



SER6456AL

4-port RS-232 Low Profile
PCI Express Board



Introduction

SUNIX SER6456AL, PCI Express serial communication boards meet the PCI Express Base Specification Revision 2.0. 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 four serial ports to their system, allowing them to use serial devices further. SUNIX SER6456AL card has 128-bytes onboard FIFO buffer and compatible with 16C950 UART specification. It is designed with SUNIX UART controller, SUN2410 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 4 independent RS-232 serial ports with communication speeds up to 115.2Kbps.
- With high reliable SUNIX SUN2410 native PCI Express 16C950 UART controller.
- Designed to meet PCI Express Base Specification Revision 2.0.
- 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

General

Interface	RS-232
Controller	SUNIX SUN2410 (16C950 UART Compatible)
BUS	PCI Express Spec 2.0, Single-Lane (x1)
IRQ & IO	Assigned by System

Serial Communication

Interface	RS-232
No. of Port	4-port
FIFO	128byte Hardware
Signal	DCD, TxD, RxD, RTS, CTS, DTR, DSR, GND, RI
Baud rate	50bps ~ 115.2Kbps
Stop bit	1, 1.5, 2
Parity	even, odd, none, mark, space
Flow Control	None, Xon/Xoff, RTS/CTS
Protection	±15KV ESD protection for each signal Human Body Model (HBM) ±15KV IEC1000-4-2 Air Gap Discharge ±8KV IEC1000-4-2 Contact Discharge
PCB Connector	DB44 Female

Driver Support

Windows Client	Windows XP/Vista/7/8/8.1 (X86/X64)
Windows Server	Windows 2000 / 2003 / 2008 / 2008 R2 / 2012 / 2012 R2 (X86/X64)
Windows Embedded	Windows CE 4.2/5.0/6.0/XP Embedded/POSReady 2009/POSReady 7 / Embedded System 2009/Embedded Standard 7
Linux	Linux 2.4.x / 2.6.x /3.x
DOS	DOS
FreeBSD	FreeBSD 5.3~5.5 / 6.0~6.4
QNX	QNX 6.3.2/6.4.0

Regulatory Approvals

Hardware	CE EN55022 Class B, EN55024, EN61000-3-2, EN61000-3-3, VCCI Class B FCC Part 15 Class B, BSMI: CNS13438, C-Tick: CISPR22 AS/NZS, RoHS
Software	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)

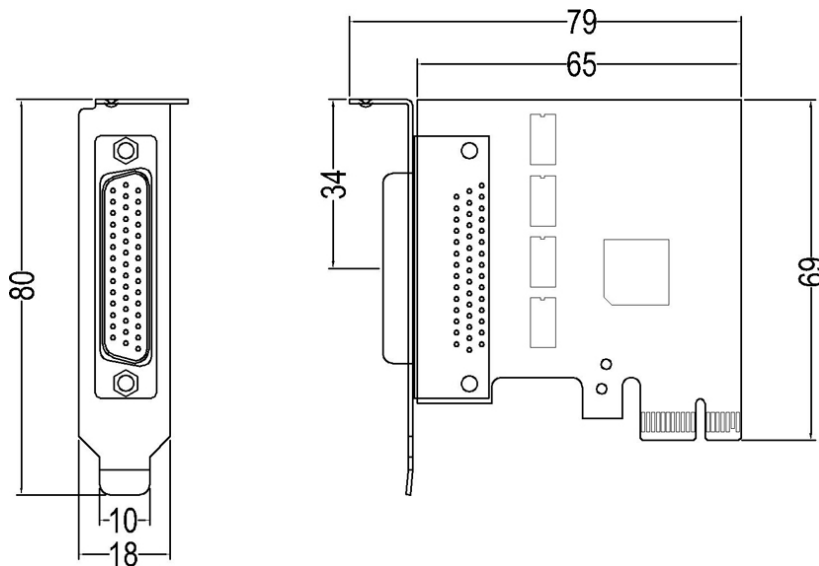
Environment

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

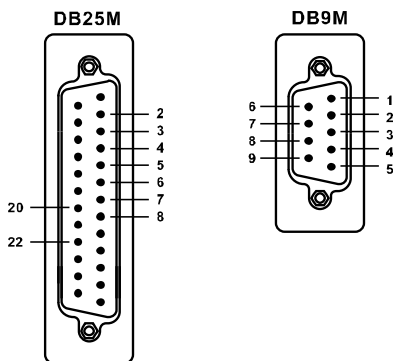
PCB Dimension	65 x 68 mm
Bracket	Low Profile 80 mm
Bracket Space	1

Mechanical Drawings (Unit = mm)



