



SER6456HL

4-port RS-232 High Speed Low Profile
PCI Express Board



Introduction

SUNIX SER6456HL, 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 SER6456HL 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 921.6Kbps.
- 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 ~ 921.6Kbps
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	DB 44 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)

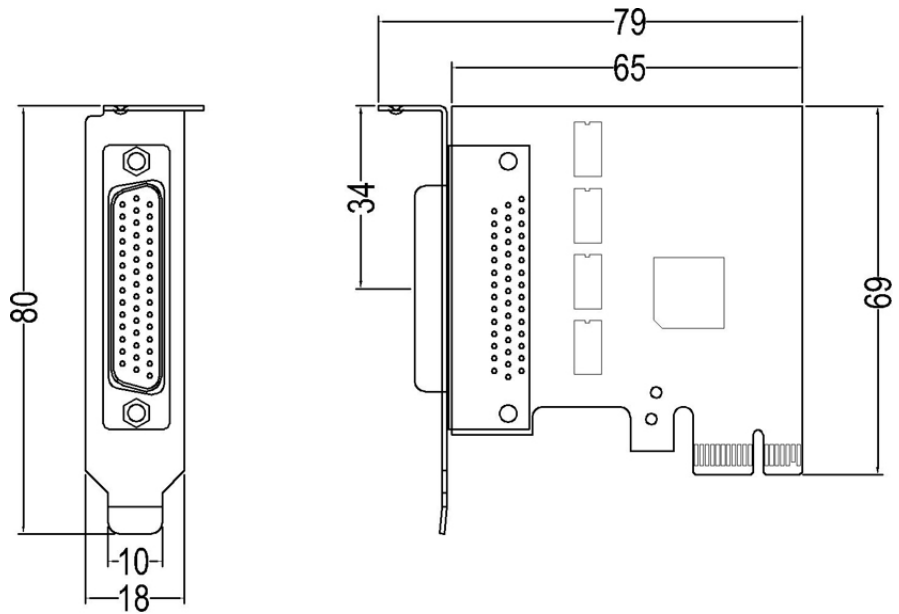
Environment

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

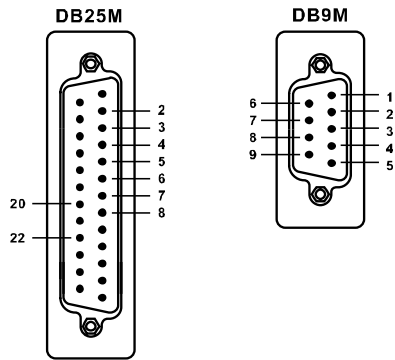
PCB Dimension	65 x 68 mm
Bracket	Low Profile 80 mm
Bracket Space	1

Mechanical Drawings (Unit = mm)



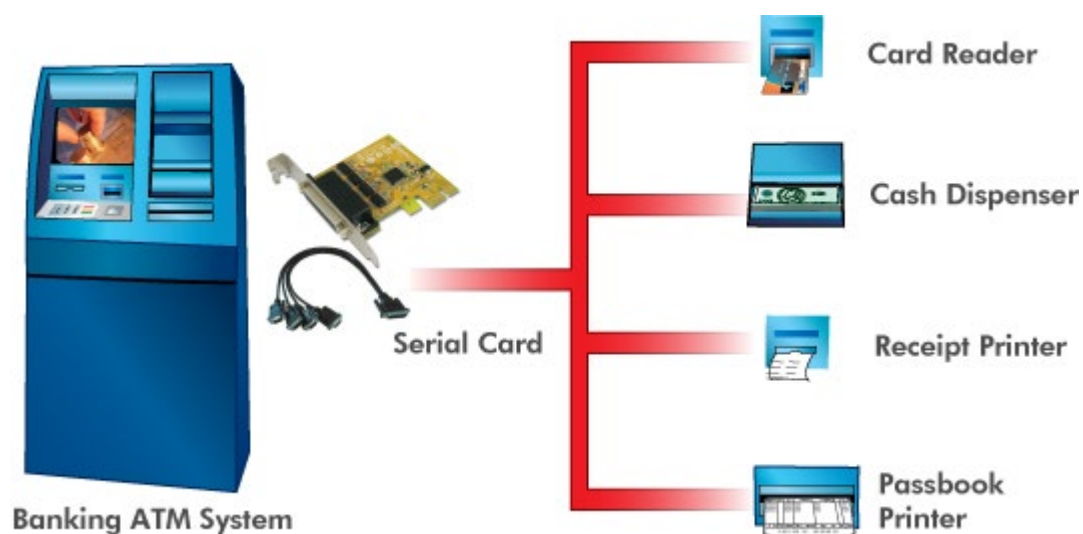
Pin Assignment

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

- SER6456HL- 4-port RS-232 High Speed 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	Connector	Baud Rate	ESD Protection	Power output	Bracket	Model NO.
PCI Express	16	Mini SCSI 68 Female	921.6Kbps	±15KV	-	Standard	SER5416H
	8	DB62 Female	115.2Kbps				SER5466A
			921.6Kbps				SER5466H
		Mini SCSI 68 Female	115.2Kbps			Low Profile	SER5466AL
			921.6Kbps				SER5466HL
			115.2Kbps				SER6456A
	4	DB44 Female	921.6Kbps		5V/12V	Standard	SER6456H
			115.2Kbps				SER6456P
			921.6Kbps				SER6456S
			115.2Kbps				SER6456PH
			921.6Kbps				SER6456SH
			115.2Kbps		-	Low Profile	SER6456AL
			921.6Kbps				SER6456HL
			115.2Kbps				SER6456PL
			921.6Kbps				SER6456SL
			921.6Kbps				SER6456PHL
			921.6Kbps				SER6456SHL
	2	DB9 Male	115.2Kbps		5V/12V	Standard	SER6437A
			921.6Kbps				SER6437H
			115.2Kbps				SER6437P
			921.6Kbps				SER6437S
		DB44 Female	115.2Kbps		5V/12V	Low Profile	SER6437PH
			921.6Kbps				SER6437SH
			115.2Kbps				SER6437AL
			921.6Kbps				SER6437HL
			115.2Kbps				SER6437PL
			115.2Kbps				SER6437SL
			921.6Kbps				SER6437PHL
			921.6Kbps				SER6437SHL
	1	DB9 Male	115.2Kbps		5V/12V	Standard	SER6427A
			921.6Kbps				SER6427H
			115.2Kbps				SER6427P
			921.6Kbps				SER6427S
			115.2Kbps		5V/12V	Low Profile	SER6427PH
			921.6Kbps				SER6427SH
			115.2Kbps				SER6427AL
			921.6Kbps				SER6427HL
			115.2Kbps				SER6427PL
			921.6Kbps				SER6427SL
			115.2Kbps				SER6427PHL
			921.6Kbps				SER6427SHL

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