

PRODUCT BRIEF

Omni-Path Express 2 x 100 Gb/s to 2 x 100 GbE, 2 x 100 Gb/s EDR, or 200 Gb/s HDR Gateway for Compute and Storage Infrastructures



CORNELIS™ OMNI-PATH EXPRESS™ GATEWAYS

CN-100GWY

Cornelis Networks provides the industry's leading Gateways.



Cornelis Omni-Path Express Gateways are part of an end-to-end product family providing purpose-built fabrics for High Performance Computing (HPC), High Performance Data Analytics (HPDA), and Artificial Intelligence (AI) that deliver high performance with breakthrough value. The Cornelis Omni-Path Express Gateways leverage investments in existing storage systems and network resources requiring access to a Cornelis Networks Omni-Path Express fabric.

Cornelis Omni-Path Express scale-out interconnect

Unprecedented demands on the scale-out interconnect are being driven by advances in artificial intelligence, high performance data analytics, and traditional modeling and simulation environments, coupled with extremely capable processing and storage infrastructures.

Cornelis Omni-Path Express is the next generation of high performance fabrics, a proven hardware foundation combined with the OpenFabrics Interfaces (OFI) framework, that delivers the industry's lowest latency, highest message rate, and best collective performance, all at the industry's lowest CPU utilization.

Cornelis Omni-Path Express to Ethernet or InfiniBand* Gateway Solutions

Cornelis Omni-Path Express Gateways offer multiple connectivity options

to enable bridging to Ethernet networks and InfiniBand fabrics. Storage systems deployed with either interface can now be easily connected to an Omni-Path Express HPC/HPDA/AI fabric with a cost-effective turnkey appliance. Other Ethernet- or InfiniBand-enabled systems can also leverage this capability to connect to Omni-Path Express fabrics through the Gateway.

The Cornelis Omni-Path Express Gateway Ethernet-connected solution contains a 2 x 100 GbE interface to communicate traffic to and from two Omni-Path Express Host Fabric Adapters (HFA), supporting up to 200 Gb/s through the Gateway.

The Cornelis Omni-Path Express Gateway InfiniBand-connected solutions are offered with either a 2 x 100 Gb/s EDR interface or a 200 Gb/s HDR interface to communicate traffic to and from two Omni-Path Express HFAs, supporting up to 200 Gb/s through the Gateway.

Choose from industry standard IP forwarding and LNET protocols to meet the connectivity needs of your environment with either the Ethernet- or InfiniBand-connected Gateway solutions.

Fault tolerance is readily configurable on Cornelis Omni-Path Express Gateways employing IP protocols with the capability to enable port-to-port and Gateway-to-Gateway failover. Failover and high availability are implemented using standard network protocols across multiple IP Gateways. Similarly, the LNET protocol provides fault tolerance and load sharing capabilities to suit system requirements.

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HIGHLIGHTS

Benefits

- High performance Omni-Path Express to Ethernet connectivity
- High performance Omni-Path Express to InfiniBand connectivity
- Support for standard IP and LNET protocols
- Standard configurable High Availability and Failover

Key Features

- Standard 1U chassis
- 200 Gb/s solution
- 2 Omni-Path Express HFA 100 Gb/s

Three Network Interface Options

- 2 x 100 GbE
- 2 x EDR
- 1 x HDR

Specifications

Interface Types	Omni-Path Express HFA, single-port QSFP28 Ethernet 100 GbE, dual-port QSFP28 InfiniBand EDR, dual-port QSFP28 InfiniBand HDR, single-port QSFP56
Chassis Dimensions (w x h x d)	19" rack mountable, 1U chassis (437 mm x 43 mm x 650 mm)
Weight	2 x 100 GbE: 10.8 kg, 2 x EDR: 10.8 kg, 1 x HDR: 10.8 kg
Power (Max)	500 W
Input Range	100-240 VAC 50-60 HZ

Omni-Path Express to	Item Name	Item Number	Item Description
Ethernet (2 x 100 GbE)	100GWYE2G02	99AJ6F	Cornelis Omni-Path Express 200 Gb/s Ethernet Gateway
InfiniBand EDR (2 x EDR)	100GWYBEB02	99AJ7P	Cornelis Omni-Path Express 200 Gb/s InfiniBand EDR Gateway
InfiniBand HDR (1 x HDR)	100GWYBHD02	99AJ6C	Cornelis Omni-Path Express 200 Gb/s InfiniBand HDR Gateway

Safety

CSA/EN/IEC/UL 62368-1 Compliant, UL or CSA Listed (USA and Canada)

Operating Conditions

Temperature Operating: 10°C to 35°C (50°F to 95°F)
Storage: -40°C to 60°C (-40°F to 140°F)

Humidity Operating: 8% to 90% (non-condensing)
Storage: 5% to 95% (non-condensing)

Emissions/Immunity

US/Canada FCC Part 15, Subpart B, Class A, ICES-3(A)/NMB-3(A)

Europe EN55032 Class A, EN55035

Japan VCCI, Class A

Korea RRA/KC (KN32, KN35), Class A

Taiwan BSMI (CNS 13438), Class A

Environmental

RoHS Directive 2011/65/EU

REACH (EC) No 1907/2006

Discover the future of high performance fabrics
www.cornelisnetworks.com



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