

# PRODUCT BRIEF

Purpose-built 100 Gbps adapter specifically optimized for highest AI/HPDA/HPC performance with the industry's best price/performance



## CORNELIS™ OMNI-PATH™ HOST FABRIC ADAPTER CN-100HFA

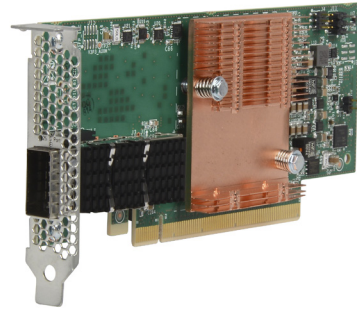
### HIGHLIGHTS

#### Benefits

- Industry leading host fabric interface in price/performance and power consumption
- Incorporates advanced sub-link layer capability eliminating link protection and tail latency penalties

#### Key Features

- Performance
  - 100 Gbps in standard format
  - PCIe x16 host interface
  - Over 160M MPI msg/sec
  - Sub-microsecond MPI latency
- Highly optimized design
  - Performance scaled messaging
  - OFA compatible
  - Balanced functionality between CPU and network
  - Lowest end-to-end latency at scale
- Advanced features
  - Dispersive Routing
  - Packet Integrity Protection
  - Congestion Control
  - Virtual Fabrics Support



Cornelis Networks provides the industry's leading host fabric adapter, cost-effectively delivering high bandwidth while incorporating advanced technologies focused on maximizing message rate while minimizing average and tail latency critical to application performance in High Performance Computing (HPC) environments.

### CORNELIS OMNI-PATH SCALE-OUT INTERCONNECT

Advances in artificial intelligence, high performance data analytics, and traditional modeling and simulation environments, coupled with extremely capable processing and storage infrastructures, are driving unprecedented requirements on the scale-out interconnect. Cornelis Omni-Path interconnect is positioned to cost-effectively meet these key challenges.

### ACCELERATE APPLICATION PERFORMANCE

Cornelis Omni-Path Host Fabric Adapters are designed to provide a perfect semantic match between the requirements of real-world applications and the scale-out fabric, maximizing scalability and performance at the industry's lowest price point.

These adapters ensure optimal application performance through delivery of key efficiency features, including dispersive routing and congestion control, complemented by a unique sub-link layer architecture that enables Packet Integrity Protection (zero latency protection against bit transmission errors), and advanced Virtual Fabrics support, and they provide the functionality that actually makes a positive difference in manageability and application performance.

## Specifications

Adapter Bandwidth	25 GB/s (100 Gbps per direction)
Form Factor	Low Profile
I/O Connector	QSFP28
Power W (Typ/Max)	
• Without optical transceiver/AOC	7.4/11.7
• With power class 2 optical transceiver/AOC	9.2/13.8

Item Market Name	Item Number	Item Description
100HFA016LS	948159	Omni-Path Host Fabric Interface Adapter 100 Series 1 Port PCIe x16 Low Profile
100HFA016FS	945671	Omni-Path Host Fabric Interface Adapter 100 Series 1 Port PCIe x16 Standard

## Safety

<b>US/Canada</b>	cTUVus NRTL 62368-1
<b>Europe</b>	TUV SUD EN 62368-1
<b>International</b>	CB Scheme: IEC 60950/62368-1

## Emissions/Immunity

<b>US/Canada</b>	FCC Part 15, Subpart B, Class A, ICES-3(A)/NMB-3(A)
<b>Europe</b>	EN55032 Class A, EN55035, EN55024
<b>Japan</b>	VCCI, Class A
<b>AS/NZ</b>	AS/NZ CISPR 32, Class A
<b>Korea</b>	RRA/KC (KN32, KN35), Class A

## Operating Conditions

<b>Temperature</b>	Operating: 0° to 55° C (derated 1C/175m above 900m) Storage: -40° to 70° C
<b>Humidity</b>	Operating: 5% to 85% non-condensing Storage: 5% to 95% non-condensing
<b>Altitude</b>	Operating: 0 – 3,200m Storage: 0 – 10,000m

## Environmental

<b>RoHS</b>	RoHS II Directive 2011/65/EU
<b>REACH</b>	(EC) No 1907/2006

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All information provided here is subject to change without notice. Contact your Cornelis Networks representative to obtain the latest Cornelis Networks product specifications and roadmaps.

The products described may contain design defects or errors known as errata which may cause the product to deviate from published specifications. Current characterized errata are available on request.

Cornelis Networks technologies' features and benefits depend on system configuration and may require enabled hardware, software or service activation.

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Revision 3.0 05/04/2021