HighPoint Delivers True PCIe Gen4 NVMe Hot-Swap Capability

The 8-Port U.2/M.2 SSD7580B NVMe RAID controller Incorporates Surprise Add & Remove

January 2022, Fremont CA – HighPoint is set to launch the industry's first 8-Port PCIe Gen 4 NVMe RAID Controller to offer full hot-swap capability for U.2 or M.2 NVMe SSD's; the SSD7580B.

Hot-Swap capability a true boon for NVMe-based storage solutions, and is especially useful for servicing NVMe storage solutions and appliances in the field. Hot-swap can significantly reduce or even eliminate the need for downtime. The SSD7580B allows administrators to add remove or replace NVMe SSDs without powering down the host platform, on the fly.

NVMe drives, though considerably more reliable than their platter counterparts, still must be replaced on a regular basis when employed by many datacenter or industrial applications, where storage devices are expected to remain active for extended periods of time, including truly grueling 24/7/365 workflows. NVMe media's one weakness is the finite write cycle; M.2 SSDs in particular can rapidly reach their TBW limitations in such environments. TBW expiration requires disk replacement, which results in downtime – this is the advantage of hot-swap capability.

Hot-Swap vs. Hot-Plug & Hot-Replaceable: what's the difference?

In the past, replacing an NVMe SSD meant powering down the entire system. More recent solutions may employ Hot-Plug capability; the ability to recognize drives added for specific tasks- such as rebuilding an array, or support Hot-Replaceable drives; an unused SSD that is already connected to the controller can be used to rebuild an array). However, both of these methods still require a restart in order for the operating system to recognize the hardware changes.

However, the SSD7580B's hot-swap capability works exactly like you expect it to. The SSD7580B allows customers to add or remove drives on the fly, as necessity demands. This includes RAID and single-drive configurations. The controller will notify the system of any changes in real time – no reboot is required. The host system can remain active throughout the procedure.

Versatile Cabling Options: Hot-Swap Enabled

The SSD7580B's Hot-Swap capability works with a variety of industry standard connectors – not just SFF-8639, which is employed directly by U.2 media. We offer a selection of PCIe Gen4 capable cabling accessories capable of supporting hot-swappable storage configurations, including SFF-8643 connections and SFF-8611 Oculink backplanes. This allows the SSD7580B to support any industry standard U.2 or M.2 NVMe SSD.

Cross-Sync Compatible – Double Your Storage Capability

In addition to Hot-Swap support, the SSD7580B is Cross-Sync compatible. This enables customers to configure dual SSD7580B controllers to function as a single RAID device, and support up to 16 U.2/M.2 NVMe SSDs in one or more RAID arrays. Such combinations are capable of supporting truly extreme levels of performance and storage capability – over 200TB of storage @ 40,000 MB/s!

Pricing and Availability

The SSD7580B is scheduled to begin shipping to HighPoint's official Distribution and Retail partners in February of 2022. The non-Hot-Swap capable SSD7580A is currently available.

SSD7580B 8-Port U.2/M.2 PCIe Gen4 x16 Hot-Swap Capable NVMe RAID Controller

MSRP USD$: