

PCI Express Serial Cards

(ID-E20011-S1/ID-E20111-S1/ID-E40011-S1/ID-E80011-S1/IC-E20211-S1/ID-E80111-S1)

User's Manual

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Safety Instructions

Always read the safety instructions carefully

- Keep this User's Manual for future reference
- Keep this equipment away from humidity
- If any of the following situation arises, get the equipment checked by a service technician:
 - The equipment has been exposed to moisture.
 - The equipment has been dropped and damaged.
 - The equipment has obvious sign of breakage.
 - The equipment has not been working well or you cannot get it work according to User's Manual.

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Introduction

PCI Express (Peripheral Component Interconnect Express), officially abbreviated as **PCIe** (or **PCI-E**, as it is commonly called), is a computer expansion card standard.

The PCI Express serial cards meet the PCIe standard to work with any PCI Express slot. The boards have multiple RS-232/422/485 serial ports for connecting data acquisition devices and other serial devices to your computer.

The PCI Express serial cards are compatible with a wide variety of Windows operating systems, support data transfer rates up to 921.6 Kb/s, and provide full modem control signals to ensure compatibility with wide range of serial devices. In addition, all models come with PCI Express x1 bus connector, allowing the boards to be installed in any available PCI Express slot.

PCI Express Solution

The PCI Express serial cards comply with PCI Express Spec. 1.1. The port transmission parameters are configured after the board is installed. The PCI BIOS automatically assigns the IRQ and I/O addresses.

ESD Protection

The PCI Express serial cards come with built-in 15 KV ESD to protect the board and connected device(s) from unforeseen power surges. The surge protection feature makes the PCI Express serial cards suitable for industrial, factory-type applications, and for use with applications that are subjected to severe operating conditions.

Optical Coupler

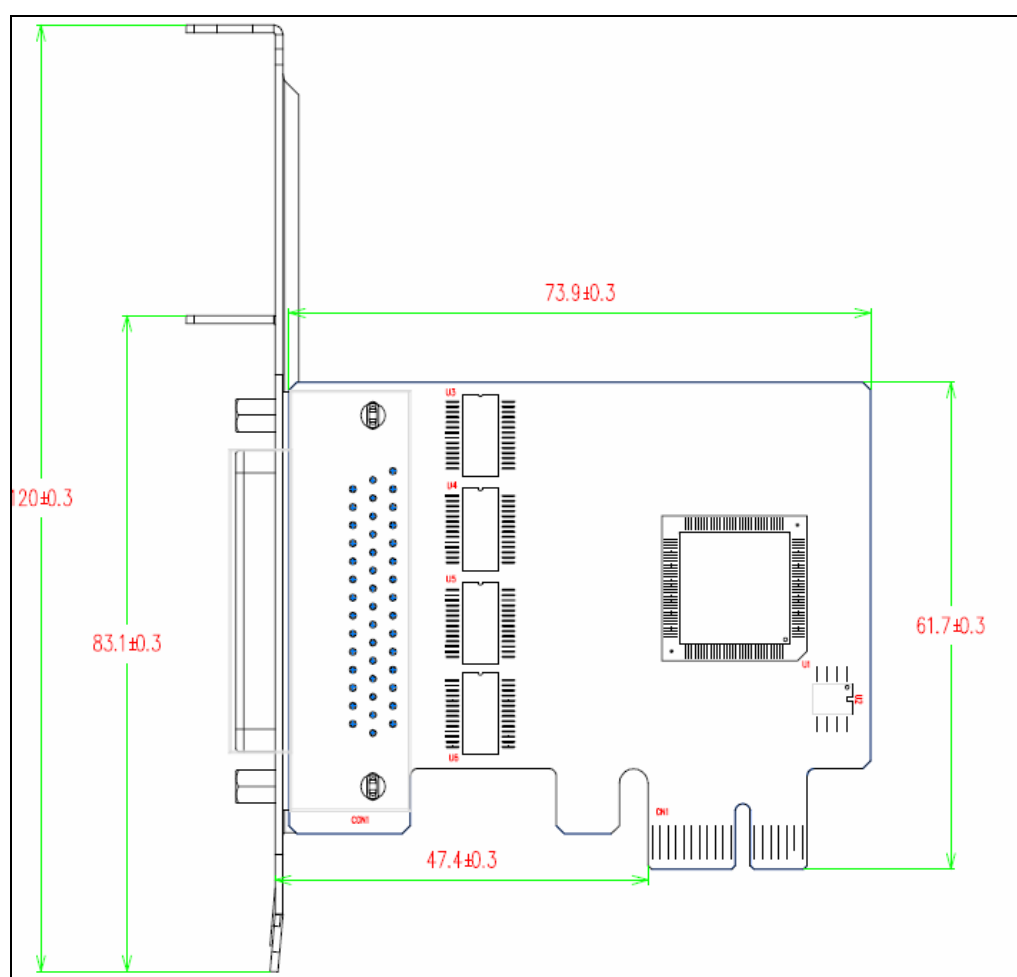
Opto coupler is "an electronic device designed to transfer electrical signals by utilizing light waves to provide coupling with electrical isolation between its input and output. The main purpose of an opto-isolator is "to prevent high voltage rapidly changing voltages on one side of the circuit from damaging components or distorting transmissions on the other side.

Hardware Specification

ID-E20111-S1 Specification

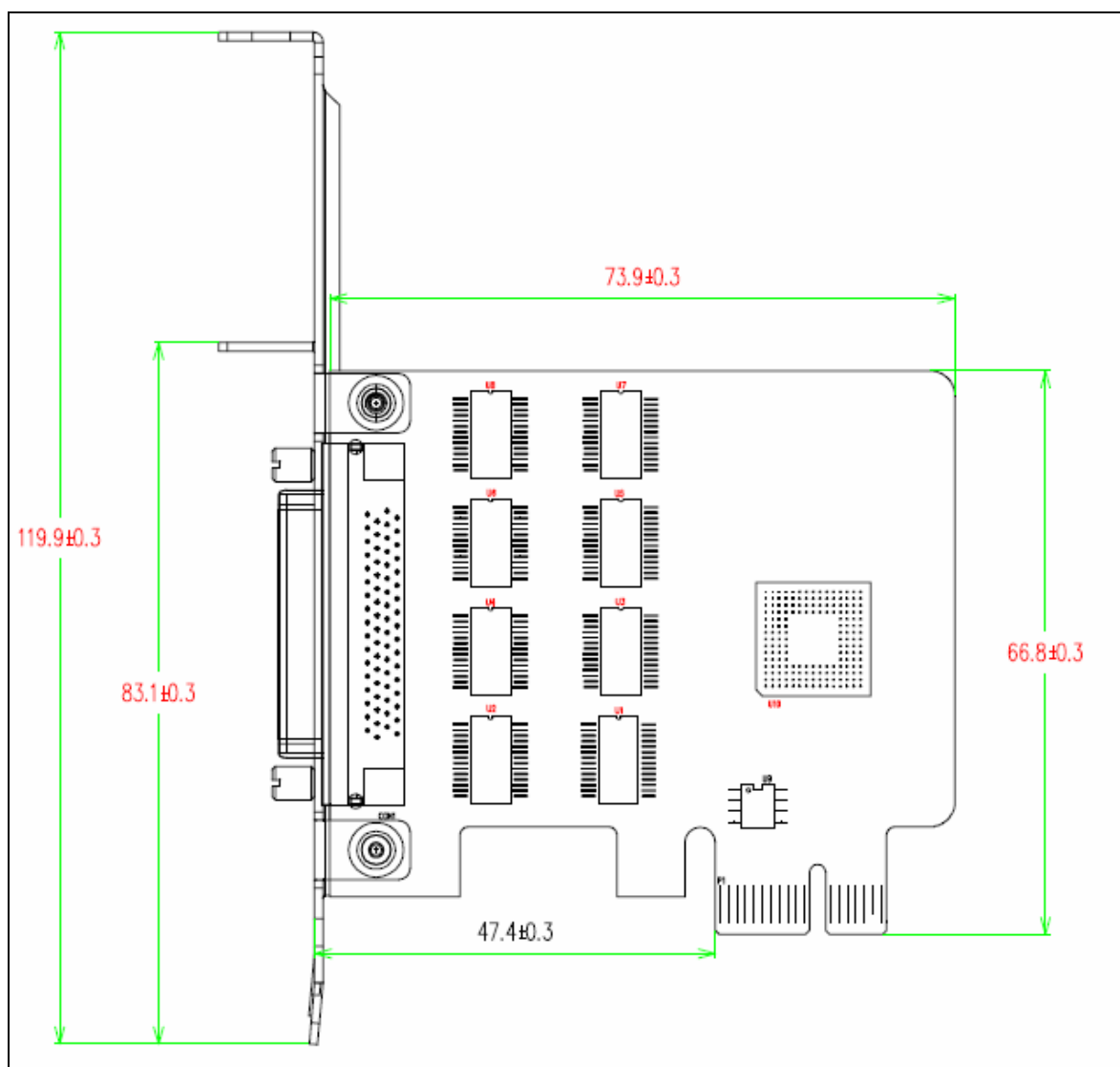
Ports	2xRS-232
Connector	8-pin RJ-45
FIFO	256 byte
ESD Protection	15KV ESD
Serial Communication Speed	300 bps ~ 921.6 Kbps
Bus Interface	PCI Express
Operating Temperature	0~55 °C
Operating Humidity	5~95% RH
Dimensions (LxH)	73.9x66.8mm
Regulatory Approvals	FCC/CE

