

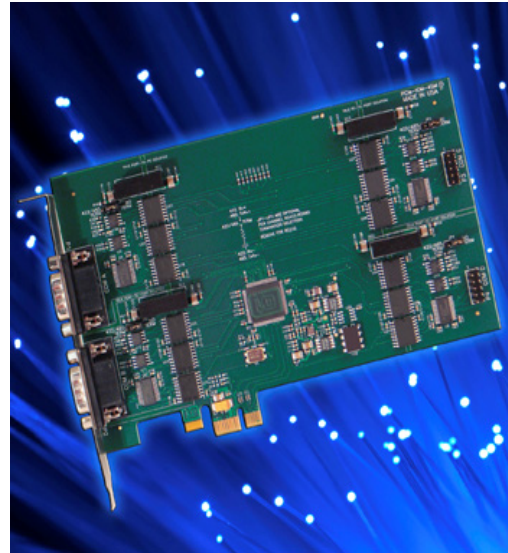


## PCIe-ICM Family

Isolated RS-232/422/485  
Serial Communication Cards

### FEATURES

- Four and two-port PCI Express serial communication cards with DB9M connectivity
- 2000V isolation port-to-port and port to computer on ALL signals
- Serial protocol (RS-232/422/485) *SOFTWARE CONFIGURED* per port, stored in EEPROM for auto-configure at next boot
- High performance 16C950 class UARTs with 128-byte FIFO for each transmit and receive buffer
- Supports data communication speeds up to 3Mbps (standard model RS-232 is 460.8kbps)
- Virtually any custom baud rate may be configured by the user via register settings, no custom oscillator needed
- +/-15kV ESD protection 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 RS422 or RS-485 applications



### FACTORY OPTIONS

- Extended temperature operation (-40°C to +85°C)
- Also available in 485/422 only versions
- High-speed RS-232 version up to 921.6kbps
- Remote Wake-Up Enable
- RoHS compliant version

### FUNCTIONAL DESCRIPTION

ACCES I/O's PCI Express multi-protocol isolated serial communication cards deliver four (PCIe-ICM-4SM, PCIe-ICM-4S, PCIe-ICM232-4) or two (PCIe-ICM-2SM, PCIe-ICM-2S, PCIe-ICM232-2), high-speed serial communication ports for use in a wide variety of applications. The card was designed to offer serial compatibility with the PCI Express bus and to be used by system integrators and manufacturers in the design of industrial and commercial systems. Each isolated 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. All communication signals are isolated from port to port and port to computer.

Perfect for existing serial peripherals to connect directly to the industry standard pin-out of the DB9M connectors. 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.

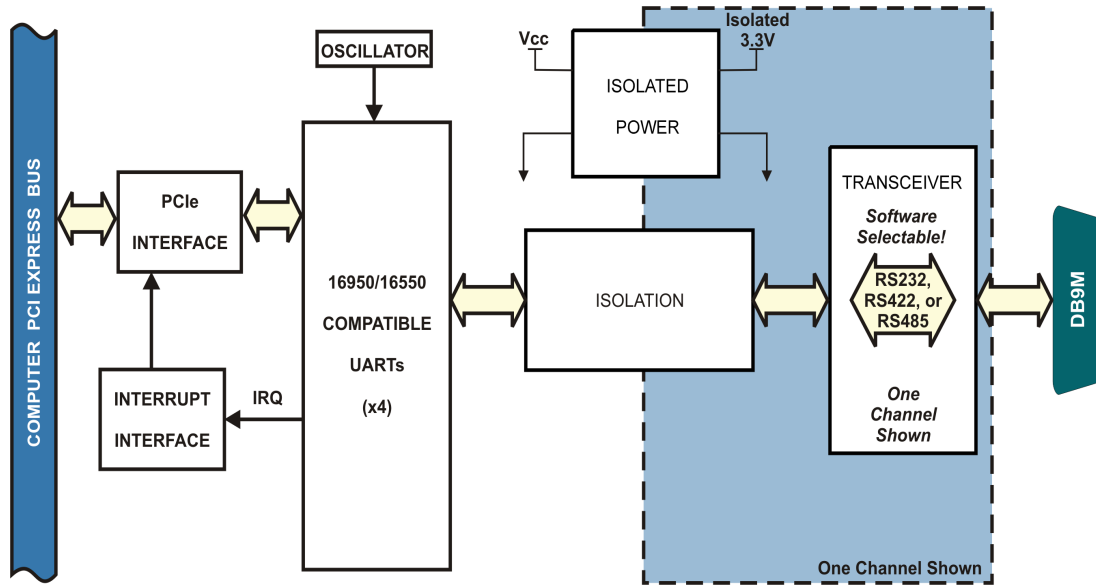
Available accessories include a broad range of cables, screw terminal boards and breakout connection boxes for a variety of quick and easy connectivity options.

### SPECIAL ORDER

Please contact ACCES with your precise requirement. Examples of special orders would be conformal coating, custom software, 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-bit and 64-bit Windows.



**BLOCK DIAGRAM**

**SPECIFICATIONS**

**Asynchronous Communications Interface**

I/O connection: DB9  
 Serial ports: 4 (or 2) RS-232/422/485  
 Isolation: 2000V port to port, port to computer  
 Serial data rates: RS-232 460.8k (921.6k avail)  
 RS-422/485 3Mbps  
 UART: Quad type 16C950 with 128-byte transmit & receive FIFO, 16C550 compliant  
 ESD Protection: ±15kV on all signal pins  
 Character length: 5, 6, 7, 8, or 9 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

**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 @ 0.8W (typical)  
 +12VDC @ 0.9W (typical)  
 Size: 6.6" long x 4.2" high  
 (167.65 mm x 106.68 mm)

**ORDERING GUIDE**

|                |                                      |
|----------------|--------------------------------------|
| PCIe-ICM-4SM*  | PCI Express four-port RS-232/422/485 |
| PCIe-ICM-4S*   | PCI Express four-port RS-422/485     |
| PCIe-ICM232-4* | PCI Express four-port RS-232         |
| PCIe-ICM-2SM   | PCI Express two-port RS-232/422/485  |
| PCIe-ICM-2S    | PCI Express two-port RS-422/485      |
| PCIe-ICM232-2  | PCI Express two-port RS-232          |

**\*Four-port models require the use of an additional mounting bracket which is provided.**

**Model Options**

|       |  |
|-------|--|
| -F    | Fast version (RS-232 up to 921.6kbps)    |
| -T    | Extended temp. operation (-40° to +85°C) |
| -RoHS | RoHS compliant version                   |
| -W    | Remote wake-up enable                    |

**Accessories**

|         |   |
|---------|---|
| ADAP9   | Screw terminal adaptor (single DB9 female to 9 screw terminals) |
| ADAP9-2 | Screw terminal adaptor (dual DB9 female to 18 screw terminals)  |



## Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

### US

[sales@assured-systems.com](mailto:sales@assured-systems.com)

Sales: +1 347 719 4508  
Support: +1 347 719 4508

1309 Coffeen Ave  
Ste 1200  
Sheridan  
WY 82801  
USA

### EMEA

[sales@assured-systems.com](mailto:sales@assured-systems.com)

Sales: +44 (0)1785 879 050  
Support: +44 (0)1785 879 050

Unit A5 Douglas Park  
Stone Business Park  
Stone  
ST15 0YJ  
United Kingdom

VAT Number: 120 9546 28  
Business Registration Number: 07699660