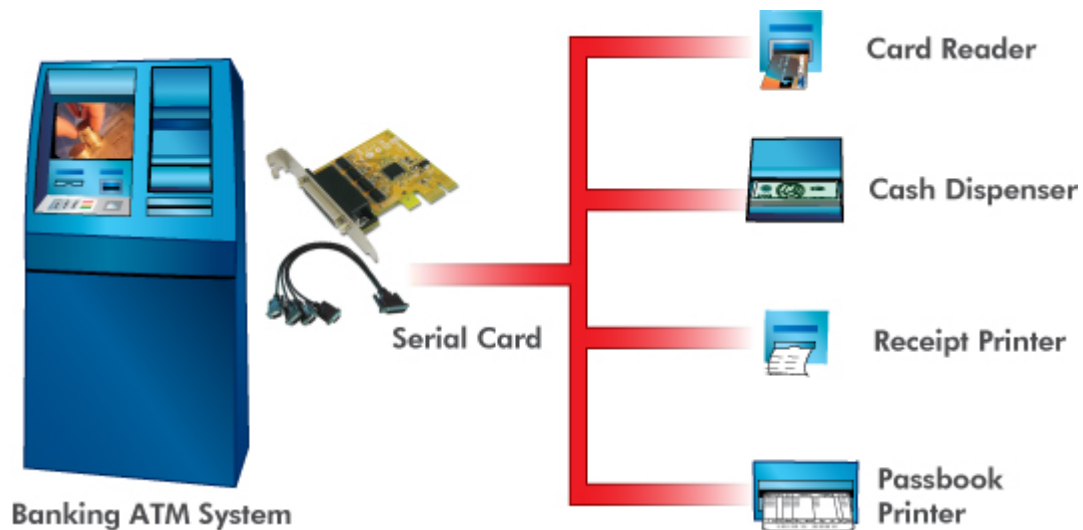
Pin Assignment

Serial



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

Application



Package

- SER6456AL- 4-port RS-232 Low Profile PCI Express Board.
- Quick Installation Guide.
- Software CD Driver
- DB44 to 4-port DB9 Male Connection Cable, 40 cm

Optional Accessories

- DB44 to 4-port DB9 Male Connection Cable, 40cm
Part No.: 1WDB-44M04009D4001
- DB44 to 4-port DB25 Male Connection Cable, 40cm
Part No.: 1WDB-44M04025D4000
- DB44 to 4-port DB9 Male Connection Cable, 100cm
Part No.: 1WDB-44M10009C4000
- DB44 to 4-port DB25 Male Connection Cable, 100cm
- PCIe Add-on Card Holder
Part No.: 13BF-PCIEFIX010000





Order Information

Bus	Port	Connecter	Baud Rate	ESD Protection	Power output	Bracket	Model NO.		
PCI Express	16	Mini SCSI 68 Female	921.6Kbps	±15KV	-	Standard	SER5416H		
			115.2Kbps				SER5466A		
	921.6Kbps	SER5466H							
	8	DB62 Female	115.2Kbps			Low Profile	SER5466AL		
			921.6Kbps				SER5466HL		
		Mini SCSI 68 Female	115.2Kbps			-	SER6456A		
			921.6Kbps				SER6456H		
	4	DB44 Female	115.2Kbps				Standard	5V/12V	SER6456P
			921.6Kbps					SER6456S	
			115.2Kbps					SER6456PH	
			921.6Kbps		SER6456SH				
			115.2Kbps		SER6456AL				
			921.6Kbps		SER6456HL				
			115.2Kbps		Low Profile		5V/12V	SER6456PL	
			921.6Kbps				SER6456SL		
			921.6Kbps			SER6456PHL			
			921.6Kbps			SER6456SHL			
	921.6Kbps	SER6437A							
	2	DB9 Male	115.2Kbps		Standard	5V/12V	SER6437H		
			921.6Kbps				SER6437P		
			115.2Kbps				SER6437S		
			921.6Kbps				SER6437PH		
			921.6Kbps				SER6437SH		
		DB44 Female	115.2Kbps		-	Low Profile	5V/12V	SER6437AL	
			921.6Kbps				SER6437HL		
			115.2Kbps				SER6437PL		
			115.2Kbps				SER6437SL		
			921.6Kbps				SER6437PHL		
	921.6Kbps	SER6437SHL							
	1	DB9 Male	115.2Kbps			Standard	5V/12V	SER6427A	
			921.6Kbps					SER6427H	
			115.2Kbps					SER6427P	
921.6Kbps			SER6427S						
921.6Kbps			SER6427PH						
115.2Kbps			Low Profile	-	5V/12V	SER6427SH			
921.6Kbps					SER6427AL				
921.6Kbps					SER6427HL				
115.2Kbps					SER6427PL				
921.6Kbps					SER6427SL				
921.6Kbps	SER6427PHL								
921.6Kbps	SER6427SHL								

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