

SER5437AL

2-port RS-232 PCI Express
Low Profile Serial Board



Introduction

SUNIX SER5437AL, PCI Express serial communication boards meet the PCI Express Base Specification Revision 1.1. It is compatible with PCI Express x1, x2, x4, x8 and x16 lane Bus allowing it to be installed in any slim size PC-based system with low profile bracket structure. The majorities of today's motherboards is not equipped with serial ports or only have one serial port. With SUNIX PCI Express serial board, users can add 2 serial ports to their system, allowing them to use serial devices further. SUNIX SER5437AL 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 115.2Kbps.
- High speed SUN1989 16C950 compatible UART controller on-board.
- Designed to meet PCI Express Base Specification Revision 1.1.
- Supports x1, x2, x4, x8, x16 (lane) PCI Express Bus connector keys.
- 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, DCD, GND, RI
Controller	SUNIX SUN1989 (16C950 UART Compatible)	Baud rate	50bps ~115.2Kbps
BUS	PCI Express one lane (x1)	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 CE 4.2/5.0/6.0/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)

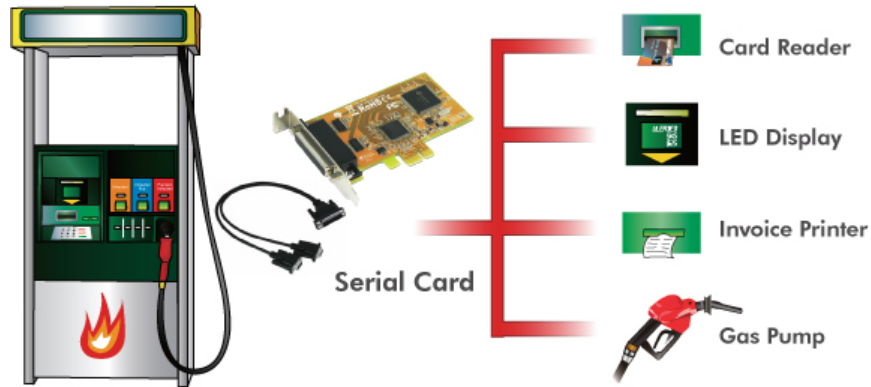
Environment

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)

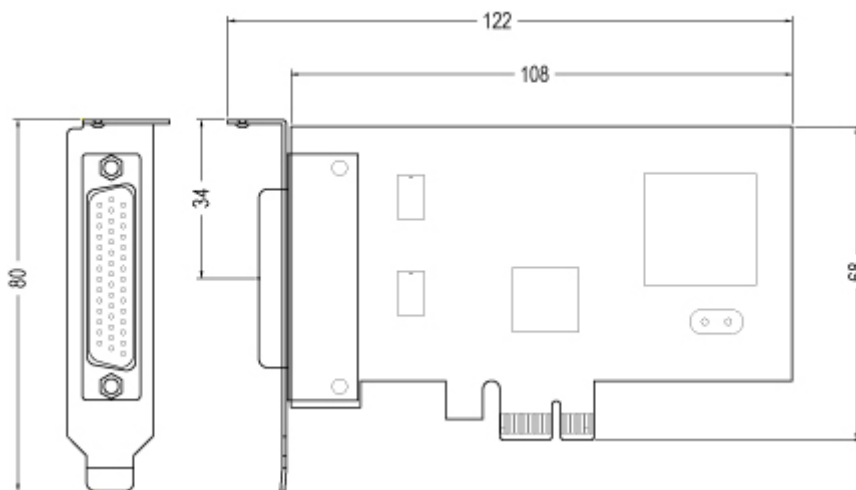
Dimension

PCB Dimension	108 x 68 mm
Bracket	Low Profile 80 mm
Bracket Space	1

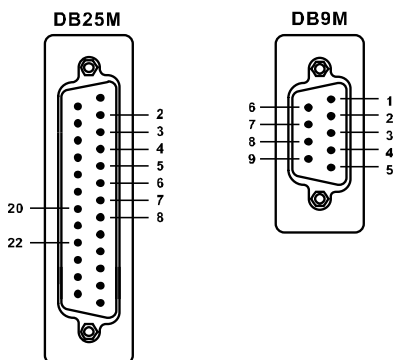
Application



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

- SER5437AL – 2-port RS-232 PCI Express Low Profile Serial Board
- 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	
			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		
					-		SER5056UH		
					-		Low profile	SER5056UHL	
					5V/12V		Low profile	SER5056PHL	
		DB9 Male	115.2Kbps		±2KV	-	Standard	SER5037A	
						5V/12V		-	SER5037P
						-		Low profile	SER5037U
						5V/12V		Low profile	SER5037AL
5x2 Pin Header	921.6Kbps	±15KV	-	Standard		SER5037PH			
			-			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		Low profile	SER5027AL	
	5x2 Pin Header	921.6Kbps	±15KV		-	Standard	SER5027PL		
					-		SER5027UL		
					-		Low profile	SER5027H	
					5V/12V		Low profile	SER5027PH	
DB9 Male	921.6Kbps	±15KV		-	Standard	SER5027UH			
				-		SER5027HL			
				-		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		