ID-E20111-S1 Dimensions



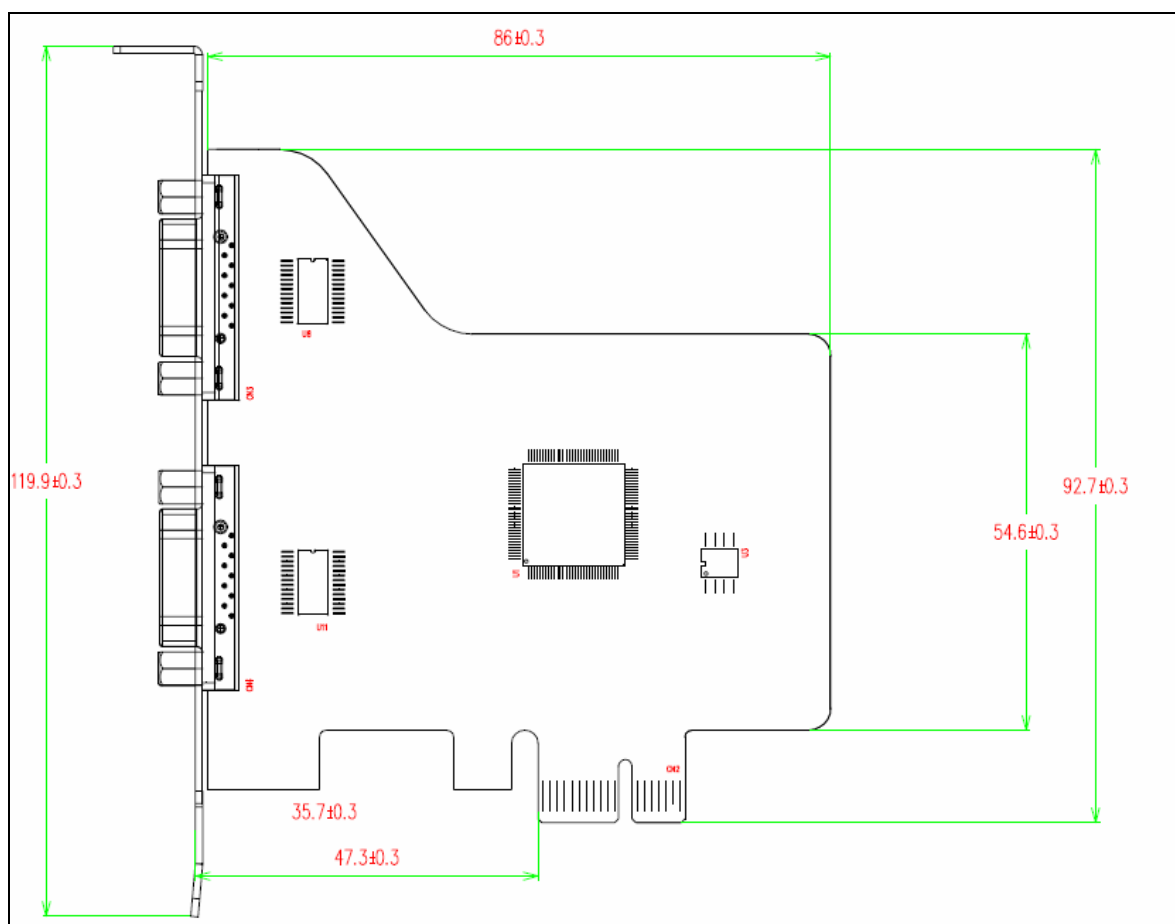
ID-E20211-S1 Specification

Ports	2xRS-422/485
Connector	8-pin RJ-45
FIFO	256 bytes
ESD Protection	15KV ESD
Serial Communication Speed	300 bps ~ 921.6 Kbps
Bus Interface	PCI Express
Operating Temperature	0~55 °C
Operating Humidity	5~95% RH
Dimensions (LxH)	73.9x66.8mm
Regulatory Approvals	FCC/CE

