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Data Sheet

Thunderbolt 3 PCIe Expansion Chassis with DisplayPort - PCIe x16

Product ID: TB31PCIEX16



This Thunderbolt™3 PCIe expansion chassis lets you add a PCI Express card to your laptop or desktop computer, through an external Thunderbolt 3 connection. The chassis also features a DisplayPort video output, so you can connect an additional monitor to your laptop, and supports Thunderbolt 3 daisy chaining, so you can expand your workstation even further.

Expand the capabilities of your Thunderbolt 3 computer

The Thunderbolt 3 PCIe chassis makes it easy to expand your system with the capabilities you need to work at peak productivity. You can add many types of PCI Express cards, such as a PCIe USB 3.1/3.0/2.0 and USB-C, SSD, network, eSATA, FireWire or video capture cards. And, with the speed and bandwidth support of Thunderbolt 3 and PCIe 3.0, you can enjoy many of the same port additions you would from the PCI Express expansion slots of a desktop system.

Extend your workstation

The external PCIe enclosure features a dedicated DisplayPort output that lets you add an additional display to your laptop or desktop computer. The enclosure features a second Thunderbolt 3 (USB-C) port, that you can use to connect a secondary display (a USB-C video adapter may be required). With multiple extended displays, you can work more efficiently by multitasking faster, and avoid the hassle of continually repositioning several open windows or programs.

You can also use the second Thunderbolt 3 port to connect additional Thunderbolt, USB and DisplayPort devices to your system. You can daisy chain up to six Thunderbolt 3 devices and expand your workstation to suit your specific requirements.

Increase productivity with faster speeds

Thunderbolt 3 is the fastest connection available, which means you don't have to deal with the performance bottlenecks of a slower connection, and can accomplish more in the same amount of time.

At up to 40Gbps this Thunderbolt 3 expansion chassis gives you the throughput to add displays to your laptop, access files quickly, and work without disruptions. It's easy to access and edit large uncompressed files such as videos and images on the fly, making it ideal for dynamic on-site production.

The TB31PCIEX16 is backed by a StarTech.com 2-year warranty and free lifetime technical support.

Certifications, Reports and Compatibility

RoHS Compliant Available

Applications

- Add many types of PCIe cards, such as a PCIe USB 3.1/3.0/2.0 and USB-C, SSD, network, eSATA, FireWire or video capture cards to your Thunderbolt 3 laptop
- Add an external PCIe card to your Thunderbolt 3 equipped desktop computer

Features

- Increased productivity with Thunderbolt 3 and up to 40Gbps bandwidth — twice the speed of Thunderbolt 2 (20Gbps) and eight times faster than USB 3.0 (5Gbps)
- Supports one 4K DisplayPort monitor, and a second extended monitor display through the Thunderbolt 3 (USB-C) port
- Daisy chain up to six Thunderbolt 3 devices
- Supports 5K Thunderbolt displays
- Supports half-length and dual-slot PCIe card standards at all heights, with standard profile slot brackets
- Provides a x16 4 lane PCIe 3.0 slot or interface
- Durable aluminum construction
- Works on Mac and Windows® computers
- Internal 60 mm cooling fan

	Warranty	2 Years
Hardware	Air Flow Rate	14.06 CFM
	Bus Type	Thunderbolt 3
	Card Type	Standard Profile
	Chipset ID	Intel - Alpine Ridge DSL6540
	Fan Bearing Type	Sleeve Bearing
	Fan(s)	Yes
	Fans	1 - 60 mm
	Industry Standards	Thunderbolt 3
	Interface	Thunderbolt
	Noise Level	24.55 dB
	Ports	3
Performance	Bandwidth	3.94 GB/s (x4 PCIe 3.0)
	Maximum Data Transfer Rate	40 Gbps (Thunderbolt 3)
	Type and Rate	Thunderbolt 3 - 40 Gbit/s
Connector(s)	External Ports	2 - Thunderbolt™ 3 USB-C (24-pin) Female 1 - DisplayPort (20 pin) Female
	Internal Ports	1 - PCI Express x16 Female
Software	OS Compatibility	Windows® 7, 8, 8.1, 10 macOS 10.12 - 10.13
Special Notes / Requirements	**Note**	The expansion chassis does not support video cards. This expansion chassis does not provide full power delivery but will provide 15W of power, resulting in a slow charge to some laptops, such as MacBook Pro. When the dock is connected to your host laptop, a charging icon may appear on your laptop's screen. This is only sufficient enough to charge your laptop in sleep state, and charging will require an extended time period. 5K support can only be achieved using a Thunderbolt 3 5K monitor. DisplayPort 5K monitors will not work with this expansion chassis. A 4K-capable display is required to achieve 4K x 2K resolution (4K is also known as 4K x 2K).

		Certain monitors may be limited to 4K at 30Hz when connecting through DisplayPort. These monitors include the following models: Dell P2715Q, Viewsonic VX2475Smhl-4K, Philips 288P6LJEB, LG 31MU97C-B, Asus PB287Q (these models will need to be set to 4K at 30Hz). When connecting a display to one of the Thunderbolt 3 USB-C ports, a USB-C video adapter might be required depending on the input of your display. Secondary Thunderbolt 3 port can also be used to connect USB 3.1 (10Gbps) USB-Type C devices, such as USB 3.1 Hubs. Backwards compatible with USB 3.0 (USB 3.1 Gen 1), and USB 2.0.
	System and Cable Requirements	Thunderbolt 3 equipped computer with a Thunderbolt 3 port.
Indicators	LED Indicators	1 - Power(Blue)
Power	Center Tip Polarity	Positive
	Input Current	2A
	Input Voltage	100 ~ 240 AC
	Output Current	5.417A
	Output Voltage	12 DC
	Plug Type	N
	Power Consumption (In Watts)	65
	Power Source	AC Adapter Included
Environmental	Humidity	20-80%RH
	Operating Temperature	5°C to 35°C (41°F to 95°F)
	Storage Temperature	-20°C to 50°C (-4°F to 122°F)
Physical Characteristics	Cable Length	19.7 in [500 mm]
	Color	Black
	Enclosure Type	Aluminum and Steel
	Product Height	3.2 in [82 mm]
	Product Length	11 in [280 mm]
	Product Weight	3.6 lb [1.6 kg]
	Product Width	5.6 in [142 mm]
Packaging Information	Shipping (Package) Weight	6.9 lb [3.1 kg]
What's in the Box	Included in Package	1 - Thunderbolt 3 PCIe expansion box

1 - Thunderbolt 3 cable

4 - rubber feet

1 - universal power adapter (NA/JP, UK, EU, ANZ)

1 - quick-start guide

Product appearance and specifications are subject to change without notice.