

SER5037PH

2-port RS-232 High Speed
Universal PCI Serial Board
With Power Output



Introduction

SUNIX SER5037PH, 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 SER5037PH 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 SER5037PH 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.
- 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	DB9 Male
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)

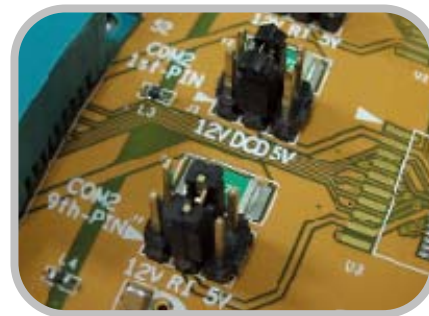
Dimension

PCB Dimension	120 x 82 mm
Bracket	Standard 121 mm
Bracket Space	1

Optional 5V / 12V / Signal Output over COM

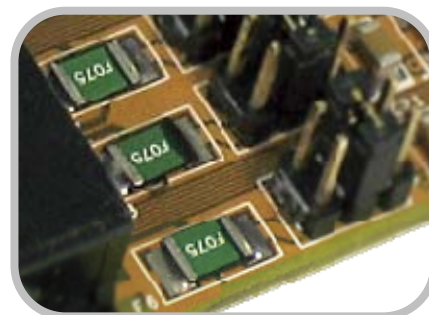
For SUNIX PoweredIO Serial card, user can select +5VDC and +12VDC power output over both COM 1st or 9th pins. In addition, this board also keeps the original RS-232 signal for traditional application using. In order to make sure the power stable and convenient, the DC power sources from the system power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

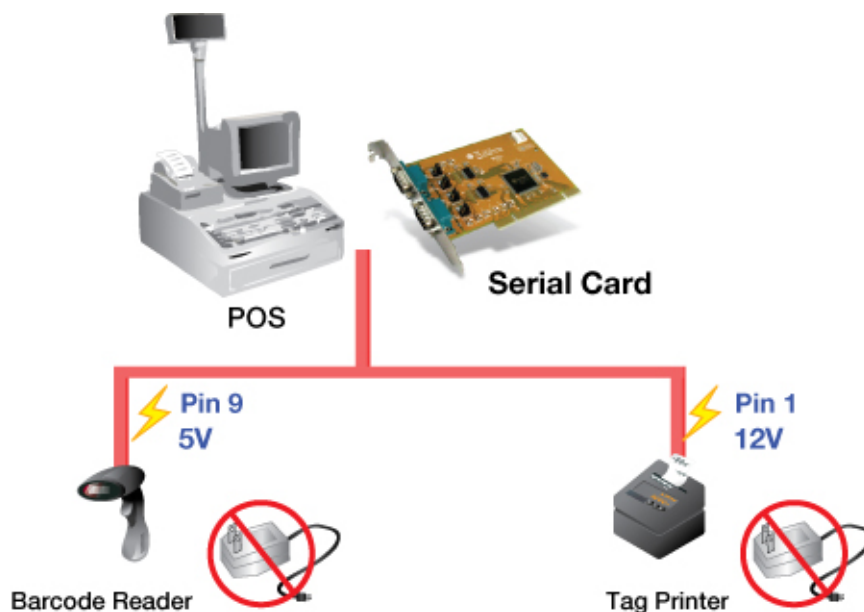


Reliable Circuit Protection

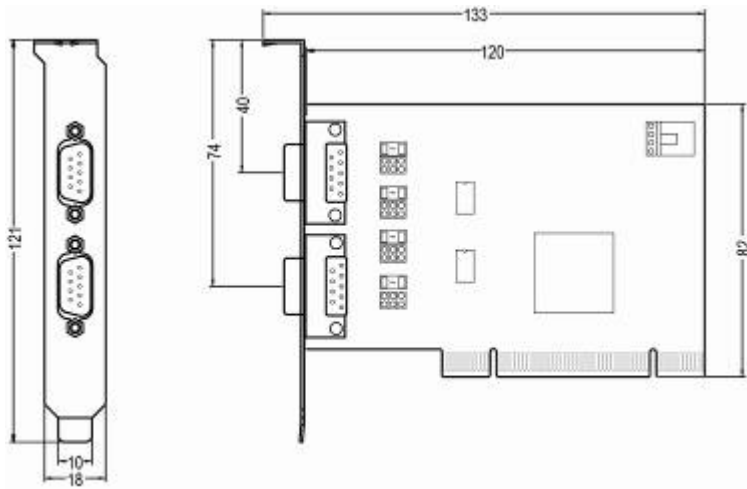
Each RS-232 port is protected with a 0.75 Amp PTC (Positive Temperature Coefficient) resettable fuse. The PTC may temporarily allow more than 0.75 Amp to be drained. Typically, a PTC will shut off after approximately 15 seconds drawing more than 1.5 Amp. The PTC will turn off the power for each individual 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.



