



PUB0300XL

3-port 12V Powered USB

PCI Express Low Profile Add-On Card



Introduction

USB allows peripheral devices to exchange data with a PC and also to receive power over the USB bus. Unfortunately, the bus supplied power is limited to 2.5 Watts (0.5A @ +5V) per port, sufficient to provide enough power to input devices, web cameras among other low power devices. Other devices like printer, displays, pin pads, external DVD-ROM and hard drives still require an external power supply. Here comes Powered USB, it eliminates the need for additional power supplies. Powered USB provides the necessary power as well as the communication signals over a hot pluggable cable. In addition, the Powered USB solves the physical host side cable locking problem associated with the standard USB connector by providing a host cable locking mechanism.

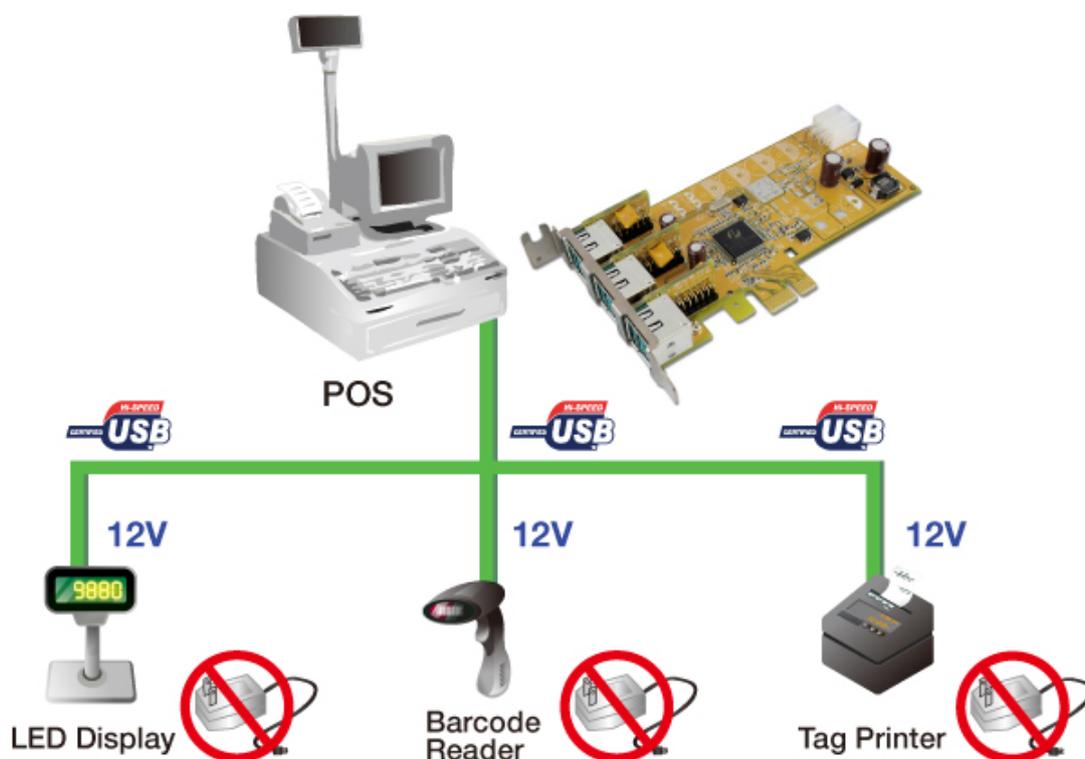
The Powered USB PCI Express Add-On card provides a convenient and affordable way to add up to three Powered USB 2.0 ports to a PC. Devices which require more power than provided by the regular USB interface can be easily installed and used with no need for an additional power supply. SUNIX PUB0300XL Powered USB PCI Express Add-On card, carrying the latest power switching technology provides +12VDC, through the PC power supply directly to its 3 Powered USB ports. Powered USB PCI Express Add-On card is backward compatible to regular USB 1.1 and USB 2.0 devices.

POS systems become more and more stylish now days, with limited space for the terminal and all peripherals inside. Save your valuable space and get rid of the peripherals' power supplies using the Powered USB PCI Express Add-On card. This Add-On card is the ideal solution for today's point of service systems, especially allowing the board to be installed in any slim size PC-based system with low profile bracket structure.

Features

- Compliance with PCI Express Base Specification Reversion 1.1.
- Compliant with the Universal Serial Bus (USB) Specification Revision 2.0
- High performance USB2.0 PCI Express host controller on board.
- Support 3 external Powered USB ports.
- Powered USB port supports +12VDC power output with maximum 3A / per port.
- Each Powered USB ports built-in over current protection.
- Built-in ESD protection for all serial signals meets IEC61000-4-2 and DELL M6403_A08 standard.
- Plug-n-Play, I/O address and IRQ assigned by operating system.
- Support USB device Hot-Swapping and Plug-n-Play function.
- Low profile bracket design idea for slim or portable PC.
- Certified by RoHS CE, FCC ClassB approval.
- Support Linux, Microsoft 2000, XP, 2003 Vista, 2008, 7, and 8 (X86/X64) operation system.

