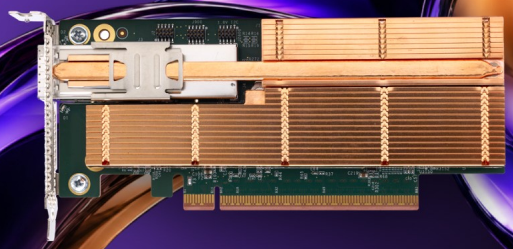
CORNELIS® CN6000 800G ETHERNET SUPERNIC



Accelerate fine-tuning and serve more tokens on standard Ethernet.

Hardware-driven RoCEv2 at 800 Gb/s, on the standards-based 400G and 800G switches you already run.

The Network AI and HPC Has Been Waiting For

Performance at Gigawatt-AI Scale

In gigawatt-class AI, collective and inference traffic can overwhelm traditional Ethernet. The CN6000 Ethernet SuperNIC runs hardware-accelerated RoCEv2 at 800 Gb/s per port, over two 400 Gb/s data paths and a PCIe 6.0 x16 host interface built to match.

RoCEv2, Built for Inference

Hardware-driven RDMA through standard Verbs (rdma-core), lightweight queue pairs and a RoCEv2 in-flight (RiF) tracking table maintain millions of concurrent operations. KV cache handoffs finish faster, which helps raise GPU utilization and token yield per dollar.

Fine-Tuning on Standard Ethernet

RoCEv2 lightweight queue pairs handle the massive, bursty inter-GPU communication that fine-tuning demands across distributed clusters, with a low per-connection cost for many-to-many traffic. A new Ethernet adaptation layer brings proven Cornelis pipeline design to this SuperNIC. NVMe-oF over RoCEv2, for fast access to shared flash, is on the roadmap.

Ecosystem-Ready, Standards-Based

No forklift upgrade: the SuperNIC connects to the standards-based 400G and 800G Ethernet switches and endpoints you already run. Priority Flow Control with 8 priorities keeps traffic lossless, IEEE 1588 PTP keeps the cluster in sync, and GPUDirect moves data straight to NVIDIA and AMD accelerators.

Secured by Post-Quantum Cryptography

A Root of Trust with post-quantum cryptography uses SPDM 1.4 with ML-DSA-87 and ECDSA P-384, helping protect firmware and device identity against both current and future cryptographic threats.

Open and Built for Every Environment

The SuperNIC is Ultra Ethernet compliant (Preview), reflecting our commitment to open standards. PCIe 6.0 x16, SR-IOV to share one SuperNIC across virtual functions, standard PLDM, MCTP and Redfish telemetry, and air- or conduction-cooled versions fit the servers you run.

Millions
Concurrent operations

1.6 Tb/s
Bidirectional bandwidth

PCIe 6.0
x16 host interface

WHERE ETHERNET FITS

AI

Disaggregated inference, fine-tuning and agentic AI on standard Ethernet, where KV cache transfers help set time to first token and cost per token.

CN6000

For HPC and performance-intensive AI, Cornelis also offers the CN6000 Omni-Path SuperNIC and Switch, an end-to-end 800G fabric.

CORNELIS® CN6000 800G ETHERNET SUPERNIC

Technical Specifications

Performance and Ethernet

Protocols	RoCEv2; Ultra Ethernet compliant (Preview)
Bandwidth	800 Gb/s; 1.6 Tb/s bidirectional
Data paths	Two 400 Gb/s
Network ports	Dual x4-lane QSFP-DD, 112 Gb/s per lane
Host interface	PCI Express 6.0 x16
ROMA	Hardware offload through standard Verbs (rdma-core)
Queue pairs	Lightweight QPs; RiF in-flight table maintains millions of concurrent operations
Flow control	Priority Flow Control, 8 priorities (lossless)
Timing	IEEE 1588 PTP
Switches	Standards-based 400G and 800G Ethernet switches
Storage	NVMe-oF over RoCEv2 (roadmap)

Software, Security and Hardware

Operating systems	Red Hat Enterprise Linux (RHEL); other distributions on request
Accelerators	GPUDirect for NVIDIA and AMD
Virtualization	SR-IOV
Security	Post-quantum Root of Trust; SPDM 1.4 (ML-DSA-87, ECDSA P-384)
Management	Integrated management processor; MCTP over PCIe and SMBus; PLDM monitoring, firmware update and Redfish Device Enablement (RDE)
Form factor	PCIe low profile, 3.12 × 6.6 in (7.92 × 16.76 cm)
Brackets	Low profile installed; standard in package
Weight	0.280 kg (0.62 lb) air-cooled; 0.235 kg (0.52 lb) conduction-cooled

Power and Environmental

Power, DAC	42.4 W typical, 46.0 W maximum
Power, AOC	57.5 W typical, 62.2 W maximum
Cooling	Air-cooled or conduction-cooled
Temperature	Operating 0 to 55 °C, derate 1 °C per 175 m above 900 m; storage –40 to 70 °C
Humidity	Operating 10% to 85%; storage 5% to 95%; non-condensing
Altitude	Operating 0 to 3,200 m; non-operating 0 to 12,000 m

Compliance

Emissions	FCC Part 15 Subpart B Class A; ICES-3(A)/NMB-3(A); EN 55032; EN 55035; VCCI Class A; AS/NZS CISPR 32 Class A; KS C 9832 and KS C 9835; BSMI CNS 15936 Class A
Safety	IEC/EN/CSA 62368-1 (NRTL, CB Scheme)
Environmental	RoHS 2011/65/EU and 2015/863; REACH (EC) No 1907/2006

The CN6000 Family

Two 800G SuperNICs, one platform. The Ethernet SuperNIC brings hardware RoCEv2 to the standards-based switches you already run. For HPC and performance-intensive AI, the CN6000 Omni-Path SuperNIC and Switch form an end-to-end 800G fabric.

Ordering Information

Item	Item name	Description
TBD	TBD	CN6000 Ethernet SuperNIC, QSFP-DD, x16 PCIe 6.0, air-cooled, low profile, single
TBD	TBD	CN6000 Ethernet SuperNIC, QSFP-DD, x16 PCIe 6.0, conduction-cooled, low profile, single

Learn more at www.cornelisnetworks.com

Ask Cornelis for the current list of qualified switches. Specifications are subject to change without notice. Cornelis, the Cornelis logo and Cornelis product names are trademarks of Cornelis Networks. Other names and brands may be claimed as the property of others. © 2026 Cornelis Networks. All rights reserved. Revision 1.0, November 2026.