

## SER5016H

16-port RS-232 High Speed  
Universal PCI Serial Board



### Introduction

SUNIX SER5016H, Universal PCI serial communication board, allows users to add or expand sixteen 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 virtually any PC-based systems. SUNIX SER5016H 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 16 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.
- 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
<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>	16-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>	Mini SCSI 68 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>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/ 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, FCC Part 15 Class B, BSMI: CNS13438, C-Tick: CISPR22 AS/NZS, RoHS
<b>Software</b>	Microsoft WHQL Windows ◆ Windows Client: XP/Vista/7/8/8.1 (X86/X64) ◆ Windows Server: 2000 / 2003 / 2008 / 2008 R2 / 2012 / 2012 R2 (X86/X64)

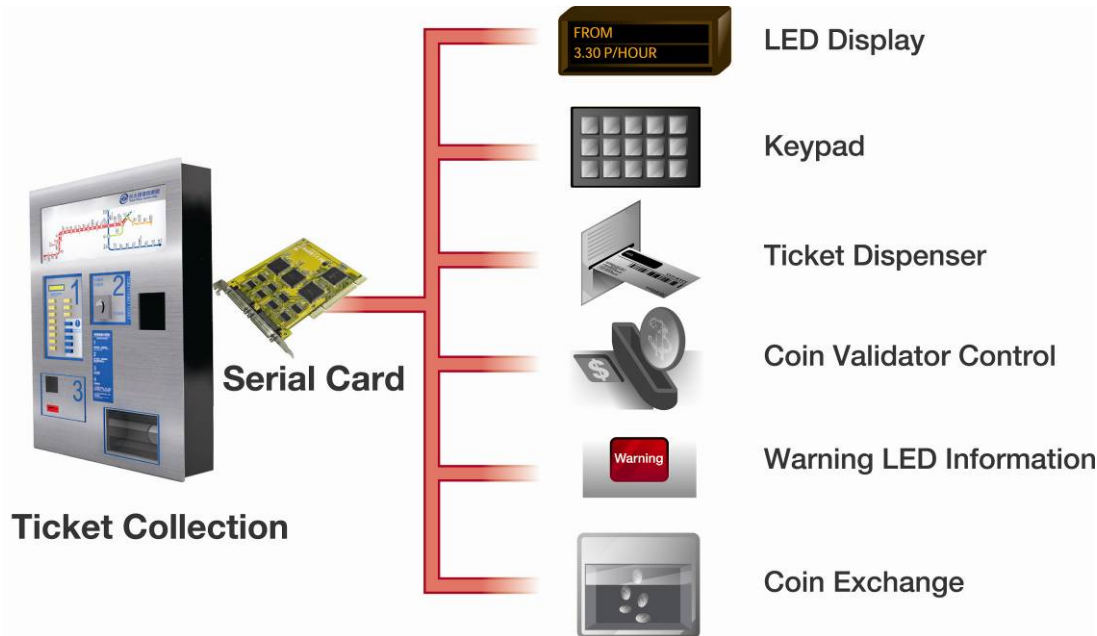
### Environment

<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)