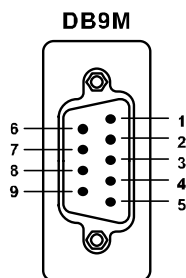
Application



Mechanical Drawings (Unit = mm)



Pin Assignment



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

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

- SER5037PH – 2-port RS-232 High Speed Universal PCI Serial Board
With Power Output
- 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
			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
		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	
					-		Low profile	SER5066AL
		Mini SCSI 68 Female			-	Standard		SER5066U
					-		Low profile	SER5066UL
		5x2 Pin Header			921.6Kbps	-		Standard
						-	Low profile	
		DB62 Female			921.6Kbps	-		Standard
						-	Low profile	
	Mini SCSI 68 female	921.6Kbps	-	Standard	SER5056A			
			-		Low profile	SER5056AL		
	5x2 Pin Header	115.2 Kbps	-	Standard		SER5056U		
			-		Low profile	SER5056UL		
	4	DB44 Female	115.2 Kbps	±2KV		5V/12V	Standard	SER5056P
					-	Low profile		SER5056AL
		5x2 Pin Header	921.6Kbps	-	Standard		SER5056U	
				-		Low profile	SER5056UL	
	DB44 Female	921.6Kbps	-	Standard	SER5056H			
			-		Low profile	SER5056HL		
	5x2 Pin Header	921.6Kbps	-	Standard		SER5056PH		
			-		Low profile	SER5056UHL		
	DB44 Female	921.6Kbps	-	Standard		SER5056UH		
			-		Low profile	SER5056UHL		
	DB9 Male	115.2Kbps	±2KV	5V/12V		Standard	SER5037A	
				-	Low profile		SER5037AL	
	5x2 Pin Header	115.2Kbps	-	Standard		SER5037U		
			-		Low profile	SER5037UL		
	DB44 Female	115.2Kbps	-	Standard		SER5037H		
			-		Low profile	SER5037HL		
	5x2 Pin Header	115.2Kbps	-	Standard		SER5037PH		
			-		Low profile	SER5037PHL		
	DB9 Male	921.6Kbps	±15KV	5V/12V		Standard	SER5037U	
				-	Low profile		SER5037UL	
	5x2 Pin Header	921.6Kbps	-	Standard		SER5037H		
			-		Low profile	SER5037HL		
	DB44 Female	921.6Kbps	-	Standard		SER5037UH		
			-		Low profile	SER5037UHL		
	DB9 Male	115.2Kbps	±2KV	5V/12V		Standard	SER5027A	
				-	Low profile		SER5027AL	
	5x2 Pin Header	115.2Kbps	-	Standard		SER5027U		
			-		Low profile	SER5027UL		
	DB9 Male	115.2Kbps	-	Standard		SER5027H		
			-		Low profile	SER5027HL		
	5x2 Pin Header	115.2Kbps	-	Standard		SER5027PH		
			-		Low profile	SER5027PHL		
	DB9 Male	921.6Kbps	±15KV	5V/12V		Standard	SER5027U	
				-	Low profile		SER5027UL	
	5x2 Pin Header	921.6Kbps	-	Standard		SER5027H		
			-		Low profile	SER5027HL		
DB9 Male	921.6Kbps	-	Standard	SER5027UH				
		-		Low profile	SER5027UHL			
DB9 Male	921.6Kbps	±15KV	5V/12V		Standard	SER5027A		
			-	Low profile		SER5027AL		
5x2 Pin Header	921.6Kbps	-	Standard		SER5027U			
		-		Low profile	SER5027UL			
DB9 Male	921.6Kbps	-	Standard		SER5027H			
		-		Low profile	SER5027HL			
5x2 Pin Header	921.6Kbps	-	Standard		SER5027PH			
		-		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	