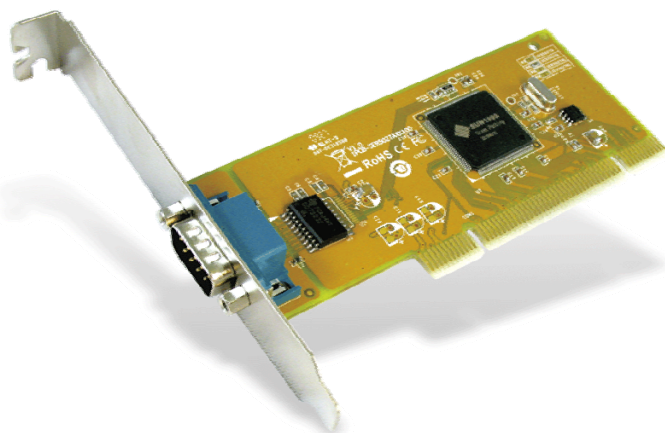




## SER5027A

1-port RS-232 Universal PCI  
Serial Board



### Introduction

SUNIX SER5027A, Universal PCI serial communication board, allows users to add or expand single RS-232 port on PC-based system. The card is compatible with both 64 / 32-bit PCI architecture supporting 3.3 and 5V Bus, allowing it to be installed in virtually any PC-based systems. SUNIX SER5027A card has 128-bytes onboard FIFO buffer and compatible with 16C950 UART specification. It is designed with SUNIX UART controller, SUN1989 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 single independent RS-232 serial port with communication speeds up to 115.2Kbps.
- High reliability SUN1989 16C950 compatible UART controller on-board.
- Compliance with PCI 33MHz Ver. 3.0/2.3/2.2./2.1 specification.
- Supports both 64-bit & 32-bit PCI bus slot and 3.3V & 5V power.
- On-chip hardware auto flow control to guarantee no data loss.
- Built-in  $\pm 2$ KV ESD protection for all serial signals.
- 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.



## Specifications

### Serial Communication

|                     |                                                              |                      |                                            |
|---------------------|--------------------------------------------------------------|----------------------|--------------------------------------------|
| <b>Interface</b>    | RS-232                                                       | <b>Signal</b>        | TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND, RI |
| <b>Controller</b>   | SUNIX SUN1989<br>(16C950 UART Compatible)                    | <b>Baud rate</b>     | 50bps ~115.2Kbps                           |
| <b>BUS</b>          | Universal PCI 64/32bit 3.3V/5V<br>PCI Ver 3.0, 2.3, 2.2, 2.1 | <b>Stop bit</b>      | 1, 1.5, 2                                  |
| <b>No. of Port</b>  | 1-port                                                       | <b>Parity</b>        | even, odd, none, mark, space               |
| <b>IRQ &amp; IO</b> | Assigned by System                                           | <b>Flow Control</b>  | None, Xon/Xoff, RTS/CTS                    |
| <b>FIFO</b>         | 128byte Hardware                                             | <b>PCB Connector</b> | DB9 Male                                   |
| <b>Protection</b>   | ±2KV ESD protection for each signal Human Body Model (HBM)   |                      |                                            |

### Driver Support

|                                            |                                                                                                          |
|--------------------------------------------|----------------------------------------------------------------------------------------------------------|
| <b>Windows Client</b>                      | Windows XP/Vista/7/8/8.1 (X86/X64)                                                                       |
| <b>Windows Server</b>                      | Windows 2000 / 2003 / 2008 / 2008 R2 / 2012 / 2012 R2 (X86/X64)                                          |
| <b>Windows Embedded</b>                    | Windows CE 4.2/5.0/6.0/XP Embedded/POSReady 2009/POSReady 7/<br>Embedded System 2009/Embedded Standard 7 |
| <b>Linux</b>                               | Linux 2.4.x/2.6.x                                                                                        |
| <b>DOS</b>                                 | DOS                                                                                                      |
| <b>FreeBSD</b>                             | FreeBSD 5.3~5.5 / 6.0~6.4                                                                                |
| <b>QNX</b>                                 | QNX 6.3.2/6.4.0                                                                                          |
| <b>* IBM OS/2</b>                          | WARP 3/WARP 4                                                                                            |
| <b>* SCO UnixWare</b>                      | UnixWare 7.1.3/7.1.4/ Open Server 5.0.7/6.0                                                              |
| <b>* Sun Microsystems</b>                  | Solaris 10                                                                                               |
| Note : " * " Supported by special inquiry. |                                                                                                          |

