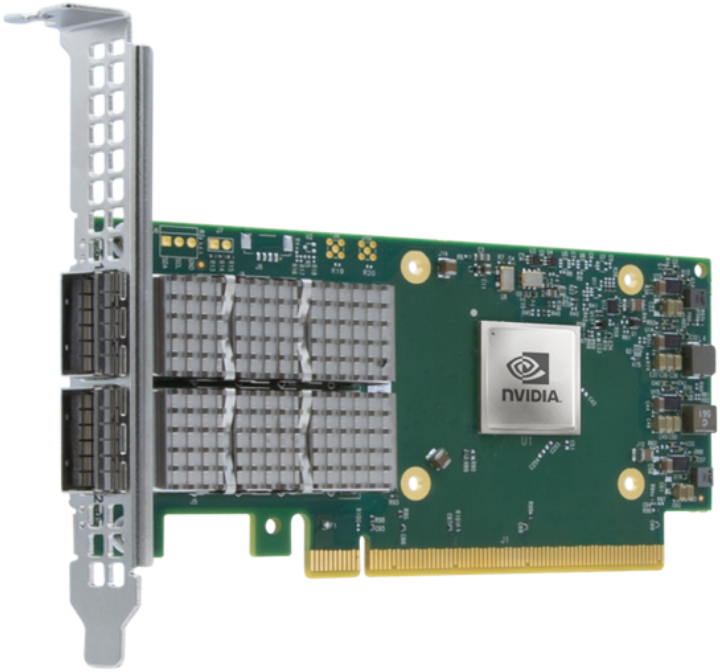
Data sheet

NVIDIA Ethernet Adapters for HPE

NVIDIA Ethernet 100Gb 2-port NVMe-oF Offload Adapter for HPE (R8M41A)



What's new

- NVIDIA Ethernet 10/25 Gb 2-port SFP28 NVMe-oF Crypto Adapter for HPE with built in encryption and Hardware Root of Trust.
- Insuring that your proprietary data encrypted with this adapter remains only yours across your entire network.
- Security and performance at up to 25 Gb/s Ethernet connectivity.

Overview

Are you looking to modernize your data center with Non-volatile Memory Express (NVMe) paradigms, while insuring the integrity of your data is safe from malicious agents?

NVIDIA Ethernet Adapters for HPE are advanced cloud network interface cards with NVMe offload capabilities and cryptographic functionalities to accelerate and secure mission-critical data center applications such as security, virtualization, SDN/NFV, Big Data, machine learning, and NVMe-based storage. We provide two adapter options. Either two ports of 100GbE connectivity or two ports of 25GbE connectivity paired with proven cryptographic capabilities that accelerate and secure cloud and data center workloads.

Storage acceleration such as NVMe-oF TCP are built into the adapters, enabling seamless upgrade paths from existing storage paradigms to NVMe and persistent memory semantics.

It also provides enhanced security for your data in an unsecure world.

Features

Ethernet Storage Area Network

NVIDIA Ethernet Adapters for HPE come in two options from NVidia. R8M41A supports two ports of 100 Gb Ethernet connectivity with 16 lanes of PCIe Gen4. S2A69A supports two ports of 10/25 Gb Ethernet connectivity with 8 lanes of PCIe Gen 4. Both are compatible with PCIe Gen3.

It delivers several innovations including programmable congestion control and NVMe over TCP support.

Storage Acceleration

NVIDIA Ethernet Adapters for HPE support storage acceleration and like NVMe over TCP workloads, enabling seamless upgrade paths from existing storage paradigms to NVMe and persistent memory semantics.

It supports T10 DIF signature handover operation at wire speed for ingress and egress traffic to reduce congestion.

The adapters provide increased flexibility with support for multiple storage protocols: Network File System (NFS) RDMA, SMB Direct, and NVMe-oF.

Secure Network Adapters, Data Center Security

NVIDIA Ethernet Adapters for HPE bring security to every end-point with its purpose-built inline acceleration engines that offload IPsec and TLS data-in-motion and XTS-AES data-at-rest cryptographic operations.

It provides built-in inline encryption/decryption, stateful packet filtering, and other capabilities, bringing advanced security down to every node with impressive performance and scalability.

It incorporates a hardware root of trust and secure firmware update that keeps malicious firmware from hijacking the adapter.

Technical specifications	NVIDIA Ethernet 100Gb 2-port NVMe-oF Offload Adapter for HPE
Product Number	R8M41A
Data rate	100 Gb
Number of ports	Dual Ports
Bus type	10/25Gb option is 8 lanes of PCIe Gen4 compatible with PCIe Gen3
Connector type	LC
Form factor	PCIe HHHL
Supported cables	AOC
Server type supported	HPE ProLiant and HPE Alletra Storage platforms. Refer to the server QuickSpecs for more information.
Compatible operating systems	Windows, Linux, VMware
Power	12W typical, 16W max
Compatible array platforms	HPE Storage Array
Management features	Cryptography, SFM
IEEE compliance	802.3
Warranty	Three-year limited warranty, parts exchange next business day delivery. For more warranty information visit http://www.hpe.com/storage/warranty

R8M41A = NVidia (MCX623106AC-CDAT) CRYPTO READY

S2A69A = NVidia (MCX631102AC-ADAT) CRYPTO READY

HPE Services

No matter where you are in your transformation journey, you can count on HPE Services to deliver the expertise you need when, where and how you need it. From strategy and planning to deployment, ongoing operations and beyond, our experts can help you realize your digital ambitions.

Advisory & Professional services

Experts can help you map out your path to hybrid cloud and optimize your operations.

Managed services

HPE runs your IT operations, giving you unified control, so can focus on innovation.

Support services

Optimize your entire IT environment and drive innovation. Manage day-to-day IT operational tasks while freeing up valuable time and resources.

— **HPE Complete Care Service:** a modular service designed to help optimize your entire IT environment and achieve agreed upon IT outcomes and business goals. All delivered by an assigned team of HPE experts.

— **HPE Tech Care Service:** the operational service experience for HPE products. The service provides access to product specific experts, an AI driven digital experience, and general technical guidance to help reduce risk and search for ways to do things better.

— **HPE Multivendor Services:** Single point of accountability for managing on-site hardware and software support for multivendor products. HPE experts help manage your IT across technologies and platforms for HPE and non-HPE technologies, acting as the single point of contact for your IT operational needs.

Lifecycle Services

Address your specific IT deployment project needs with tailored project management and deployment services.

HPE Education Services

Training and certification designed for IT and business professionals across all industries. Create learning paths to expand proficiency in a specific subject. Schedule training in a way that works best for your business with flexible continuous learning options

Defective Media Retention is optional and allows you to retain Disk or eligible SSD/Flash Drives replaced by HPE due to malfunction.

GreenLake

GreenLake is the cloud to run and manage your entire hybrid landscape—private, public, and edge. It helps you to:

— Streamline IT Operations across compute, storage, and networking without the chaos

— Unify and secure data, as you move faster

— Accelerate AI, from pilot to production

The result: greater operational efficiency, lower TCO, and faster AI delivery—all from one unified, intelligent platform built for today's hybrid enterprise.

For additional technical information, available models and options, please reference the QuickSpecs

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Parts and components that have reached their maximum supported lifetime and/or the maximum usage limitations as set forth in the manufacturer's operating manual, product quick-specs, or the technical product data sheet will not be provided, repaired, or replaced as part of these services.

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