-Port Multi-Protocol Low Profile Serial Communication Cards

## FEATURES



- Eight or four-port PCI Express serial com cards
- Serial protocol (RS-232/422/485*) SOFTWARE CONFIGURED* per port, stored in EEPROM for auto-configure at next boot
- Low profile PCIe MD2 form factor, also works in standard height PCIe computers
- High performance 16C950 class UARTs with 128-byte FIFO for each TX and RX
- Supports data communication speeds up to 3Mbps (standard model RS-232 is 460.8kbps)
- ESD protection +/-15kV on all signal pins
- Supports 9-bit data mode
- Full modem control signals in RS-232 mode
- Software compatible with all operating systems
- Selectable termination for RS-485 applications
- 3' breakout cable available, terminating with industry-standard DB9M connectors
- Also available in 2-wire RS-485 and RS-422 (4-wire 485) only versions

## FACTORY OPTIONS

- Extended temperature operation (-40°C to +85°C)
- High-speed RS-232 version up to 921.6kbps
- RoHS compliant version
- Remote wake-up enable
- Low profile bracket installed for small, embedded PCs

## FUNCTIONAL DESCRIPTION

ACCES I/O's PCI Express multi-port multi-protocol serial communication cards deliver eight (PCIe-COM-8SM) or four (PCIe-COM-4SM), high-speed serial communication ports for use in a wide variety of applications. The cards offer serial compatibility with the PCI Express bus for use by system integrators and manufacturers in the design of industrial and commercial systems. Each COM port is capable of supporting data rates up to 3Mbps and implements full modem control signals in RS-232 mode to ensure compatibility with a broad variety of serial devices. The card features a x1 lane PCI Express connector which can be used in any available x1, x2, x4, x8, x12, or x16 PCI Express expansion slot.

The card is 6.6 inches in length and 2.2 inches seated height and complies with the MD2 Low Profile Form Factor specification. Low profile PCI Express allows the design of small footprint, low profile systems while still offering expandability and upgradeability to the end user. A regular profile mounting bracket is installed for use in standard size computers, while an optional low profile bracket is available for smaller systems which require the use of low profile PCI Express cards.

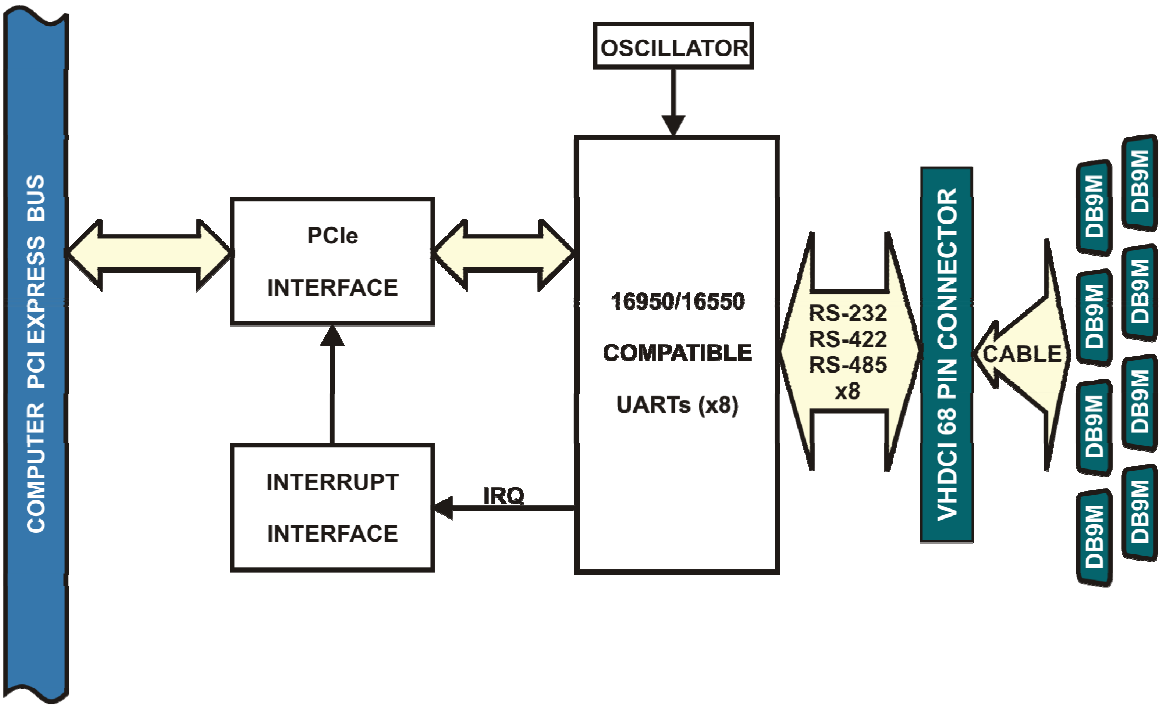
Typical serial peripherals can connect directly to the industry standard DB9M connectors on an optional breakout cable (see Ordering Guide). For DB9 pin-compatibility with legacy RS-485 systems that use our LPCI and PCI-COM485-8 cards and breakout cables, order the "NC" card model and breakout cable CAB-PCIe-485-8 (see DB9M RS-485 Pin Table).

