

SER6456ST

4-port RS-232 PCI Express

Serial Board with TTL and Power Output
(SATA Power Socket)



Introduction

SUNIX SER6456ST, PCI Express serial communication board, allows users to add or expand four RS-232 COM ports on PC-based system to use serial devices further. This board supports +5 or +12VDC of power from each serial port via COM 1st and 9th pin output. It's convenient for users connecting serial devices without addition external power supply.

SUNIX SER6456ST meets the PCI Express Base Specification Revision 2.0. It is compatible with PCI Express x1, x2, x4, x8 and x16 lane Bus allowing it to be installed in any PC-based system. This serial board has 128-bytes onboard FIFO buffer and compatible with 16C950 UART specification. It is designed with SUNIX native PCI Express UART controller, SUN2410 and as well built with many of SUNIX advanced features and technologies, making it the best solution for commercial and industrial automation applications.

Features

- Expands four RS-232 serial ports with communication speeds up to 115.2Kbps.
- High reliable SUN2410 16C950 compatible native PCI Express UART controller on-board.
- Designed to meet PCI Express Base Specification Revision 2.0.
- Supports x1, x2, x4, x8, x16 (lane) PCI Express Bus connector keys.
- Provides RS-232 serial ports with +5 or +12 VDC power output via COM 1st or 9th pin.
- Provides RS-232 serial signals of Rx/D and Tx/D with TTL 3.3V output on COM2.
(Details refer to the pin assignment and jumper setting table)
- Build-in Serial-ATA power socket to source efficient DC power from system.
- On-chip hardware auto flow control to guarantee no data loss.
- Built-in ± 15 KV ESD protection for all serial signals meets IEC1000-4-2 standard.
- Plug-n-Play, I/O address and IRQ assigned by BIOS.
- Certified by CE, FCC, RoHS, and Microsoft WHQL approval.
- Support Microsoft Windows, Linux and DOS operation system.

Specifications

Serial Communication

| | |
|---------------|---|
| Interface | RS-232 |
| Controller | SUNIX SUN2410 (16C950 UART Compatible) |
| BUS | PCI Express Spec 2.0, Single-Lane (x1) |
| No. of Port | 4-port |
| IRQ & IO | Assigned by System |
| FIFO | 128byte Hardware |
| Signals | TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND, RI |
| Baud rate | 50bps ~ 115.2Kbps |
| Stop bit | 1, 1.5, 2 |
| Parity | even, odd, none, mark, space |
| Flow Control | None, Xon/Xoff, RTS/CTS |
| Protection | ±15KV IEC1000-4-2 Air Gap Discharge ±8KV IEC1000-4-2 Contact Discharge |
| PCB Connector | DB44 Female |

Driver Support

| | |
|------------------|--|
| Windows Client | Windows XP/Vista/7/8/8.1/10 (X86/X64) /11(X64) |
| Windows Server | Windows 2022 (X64) |
| Windows Embedded | Windows CE5.0/6.0/XP Embedded/POSReady 2009/POSReady 7/Embedded System |
| Linux | Linux Kernel 2.4.x / 2.6.x / 3.x / 4.x / 5.x |
| DOS | DOS |

Regulatory Approvals

| | |
|----------|--------|
| Hardware | CE/FCC |
|----------|--------|

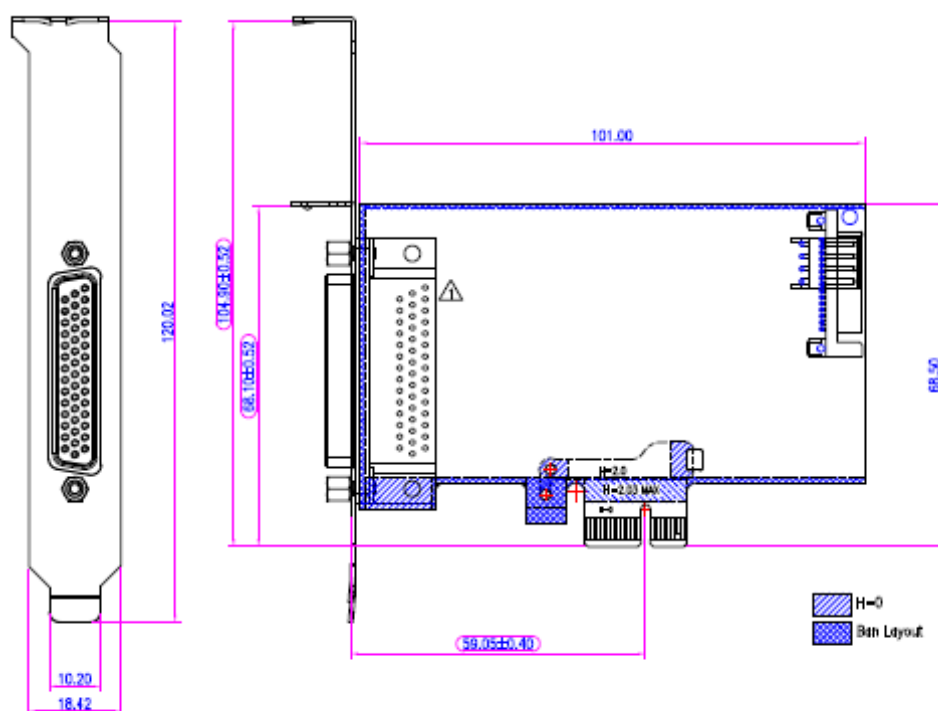
Environment

| | |
|-----------------------|---------------------------|
| Operation Temperature | 0 to 60°C (32 to 140°F) |
| Operation Humidity | 5 to 95% RH |
| Storage Temperature | -20 to 85°C (-4 to 185°F) |

Dimension

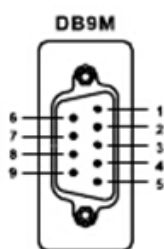
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|---------------|-----------------|
| PCB Dimension | 101 x 68.5 mm |
| Bracket | Standard 121 mm |
| Bracket Space | 1 |

Mechanical Drawings (Unit = mm)



Pin Assignment

RS-232 (Jumper setting on PCB)



| DB9M | COM2 |
|------|---------------------------------|
| 1 | DCD/12V/5V |
| 2 | RxD / TxD / RxD(TTL) / TxD(TTL) |
| 3 | TxD / RxD / TxD(TTL) / RxD(TTL) |
| 4 | DTR |
| 5 | GND |
| 6 | DSR |
| 7 | RTS |
| 8 | CTS / same as PIN2 |
| 9 | RI / 12V / 5V / same as PIN3 |

| DB9M | COM1/COM3/COM4 |
|------|----------------|
| 1 | DCD/12V/5V |
| 2 | RxD |
| 3 | TxD |
| 4 | DTR |
| 5 | GND |
| 6 | DSR |
| 7 | RTS |
| 8 | CTS |
| 9 | RI / 12 / 5V |

Package

- SER6456ST – 4-port RS-232 PCI Express Serial Board with TTL and Power Output
- DB44 to 4-port DB9 Male Connection Cable, 40 cm
- Quick Installation Guide

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