

## SER5056HL

4-port RS-232 High Speed  
Low Profile Universal PCI  
Serial Board



### Introduction

SUNIX SER5056HL, Universal PCI serial communication board, allows users to add or expand four RS-232 ports 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 any slim size PC-based system with low profile bracket structure. SUNIX SER5056HL card has 128-bytes onboard FIFO buffer and compatible with 16C950 UART specification. It is designed with SUNIX UART controller, SUN1999 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 4 independent RS-232 serial ports with communication speeds up to 921.6Kbps.
- High speed SUN1999 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  $\pm 15KV$  ESD protection for all serial signals meets IEC1000-4-2 standard.
- Plug-n-Play, I/O address and IRQ assigned by BIOS.
- Low profile bracket design idea for slim or portable PC.
- 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 SUN1999 (16C950 UART Compatible)	<b>Baud rate</b>	50bps ~921.6Kbps
<b>BUS</b>	Universal PCI 64/32bit 3.3V/5V PCI Ver 3.0, 2.3, 2.2, 2.1	<b>Stop bit</b>	1, 1.5, 2
<b>No. of Port</b>	4-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>	DB44 Female
<b>Protection</b>	±15KV ESD protection for each signal Human Body Model (HBM) ±15KV IEC1000-4-2 Air Gap Discharge ±8KV IEC1000-4-2 Contact Discharge		

### Driver Support

<b>Microsoft Client</b>	Windows XP/Vista/7 (X86/X64)
<b>Microsoft Server</b>	Windows 2000/2003/2008 (X86/X64)
<b>Microsoft Embedded</b>	Windows CE5.0/6.0/XP Embedded/POS Ready 2009/Embedded System 2009
<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, FCC Part 15 Class B, BSMI: CNS13438, C-Tick: CISPR22 AS/NZS, RoHS
<b>Software</b>	Microsoft WHQL Windows ◆ Microsoft Client: XP/Vista/7 (X86/X64) ◆ Microsoft Server: 2000/2003/2008 (X86/X64)

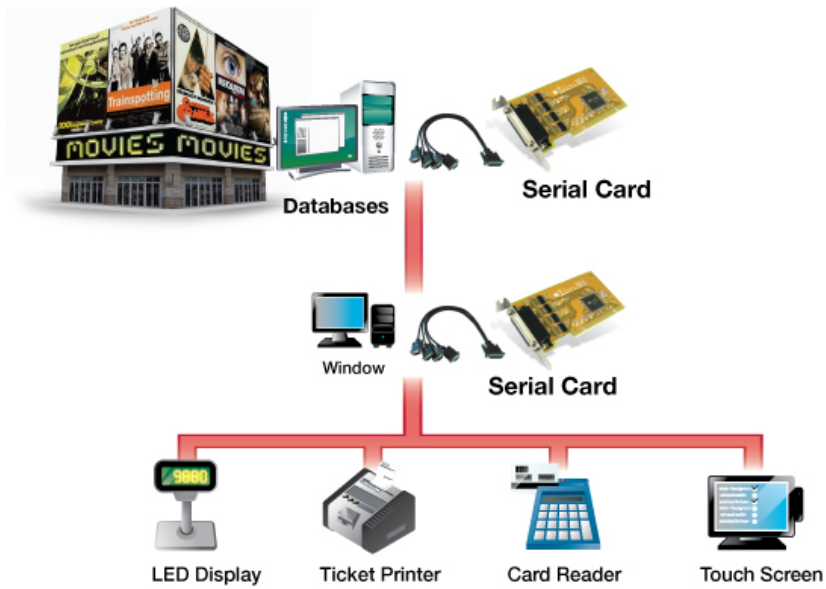
### Environment

<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)

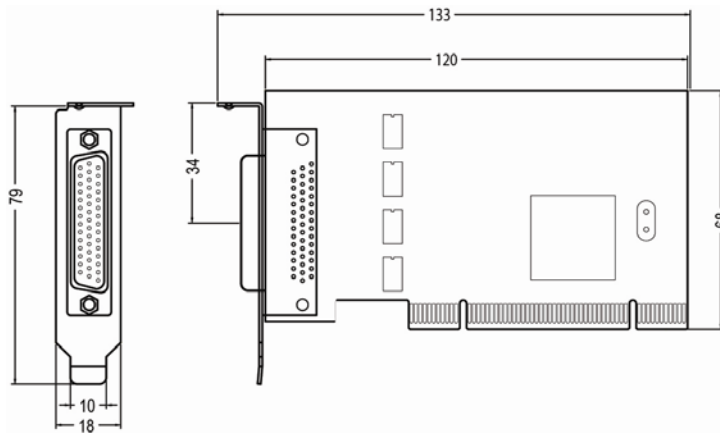
### Dimension

<b>PCB Dimension</b>	120 x 68 mm
<b>Bracket</b>	Low Profile 80 mm
<b>Bracket Space</b>	1

