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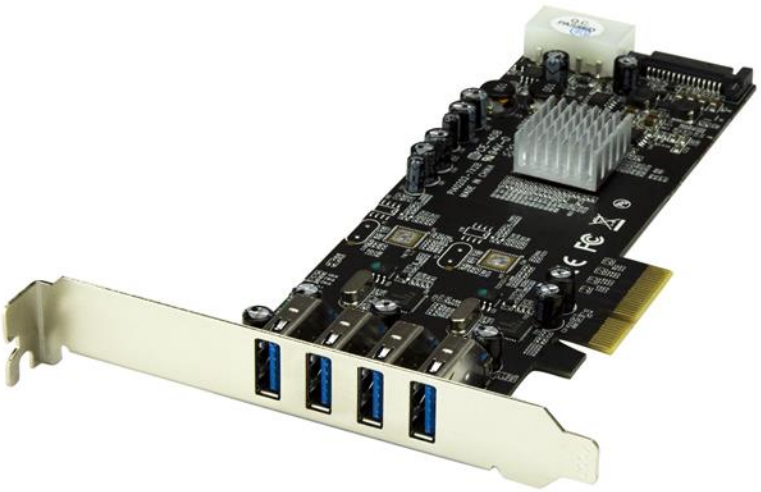
Data Sheet

4 Port PCI Express (PCIe) SuperSpeed USB 3.0 Card Adapter w/ 2 Dedicated 5Gbps Channels - UASP - SATA / LP4 Power

Product ID: PEXUSB3S42V



The PEXUSB3S42V 4-Port PCI Express USB 3.0 Card lets you add four USB 3.0 ports with two dedicated 5 Gbps channels to your PCIe x4-enabled PC. This independent port architecture improves USB 3.0 performance by transferring data on two individual channels to your computer, giving you faster file transfers.

When multiple devices are connected, traditional single bus USB 3.0 cards share your maximum bandwidth between all ports. By employing a second host controller chipset, the transmission channel is shared across two ports rather than four. Dedicating up to 5 Gbps for each set of two ports reduces performance bottlenecks, and effectively doubles your total available to bandwidth to 10 Gbps.

Enhanced with UASP support (USB Attached SCSI Protocol), this USB 3.0 controller performs up to 70% faster than conventional USB 3.0 when paired with a UASP supported enclosure (Note: UASP requires a compatible operating system). Using a more efficient protocol than the traditional USB BOT (Bulk-Only Transport), UASP technology optimizes transfers by allowing multiple commands to be processed simultaneously, significantly increasing transfer speeds for less wait time on data transfers. See our UASP test results below for further details.

For high-power USB devices, this PCIe USB 3.0 card includes an optional SATA or LP4 power connector to connect to your system power supply and deliver up to 900mA of power per port to USB 3.0 bus-powered devices (500mA for USB 2.0). The USB 3.0 card also supports USB Battery Charging Specification 1.2 (Apple Mode only), letting you charge compatible Apple devices (iPhones and iPads) faster than a standard USB 3.0 port.

The controller card is compliant with USB 3.0 standards while offering backward compatibility with existing USB 2.0 / 1.1 devices. For added versatility, the USB 3.0 PCIe card is equipped with a standard profile bracket and includes a low-profile/half-height bracket for installation in small form-factor computers.

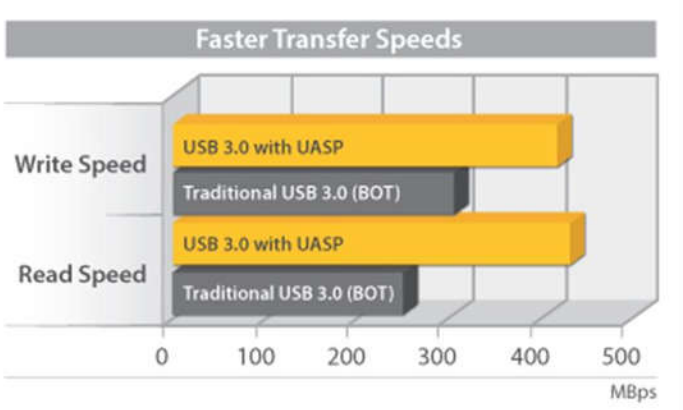
Backed by a StarTech.com 2-year warranty and free lifetime technical support.