### Regulatory Approvals

|                 |                                                                                                                                                     |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Hardware</b> | EN55022 Class B, EN55024, EN61000-3-2, EN61000-3-3,<br>FCC Part 15 Class B, BSMI: CNS13438, C-Tick: CISPR22 AS/NZS, RoHS                            |
| <b>Software</b> | Microsoft WHQL Windows<br>◆ Windows Client: XP/Vista/7/8/8.1 (X86/X64)<br>◆ Windows Server: 2000 / 2003 / 2008 / 2008 R2 / 2012 / 2012 R2 (X86/X64) |

### Environment

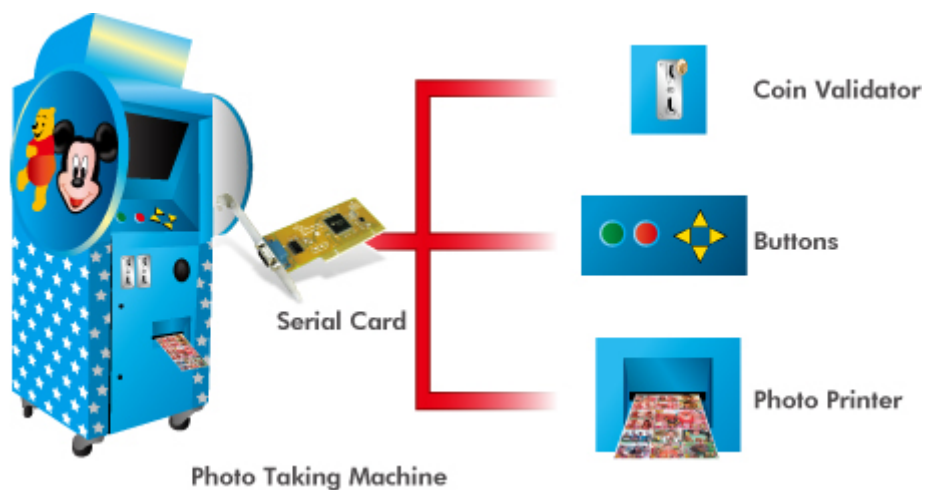
|                              |                           |
|------------------------------|---------------------------|
| <b>Operation Temperature</b> | 0 to 60°C (32 to 140°F)   |
| <b>Operation Humidity</b>    | 5 to 95% RH               |
| <b>Storage Temperature</b>   | -20 to 85°C (-4 to 185°F)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

### Dimension

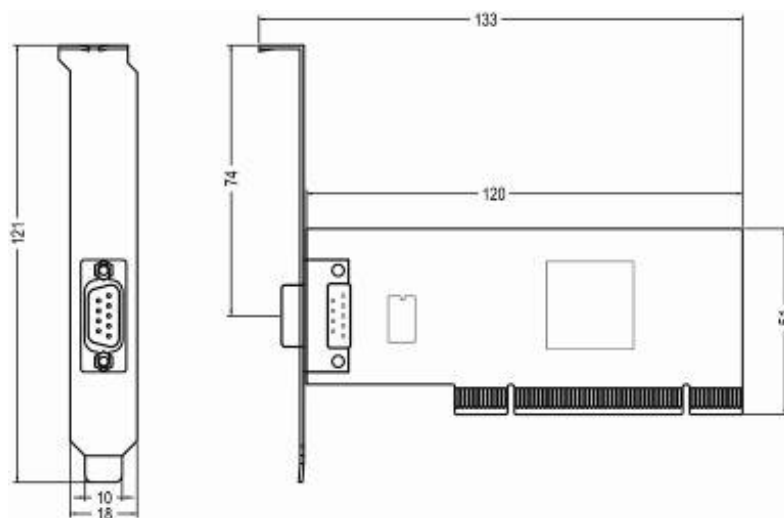
|                      |                 |
|----------------------|-----------------|
| <b>PCB Dimension</b> | 120 x 51 mm     |
| <b>Bracket</b>       | Standard 121 mm |
| <b>Bracket Space</b> | 1               |



