

SER5037PHL

2-port RS-232 High Speed
Universal PCI Low Profile
Serial Board with Power Output



Introduction

SUNIX SER5037PHL, Universal PCI serial communication board, allows users to add or expand two RS-232 ports on PC-based system. 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 SER5037PHL is compatible with both 32/64-bit PCI architecture supporting 3.3 and 5V Bus, allowing this multi-port card to be installed in any slim size PC-based system with low profile bracket structure. Furthermore, SUNIX SER5037PHL 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 2 independent RS-232 serial ports with communication speeds up to 921.6Kbps.
- High speed 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.
- Provides RS-232 serial ports with +5 or +12 VDC power output via COM 1st or 9th pin.
- 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.
- 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

Interface	RS-232	Signal	TxD, RxD, RTS, CTS, DTR, DSR, GND, 5V/12V/ DCD, 5V/12V/RI
Controller	SUNIX SUN1989 (16C950 UART Compatible)	Baud rate	50bps ~921.6Kbps
BUS	Universal PCI 64/32bit 3.3V/5V PCI Ver 3.0, 2.3, 2.2, 2.1	Stop bit	1, 1.5, 2
No. of Port	2-port	Parity	even, odd, none, mark, space
IRQ & IO	Assigned by System	Flow Control	None, Xon/Xoff, RTS/CTS
FIFO	128byte Hardware	PCB Connector	DB44 Female
Protection	±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

Microsoft Client	Windows XP/Vista/7 (X86/X64)
Microsoft Server	Windows 2000/2003/2008 (X86/X64)
Microsoft Embedded	Windows CE5.0/6.0/XP Embedded/POS Ready 2009/Embedded System 2009
Linux	Linux 2.4.x/2.6.x
DOS	DOS
FreeBSD	FreeBSD 5.3~5.5 / 6.0~6.4
QNX	QNX 6.3.2/6.4.0
* IBM OS/2	WARP 3/WARP 4
* SCO UnixWare	UnixWare 7.1.3/7.1.4/ Open Server 5.0.7/6.0
* Sun Microsystems	Solaris 10
Note : " * " Supported by special inquiry.	

Regulatory Approvals

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

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)

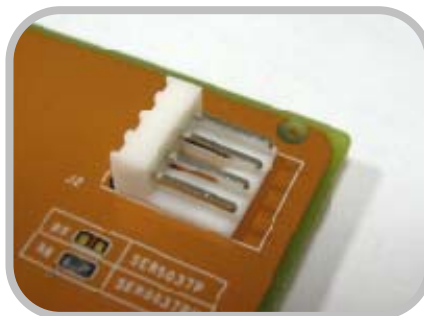
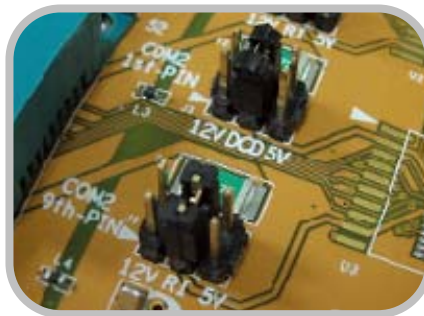
Dimension

PCB Dimension	120 x 63 mm
Bracket	Low Profile80 mm
Bracket Space	1

Optional 5V / 12V / Signal Output over COM

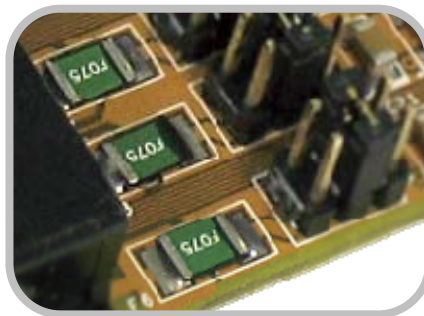
For SUNIX PoweredIO Serial card, user can select +5VDC and +12VDC power output over both COM 1st or 9th pins. In addition, this board also keeps the original RS-232 signal for traditional application using. In order to make sure the power stable and convenient, the DC power sources from the system power supply.

For example, user can select +12VDC output to invoice printer on first port, +5VDC output to barcode scanner on second port, and RI signal to modem on the third port. SUNIX PoweredIO Serial card is designed for users who want to connect serial peripherals without using extra power adaptor.

