



IPC-E3202S

Industrial 2-port RS-232/422/485 with Surge
PCI-Express Serial Card



Introduction

SUNIX IPC-E3202S, Industrial 2-port RS-232/422/485 PCI-Express Serial Card, allows users to expand two RS-232/422/485 ports on PC-based system. Each serial port achieves data rates up to 921.6 Kbps and utilizes UART with an on-chip 128-bytes hardware FIFO buffer for reliable, high-speed serial I/O. With SUNIX patented Auto-Switching RS-422/485 and RS-485 AHDC™ technology, user can easily manage different serial interfaces selection and RS-485 signal direction control. SUNIX IPC-E3202S board is provided with 2KV IEC6100-4-5 Level 3 Surge Suppressor and 15KV IEC61000-4-2 ESD Discharge Transceiver. Besides, board supports a wide variety of operating systems, including Windows and Linux. It is the best serial communicating solution for industrial and harsh environment applications.

Features

- Expands two independent RS-232/422/485 serial ports with communication speeds up to 921.6Kbps
- With high reliable SUNIX PCI Express UART controller
- Designed to meet PCI Express Base Specification Revision 2.0
- RS-422 and RS-485 auto detect and switching technology
- AHDC/CS™ technology for collision free communication
- On-chip hardware auto flow control to guarantee no data loss
- Ultra low power consumption design for Green Environment
- 15KV ESD protection on all serial signals, IEC-61000-4-2 standard
- 2KV surge protection on all serial signals, IEC-61000-4-5 Level 3 standard
- Plug-n-Play, I/O address and IRQ assigned by BIOS
- Certified by CE, FCC, VCCI, BSMI, RoHS, and Microsoft WHQL approval
- Support Microsoft Windows and Linux OS.

Specifications

Serial Communication

Interface	RS-232/422/485	Baud rate	50bps ~921.6Kbps
Controller	SUNIX SUN2410 (16C950 UART Compatible)	Stop bit	1, 1.5, 2
BUS	PCI Express 2.0 x 1 (single lan)	Parity	even, odd, none, mark, space
No. of Port	2 ports	Flow Control	Xon/Xoff (software)
IRQ & IO	Assigned by System	FIFO	128byte Hardware
Signal	RS-232: TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND, RI RS-422: TxD+, TxD-, RxD+, RxD-, GND 4-wire RS-485: TxD+, TxD-, RxD+, RxD-, GND 2-wire RS-485: Data+, Data-, GND		
Protection	±15KV ESD IEC6000-4-2 Air Discharge ±8KV ESD IEC61000-4-2 Contact Discharge 2KV Surge IEC61000-4-5 Level 3 Surge Immunity Test		
PCB Connector	DB9 Female		

Driver Support

Microsoft Client	Windows 10 (X86/X64) / Windows 11 (X64)
Microsoft Server	Windows Server 2022 (X64)
Linux	Linux Kernel 2.4.x / 2.6.x / 3.x / 4.x / 5.x

Regulatory Approvals

Hardware	CE, FCC, VCCI, BSMI, RoHS
Software	Microsoft WHQL Windows <ul style="list-style-type: none">● Microsoft Client: Windows 10 (X86/X64) / Windows 11 (X64)● Microsoft Server: 2022 (X64)