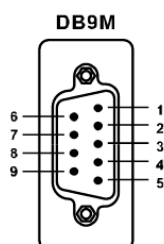
## Application



## Mechanical Drawings (Unit = mm)



## Pin Assignment



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



## Packing List

---

### Packing Content

- SER5027A – 1-port RS-232 Universal PCI Serial Board
- Quick Installation Guide
- Software CD ROM





## Order Information

## Serial RS-232 Interface

| Bus            | Port           | Connector           | Baud Rate      | ESD Protection | Power output | Bracket     | Model NO.   |            |
|----------------|----------------|---------------------|----------------|----------------|--------------|-------------|-------------|------------|
| PCI Express    | 8              | DB62 Female         | 115.2 kbps     | ±15KV          | -            | Standard    | SER5466A    |            |
|                |                |                     | 921.6Kbps      |                | -            |             | SER5466H    |            |
|                |                | Mini SCSI 68 Female | 115.2 kbps     |                | -            | Low profile |             | SER5466AL  |
|                |                |                     | 921.6Kbps      |                | -            |             |             | SER5466HL  |
|                | 4              | DB44 Female         | 115.2 kbps     |                | -            | Standard    |             | SER5456A   |
|                |                |                     |                |                | 5V/12V       |             |             | SER5456P   |
|                |                |                     |                |                | -            | Low profile |             | SER5456AL  |
|                |                |                     |                |                | 5V/12V       |             |             | SER5456PL  |
|                |                |                     | 921.6Kbps      |                | -            | Standard    |             | SER5456H   |
|                |                |                     |                |                | 5V/12V       |             |             | SER5456PH  |
|                |                |                     |                |                | -            | Low profile |             | SER5456HL  |
|                |                |                     |                |                | 5V/12V       |             |             | SER5456PHL |
|                | 2              | DB9 Male            | 115.2 kbps     |                | -            | Standard    |             | SER5437A   |
|                |                |                     |                |                | 5V/12V       |             |             | SER5437P   |
|                |                | DB44 Female         |                |                | -            | Low profile |             | SER5437AL  |
|                |                |                     | 5V/12V         |                |              |             | SER5437PL   |            |
|                |                | DB9 Male            | 921.6Kbps      |                | -            | Standard    |             | SER5437H   |
|                |                |                     |                |                | 5V/12V       |             |             | SER5437PH  |
|                |                | DB44 Female         |                |                | -            | Low profile |             | SER5437HL  |
|                |                |                     |                |                | 5V/12V       |             |             | SER5437PHL |
| PCI            | 8              | DB62 Female         | 115.2 Kbps     | ±2KV           | -            | Standard    | SER5066A    |            |
|                |                | Mini SCSI 68 Female |                |                | -            | Low profile | SER5066AL   |            |
|                |                | 5x2 Pin Header      |                |                | -            | Standard    | SER5066U    |            |
|                |                |                     |                |                | -            | Low profile | SER5066UL   |            |
|                |                | DB62 Female         | 921.6Kbps      | ±15KV          | -            | Standard    | SER5066H    |            |
|                |                | Mini SCSI 68 female |                |                | -            | Low profile | SER5066HL   |            |
|                |                | 5x2 Pin Header      |                |                | -            | Standard    | SER5066UH   |            |
|                |                |                     |                |                | -            | Low profile | SER5066UHL  |            |
|                | 4              | DB44 Female         | 115.2 Kbps     | ±2KV           | -            | Standard    | SER5056A    |            |
|                |                |                     |                |                | 5V/12V       |             | SER5056P    |            |
|                |                |                     |                |                | -            | Low profile | SER5056AL   |            |
|                |                | 5x2 Pin Header      |                |                | 5V/12V       |             | SER5056PL   |            |
