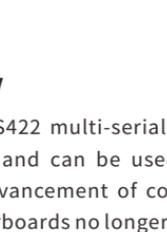


PC0087 (AX99100) PCI_E RS485/RS422 Isolated Quad Serial Port Card



Scan the QR code to download the driver software and product configuration
<http://www.dtech.cn/upload/drive/PC0086PC0087.zip>

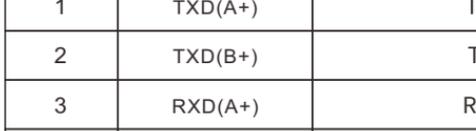
I. Product Overview

This PCI-E to RS485/RS422 multi-serial port adapter card uses a PCI-Express bus interface and can be used in computers with PCI-Express slots. With the advancement of computer technology, more and more computer motherboards no longer integrate serial ports. This adapter card expands the serial ports of a computer host, enabling simultaneous connection and communication with multiple serial devices. It is suitable for serial communication applications such as POS machines, industrial control hosts, serial printers, serial keyboards, PIN pads, serial LED displays, card readers, and industrial automation control systems.

II. Functional Parameters

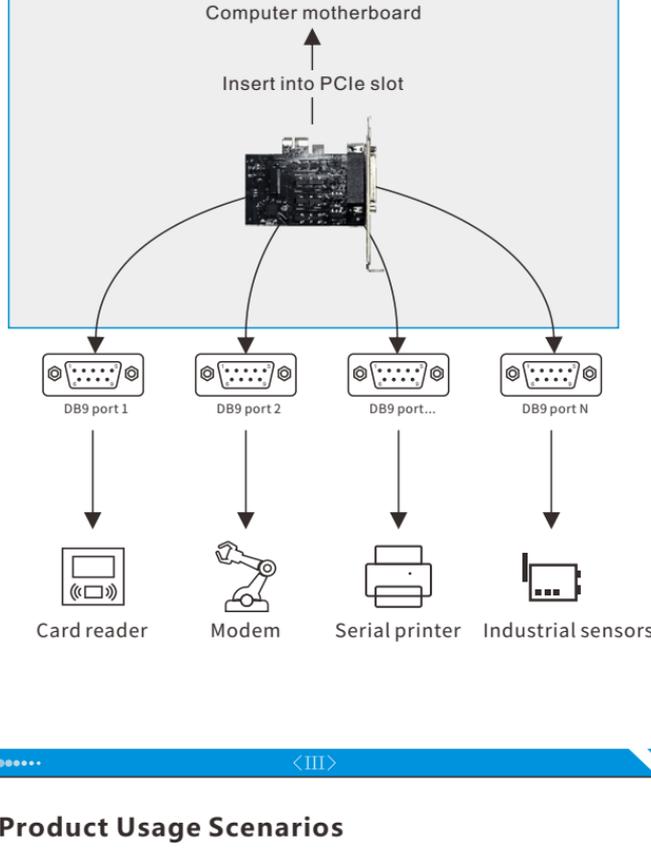
1. Compliant with PCI Express card specifications; compliant with PCI Power Management 1.2.
2. PCI-Express bus transfer rate up to 2.5Gbps.
3. Baud rate: 300bps~921600bps.
4. Data bits: 5, 6, 7, 8.
5. Parity bits: None, Even, Odd, Space, Mark.
6. Stop bits: 1, 1.5, 2.
7. All interface signals: DCD, RXD, TXD, DTR, GND, DSR, RTS, CTS, RI.
8. Maximum data buffer size of 256 bytes per port for transmit and receive.
9. Supports Windows, Linux, and other operating systems.
10. Protection capabilities: $\pm 15\text{kV}$ Human Body Model (HBM); $\pm 15\text{kV}$ IEC1000-4-2 Air Gap Discharge; $\pm 8\text{kV}$ IEC1000-4-2 Contact Discharge.
11. Isolation Voltage: 4500Vrms.
12. PCI-E power supply is self-powered at 12V.
13. Supports 12cm and 8cm baffle lengths (long baffle is the default). Selecting the appropriate baffle allows for use in 2U and 4U chassis.
14. Operating Temperature: $-40^{\circ}\text{C}\sim+80^{\circ}\text{C}$; Operating Humidity: 5%~95%RH.

III. Interface Description



DB9 needle-shaped	Output signal	Describe
1	TXD(A+)	T/R+
2	TXD(B+)	T/R-
3	RXD(A+)	RXD+
4	RXD(A+)	RXD-
5	GND	GND

IV. Product Connection Diagram



V. Product Usage Scenarios

In automotive parts welding production lines, the central control computer needs to continuously collect data from multiple devices over long periods. This necessitates the use of PCI serial cards: A PCI industrial-grade serial card is inserted into the main control computer of the production line to connect to the parameter controllers of multiple welding robots, position sensors of multiple material conveyor lines, and multiple quality inspection terminals. The built-in connection method of the PCI card offers stronger anti-interference capabilities (unaffected by electromagnetic interference from workshop motors and welding machines) and supports long-term continuous communication. Unlike USB-to-serial adapters, data interruptions due to power supply fluctuations do not occur, ensuring continuous operation of the production line and product quality traceability.



VI. Product Accessories

1. Product: 1 set
2. One-to-many serial cable: 1 piece
3. Terminal block: 1 piece

VII. Troubleshooting

Check if the data rate and format are consistent at both ends of the data communication equipment.

VIII. Operating Instructions

1. Locate an available PCI-E x1 (or longer) slot on the motherboard.
2. Align the gold contacts of the serial card with the slot and press down vertically and evenly until fully inserted.
3. Open Device Manager, expand "Ports (COM & LPT)". You will see the identified COM ports (e.g., COM3, COM4, etc.). Modify the port number: Right-click the port → Select "Properties" → "Port Settings" → "Advanced" → Change the "COM Port Number" in the drop-down menu. This product is a PCI-E to four-port RS485/RS422 converter; it is recommended to set the four ports to consecutive COM numbers.
4. Using a DB9 pin (male) to DB9 jack (female) straight-through serial cable, connect the DB9 interface of this card directly to your device. The four RS485/RS422 serial ports allow for simultaneous connection of multiple serial devices.
5. Ensure that the serial port parameters (baud rate, data bits, etc.) are completely consistent with the connected device. Select the correct COM port number in the software and configure the same parameters to send and receive data.

Product Warranty Card

Customer Information

Model:	
Date of purchase:	
User telephone:	
User address:	
Distributor:	
Agency address:	
User telephone:	Dealer stamp valid

Intenance Records

Repair times	Date	Fault	Treatment measures	Repair work NO.

Electronic products are guaranteed for one year, and other products are guaranteed for two years. Damage caused by human factors or product burnout caused by improper operation is not included in the scope of warranty.