ID-E20211-S1 Dimensions

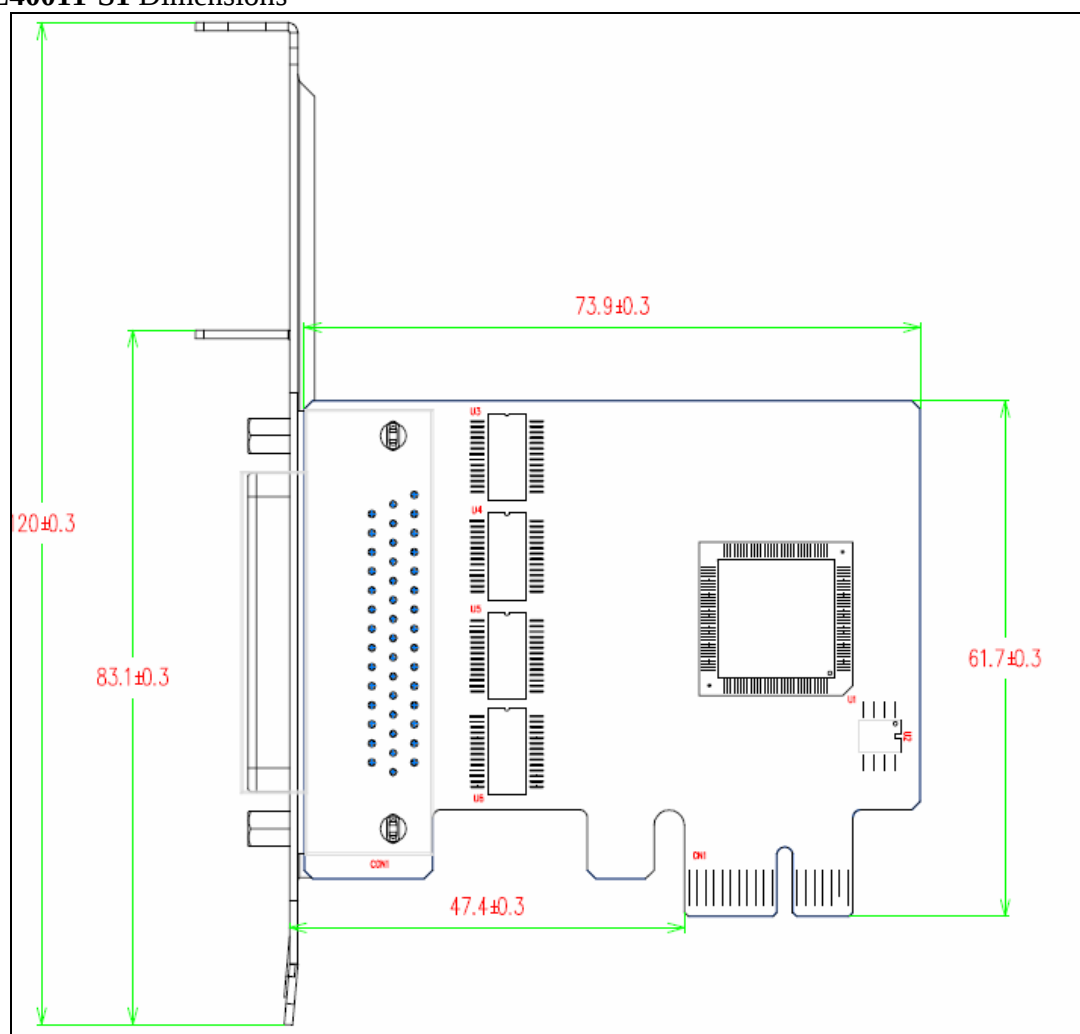
ID-E20011-S1 Specifications

Ports	2xRS-232
Connector	DB9 male
FIFO	256 bytes
ESD Protection	15KV ESD
Serial Communication Speed	300 bps ~ 921.6 Kbps
Bus Interface	PCI Express
Operating Temperature	0~55 °C
Operating Humidity	5~95% RH
Dimensions (LxH)	86.0x92.7mm
Regulatory Approvals	FCC/CE

ID-E20011-S1 Dimensions

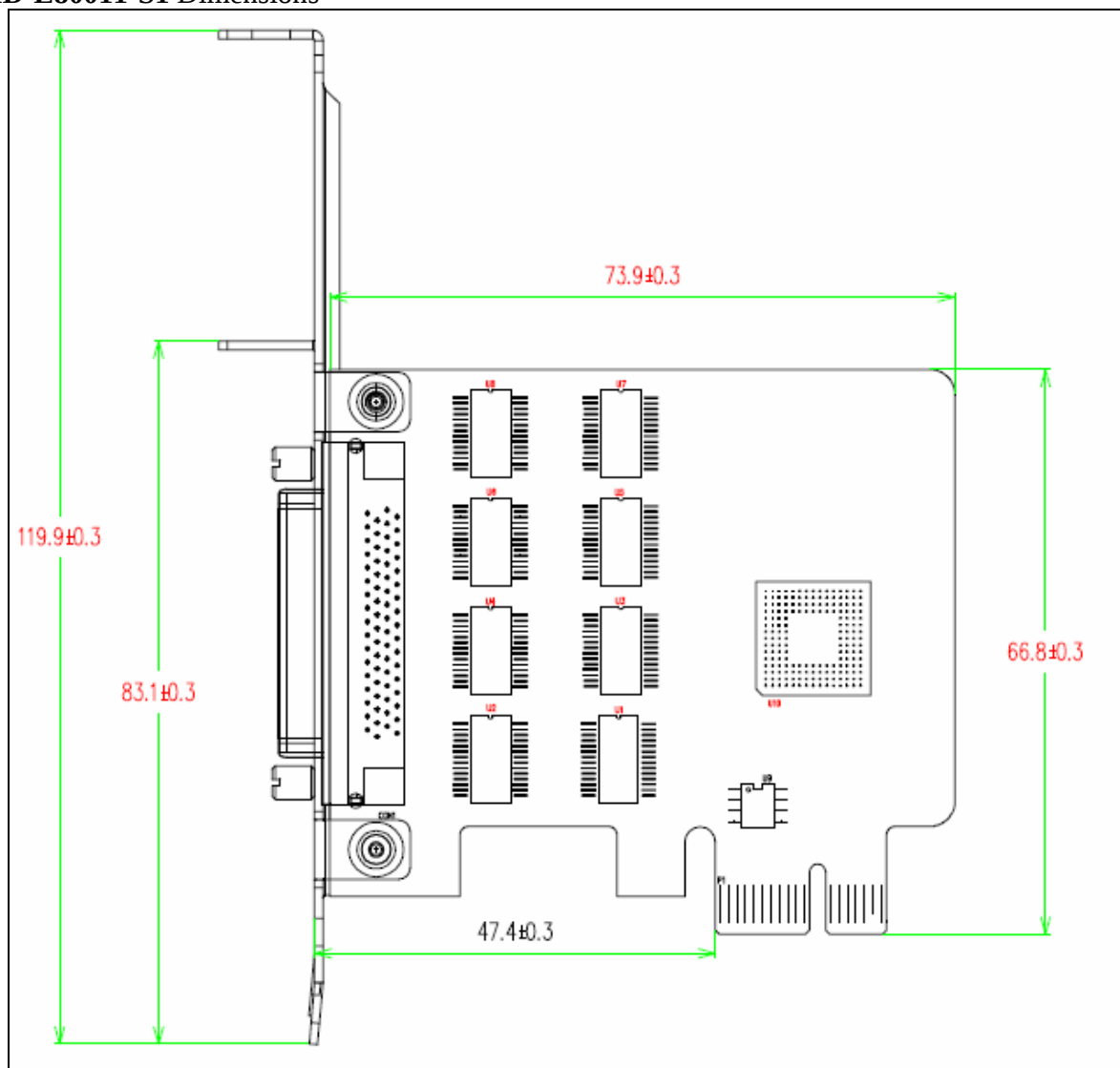
ID-E40011-S1 Specifications

Ports	4xRS-232
Connector	DB44 female
FIFO	256 bytes
ESD Protection	15KV ESD
Serial Communication Speed	300 bps ~ 921.6 Kbps
Bus Interface	PCI Express
Operating Temperature	0~55 °C
Operating Humidity	5~95% RH
Dimensions (LxH)	73.9x61.7mm
Regulatory Approvals	FCC/CE

