Product Guide

Intel® Ethernet Network Adapters for OCP

1 to 100 GbE for OCP

Introducing the Intel® Ethernet 800 Series

Intel Ethernet Network Adapters for Open Compute Project (OCP) support speeds up to 100Gbps and include innovative and versatile capabilities to optimize workload performance.

Workload-optimized performance

Application Device Queues (ADQ) dedicates queues to high-priority applications to improve application response-time predictability, reduce latency, and improve throughput.

Versatility for changing network needs

Dynamic Device Personalization (DDP) adds on-demand support for new and advanced network protocols to reduce server CPU utilization, improve throughput, and reduce latency. Classify advanced and proprietary protocols on the adapter instead of the CPU.

Ethernet Port Configuration simplifies the configuration of port connections and speeds, making it easier to enable new services and optimize diverse workloads.

Flexibility to meet network requirements

Both Remote Direct Memory Access (RDMA) protocols, iWARP and RoCEv2, and NVMe over TCP are supported to provide flexibility and choice for scaling high-performance storage and HPC workloads.

Move Data Faster

Intel's evolving Ethernet product portfolio consistently delivers a reliable experience and proven interoperability. Whether migrating from 1 to 10GBASE-T, or from 1 to 100Gbps, Intel Ethernet products and technologies help move data faster.

Compatibility and interoperability

- Extensive conformance testing to IEEE and Ethernet Technology Consortium standards
- Broad network interoperability testing of different media types and Ethernet switches for best-in-class compatibility
- Comprehensive operating system and hypervisor support

Performance assurance

- Optimized for Intel® architecture
- Data Plane Development Kit (DPDK) enabled for faster network functions virtualization (NFV), advanced packet forwarding, and highly-efficient packet processing

Worldwide product support

- Limited lifetime warranty for retail Ethernet products
- Adherence to global regulatory, environmental, and market requirements

Intel Ethernet 800 Series Network Adapters for OCP

Improve application efficiency and network performance with innovative and versatile capabilities that optimize high-performance server workloads such as NFV, storage, HPC-AI and hybrid cloud.

The 800 Series is available in both OCP NIC 3.0 small form factor and OCP Mezzanine 2.0.

Performance for Cloud Applications

Delivers the bandwidth and increased application throughput required for demanding cloud workloads including edge services, web servers, database applications, caching servers, and storage targets.

Optimizations for Communications Workloads

Provides packet classification and sorting optimizations for high-bandwidth network and communications workloads, including mobile core, 5G RAN, and network appliances.

Versatile Port Configurations for 100GbE products

All 100GbE Intel® Ethernet Network Adapters and Controllers in the 800 Series can be configured with the Ethernet Port Configuration Tool (EPCT). Customers can configure the port speed and the number of ports on demand, reducing network adapter validation and simplifying deployments.

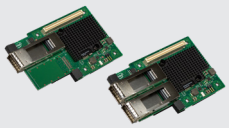
The 2x100GbE network adapter with maximum bandwidth of 100GbE can be configured as 1x100GbE, 2x50GbE, 4x25GbE, 4x10GbE or 8x10GbE. Learn more at intel.com/ethernet

OCP NIC 3.0 - Small Form Factor

Series	Brand Name	Connection	Cabling Type and Range	Speed	Ports	Order Codes
800	 New! E810-CQDA2 for OCP 3.0	QSFP28	DAC: up to 5 m SMF: up to 10 km MMF: up to 100 m	100GbE	Single and Dual	E810CQDA2OCPV3
800	 New! E810-XXVDA2 for OCP 3.0	SFP28	DAC: up to 5 m SMF: up to 10 km MMF: up to 100 m	25/10GbE	Dual	E810XXVDA2OCPV3
700	 X710-T2L and -T4L for OCP 3.0	RJ45	CAT6 up to 55 m CAT6A or better up to 100 m		Dual and Quad	I350T4OCPV3, X710T4LOCPV3
700	 X710-DA2 and-DA4 for OCP 3.0	SFP+	DAC: 25GbE up to 5 m with RS FEC, up to 3 m with no FEC DAC: 10GbE up to 15 m SMF: up to 10 km MMF: up to 70 m (OM3), up to 100 m (OM4)	10/1GbE	Quad	X710DA2OCPV3, X710DA4OCPV3
1GbE	 I350-T4 for OCP 3.0	RJ45	CAT6 up to 55 m CAT6A or better up to 100 m	10/1GbE, 100MB	Quad	I350T4OCPV3

DAC - direct attach copper, SMF - single-mode fiber, MMF - multi-mode fiber

OCP Mezzanine Card 2.0

Series	Brand Name	Connection	Cabling Type and Range	Speed	Ports	Order Codes
800	 New! E810-CQDA1 for OCP	QSFP28	DAC: up to 5 m SMF: up to 10 km MMF: up to 100 m	100GbE	Single	Type 2: E810CQDA1OCPT2G
700	 XL710-QDA1, -QDA2 for OCP	QSFP+	DAC: up to 7 m SMF: up to 10 km MMF: up to 100 m (OM3), up to 150 m (OM4)	40/10GbE	Single and Dual	Type1: SL710QDA1OCP, XL710QDA2OCP
700	 XXV710-DA1, -DA2 for OCP	SFP28	DAC: 25GbE up to 5 m with RS FEC, up to 3 m with no FEC DAC: 10GbE up to 15 m SMF: up to 10 km MMF: up to 70 m (OM3), up to 100 m (OM4)	25/10GbE	Single[1] and Dual	Type 1: XXV710-DA1OCP, XXV710DA2OCP1 Type 2: XXV710DA2OCP2
700	 X710-DA2 for OCP	SFP+	DAC: 10GbE up to 15 m SMF: up to 10 km MMF: up to 300 m (OM3), up to 400 m (OM4)	10/1GbE	Dual	Type 1: X710DA2OCP1 Type 2: X710DA2OCP
500	 X520-DA1, -DA2 for OCP	SFP+	DAC: up to 15 m SMF: up to 10 km MMF: up to 300 m (OM3), up to 400 m (OM4)	10/1GbE	Single and Dual	Type 1: X520DA1OCPG2P20, X520DA2OCPG2P20

DAC - direct attach copper, SMF - single-mode fiber, MMF - multi-mode fiber

1. Single port supports Type 1 only.

Move data faster with Intel® Ethernet Products

Learn more about Intel Ethernet Products and Technologies at intel.com/ethernet

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