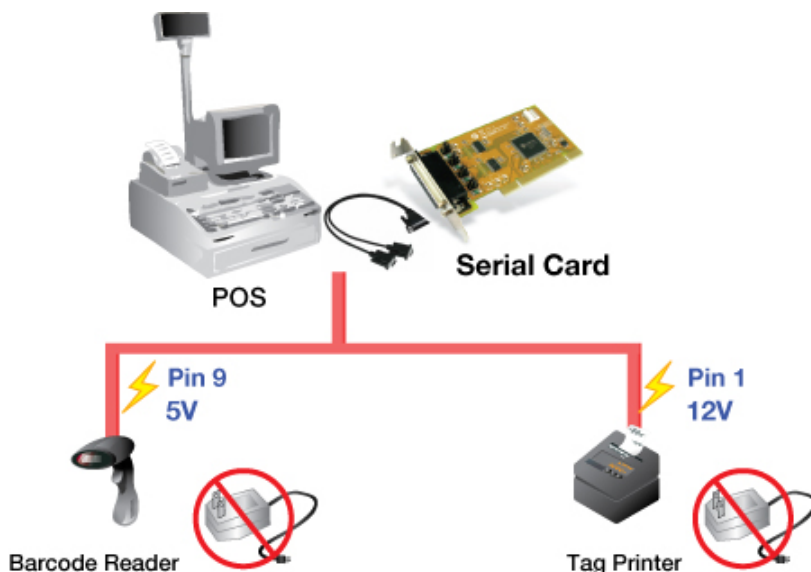


Reliable Circuit Protection

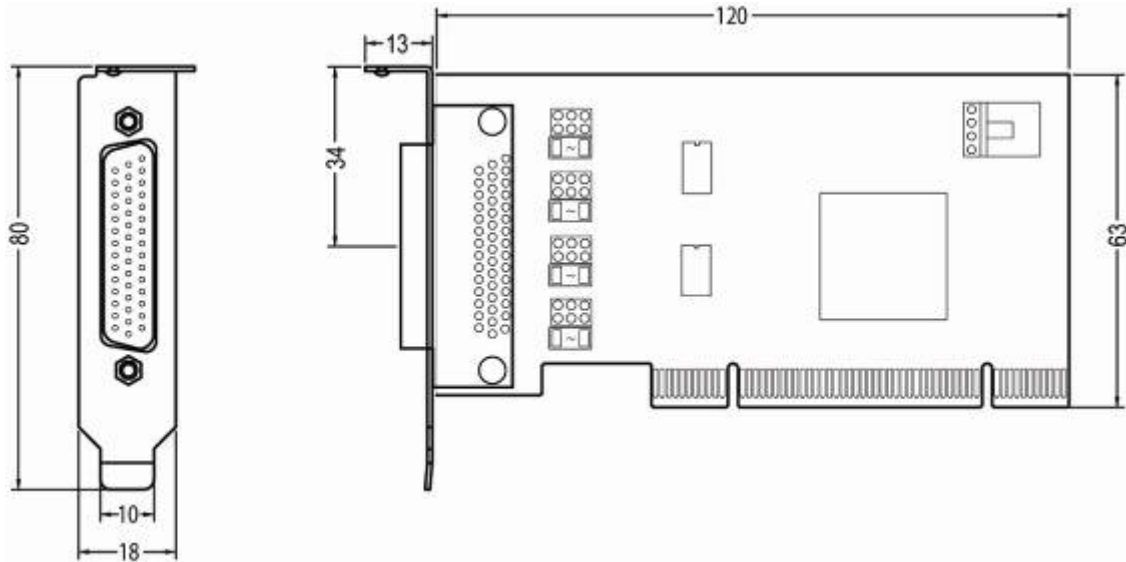
Each RS-232 port is protected with a 0.75 Amp PTC (Positive Temperature Coefficient) resettable fuse. The PTC may temporarily allow more than 0.75 Amp to be drained. Typically, a PTC will shut off after approximately 15 seconds drawing more than 1.5 Amp. The PTC will turn off the power for each individual port if an unusual overload is sustained. Besides in order to satisfy kinds of serial device power requirements, each RS-232 port can support 750mA current output in the PCB circuit design.