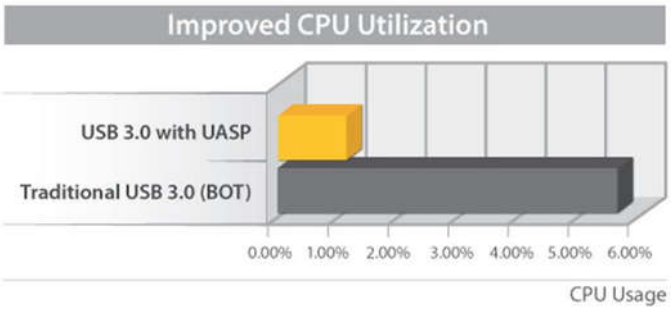
Improved Performance with UASP

In testing UASP performed with up to a 70% faster read / 40% faster write speed over traditional USB 3.0 at peak performance.

At the same peak in testing, UASP also showed up to an 80% reduction in required processor resources.

Test results were obtained using an Intel® Ivy Bridge system, StarTech.com add-on USB 3.0 cards, a UASP-enabled StarTech.com enclosure, and a SATA III solid state drive.




Improved CPU Utilization
USB 3.0 with UASP
Traditional USB 3.0 (BOT)
0.00% 1.00% 2.00% 3.00% 4.00% 5.00% 6.00%
CPU Usage

Certifications, Reports and Compatibility

RoHS Compliant Available

Applications

- Upgrade an older PCIe-based system to USB 3.0 connectivity and UASP support to fully utilize USB 3.0 devices
- Expand the USB capabilities of your system with four external ports for connecting additional external hard drives, CD/DVD drives, MP3 players, printers, scanners, webcams, game controllers, digital cameras, etc. to a computer system

Features

- Provides four external, USB 3.0 Ports on two independent bus channels
- Supports up to 10 Gbps total transfer bandwidth - Up to 5 Gbps per two ports
- UASP support across all four ports
- PCIe x4 interface compliant with PCI Express 2.0 specifications
- Optional LP4 or SATA power connector provides up to 900mA per USB port
- Supports USB Battery Charging Specification 1.2 (Apple Mode only)
- Fully compliant with USB 3.0 rev 1.0 and Intel xHCI rev 1.0 specifications
- Backward compatible with USB 2.0 and USB 1.0/1.1 devices
- Includes a Low-Profile/half-height installation bracket
- Hot-swap feature to connect/disconnect devices without powering down the system

	Warranty	2 Years
Hardware	Bus Type	PCI Express
	Card Type	Standard Profile (LP bracket incl.)
	Chipset ID	Renesas/NEC - µPD720202
	Industry Standards	USB 3.0 Specification Rev. 1.0 USB Battery Charging Specification Rev. 1.2 (Apple Mode only) PCI Express Base Specification Rev. 2.0 Intel xHCI Specification Rev. 1.0
	Interface	USB 3.0
	Port Style	Integrated on Card
	Ports	4
Performance	Maximum Cable Length	9.8 ft [3 m]
	Maximum Data Transfer Rate	5Gbps per 2 ports - 10Gbps Total
	Type and Rate	USB 3.0 - 5 Gbit/s
	UASP Support	Yes
Connector(s)	Connector Type(s)	1 - PCI Express x4 Male
	External Ports	4 - USB Type-A (9 pin) USB 3.0 Female
	Internal Ports	1 - LP4 (4 pin; Molex-type Large Drive Power) Male 1 - SATA Power (15 pin) Plug
Software	OS Compatibility	Windows® Vista, 7, 8, 8.1, 10 Windows Server® 2008 R2, 2012, 2012 R2, 2016 Linux 2.6.31 to 4.11.x *LTS versions only*
Special Notes / Requirements	System and Cable Requirements	Available PCI Express x4 or greater slot
Environmental	Humidity	5~85% RH
	Operating Temperature	0°C to 50°C (32°F to 122°F)
	Storage Temperature	-20°C to 60°C (-4°F to 140°F)
Physical Characteristics	Product Height	4.7 in [120 mm]
	Product Length	6.6 in [167 mm]
	Product Weight	3.2 oz [90 g]
	Product Width	0.6 in [15 mm]
Packaging Information	Shipping (Package) Weight	7.1 oz [200 g]

What's in the Box	Included in Package	1 - 4 Port PCIe USB Card
		1 - Low Profile Bracket
		1 - Driver CD
		1 - Instruction Manual

Product appearance and specifications are subject to change without notice.