ID-E40011-S1 Dimensions

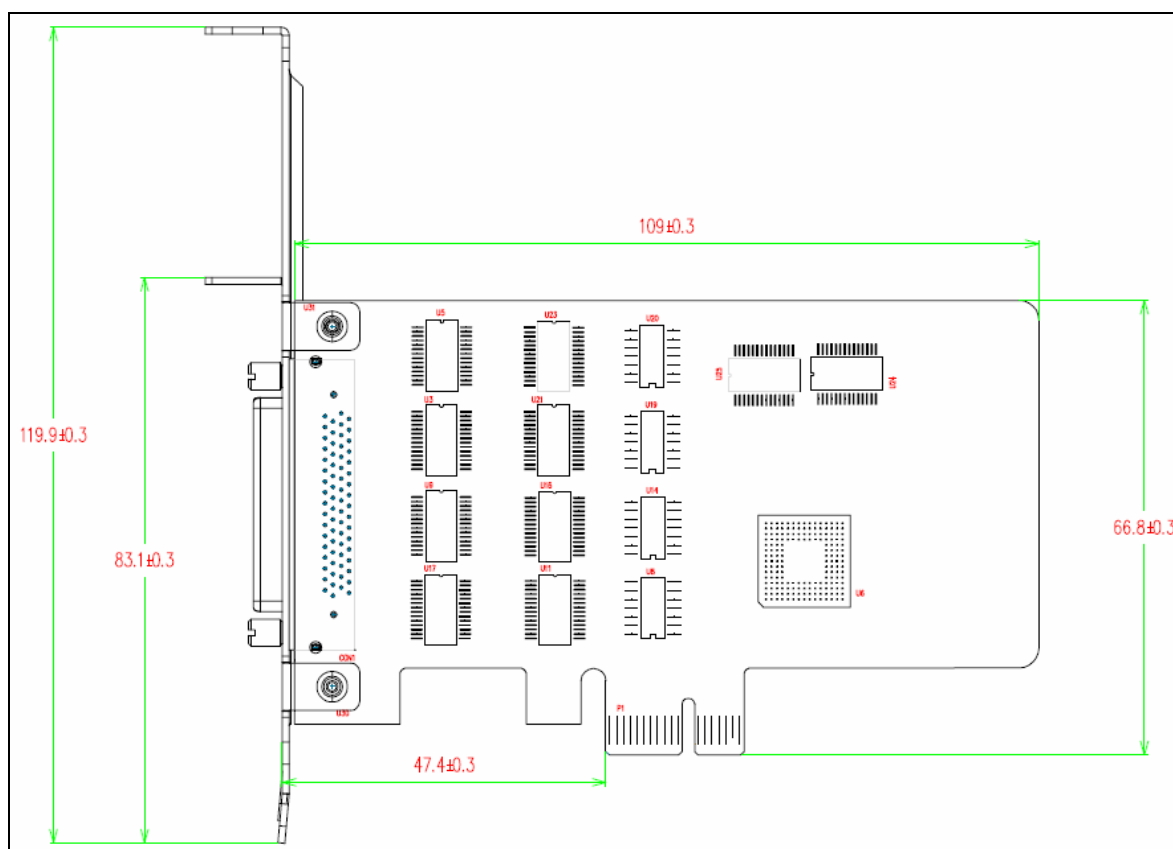
ID-E80011-S1 Specifications

Ports	8xRS-232
Connector	SCSI VHDI68 female
FIFO	128 byte
ESD Protection	15KV ESD
Serial Communication Speed	300 bps ~ 921.6 Kbps
Bus Interface	PCI Express
Operating Temperature	0~55 °C
Operating Humidity	5~95% RH
Dimensions (LxH)	73.9x66.8mm
Regulatory Approvals	FCC/CE

ID-E80011-S1 Dimensions

ID-E80111-S1 Specifications

Ports	8xRS-232/422/485
Connector	SCSI VHDI68 female
FIFO	128 bytes
ESD Protection	15 KV ESD
Serial Communication Speed	300 bps ~ 921.6 Kbps
Bus Interface	PCI Express
Operating Temperature	0~55 °C
Operating Humidity	5~95% RH
Dimensions (LxH)	109x66.8mm
Regulatory Approvals	FCC/CE

ID-E80111-S1 Dimensions

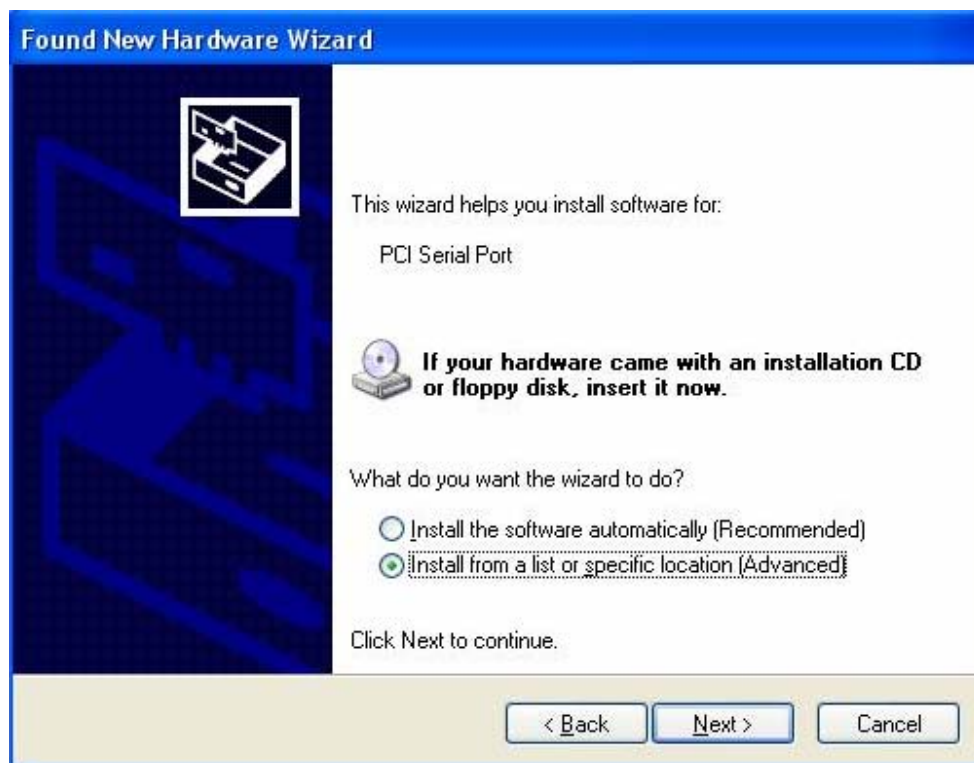
Software Installation

The board **MUST** be plugged in before installing the driver software.

Windows XP and Windows 7 driver installations are given below. The software installation for all other Windows versions will be similar.

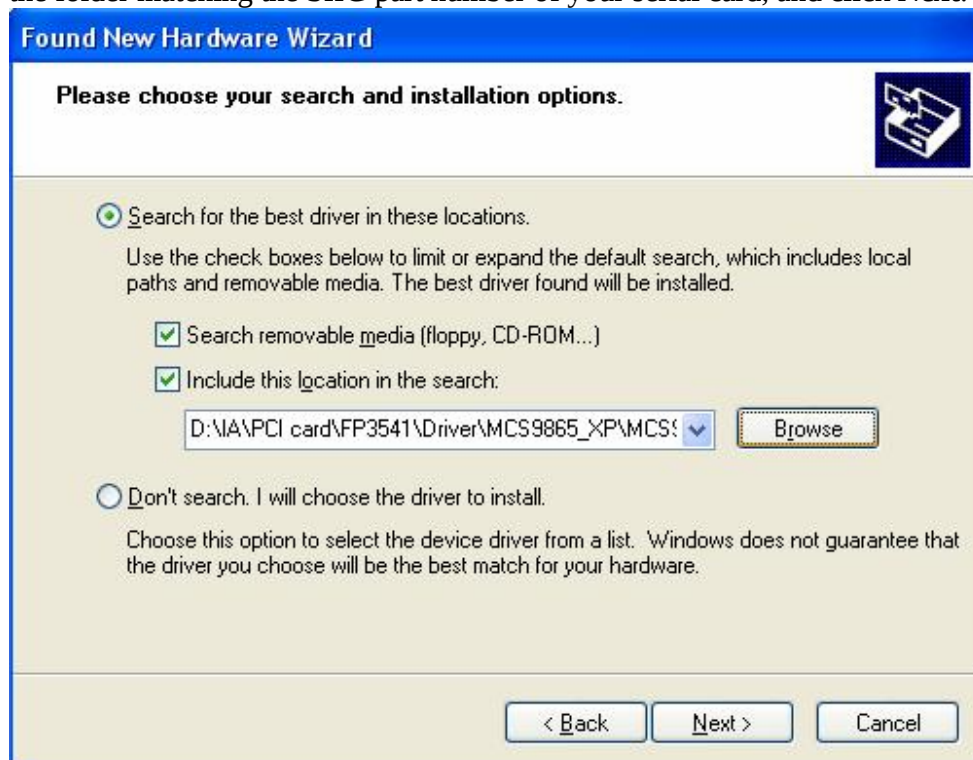
Windows XP Driver Installation

1. After powering on your PC, Windows will detect the board automatically.
2. Insert the Driver CD in your CD-ROM drive.
3. Select **Install from a list or specific location (Advanced)**, and click **Next**. Select **Yes, this time only**, and click **Next**.





4. After selecting **Search for the best driver in these locations**, check the **Include this location in the search** checkbox, and then use the browse button to navigate the CD to find the folder matching the SIIG part number of your serial card, and click **Next**.

