Raidon Technology Introduces PC04M-41 Low-Profile M.2 NVMe PCIe Gen3 x4 HBA with Hot-Swap

Built for compact environments, and features built-in 4cm low-noise cooling fan combined with durable metal tray structure

Raidon Technology, Inc. launches the PC04M-41, a professional HBA engineered to integrate a high-performance M.2 NVMe SSD into PC or server setup.

Built for compact environments, it blends PCIe 3.0 speed with industrial-grade reliability in a flexible form factor. Whether user managing a 1U server rack or a high-performance workstation, the PC04M-41 solves the common difficulty of accessing M.2 drives by bringing the storage to the back of the chassis for immediate access without system downtime.
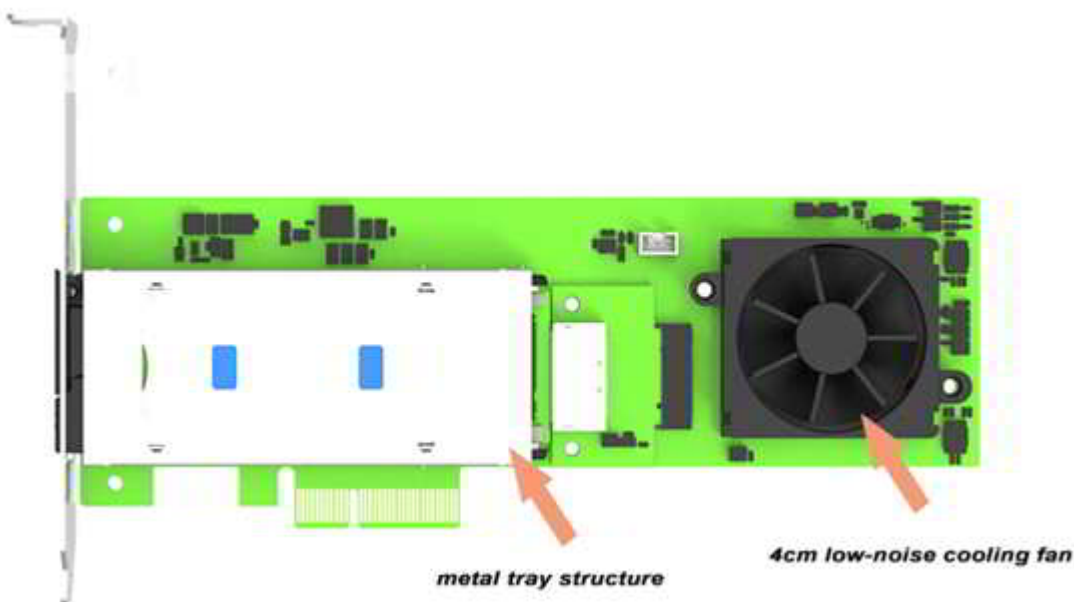
Key Features:
The PC04M-41 is engineered with a focus on data integrity and ease of use.

- **PCIe Gen3 x4 Interface:** Connects directly to the host PC with a maximum bandwidth of 32Gb, ensuring fast and stable data transfer without bottlenecks.
- **True Hot-Swap Capability:** Unlike standard motherboard slots, this adapter allows you to insert or remove the M.2 drive from the back of the PC **without powering down the system**, minimizing maintenance downtime.

M.2 NVMe SSD Tray support 2280/2260/2242/2230

Gen Z (SFF-TA-1002) Connector

- **Universal M.2 Compatibility:** Supports a wide range of M.2 NVMe SSD sizes including **2230, 2242, 2260, and 2280**.

metal tray structure

4cm low-noise cooling fan

- **Active and Passive Cooling:** Features a built-in **4cm low-noise cooling fan** combined with a durable **metal tray structure**. This dual-layer cooling ensures optimal heat dissipation, preventing thermal throttling during heavy workloads.
- **Secure Key Lock:** Each drive tray is equipped with an individual key lock, physically securing your SSD against theft or accidental removal.