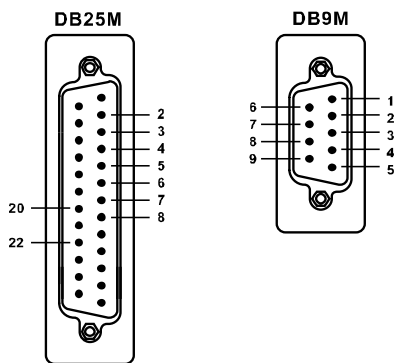
Application



Mechanical Drawings (Unit = mm)



Pin Assignment



PIN	DB9M	DB25M
DCD/5V/12V	1	8
RxD	2	3
TxD	3	2
DTR	4	20
GND	5	7
DSR	6	6
RTS	7	4
CTS	8	5
RI/5V/12V	9	22

Note:

SUNIX provides special cable for user who needs the DB9M connector fourth pin power output. This cable is the additional accessory for options.



Packing List

Packing Content

- SER5037PHL – 2-port RS-232 High Speed Universal PCI Low Profile Serial Board with Power Output
- Quick Installation Guide
- Software CD ROM
- DB44 to 2-port DB9/DB25 Male Connection Cable, 40 cm



Optional Accessories

- DB44 to 2-port DB9 Male Connection Cable, 40/100 cm

Part Number: 1WDB-44M04009D2000



- DB44 to 2-port DB25 Male Connection cable, 40/100 cm

Part Number: 1WDB-44M04025D2000



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	921.6Kbps		-	Low profile	SER5437AL	
					5V/12V		-	SER5437PL
		DB9 Male	921.6Kbps		-	Standard	SER5437H	
					5V/12V		-	SER5437PH
DB44 Female	921.6Kbps	-	Low profile	SER5437HL				
		5V/12V		-	SER5437PHL			
PCI	8	DB62 Female	115.2 Kbps	±2KV	-	Standard	SER5066A	
					Mini SCSI 68 Female		-	SER5066AL
		5x2 Pin Header			-	Low profile	SER5066U	
					-		SER5066UL	
		DB62 Female			921.6Kbps	-	Standard	SER5066H
						Mini SCSI 68 female		-
	5x2 Pin Header	-	Low profile	SER5066UH				
	-	SER5066UHL						
	4	DB44 Female	115.2 Kbps	±2KV	-	Standard	SER5056A	
					5V/12V		-	SER5056P
					-		Low profile	SER5056AL
			5V/12V		-	SER5056PL		
			5x2 Pin Header		921.6Kbps	-	Standard	SER5056U
						-		Low profile
		-		SER5056H				
		DB44 Female	921.6Kbps	-	Low profile	SER5056HL		
				5V/12V		-	SER5056PH	
		5x2 Pin Header	921.6Kbps	-	Standard	SER5056UH		
				-		Low profile	SER5056UHL	
		DB44 Female	921.6Kbps	-	Standard		SER5056PHL	
	5V/12V			-		SER5056PHL		
	2	DB9 Male	115.2Kbps	±2KV	-	Standard	SER5037A	
					5V/12V		-	SER5037P
					-		Low profile	SER5037U
		-	SER5037AL					
		5x2 Pin Header	921.6Kbps		-	Low profile	SER5037PL	
					-		SER5037UL	
		DB9 Male	921.6Kbps	-	Standard	SER5037H		
				5V/12V		-	SER5037PH	
		5x2 Pin Header	921.6Kbps	-	Low profile	SER5037UH		
				-		SER5037HL		
		DB44 Female	921.6Kbps	-	Standard	SER5037PHL		
				5V/12V		-	SER5037PHL	
	1	DB9 Male	115.2Kbps	±2KV	-	Standard	SER5027A	
					5V/12V		-	SER5027P
					-		Low profile	SER5027U
-		SER5027AL						
5x2 Pin Header		921.6Kbps	-		Low profile	SER5027PL		
			-			SER5027UL		
DB9 Male	921.6Kbps	-	Standard	SER5027H				
		5V/12V		-	SER5027PH			
5x2 Pin Header	921.6Kbps	-	Low profile	SER5027UH				
		-		SER5027HL				
DB9 Male	921.6Kbps	-	Standard	SER5027PHL				
		5V/12V		-	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	