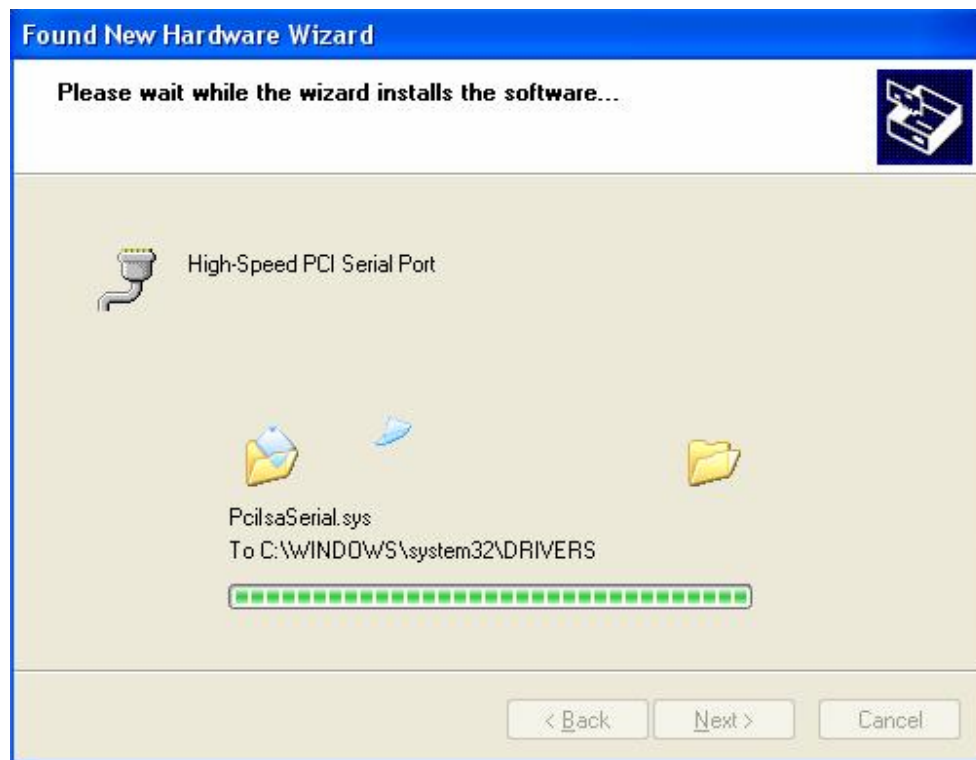


5. Click **Continue Anyway** in response to any warnings that the software hasn't passed Windows Logo testing.

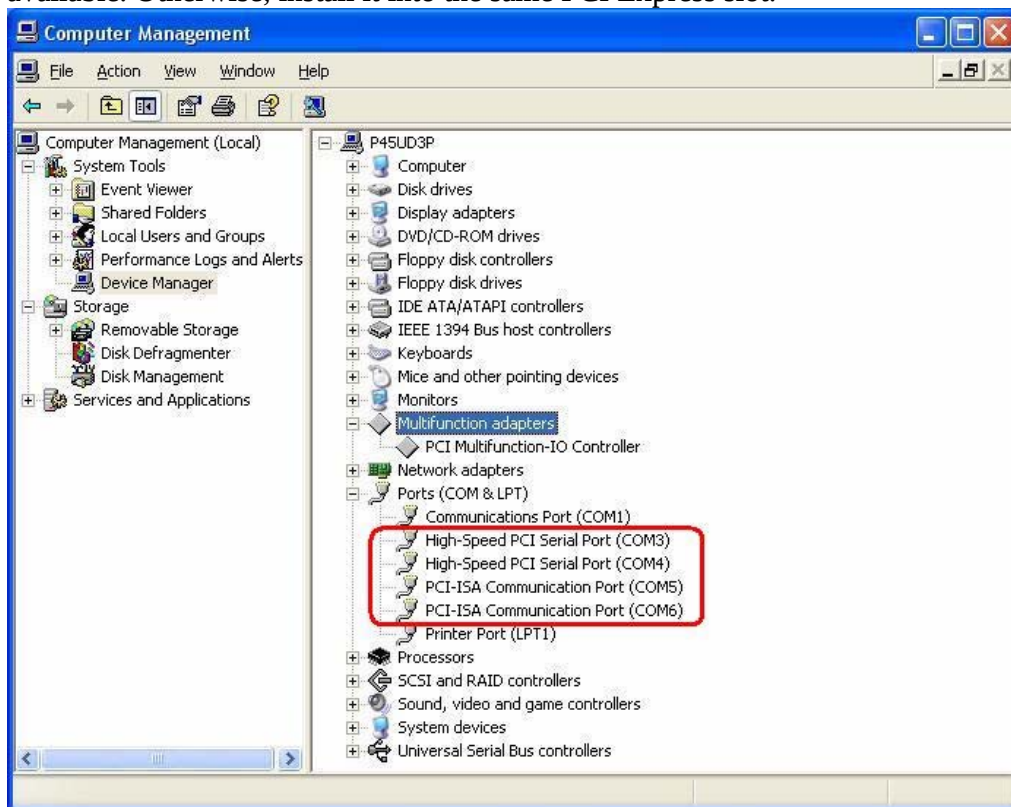


6. After the driver has been installed, the installation wizard will guide you through the port installation procedure, start with port0.



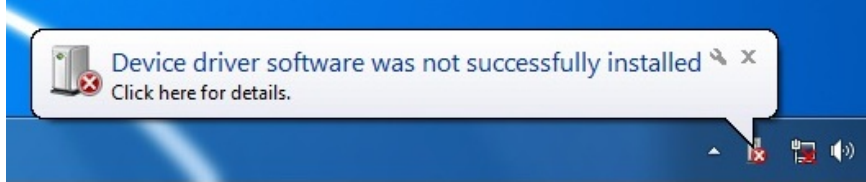


7. Use the **Device Manager** to check if the installation of the board and ports was successful. Click on the + sign next to **Hardware**, and then check under **Multifunction adapters** and **Ports (COM & LPT)**. If there are any special marks, such as a question mark or exclamation point, in front of the board or port icons, shutdown the computer and make sure that the serial card is solidly connected to the PCI Express bus connector. At this time it is a good idea to remove the serial card and insert it into a different PCI Express slot, if one is available. Otherwise, install it into the same PCI Express slot.