Application



Specifications

Hardware

BUS	PCI Express Spec 1.1, Single-Lane (x1)
Controller	PCI Express USB2.0 Host controller, PI7C9X440SL
USB Standard	Enhanced Host Controller Interface (EHCI) and Open Host Controller Interface (OHCI)
IRQ & IO	Assigned by System

Serial Communication

Interface	Universal Serial Bus 2.0
Speed	High-Speed (HS), Full-Speed(FS) and Low-Speed(LS) Data Transfer rate of 1.5, 12, and 480Mbps
No. of Port	3-port
Protection	±15KV ESD protection for each signal Human Body Model (HBM) ±15KV IEC61000-4-2 Air Gap Discharge ±8KV IEC61000-4-2 Contact Discharge DELL M6403_A09 Direct Pin Injection
PCB Connector	Powered USB Connector

Power

Source	+12VDC / PCIe GFx power connector 2x3 Type
Output Capacity	Standard USB2.0 Port: +5VDC / Maximum 0.5A / each port Powered USB Port: +12VDC / Maximum 3.0A / each port Note: Total power output capacity will be limited by system power supply.
Over Current Protection	Standard USB2.0 Port: +5VDC / Share Maximum 2.0A / 3-port total Powered USB Port: +12VDC / 3.0A@16V PTC fuse / each port
Power Consumption	1.1W @ 3.3V (board only without power output to device)

Driver Support

Microsoft Client	XP / Vista / 7 / 8 (X86/X64)
Microsoft Server	2000 / 2003 / 2008 / 2008R2 / 2012 (X86/X64)
Microsoft Embedded	XP Embedded / POS Ready 2009 / Embedded System
Linux	Linux 2.4.x / 2.6.x /3.x

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)

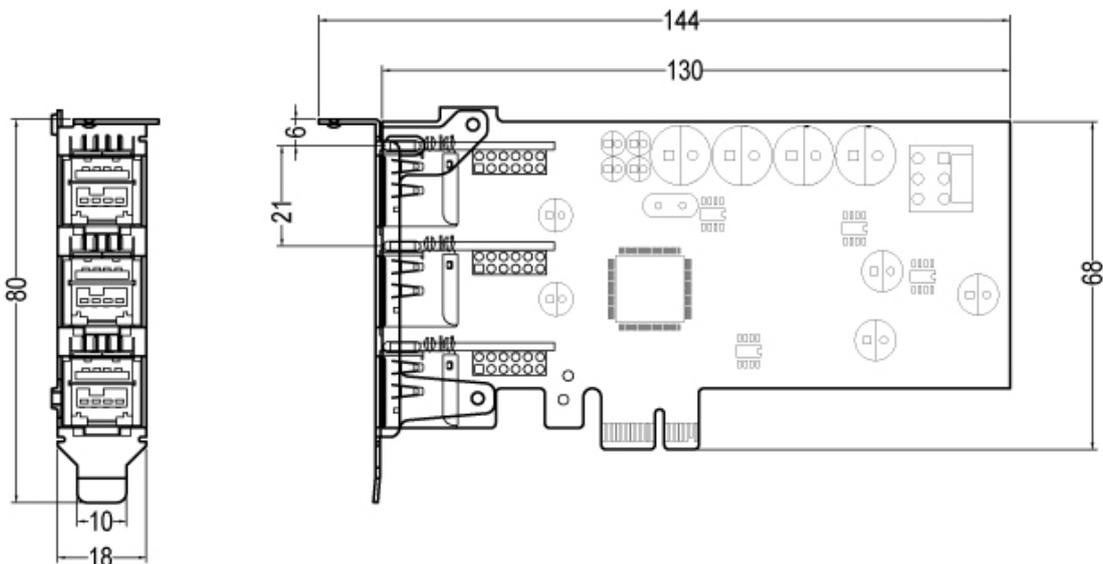
Standards and Certifications

Safety	UL, cUL, TÜV, CB
EMC	CE, FCC, C-Tick, VCCI, BSMI, KCC Class B Standard
Green	RoHS, CRoHS, WEEE

Physical Characteristics

PCB Dimension	130 x 68 mm
Bracket	Low Profile 80 mm
Bracket Space	1

Mechanical Drawings (Unit = mm)



Package

- PUB0300XL – 3-port 12V Powered USB PCI Express Low Profile Add-On Card

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