Drive Activity LED   **Secure Key Lock**

- **Visual Status Monitoring:** An integrated **LED indicator** provides real-time feedback on drive power and activity status.

Ships with both full-height and low-profile brackets for versatile chassis installation

- **Versatile Mounting:** Includes both a **full-height bracket** for standard desktop towers and a **low-profile (half-height) bracket** for 1U servers and compact form-factor (SFF) computers.

Possible Applications:
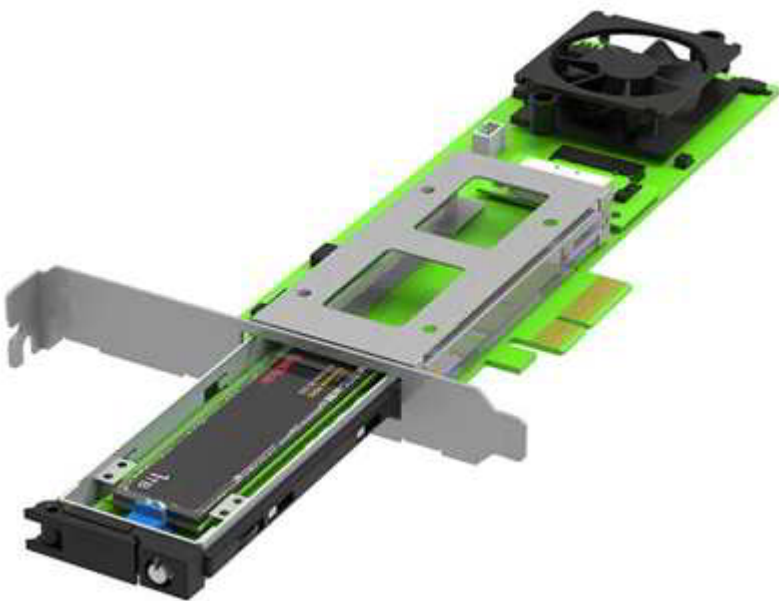Need to pull 2TB of raw footage for same-day delivery?

- **Swap in fresh NVMe drive** – no tools, no reboot.
- **1U and Compact Servers –** Space is limited in 1U racks. The PC04M-41 allows system integrators to add high-speed NVMe cache or boot drives to servers that may lack onboard M.2 slots or easy access to them.
- **Media and Post-Production –** Video editors and content creators often need to physically transport large datasets (terabytes of footage) between workstations. This adapter turns an internal NVMe drive into a removable media shuttle with transfer speeds far exceeding USB.
- **Secure Workstations –** For government or enterprise sectors requiring strict data security, the removable tray allows the boot drive or sensitive data drive to be physically removed and locked in a safe at the end of the day.
- **Data Center Maintenance –** Technicians can perform drive replacements or upgrades on running systems without scheduling maintenance windows or server restarts.

Driver-Free Setup: No drivers or software needed

PCI Express 3.0 x4 Interface
(up to 32 Gbps)

M.2 NVMe SSD

M.2 NVMe SSD 2230/2242/2260/2280

Benefits:

Why choose the PC04M-41 over a standard motherboard M.2 slot?

Benefit	Description
Zero Downtime	Hot-swap drives without rebooting
Physical Data Protection	Lock SSDs to prevent theft.
Consistent Speed	Active cooling prevents thermal throttling
Fits Anywhere	With the included low-profile bracket, this card fits easily into slim 1U rackmount servers where space is at a premium.
Tool-Free Maintenance	The tray design allows for quick drive installation without the need for tiny screws or screwdrivers inside the case.

Specs:

Model No	PC04M-41

Interfaces	PCIe 3.0 x4
Compatible Drive	1 x M.2 NVMe SSD (2230/2242/2260/2280)
Certification	CE/FCC
Storage Mode	JBOD – Independent Mode
Dimension	68.9 mm (H) x 139 mm (L)
Operating System Support	Windows 7 or above, macOS 10.10 or above, Linux
Package Accessories	* PC04M-41 x 1 * Quick Installation Guide x1 * Standard Bracket x1 * Low-Profile Bracket x1 * Screws and Tray unlock key