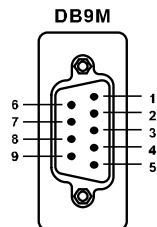
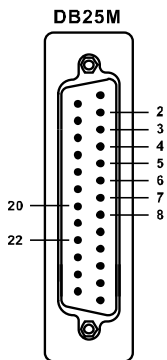
## Application



## Mechanical Drawings (Unit = mm)



## Pin Assignment



PIN	DB9M	DB25M
DCD	1	8
RxD	2	3
TxD	3	2
DTR	4	20
GND	5	7
DSR	6	6
RTS	7	4
CTS	8	5
RI	9	22



## Packing List

### Packing Content

- SER5056HL – 4-port RS-232 High Speed Low Profile Universal PCI Serial Board
- Quick Installation Guide
- Software CD ROM
- DB44 to 4-port DB9/DB44 Male Connection Cable, 40 cm



## Optional Accessories

- DB44 to 4-port DB9 Male Connection Cable, 40/100 cm

**Part Number:** 1WDB-44M04009D4001



- DB44 to 4-port DB25 Male Connection Cable, 40/100 cm

**Part Number:** 1WDB-44M04025D4000



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	
			921.6Kbps		-	Low profile	SER5456AL		
					5V/12V		-	SER5456PL	
		DB9 Male	115.2 kbps		-	Standard	SER5456H		
					5V/12V		-	SER5456PH	
			921.6Kbps		-	Low profile	SER5456HL		
					5V/12V		-	SER5456PHL	
	2	DB9 Male	115.2 kbps		-	Standard	SER5437A		
					5V/12V		-	SER5437P	
		DB44 Female	921.6Kbps		-	Low profile	SER5437AL		
					5V/12V		-	SER5437PL	
PCI	8	DB62 Female	115.2 Kbps	±2KV	-	Standard	SER5066A		
					Mini SCSI 68 Female		-	SER5066AL	
					5x2 Pin Header		-	SER5066U	
					5x2 Pin Header		-	SER5066UL	
		Mini SCSI 68 female	921.6Kbps		±15KV	-	Standard	SER5066H	
						-	Low profile	SER5066HL	
						-	Standard	SER5066UH	
						-	Low profile	SER5066UHL	
	4	DB44 Female	115.2 Kbps	±2KV	-	Standard	SER5056A		
					5V/12V		-	SER5056P	
					-		Low profile	SER5056AL	
					5V/12V		-	SER5056PL	
		5x2 Pin Header	921.6Kbps		±15KV	-	Standard	SER5056U	
						-	Low profile	SER5056UL	
						-	Standard	SER5056H	
						-	Low profile	SER5056HL	
	2	DB44 Female	921.6Kbps	±15KV	5V/12V	Standard	SER5056PH		
					-	Standard	SER5056UH		
					-	Low profile	SER5056UHL		
					5V/12V	Low profile	SER5056PHL		
		DB9 Male	115.2Kbps		±2KV	-	Standard	SER5037A	
						5V/12V		-	SER5037P
						-		Low profile	SER5037U
						5V/12V		-	SER5037AL
5x2 Pin Header	921.6Kbps	±15KV	-	Low profile		SER5037PL			
			-			SER5037UL			
			-			SER5037H			
			5V/12V			Standard	SER5037PH		
DB9 Male	115.2Kbps		±2KV	-	Standard	SER5037UHL			
				-		SER5037UH			
				-		Low profile	SER5037HL		
				5V/12V		Low profile	SER5037PHL		
1	DB9 Male	115.2Kbps		±2KV	-	Standard	SER5027A		
					5V/12V		-	SER5027P	
					-		Low profile	SER5027U	
					5V/12V		-	SER5027AL	
	5x2 Pin Header	921.6Kbps	±15KV		-	Low profile	SER5027PL		
					-		SER5027UL		
					-		SER5027H		
					5V/12V		Standard	SER5027PH	
DB9 Male	115.2Kbps	±2KV		-	Standard	SER5027UHL			
				-		SER5027UH			
				-		Low profile	SER5027HL		
				5V/12V		Low profile	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		