

PCIe 2-Port Serial + 1-Port Parallel Card

User Manual Ver. 1.00

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Chapter 1: Introduction

1.1 Product Introduction

This PCIe expansion card adds two serial (RS-232) ports and one parallel (LPT) port to your PC-based system, enabling seamless integration with a wide range of legacy devices such as printers, scanners, industrial controllers, and point-of-sale equipment.

Designed for versatility, the card is well-suited for business automation environments and equally ideal for home or office users who require reliable connectivity with serial and parallel peripherals.

1.2 Features

- Compliant with PCIe 2.0 Gen 1
- Adds one IEEE1284 Parallel port on system
- Serial data transfer rate up to 921600bps
- Supports 2 x UART serial port
- Parallel data transfer rate up to 190KB/s
- Compatible with IEEE 1284 –SPP/Byte/ECP Mode

1.3 System Requirements

- Windows® 7/8.x/10/11 (32/64 bit),
- Linux 2.6.x or later
- One available PCI Express slot

1.4 Product Diagram

I-581



I-591



1.5 Package Contents

- 1 x PCIe 2-Port Serial +1 Port Parallel Card
- 1 x User Manual
- 1 x Fan-Out Cable (model dependent)

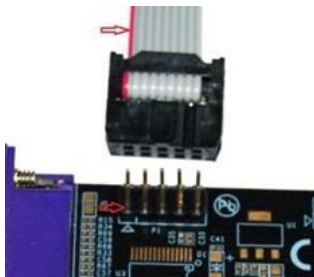
Chapter 2: Getting Started

2.1 Hardware Installation

1. Shut down your computer and turn off the power.
2. Disconnect the power cord and remove the computer's cover.
3. Locate an available PCIe slot and remove its slot bracket.
4. Carefully align the card's bus connector with the PCIe slot on the

motherboard. Press the card firmly into place until fully seated.

5. Fasten the card using the slot bracket's holding screw to ensure it is securely installed.
6. Replace the computer cover and reconnect the power cord.



* DB9 serial cable connection as shown (red cable is connected to pin 1)

2.2 PCIe 2S1P Controller Card w/ fan-out cable Pin Assignment

The 2-port Serial and 1-port Parallel PCI Card features a female DB44 connector on the board. This section provides the pin assignments for the on-board connector to assist users in creating custom connection cable. It also includes the corresponding male DB44 pin assignments for the device-side fan-out cable.

Male DB44 Connector: Device-side Pin Assignments:



Serial	Signal	pin
Serial port 1	DCR	2
	RX	1
	TX	31
	DTR	32
	GND	33
	DSR	18
	RTS	16
	CTS	3
	RI	17
Serial port 2	DCR	30
	RX	29
	TX	12
	DTR	28
	GND	43
	DSR	15
	RTS	13
	CTS	44
	RI	14

Parallel	Signal	pin
Parallel port	STROBE	10
	DATA 0	7
	DATA 1	22
	DATA 2	6
	DATA 3	21
	DATA 4	5
	DATA 5	20
	DATA 6	4
	DATA 7	19
	ACK	8
	BUSY	24
	PE	23
	SELECT	9
	AUTPFDX	26
	ERROR	25
	INIT	11
	SLIN	27
	GND	34
	GND	35
	GND	36
	GND	37
	GND	38
	GND	39
	GND	40
	GND	41
	NC	42

2.3 Driver Installation

The following section shows you how to install the PCIe 2-Port Serial + 1-Port Parallel Card driver on Windows operating systems and Linux.

2.3.1 Installation for Windows

1. Visit <https://www.sunrichtech.com.hk/>
2. Search for “I-581/I-591”, and download the corresponding driver.
3. Follow the on-screen instructions to complete the installation.
4. After the driver installation is complete, you must restart your computer.

2.3.2 Installation for Linux

1. Visit <https://www.sunrichtech.com.hk/>
2. Search for “I-581/I-591”, and download the corresponding driver.
3. Extract the compressed driver source file to an arbitrary directory using the following command: (Make sure the driver file has been copied from the download folder to any location on your hard drive beforehand.)

```
# tar xf AX99100_SP_PP_SPI_LINUX_Driver_v x.x_Source.tar
```

4. Now, the driver source files should be extracted under the current directory. Execute the following command to compile the driver:

make

5. If you want to use modprobe command to mount the driver, execute the following command to install the driver into your kernel:

make install

6. After the driver installation is complete, you must restart your computer.