DIGITUS®

POWERED RS-232 4-PORT PCIE CARD

Quick Installation Guide

DS-30107

Table of contents

1. Introduction 3
2. Technical Features 3
3. Package content 4
4. System Requirements 4
5. Hardware Installation 4
   5.1 Pin Assignment 5
   5.2 Jumper Settings 7
   5.3 Driver Installation 11

1. Introduction

RS-232 I/O series, a line of PCI Express Multi-port Serial Communication Board, is designed to meet PCI Express Base Specification V2.0. It can be installed in virtually any available PC system and compatible with all major operating systems. Users do not need to manually set jumpers to configure I/O addresses and IRQ locations. Besides this board supports 5VDC or 12DV of power from each serial port via 1/4/8/9 pin output. It's convenient for users connecting serial devices without addition external power supply.

This board offer independent serial ports for connecting terminals, modems, printers, scanners, cash registers, bar code readers, keypads, numeric displays, electrical scales, data acquisition equipment, and other serial devices for the PC and compatible systems. This board offers a reliable and high-performance solution for serial multi-port communications.

2. Technical Features

- PCIe 2.0 Gen 1 compliant
- Supports x1, x2, x4, x8, x16 (lane) PCI Express Bus connector keys.
- Expands 4 independent RS-232 serial ports with communications speeds up to 230Kbps.
- With highly reliable Exar native PCI Express 16550 UART controller
- 256-bype deep transmit/receive FIFOs
- Installs in standard height or low-profile chassis with included bracket.
- Optional RS-232 signal or power output to serial device
- Provides 5VDC or 12VDC power output via pin 1/4/8/9

- ±15KV ESD protection on all signal pins
- Plug-n-Play, I/O address and IRQ assigned by BIOS.

3. Package content

- 1x Powered RS-232 4-Port PCIe Card
- 1x User Manual
- 1x Fan Out Cable
- 1x Spare low-profile bracket

Note: Contents may vary depending on country/market.

4. System Requirements

- Windows® XP/Vista/7/8/8.1/10/11 (32/64 bit), Linux 2.6.31 or later
- One available PCI Express x1, x4, x8 or x16 slot

5. Hardware Installation

1. Turn off the power to your computer.
2. Unplug the power cord and remove your computer's cover.
3. Remove the slot bracket from an available PCIe slot.
4. To install the card, carefully align the card's bus connector with the selected PCIe slot on the motherboard. Push the board down firmly.
5. Replace the slot bracket's holding screw to secure the card.
6. Secure the computer cover and reconnect the power cord.

Power for the Powered RS-232 DB9 connectors are supplied from 4-pin connector located on the PCB. This connector allows

a PC CD-ROM type power supply connector to provide the higher currents required by the power peripherals.

In order to get efficient intake current output, there is one set of 4-pin power connector designed on the board. The 4-pin power set draws both +12VDC and +5VDC power output for powered RS-232 device using.

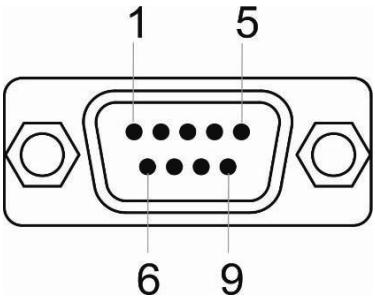
Note: If system's power supply cannot provide the efficient power to serial devices, it will cause your PC system unstable or unexpected reboot.

5.1 Pin Assignment

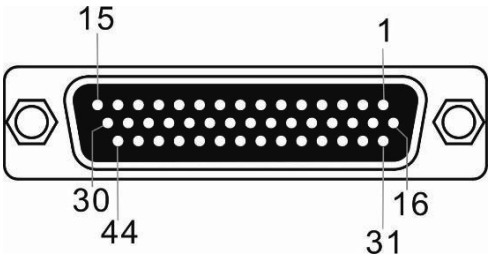
The 4-ports RS-232 PCIe Card has a female DB44 connector on the board. In this section, we give the on-board connector's pin assignments to facilitate making your own connection cable, and the male DB9 device-side pin assignments for the fan out cable.

