

# eNVMe SSD6540

## 4-Bay U.2 NVMe RAID Enclosure

- Supports up to four 2.5" U.2 NVMe SSD's
- PCIe 3.0 x16 Host Interface
- Up to 8Gb/s Transfer Speed per Lane
- Supports RAID 0, 1, 5 and 1/0
- Designed for Linux Kernel 3.3 or later, Windows 10 x64 or Server 2016 platforms



### Industry's First End-to- End PCIe 3.0 x16 External NVMe RAID Storage Solution

The SSD6540 is the industry's first external NVMe storage solution to deliver uncompromised end-to-end PCIe Gen3 x16 transfer bandwidth. Each of the 4 drive bays features dedicated PCIe 3.0 x4 bus bandwidth to ensure each U.2 SSD operates at peak performance. The SSD6540 is offered as a complete, stand-alone solution, and includes a compact 4-Bay NVMe U.2 enclosure, PCIe 3.0 x16 controller card with external SFF- 8644 connectors, two SFF-8644 8x data cables, and all necessary fastening and power accessories. Any PC platform with a free, dedicated PCIe 3.0 x16 slot can now experience the true performance capabilities of NVMe technology.

### Uncompromised NVMe Performance Architecture

Unlike onboard DMI 3.0 based NVMe solutions, which are forced to share a single PCIe 3.0 x4 lane with the motherboard's SATA and USB ports, the SSD6540 features dedicated PCIe 3.0 x16 bus bandwidth. This unique architecture allocated PCIe 3.0 x4 bandwidth for each bay, which enables each U.2 SSD to interface directly with the platform's CPU.

### Industry Proven RAID Technology

HighPoint's Turbo RAID architecture delivers class leading cost/performance benefits, featuring the industry's most affordable, high-performance RAID 0 and 5 support. Customers can easily configure one or more RAID arrays to satisfy the demands of a variety of high-density storage applications including media production and rendering, scientific / R&D platforms and developmental workstations.

### Built-in LCD screen Streamlines Monitoring & Maintenance

Each SSD6540 features a built-in LCD screen that displays environmental conditions in real-time. Customers can quickly access the temperature of storage configurations and adjust fan speed to ensure the NVMe drives stay healthy and run optimally. In addition, a built in alarm can be set to activate in the case of temperature or enclosure related warning or failure.



### NVMe RAID Management with Integrated TRIM & S.M.A.R.T. Monitoring with TBW Tracking

NVMe Manager features TRIM support, and S.M.A.R.T. monitoring with total Terabyte Written (TBW) tracking. TRIM support promotes the longevity and endurance of NVMe storage by enabling each SSD to handle garbage collection more efficiently, which helps eliminate write speed degradation. S.M.A.R.T. monitoring allows you to check the temperature, voltage and TBW of each NVMe SSD. The interface updates attribute data in real time, and can be even be configured to notify you by Email, in the event of an error condition or threshold warning.

## Compact, Portable Form Factor


U.2 NVMe SSD's are far more flexible than their M.2 counterparts, and can be easily installed into 2.5" drive bays. The SSD6540's compact enclosure supports up to four U.2 drives, and features removable drive trays to streamline integration and simplify maintenance or upgrade procedures.

The SSD6540's 4-Bay chassis is ideal for applications that require a compact, portable storage solution. Customers can easily move the enclosure and RAID controller to any system with a PCIe 3.0 x16 slot. The SSD6540 can be moved freely between multiple workstations, or transported to a client's location to live-demo a media project or deliver finished product.



Feature Specifications	
Bus Interface	16-lane, PCI Express 3.0 Compliant
Bus Speed	128Gbps
Data Transfer Rates	8GT / 8Gbps per lane
Number of Devices	4
Form factor	2.5" U.2
Capacity	Unlimited
Storage Mode	Data storage (non-bootable)
Platform Support	SSD / motherboard compatibility list
Operating System	Windows 10 64bit / Windows Server 2016 Linux Kernel 3.3 or later
Storage Health Inspector	NVMe SSD SMART and TBW status
TRIM Support	RAID 0, 1, 1/0
Power Supply	250W PSU Low Noise AC INPUT: 100-240 V 50/60Hz
Cooling	Aluminum casing with single 80x80 fan
Material	Brushed aluminum housing
Dimensions	5.71" (W) x 7.67" (H) x 10.23" (D)
Weight	12.1 lbs.
Warranty	3 Years
Compliance Certification	CE, FCC, RoHS, REACH, WEEE
MTBF	920,585 Hours

Advanced RAID Features	
RAID Level support	RAID 0, 1, 5 and 1/0 (Mac Support coming in July 2018) <i>Note: RAID 1/0 is the equivalent of RAID 10</i>
Web based SSD Storage Manager	Yes
Disk media scan and repair	Yes
Device Error Recovery support	Yes
Monitoring and Management Suite	
LED Features	Device: Present, Active Enclosure: Power, Warning, Fail
LCD Features	<ul style="list-style-type: none"> <li>Show enclosure temperature</li> <li>Show fan speed</li> <li>Smart fan or manual fan speed control</li> <li>Enable/Disable LCD backlight</li> </ul>
Management Suites	<ul style="list-style-type: none"> <li>Browser-Based management tool</li> <li>CLI (Command Line Interface)</li> <li>API package</li> </ul>
SMTP Email Alert Notification	Yes
Alarm Buzzer (mutable)	Enclosure error or temperature over 50°C
Operating Environment	
Temperature	(operating) +5°C ~ +55°C (non-operating) - 20°C ~ +80°C"
Relative Humidity	5% ~ 60% (Non-condensing)
Operating Voltage	PCI-e: 12V, 3.3V
Power	Typical: 25W

<b>Kit Contents</b>	1x PCIe 3.0 x16 RAID Controller, 1x 4-Bay U.2 SSD Enclosure, 2x SFF-8644 8X cable, 1x Quick Installation Guide
<b>Optional Accessories</b>	 <p><b>8644-8644-220</b> The 8644-8644-220 2 meter , external NVMe PCIe 3.0 x8 SFF-8644 to SFF-8644 cable was designed for use the HighPoint SSD6540 eNVMe RAID Enclosure, and has been thoroughly tested to ensure ease of integration and to streamline maintenance or upgrade procedures.</p>

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