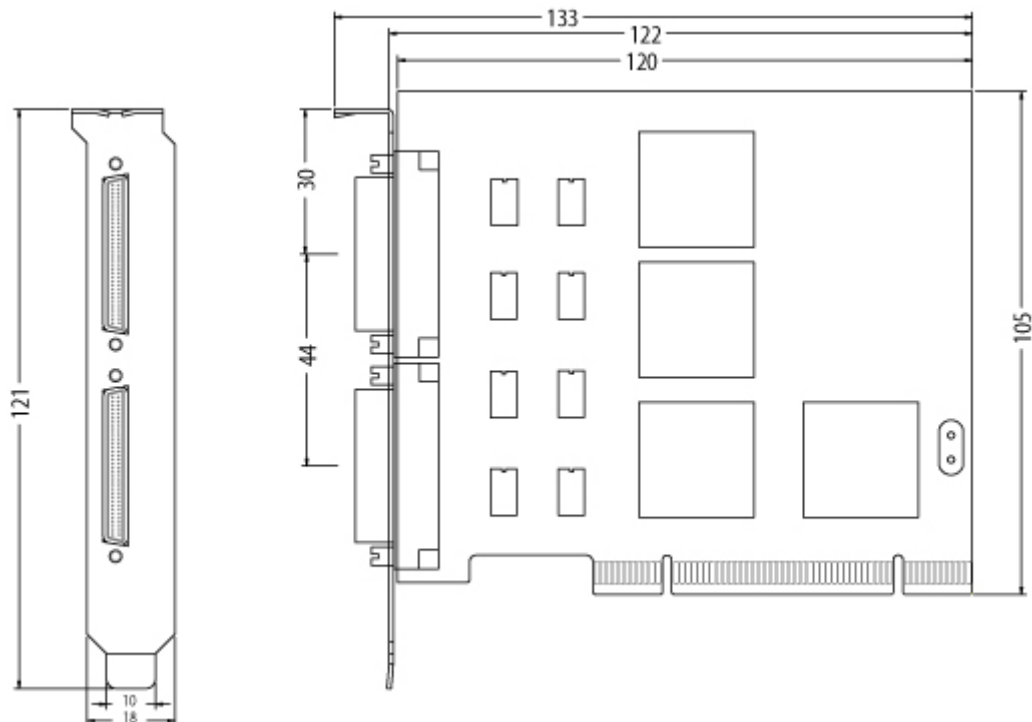
### Dimension

<b>PCB Dimension</b>	120 x 105 mm
<b>Bracket</b>	Standard 121 mm
<b>Bracket Space</b>	1

## Application

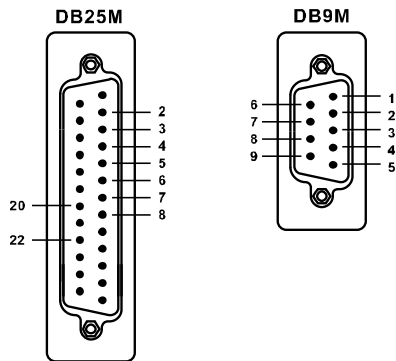


## Mechanical Drawings (Unit = mm)





## 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

## Packing List

### Packing Content

- SER5016H – 16-port RS-232 High Speed Universal PCI Serial Board
- Quick Installation Guide
- Software CD ROM
- Mini SCSI 68 to 8-port DB9/DB25 Male Connection Cable, 40 cm (2PCS)



## Optional Accessories

- Mini SCSI 68 to 8-port DB9 Male Connection Cable, 40 cm



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	115.2 kbps		-	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	±15KV	-	Standard	SER5066H
							Mini SCSI 68 female		-
	5x2 Pin Header	-	Low profile	SER5066UH					
		-		SER5066UHL					
	4	DB44 Female	115.2 Kbps	±2KV			-	Standard	SER5056A
							5V/12V		-
		5x2 Pin Header			-	Low profile	SER5056AL		
					5V/12V		-	SER5056PL	
		DB44 Female			921.6Kbps	±15KV	-	Standard	SER5056U
							-		SER5056UL
	5x2 Pin Header	-	Low profile	SER5056H					
		-		SER5056HL					
	DB44 Female	-	Low profile	SER5056PH					
		5V/12V		-			SER5056PHL		
	2	DB9 Male	115.2Kbps	±2KV	-	Standard	SER5037A		
					5V/12V		-	SER5037P	
		5x2 Pin Header			-	Low profile	SER5037U		
					-		SER5037AL		
		DB44 Female			-	Low profile	SER5037PH		
					5V/12V		-	SER5037PL	
		5x2 Pin Header	921.6Kbps	±15KV	-	Standard	SER5037UL		
					-		SER5037UHL		
		DB9 Male			-	Low profile	SER5037H		
					5V/12V		-	SER5037PH	
		5x2 Pin Header			-	Low profile	SER5037UH		
					-		SER5037HL		
	DB44 Female	-	Low profile	SER5037PHL					
		5V/12V		-	SER5037PHL				
	1	DB9 Male	115.2Kbps	±2KV	-	Standard	SER5027A		
					5V/12V		-	SER5027P	
		5x2 Pin Header			-	Low profile	SER5027U		
					-		SER5027AL		
DB9 Male		921.6Kbps	±15KV	-	Standard	SER5027PL			
				5V/12V		-	SER5027UL		
5x2 Pin Header				-	Low profile	SER5027H			
				-		SER5027PH			
DB9 Male	-	Low profile	SER5027UH						
	5V/12V		-	SER5027HL					
5x2 Pin Header	-	Low profile	SER5027PHL						
	-		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		