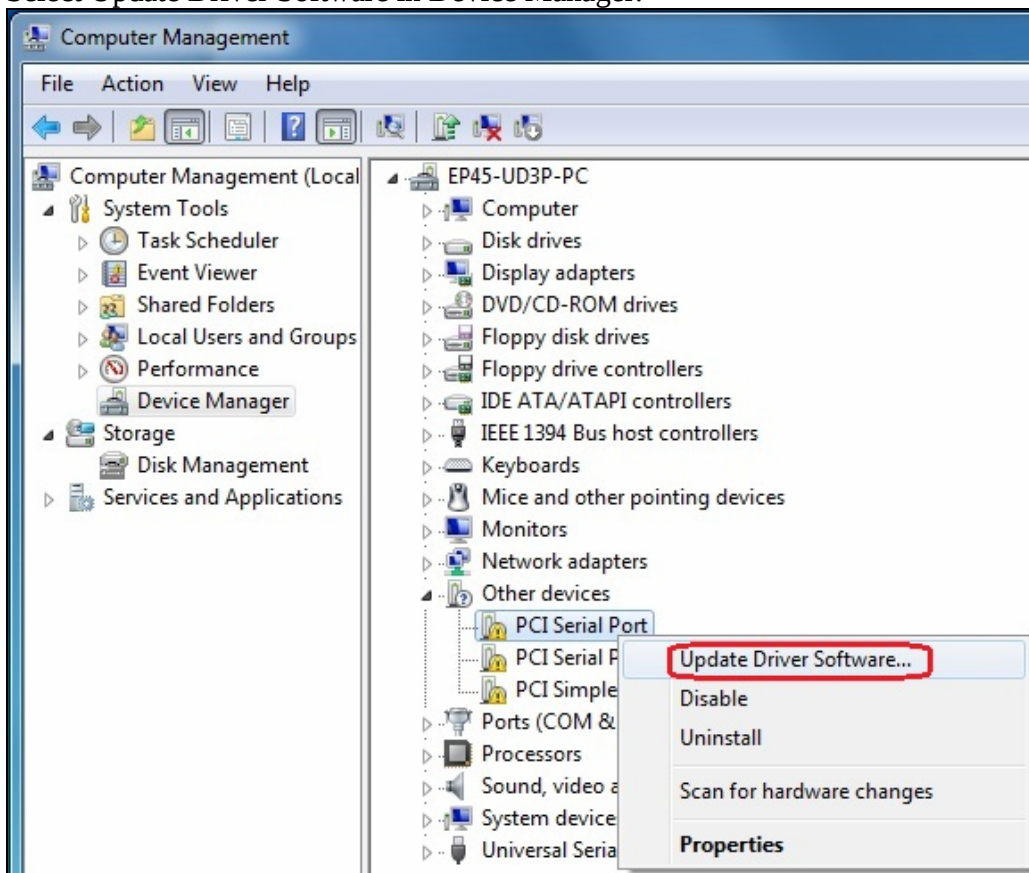


Windows 7 Driver Installation

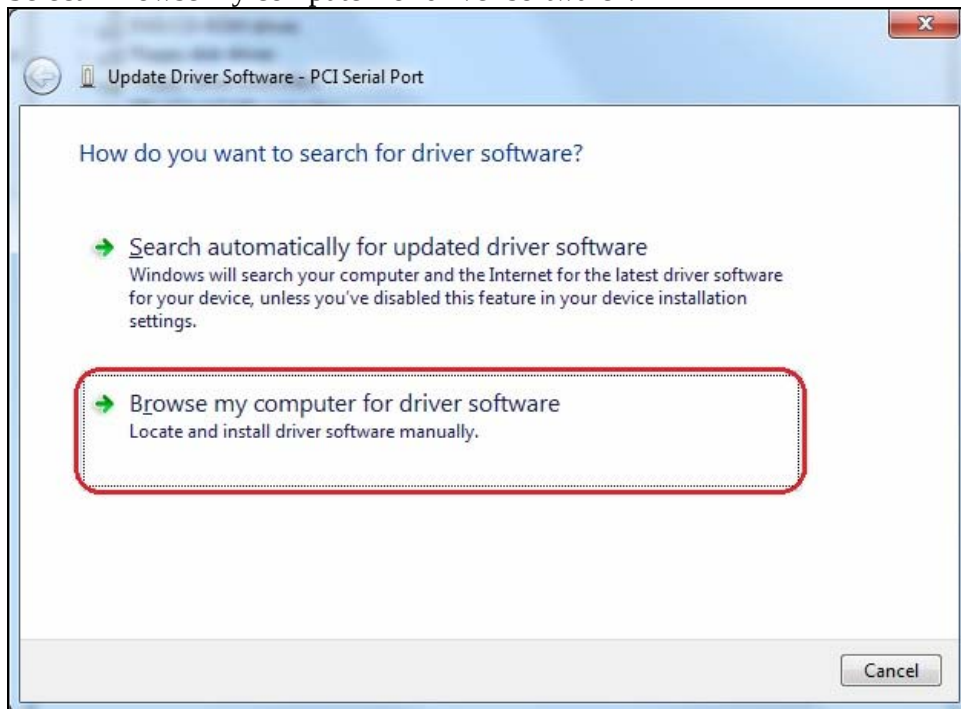
1. After powering on your PC, Windows 7 will detect the board automatically.



2. Insert the Driver CD in your CD-ROM drive.
3. Select Update Driver Software in Device Manager.



4. Select "Browse my computer for driver software".



5. After selecting Browse for driver software on your computer, use the browse button to navigate the CD to find the folder matching the SIIG part number of your serial card. Then click **Next**.



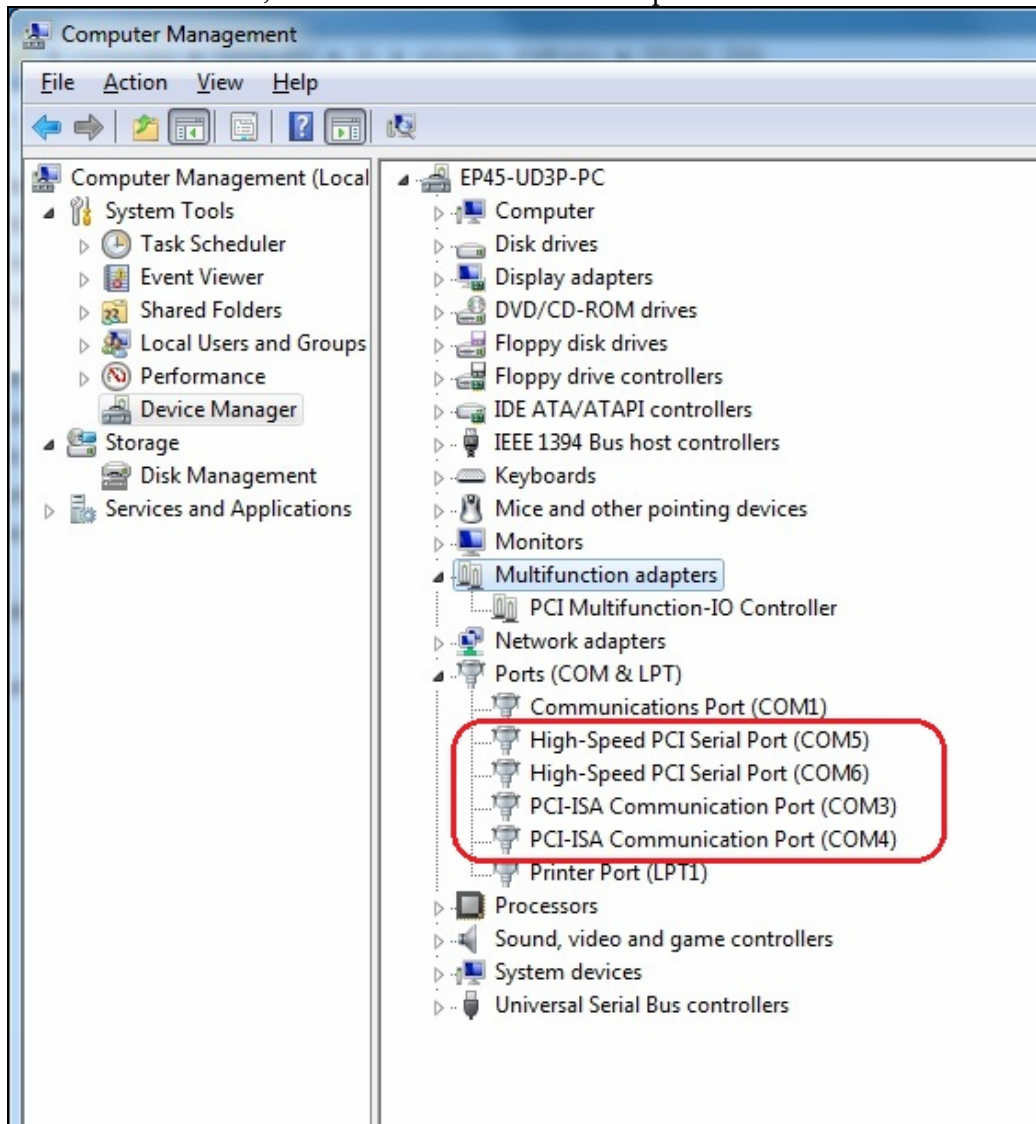
6. Click Install this driver software anyway in response to any warnings that the software hasn't passed Windows Logo testing.



7. After the driver has been installed, the installation wizard will guide you through the port installation procedure, start with port0.