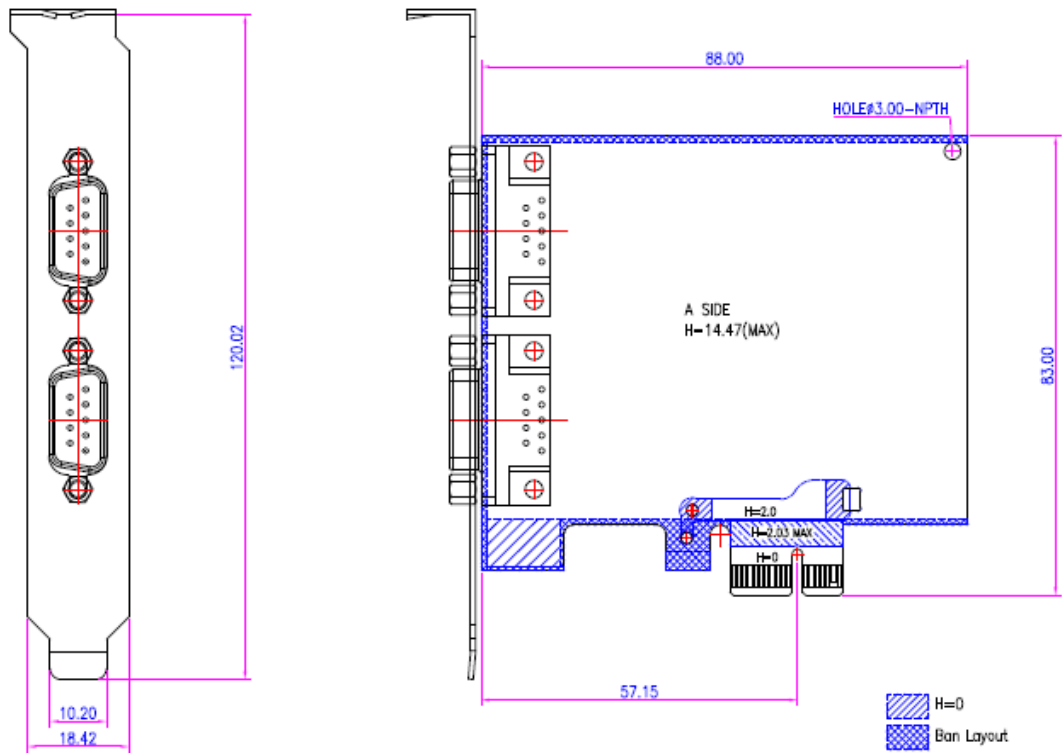
Environment

Operation Temperature	-20 to 70°C (-4 to 158°F)
Operation Humidity	5 to 95% RH
Storage Temperature	-20 to 85°C (-4 to 185°F)

Dimension

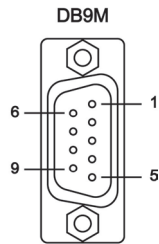
PCB Dimension	88 x 83 mm
Bracket	Standard 121 mm

Mechanical Drawings (Unit = mm)



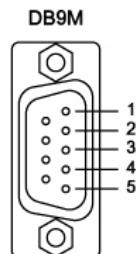
Pin Assignment

■ RS-232



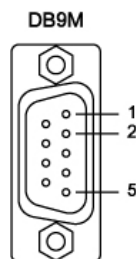
PIN	DB9M
DCD	1
RxD	2
TxD	3
DTR	4
GND	5
DSR	6
RTS	7
CTS	8
RI	9

■ RS-422



PIN	DB9M
TxD-	1
TxD+	2
RxD+	3
RxD-	4
GND	5

■ RS-485



PIN	DB9M
Data--	1
Data+	2
GND	5

Package

- IPC-E3202S - Industrial 2 ports RS-232/422/485 with Surge PCI-Express Serial Card
- Quick Installation Guide

Headquarters

Taiwan

Sunix Co., Ltd.

Tel : +886-2-8913-1987

Fax : +886-2-8913-1986

Website : www.sunix.com

E-mail : info@sunix.com

America

SUNIX USA, INC.

Tel : +1 (626) 765-4031

Fax : +1 (909) 594-8906

Website : www.sunix.com

Germany

Sunix Vertriebs GmbH

Tel : +49(0)6146-60 1345

Fax : +49(0)6146-60 1346

Website : www.sunix.com

E-mail : info@sunix-gmbh.de

China

Shanghai Office

Tel : +86-21-6469-1670

Fax : +86-21-6468-8346

Website : www.sunix.com.cn

E-mail : info@sunix.com.cn

Beijing Office

Tel : +86-10-65308429

Fax : +86-10-65308421

Shenzhen Office

Tel : +86-755-33500418