

DEL2S00PL

2-port RS-232 PCI Express
Powered Serial Board



Introduction

SUNIX DEL2S00PL, PCI Express serial communication board, allows users to add or expand two RS-232 COM ports on PC-based system to use serial devices further. 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 DEL2S00PL meets 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. This serial board has 128-bytes onboard FIFO buffer and compatible with 16C950 UART specification. It is designed with SUNIX native PCI Express 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 two RS-232 serial ports with communication speeds up to 115.2Kbps.
- High reliable SUN2410 16C950 compatible native PCI Express UART controller on-board.
- Designed to meet PCI Express Base Specification Revision 2.0.
- Supports x1, x2, x4, x8, x16 (lane) PCI Express Bus connector keys.
- 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 ESD protection for all serial signals meets IEC1000-4-2 and DELL M6403_A08 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, UNIX, QNX, and DOS operation system.



Specifications

Hardware

Interface	RS-232
Controller	SUNIX SUN2212 (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	2-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 ±2KV DELL M6403_A08 Direct Pin Injection
PCB Connector	DB44 Female

Power

Source	+12VDC / PCIe GFx power connector 2x3 Type
Output Capacity	+5VDC / Maximum 1A / each port or +12VDC / Maximum 1A / each port
Over Current Protection	1.1A PTC fuse for each power signal
Power Consumption	TBD W @ 3.3V (board only without power output to device)

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	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 ◆ Windows Client: XP/Vista/7/8/8.1 (X86/X64) ◆ Windows Server: 2000 / 2003 / 2008 / 2008 R2 / 2012 / 2012 R2 (X86/X64)

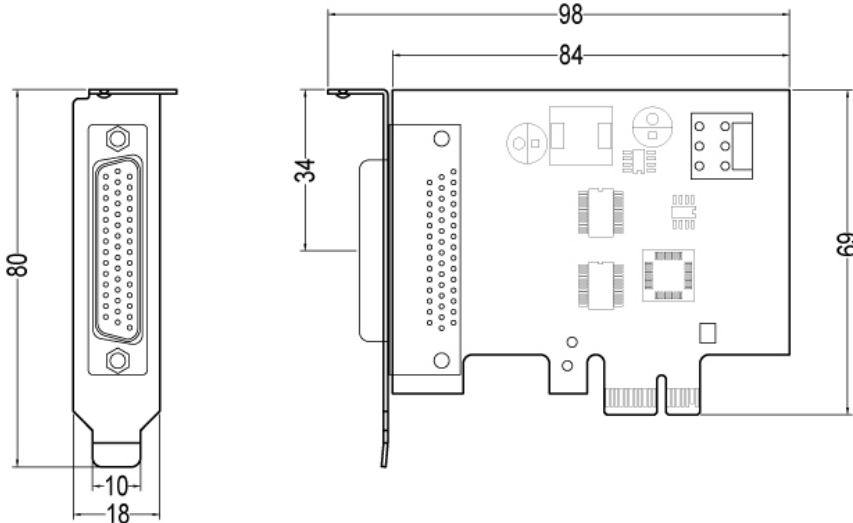
Environment

Operation Temperature	0 to 60°C (32 to 140°F)
Operation Humidity	5 to 95% RH
Storage Temperature	-20 to 70°C (-4 to 158°F)

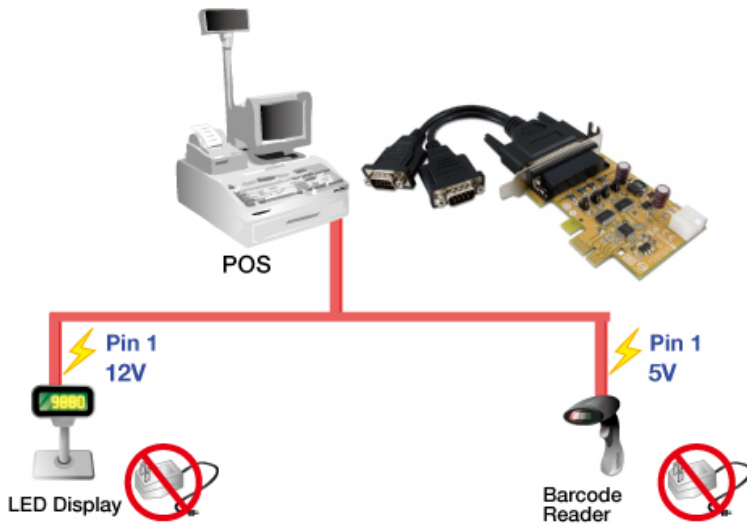
Physical Characteristics

PCB Dimension	84 x 69 mm
Bracket	Low Profile 80 mm
Bracket Space	1

Mechanical Drawings (Unit = mm)

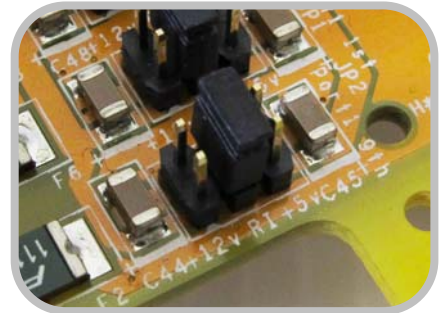


Application



Optional 5V / 12V / Signal Output over COM

For SUNIX Powered 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 over standard floppy power socket.



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 Powered Serial card is designed for users who want to connect serial peripherals without using extra power adaptor.

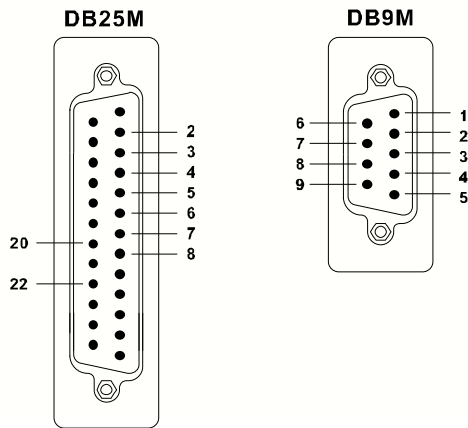
Reliable Circuit Protection

Each RS-232 port is protected with a 1.1 Amp PTC (Positive Temperature Coefficient) resettable fuse. The PTC may temporarily allow more than 1.1 Amp to be drained. Typically, a PTC will shut off after approximately 15 seconds drawing more than 1.9 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 1100mA output in the PCB circuit design.



Pin Assignment

■ RS-232



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 fourth pin power output of DB9M connector. DB9 or 25 male connector depends on the cable accessory. Cable is the additional accessory for options.

Package

- DEL2S00PL – 2-port RS-232 PCI Express Power Serial Board
- DB44 to 2-port DB9 Male Connection Cable, 40 cm

Part No.: 1WDB-44M04009D2000

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