

SER5056PH

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



Introduction

SUNIX SER5056PH, Universal PCI serial communication board, allows users to add or expand four 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 SER5056PH is compatible with both 32/64-bit PCI architecture supporting 3.3 and 5V Bus, allowing this multi-port card to be installed in virtually any available PC and compatible with all major operating systems. Furthermore, SUNIX SER5056PH serial card supports majority of the OS on the market. We provide driver support for Microsoft Windows 32/64-bit platform, WinCE, Linux, making it the best and most economical solution for commercial and industrial 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.
- 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 SUN1999 (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	4-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

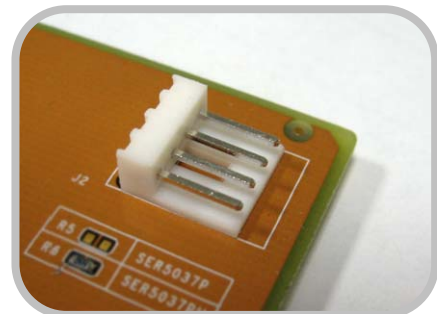
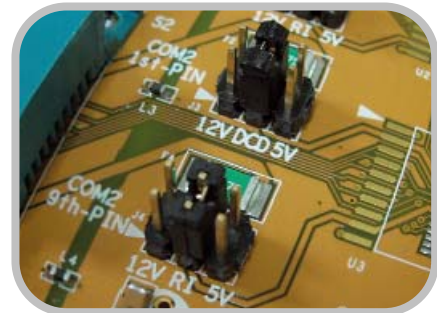
PCB Dimension	120 x 68 mm
Bracket	Standard 121 mm
Bracket Space	1



Optional 5V / 12V / Signal Output over COM

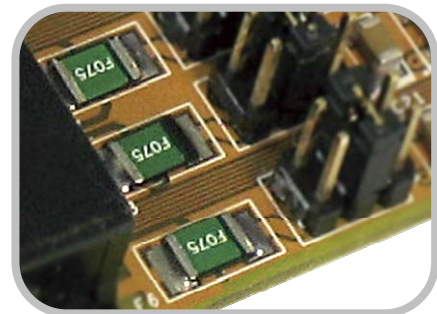
For SUNIX PoweredIO Serial card, user can select +5VDC and +12VDC power output over both COM 1st or 9th pins. In addition, this board also keeps the original RS-232 signal for traditional application using. In order to make sure the power stable and convenient, the DC power sources from the system power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

