

IPC-C2202S

**Industrial 2 ports RS-422/485
with Surge Mini PCIe Serial Card**



Introduction

SUNIX IPC-C2202S, Industrial 2 ports RS-422/485 with Surge Mini PCIe Serial Card, allows users to expand two RS-422/485 ports on Mini PCIe slot PC-based system. The RS-422/485 COM ports can be attached to a housing or slot bracket. Each serial port achieves data rates up to 921.6 Kbps and utilizes 16C950 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-C2202S 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, Linux, DOS, and UNIX. It is the best serial communicating solution for industrial and harsh environment applications.

Features

- Suitable for Mini PCIe slot on PCI Express communication.
- Expands 2 independent RS-422/485 serial ports with communication speeds up to 921.6Kbps.
- With high reliable SUNIX SUN2410 native PCI Express 16C950 UART controller.
- Designed to meet PCI Express Base Specification Revision 2.0.
- RS-422 and RS-485 auto detect and switching technology by software settings.
- Optional 120ohms termination resistor for each RS-485 COM port by jumper settings.
- 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 for all serial signals meets IEC-61000-4-2 standard.
- 2KV surge protection for all serial signals meets 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.

Specifications

Serial Communication

Interface	RS-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-port	Flow Control	Xon/Xoff (software)
IRQ & IO	Assigned by System	FIFO	128byte Hardware
Signal	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 ±4KV ESD IEC61000-4-2 Level 2 Line-to-Line 2KV Surge IEC61000-4-5 Level 3 Surge Immunity Test		
PCB Connector	WAFER 2x5P pitch 1.0mm (180°)		
Cable	Dual serial RS-422/485 D-Sub 9 pin male cable		

Driver Support

Microsoft Client	XP/Vista/7/8.x/10 (X86/X64) / 11
Microsoft Server	2000/2003/2008/2012/2016 (X86/X64)
Microsoft Embedded	Windows CE5.0/6.0/XP Embedded/POS Ready/Embedded System
Linux	Linux 2.x / 3.x / 4.x / 5.x
DOS	DOS

Regulatory Approvals

Hardware	CE/ FCC / VCCI / BSMI
Software	Microsoft WHQL Windows

Environment

Operation Temperature	0 to 70°C (32 to 158°F)
Operation Humidity	5 to 95% RH
Storage Temperature	-20 to 85°C (-4 to 185°F)

Headquarters

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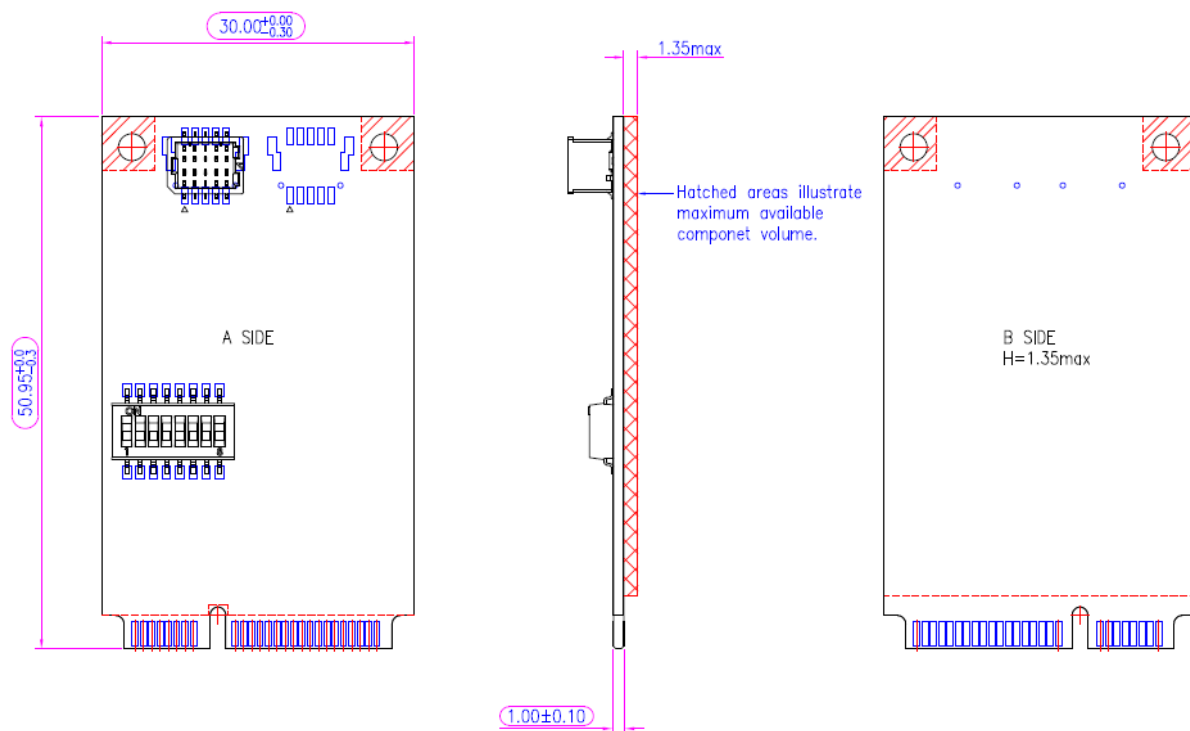
Factory

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Mechanical Drawing (Unit = mm)



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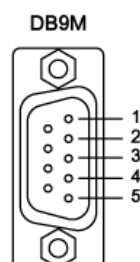
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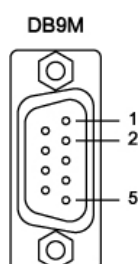
Pin Assignment

■ RS-422



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

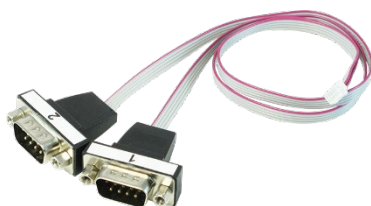
■ RS-485



PIN	DB9M
1	Data-
2	Data+
5	GND

Package

- IPC-C2202S - Industrial 2 ports RS-422/485 with Surge Mini PCIe Serial Card
- Dual Serial RS-422/485 D-Sub 9-pin male cable, 30 cm x 1pcs



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