PCIE-5421

Dual Port Fiber 100GbE Ethernet PCI Express Data Processing Unit with NVIDIA® BlueField®-2



Features

- NVIDIA® BlueField®-2 Controller
- 2 100GbE QSFP56 ports
- PCIe Gen. 4 x16 host interface
- Full-height-half-length form factors
- Supports 100GBASE-SR4, 100GBASE-CR4 and 100GBASE-KR4 modules
- Supports SR-IOV based virtualization

Introduction

The PCIE-5421 built on NVIDIA® is a full-height-half-length dual port 100GbE Ethernet Data Processing Unit (DPU) based on the NVIDIA® BlueField®-2 Controller that supports PCIe gen. 4. The DPU supports up to two QSFP56 ports of 100GbE connectivity to deliver accelerated software defined networking, storage, security, and management services. By combining the NVIDIA ConnectX®-6 Dx network adapter with an array of Arm® cores, BlueField-2 offers purpose-built, hardware-acceleration engines with full software programmability. Meanwhile, through The NVIDIA DOCA™ software framework, developers can rapidly create applications and services.

PCIE-5421 is an ideal network interface solution for Enterprise data centers with Big data analytics, Cloud-native, web 2.0, hyperscale, Cybersecurity, network function virtualization (NFV), Machine learning and AI.

Specifications

Controller	Controller	NVIDIA® BlueField®-2
	Physical Functions	8
	Virtual Functions	1K
Ethernet	PCI Express Lanes	x16
	Speed	Gen 4
	Port Number	2
	Ports	100GbE QSFP56
Networking	LAN Bypass	Not supported
Power	Voltage	+12V
	Watts	150W (75W PCIe golden fingers + 75W 6-pin ATX connector)
Mechanical Design	Board Dimension (D x W)	167.65 x 68.9 mm
	Bracket	Standard height
Environment	Operating Humidity	0 to 90% (non-condensing)
	Operating Temperature	0 ~ 45 °C (32 ~ 113 °F)
	Storage	-40 ~ 70 °C (-40 ~ 158 °F)
Certification	EMC	CE / FCC / VCCI / ICES / RCM

Ordering Information

Part Number	Description
PCIE-5421NP-MEA1E	Dual Port Fiber 100GbE (QSFP56) Ethernet PCI Express Data Processing Unit with NVIDIA® BlueField®-2 controller, PCIe gen. 4 x16

Please contact your Advantech representative for a list of supported and validated transceiver modules.

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