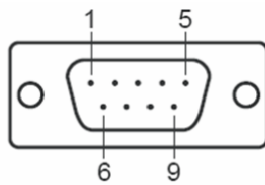


8. Use the Device Manager to check if the installation of the board and ports was successful. Click on the +sign next to Hardware, and then check under **Multifunction adapters** and **Ports (COM & LPT)**. If there are any special marks, such as a question mark or exclamation point, in front of the board or port icons, shutdown the computer and make sure that the serial card is solidly connected to the PCI Express bus connector. At this time it is a good idea to remove the serial card and insert it into a different PCI Express slot, if one is available. Otherwise, install it into the same PCI Express slot.



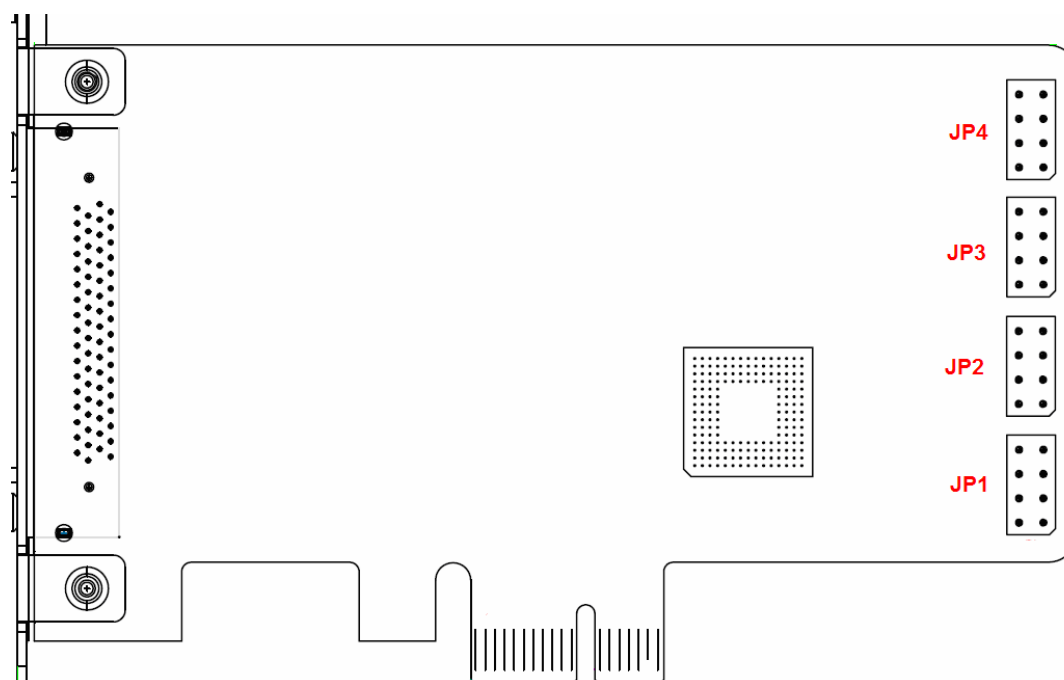
JUMPER & PIN Assignments

ID-E20011-S1/ ID-E20111-S1/ ID-E40011-S1/ ID-E80011-S1 Pin Assignment

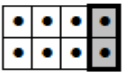
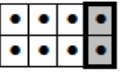
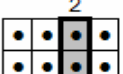
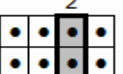
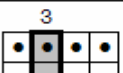
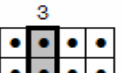
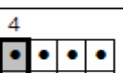


Pin	RS-232
1	DCD
2	RxD
3	TxD
4	DTR
5	GND
6	DSR
7	RTS
8	CTS
9	---

ID-E80111-S1 Jumper & Pin assignment



RS-232 Mode Setting

RS-232			RS-232		
	JP1	JP2		JP3	JP4
Port1		Ignore	Port5		Ignore
Port2		Ignore	Port6		Ignore
Port3		Ignore	Port7		Ignore
Port4		Ignore	Port8		Ignore

RS-422/485 Mode Setting

		RS-422 RS-485 (4-wire)	RS-485 (2-wire)
	JP1	JP2	JP2
Port1	1 	1 	1
Port2	2 	2 	2
Port3	3 	3 	3
Port4	4 	4 	4

		RS-422 RS-485 (4-wire)	RS-485 (2-wire)
	JP3	JP4	JP4
Port5	1 	1 	1
Port6	2 	2 	2
Port7	3 	3 	3
Port8	4 	4 	4

ID-E80111-S1: VHDCI68 (female)



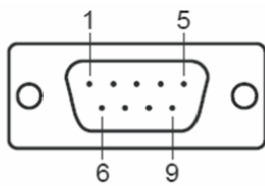
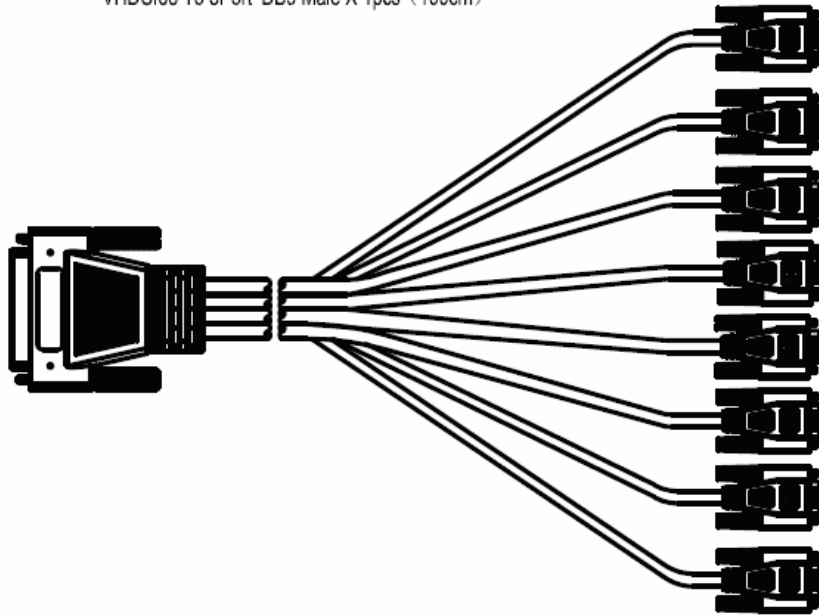
RS-232

Pin	Signal	Pin	Signal	Pin	Signal	Pin	Signal	Pin	Signal	Pin	Signal
1	RxD0	14	RTS2	27	TxD6	40	DTR1	53	CTS5	66	RI7
2	CTS0	15	RI2	28	DSR6	41	DSR1	54	RI5	67	CTS7
3	RI0	16	CTS2	29	DTR6	42	TxD1	55	RTS5	68	RxD7
4	RTS0	17	RxD2	30	DCD6	43	GND	56	DCD5		
5	DCD0	18	RxD4	31	RTS6	44	TxD3	57	DTR5		
6	DTR0	19	CTS4	32	RI6	45	DSR3	58	DSR5		
7	DSR0	20	RI4	33	CTS6	46	DTR3	59	TxD5		
8	TxD0	21	RTS4	34	RxD6	47	DCD3	60	GND		
9	GND	22	DCD4	35	RxD1	48	RTS3	61	TxD7		
10	TxD2	23	DTR4	36	CTS1	49	RI3	62	DSR7		
11	DSR2	24	DSR4	37	RI1	50	CTS3	63	DTR7		
12	DTR2	25	TxD4	38	RTS1	51	RxD3	64	DCD7		
13	DCD2	26	GND	39	DCD1	52	RxD5	65	RTS7		

RS-422/485(4-wire)