## SPECIAL ORDER

Please contact ACCES with your precise requirement. Other examples of special orders would be conformal coating, custom software, RJ45 connectivity, longer breakout cables, etc., we will work with you to provide exactly what is required.

## SOFTWARE

A complete driver support package is provided including an easy-to-use Windows terminal program for testing your COM ports. This simplifies the verification of proper COM port operation. The card installs as standard COM ports in all operating systems including DOS, Linux (including Mac OS X) and 32- and 64-bit Windows.




**BLOCK DIAGRAM**

## SPECIFICATIONS

| | |
|---|---|
| I/O connection: | VHDCI 68 pin SCSI connector |
| Serial ports: | 8 (or 4) RS-232/422/485 |
| Serial data rates: | RS-232 460.8k (921.6k avail)<br>RS-422/485 3Mbps |
| UART: | Octal type 16C950 with 128-byte transmit & receive FIFO, 16C550 compliant |
| ESD Protection: | ±15kV on all signal pins |
| Character length: | 5, 6, 7, or 8 bits |
| Parity: | Even, Odd, None, Space, Mark |
| Stop interval: | 1, 1.5, or 2 bits |
| Flow Control: | RTS/CTS and/or DSR/DTR, Xon/Xoff |
| Cable: | 3' shielded breakout cable terminated with 8 (or 4) male DB9-pin connectors |

### Environmental

| | |
|---|---|
| Operating temp. | |
| Commercial: | 0°C to +70°C |
| Industrial: | -40°C to +85°C |
| Storage temp.: | -65°C to +150°C |
| Humidity: | 5% to 95%, non-condensing |
| Power required: | +3.3VDC @ 0.9W (typical) |
| Size: | 6.6 inches long x 2.20 inches high (167.64 mm long x 55.8 mm high) |

## ORDERING GUIDE

| | |
|---|---|
| PCIe-COM-8SM | Eight-port RS-232/422/485 card w/cable |
| PCIe-COM-4SM | Four-port RS-232/422/485 card w/cable |
| PCIe-COM485-8 | Eight-port 2-wire RS-485 card w/cable |
| PCIe-COM485-4 | Four-port 2-wire RS-485 card w/cable |
| PCIe-COM422-8 | Eight-port RS-422 (4-wire 485) card w/cbl |
| PCIe-COM422-4 | Four-port RS-422 (4-wire 485) card w/cbl |

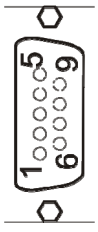
To order a card *without* the cable, add "NC" (PCIe-COM422-4NC)

### Model Options

| | |
|---|---|
| • -T | Ext. temp. operation (-40° to +85°C) |
| • -F | Fast version (RS-232 up to 921.6kbps) |
| • -RoHS | RoHS compliant version |
| • -W | Remote wake-up enable |
| • -L | Low profile bracket installed |

### Accessories

| | |
|---|---|
| BRKT-551-SCB | Connector stabilizer bracket (for use with standard height PCIe bracket only) |
| ADAP9 | DB9F to 9 screw terminals adaptor |
| ADAP9-2 | Dual DB9F to 18 screw terminals adaptor |
| CAB-PCIe-485-8 | 3' DB9M breakout cable pin-compatible with legacy PCI- and LPCI-COM485-8 |

| DB9M | PIN | 2-Wire RS-485 Standard Cable | 2-Wire RS-485 Legacy Cable |
|---|---|---|---|
|  | 1 | - | TX/RX- |
| | 2 | - | - |
| | 3 | TX/RX+ | - |
| | 4 | TX/RX- | - |
| | 5 | GND | GND |
| | 6 | - | - |
| | 7 | - | - |
| | 8 | - | - |
| | 9 | - | TX/RX+ |



**DB9M RS-485 PIN TABLE**

ACCES I/O PRODUCTS, INC.

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