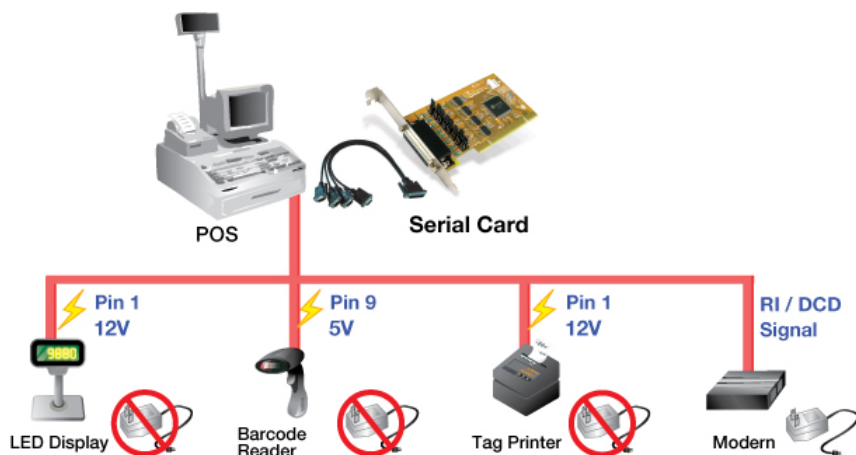


Reliable Circuit Protection

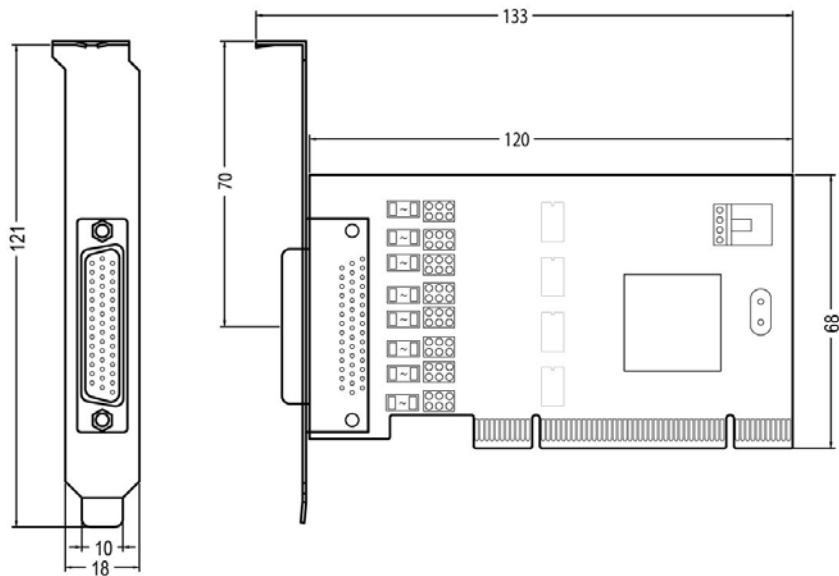
Each RS-232 port is protected with a 0.75 Amp PTC (Positive Temperature Coefficient) resettable fuse. The PTC may temporarily allow more than 0.75 Amp to be drained. Typically, a PTC will shut off after approximately 15 seconds drawing more than 1.5 Amp. The PTC will turn off the power for each individual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



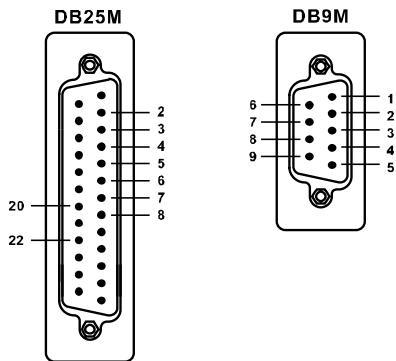
Application



Mechanical Drawings (Unit = mm)



Pin Assignment



PIN	DB9M	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

- SER5056PH – 4-port RS-232 High Speed Universal PCI Serial Board
With Power Output
- Quick Installation Guide
- Software CD ROM
- DB44 to 4-port DB9/DB25 Male Connection Cable, 40 cm



Optional Accessories

- DB44 to 4-port DB9 Male Connection Cable,
40/100 cm
Part Number: 1WDB-44M04009D4002

- 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		
		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		-	Low profile	SER5066AL	
		5x2 Pin Header			-	Standard	SER5066U			
					-		-	Low profile	SER5066UL	
		DB62 Female			921.6Kbps	±15KV	-		Standard	SER5066H
							Mini SCSI 68 female	-		Low profile
	5x2 Pin Header	-	Standard	SER5066UH						
		-		-			Low profile	SER5066UHL		
	4	DB44 Female	115.2 Kbps	±2KV				-	Standard	SER5056A
							5V/12V	-		Low profile
		5x2 Pin Header			-	Standard	SER5056U			
					-		-	Low profile	SER5056UL	
		DB44 Female			921.6Kbps	±15KV	-		Standard	SER5056H
							5V/12V	-		Low profile
	5x2 Pin Header	-	Standard	SER5056UH						
		-		-			Low profile	SER5056UHL		
	2	DB9 Male	115.2Kbps	±2KV				-	Standard	SER5037A
							5V/12V	-		Low profile
		5x2 Pin Header			-	Standard	SER5037U			
					-		-	Low profile	SER5037AL	
		DB44 Female			921.6Kbps	±15KV	-		Standard	SER5037PH
							5V/12V	-		Low profile
	5x2 Pin Header	-	Standard	SER5037HL						
		-		-			Low profile	SER5037PHL		
	1	DB9 Male	115.2Kbps	±2KV				-	Standard	SER5027A
							5V/12V	-		Low profile
		5x2 Pin Header			-	Standard	SER5027U			
					-		-	Low profile	SER5027AL	
		DB9 Male			921.6Kbps	±15KV	-		Standard	SER5027PH
							5V/12V	-		Low profile
	5x2 Pin Header	-	Standard	SER5027HL						
		-		-			Low profile	SER5027PHL		
	Express Card	4	DB44 Female	921.6Kbps				±15KV	-	34mm
		2					-		34mm	ECS2000
		1			DB9 Male	-	34mm		ECS1000	
	CardBus	4	DB44 Female	115.2Kbps	±15KV	-	54mm	CBS4000		
2		-				54mm	CBS2000			
1		DB9 Male				-	54mm	CBS1000		