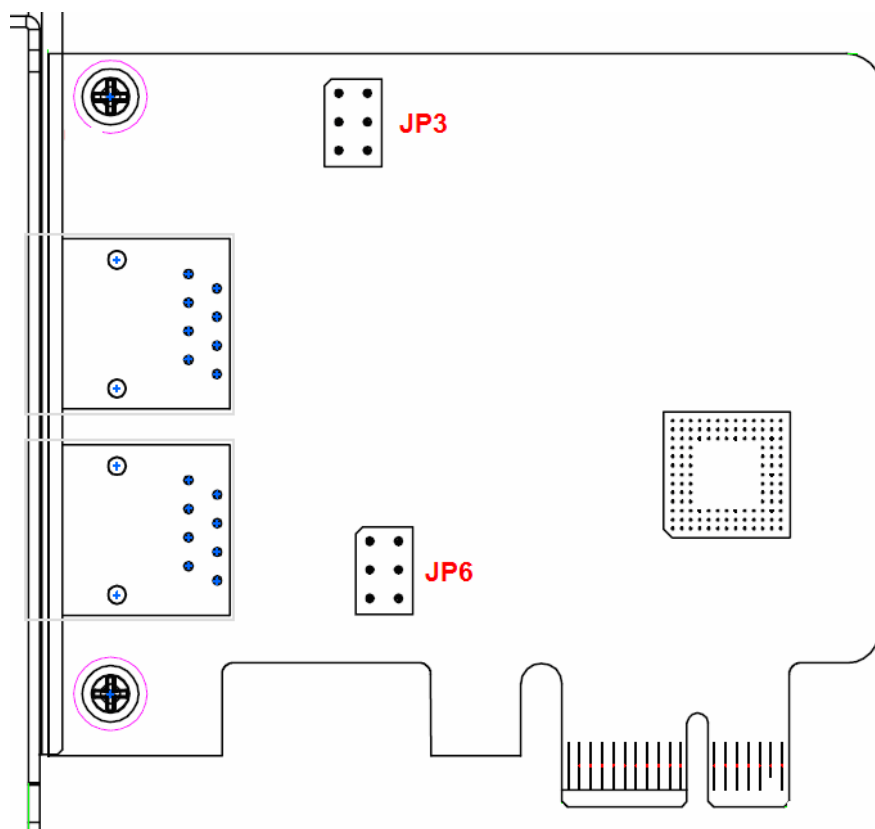
Pin	Signal	Pin	Signal	Pin	Signal	Pin	Signal	Pin	Signal	Pin	Signal
1	--	14	RxD+(3)	27	--	40	TxD+(2)	53	--	66	--
2	--	15	--	28	RxD-(7)	41	RxD-(2)	54	--	67	--
3	--	16	--	29	TxD+(7)	42	--	55	RxD+(6)	68	--
4	RxD+(1)	17	--	30	RxD-(7)	43	GND	56	TxD-(6)		
5	TxD-(1)	18	--	31	RxD+(7)	44	--	57	TxD+(6)		
6	TxD+(1)	19	--	32	--	45	RxD-(4)	58	RxD-(6)		
7	RxD-(1)	20	--	33	--	46	TxD+(4)	59	--		
8	--	21	RxD+(5)	34	--	47	TxD-(4)	60	GND		
9	GND	22	TxD-(5)	35	--	48	RxD+(4)	61	--		
10	--	23	TxD+(5)	36	--	49	--	62	RxD-(8)		
11	RxD-(3)	24	RxD-(5)	37	--	50	--	63	TxD+(8)		
12	TxD+(3)	25	--	38	RxD+(2)	51	--	64	TxD-(8)		
13	TxD-(3)	26	GND	39	TxD-(2)	52	--	65	RxD+(8)		

VHDCI68 To 8Port DB9 Male X 1pcs (100cm)

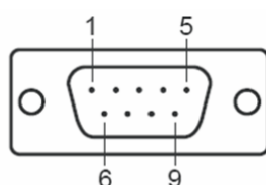


Pin	RS-232	RS-422	RS-485 (4-wire)	RS-485 (2-wire)
1	DCD	TxD-(A)	TxD-(A)	Data-(A)
2	RxD	---	---	---
3	TxD	---	---	---
4	DTR	TxD+(B)	TxD+(B)	Data+(B)
5	GND	GND	GND	---
6	DSR	RxD-(A)	RxD-(A)	---
7	RTS	RxD+(B)	RxD+(B)	---
8	CTS	---	---	---
9	---	---	---	---

ID-E20211-S1 Jumper & Pin Assignment



	RS-422 /RS-485 (4-wire)	RS-485 (2- wire)
	JP3	JP3
Port1		
	JP6	JP6
Port2		



Pin	RS-422	RS-485 (4-wire)	RS-485 (2-wire)
1	TxD-(A)	TxD-(A)	Data-(A)
2	---	---	---
3	---	---	---
4	TxD+(B)	TxD+(B)	Data+(B)
5	GND	GND	---
6	RxD-(A)	RxD-(A)	---
7	RxD+(B)	RxD+(B)	---
8	---	---	---
9	---	---	---

Technical Support and Warranty

QUESTIONS? SIIG's **Online Support** has answers! Simply visit our web site at www.siig.com and click **Support**. Our online support database is updated daily with new drivers and solutions. Answers to your questions could be just a few clicks away. You can also submit questions online and a technical support analyst will promptly respond.

SIIG offers a lifetime manufacturer warranty with this product. This warranty covers the original purchaser and guarantees the product to be free of any defects in materials or workmanship for the life of the product.

SIIG will, at our discretion, repair or replace (with an identical product or product having similar features and functionality) the product if defective in materials or workmanship. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Please see our web site for more warranty details.

If you encounter any problems with this product, please follow the procedures below.

- A) If it is within the store's return policy period, please return the product to the store where you purchased it.
- B) If your purchase has passed the store's return policy period, please follow these steps to have the product repaired or replaced.

Step 1: Submit your RMA request. Go to www.siig.com, click **Support**, then **RMA** to submit a request to [SIIG RMA](#) or fax a request to 510-657-5962. Your RMA request will be processed, if the product is determined to be defective, an RMA number will be issued.

Step 2: After obtaining an RMA number, ship the product.

- Properly pack the product for shipping. All software, cable(s) and any other accessories that came with the original package must be included.
- Clearly write your RMA number on the top of the returned package. SIIG will refuse to accept any shipping package, and will not be responsible for a product returned without an RMA number posted on the outside of the shipping carton.
- You are responsible for the cost of shipping to SIIG. Ship the product to the following address:
SIIG, Inc.
6078 Stewart Avenue
Fremont, CA 94538-3152, USA
RMA #: _____
- SIIG will ship the repaired or replaced product via Ground in the U.S. and International Economy outside of the U.S. at no cost to the customer.

About SIIG, Inc.

Founded in 1985, SIIG, Inc. is a leading manufacturer of IT connectivity solutions (including Serial ATA and Ultra ATA Controllers, FireWire, USB, and legacy I/O adapters) that bridge the connection between Desktop/Notebook systems and external peripherals. SIIG continues to grow by adding A/V and Digital Signage connectivity solutions to our extensive portfolio. All centered around the distribution and switching of A/V signals over CAT5/6, these products include matrix switches, distribution amplifiers, extenders, converters, splitters, cabling, and more.

SIIG is the premier one-stop source of upgrades and is committed to providing high quality products while keeping economical and competitive prices. High-quality control standards are evident by one of the lowest defective return rates in the industry. Our products offer comprehensive user manuals, user-friendly features, and most products are backed by a lifetime warranty.

SIIG products can be found in many computer retail stores, mail order catalogs, and e-commerce sites in the Americas, as well as through major distributors, system integrators, and VARs.

PRODUCT NAME
PCI Express Serial Cards

FCC RULES: TESTED TO COMPLY WITH FCC PART 15, CLASS B OPERATING ENVIRONMENT: FOR HOME OR OFFICE USE

FCC COMPLIANCE STATEMENT:

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

THE PARTY RESPONSIBLE FOR PRODUCT COMPLIANCE

SIIG, Inc.
6078 Stewart Avenue
Fremont, CA 94538-3152, USA
Phone: 510-657-8688

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May, 2011

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