Male DB9 Connector: Device-side Pin Assignments:

Pin	Description
1	DCD
2	RxD
3	TxD
4	DTR
5	GND
6	DSR
7	RTS



Female DB44: Board-side Pin Assignments:



Serial Port 1		Serial Port 2	
2	DCD	30	DCD
1	RxD	29	RxD
31	TxD	12	TxD
32	DTR	28	DTR
33	GND	43	GND
18	DSR	15	DSR
16	RTS	13	RTS
3	CTS	44	CTS
17	RI	14	RI
Serial Port 3		**Serial Port 4**	
23	DCD	20	DCD
27	RxD	6	RxD
10	TxD	25	TxD
26	DTR	7	DTR
41	GND	39	GND
24	DSR	5	DSR
11	RTS	22	RTS
9	CTS	4	CTS
8	RI	21	RI

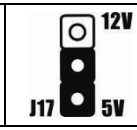
5.2 Jumper Settings

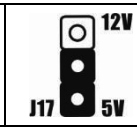
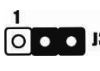
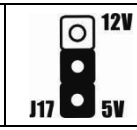
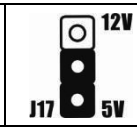
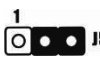
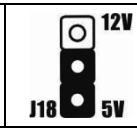
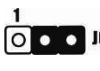
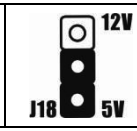
This powered RS-232 board supports DC power output to device feature. You can select +5V or +12VDC power output to serial device over DB 1st, 4th, 8th and 9th pin. Please follow the jumper settings before using each COM port.

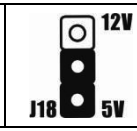
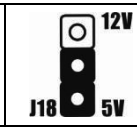
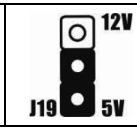
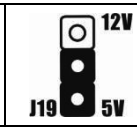
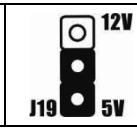
CAUTION

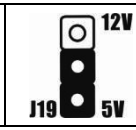
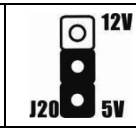
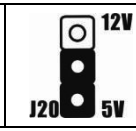
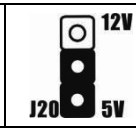
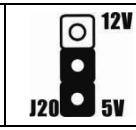
1. Be sure to confirm your serial device power voltage sourcing and pin number to prevent any further problem.
2. Before plugging this board into your system, please carefully check the power output jumper setting and hardware installation steps to prevent any damages.
3. Wrong operating damages connected serial device.
4. DO NOT cross the jumper settings over different pin define.

You can read below silkscreen print on the PCB. Each COM port has four jumper settings for the 1/4/8/9 pin for DB9 male connector. You can select standard RS-232 signal (system default), +5VDC, or +12VDC power output on the assigned pin.

Serial Port 1 – 1st Pin				
Normal (DCD)	5V		12V	
				
Serial Port 1 – 4th Pin				
Normal (DTR)	5V		12V	

				
Serial Port 1 – 8th Pin				
Normal (CTS)	5V		12V	
				
Serial Port 1 – 9th Pin				
Normal (RI)	5V		12V	
				
Serial Port 2 – 1st Pin				
Normal (DCD)	5V		12V	
				
Serial Port 2 – 4th Pin				
Normal (DTR)	5V		12V	
				
Serial Port 2 – 8th Pin				

Normal (CTS)	5V		12V	
				
Serial Port 2 – 9th Pin				
Normal (RI)	5V		12V	
				
Serial Port 3 – 1st Pin				
Normal (DCD)	5V		12V	
				
Serial Port 3 – 4th Pin				
Normal (DTR)	5V		12V	
				
Serial Port 3 – 8th Pin				
Normal (CTS)	5V		12V	
				

Serial Port 3 – 9th Pin				
Normal (RI)	5V		12V	
				
Serial Port 4 – 1st Pin				
Normal (DCD)	5V		12V	
				
Serial Port 4 – 4th Pin				
Normal (DTR)	5V		12V	
				
Serial Port 4 – 8th Pin				
Normal (CTS)	5V		12V	
				
Serial Port 4 – 9th Pin				
Normal (RI)	5V		12V	
				

Note:

1. System default setting is normal mode, standard RS-232 pin define.
2. No described pins mean standard RS-232 definition.

5.3 Driver Installation

Installation for Windows

- Login URL http://www.sunrichtech.com.hk/
- Search IE-K10-5120, download driver.
- Follow the prompts to install the driver.

Installation for Linux

1. Login URL http://www.sunrichtech.com.hk/
2. Search IE-K11-5140, download driver.
3. Extract the compressed driver source file to a certain directory by the following.
   # unzip xr17v25x_35x-lnx3.x.x-pak.zip
4. Now, the driver source files should be extracted under the current directory. Executing the following command to compile the driver: # make
5. If the compilation is well, the xr17v35x.ko will be created under the current directory.
6. Then executing the following command to activate the module driver: # insmod xr17v35x.ko

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Assmann Electronic GmbH
Auf dem Schüffel 3
58513 Lüdenscheid
Germany