|                |                |                     | -              | Standard       | SER5056U     |             |             |            |
|                |                |                     | -              |                | Low profile  | SER5056UL   |             |            |
|                |                | DB44 Female         | 921.6Kbps      | ±15KV          | -            | Standard    | SER5056H    |            |
|                |                |                     |                |                | -            | Low profile | SER5056HL   |            |
|                |                | 5x2 Pin Header      |                |                | 5V/12V       | Standard    | SER5056PH   |            |
|                |                |                     |                |                | -            | Standard    | SER5056UH   |            |
|                |                | DB44 Female         |                | -              | Low profile  | SER5056UHL  |             |            |
|                |                |                     | 5V/12V         | SER5056PHL     |              |             |             |            |
|                |                | 2                   | DB9 Male       | 115.2Kbps      | ±2KV         | -           | Standard    | SER5037A   |
|                |                |                     |                |                |              | 5V/12V      |             | SER5037P   |
|                |                |                     | 5x2 Pin Header |                |              | -           | Low profile | SER5037U   |
|                |                |                     | DB44 Female    |                |              | 5V/12V      |             | SER5037AL  |
| 5x2 Pin Header |                |                     | -              | Low profile    | SER5037PL    |             |             |            |
|                | -              |                     | SER5037UL      |                |              |             |             |            |
| DB9 Male       | 921.6Kbps      |                     | ±15KV          | -              | Standard     | SER5037H    |             |            |
|                |                |                     |                | 5V/12V         |              | SER5037PH   |             |            |
| 5x2 Pin Header |                | -                   |                | Low profile    | SER5037UH    |             |             |            |
| DB44 Female    |                | 5V/12V              |                |                | SER5037HL    |             |             |            |
|                |                |                     | SER5037PHL     |                |              |             |             |            |
| 1              | DB9 Male       | 115.2Kbps           | ±2KV           | -              | Standard     | SER5027A    |             |            |
|                |                |                     |                | 5V/12V         |              | SER5027P    |             |            |
|                | 5x2 Pin Header |                     |                | -              | Low profile  | SER5027U    |             |            |
|                | DB9 Male       |                     |                | 5V/12V         |              | SER5027AL   |             |            |
|                | 5x2 Pin Header |                     | -              | Low profile    | SER5027PL    |             |             |            |
|                |                | -                   | SER5027UL      |                |              |             |             |            |
|                | DB9 Male       | 921.6Kbps           | ±15KV          | -              | Standard     | SER5027H    |             |            |
|                |                |                     |                | 5V/12V         |              | SER5027PH   |             |            |
|                | 5x2 Pin Header |                     |                | -              | Low profile  | SER5027UH   |             |            |
|                | DB9 Male       |                     |                | 5V/12V         |              | SER5027HL   |             |            |
|                |                |                     |                | SER5027PHL     |              |             |             |            |
|                | Express Card   | 4                   | DB44 Female    | 921.6Kbps      | ±15KV        | -           | 34mm        | ECS4000    |
| 2              |                | -                   |                |                |              | 34mm        | ECS2000     |            |
| 1              |                | -                   |                |                |              | 34mm        | ECS1000     |            |
| CardBus        | 4              | DB44 Female         | 115.2Kbps      | ±15KV          | -            | 54mm        | CBS4000     |            |
|                | 2              |                     |                |                | -            | 54mm        | CBS2000     |            |
|                | 1              |                     |                |                | -            | 54mm        | CBS1000     |            |