



# Networks that respond to reality

Intel® Ethernet Products, with speeds from 1 to 100Gbps, move data faster with innovative technologies and architecture that scale with business demands.

## Introducing Intel® Ethernet 800 Series Controllers

Supports speeds up to 100Gbps and includes 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

- Outstanding global customer support
- Adherence to global regulatory, environmental, and market requirements

# Intel Ethernet 800 Series Controllers

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.

## 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






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.

A 2x100GbE controller with maximum bandwidth of 100GbE can be configured as 1x100GbE, 2x50GbE, 4x25GbE, 4x10GbE or 8x10GbE. Learn more at [intel.com/ethernet](https://intel.com/ethernet)

Product	Connection Speed	Ports	Host Interface	Package Size/ Physical Package	Network Interfaces Supported	Order Codes
 Intel Ethernet Controller E810-CAM1/CAM2	100/50/25/10/1GbE	Single and Dual	PCIe 4.0	25 mm x 25 mm	100GbE: 100GBASE-KR4, CR4, CR2, KR2; CAUI-4; 100GAUI-2, -4 50GbE: 50GBASE-KR2, CR2, CR, KR; 50GAUI-2, -1; LAUI-2 25GbE: 25GBASE-KR, CR, CR1/KR1; AUI 10GbE: KR, SFI 1GbE: KX 100M: SGMII	EZE810CAM1 EZE810CAM2
 Intel Ethernet Controller E810-XXVAM2	25/10/1GbE	Dual	PCIe 4.0	21 mm x 21 mm	50GbE: 50GAUI-2, -1; LAUI-2 25GbE: 25GBASE-KR, CR, CR1/KR1; AUI 10GbE: KR, SFI 1GbE: KX 100M: SGMII	EYE810XXVAM2

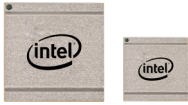
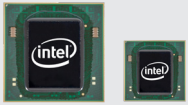

# Intel Ethernet 700 Series Controllers

The 700 Series provides broad interoperability, critical performance optimizations and increased agility for Communications, Cloud and the Data Center.


Product	Connection Speed	Ports	Host Interface	Package Size / Physical Package	Network Interfaces Supported	Order Codes
 Intel Ethernet Controller XL710-BM1/BM2	40/10/1GbE	Single and Dual	PCIe 3.0 (8.0 GT/s)	25 mm x 25 mm 576-pin Flip-Chip	40GbE: QFSP+, KR4, CR4, XLPP1, XLAUI 10GbE: SFP+, KR, SFI, XAUI, KX4 1GbE: KX, SGMII	FTXL710-BM1 FTXL710-BM2
 Intel Ethernet Controller XXV710-AM1/AM2	25/10/1GbE	Single and Dual	PCIe 3.0 (8.0 GT/s)	25 mm x 25 mm FCBGA	SFI, KR, KR4, XAUI, KX, KX4, SGMII	FTXXV710-AM1 FTXXV710-AM2
 Intel Ethernet Controller X710-BM2	10/1GbE	Dual	PCIe 3.0 (8.0 GT/s)	25 mm x 25 mm	SFI, KR, XAUI, KX, KX4, SGMII	FTX710-BM2
 Intel Ethernet Controller X710-AT2/TM4	10/1GbE	Dual and Quad	PCIe 3.0 (8.0 GT/s)	22 mm x 22 mm	X710-AT2: 10GBASE-T, NBASE-T, 1000BASE-T, 100BASE-TX X710-TM4: 10GBASE-T, NBASE-T, 1000BASE-T, 100BASE-TX, KR, SFI, KX, SGMII	EZX710AT2 EZX710TM4
 Intel Ethernet Controller V710-AT2	5/2.5/1GbE and 100Mb	Dual	PCIe 3.0	22 mm x 22 mm FCBGA	NBASE-T and 802.3bz 5/2.5GBASE-T, 1000BASE-T, 100BASE-TX	EZV710AT2

# Intel Ethernet 500 Series Controllers and PHYs



These low-cost, low-power controllers are backwards compatible with existing 1000BASE-T networks, simplifying the transition to 10GbE when more bandwidth is needed.

Product	Connection Speed	Ports	Host Interface	Package Size / Physical Package	Network Interfaces Supported	Order Codes
 Intel Ethernet Connection X557-AT2/AT4	10/1GbE (PHY only)	Dual and Quad	N/A	X557-AT and -AT2: 19 mm x 19 mm  X557-AT4: 25 mm x 25 mm	KR, KX, 100BASE-T, 1000BASE-T, 10GBASE-T, SGMII	EZX557AT2, EZX557AT4
 Intel Ethernet Controller X550-AT/AT2/BT2	10/5/2.5/1GbE (NBASE-T in Linux only)	Single and Dual	X550-AT and -AT2: PCIe 3.0 (8.0 GT/s) X550-BT2: PCIe 2.1 (5.0 GT/s)	X550-AT: 17 mm x 17 mm  X550-AT2 and -BT2: 25 mm x 25 mm	100BASE-T, 1000BASE-T, 10GBASE-T	ELX550AT, ELX550AT2, ELX550BT2
 Intel® 82599 10 Gigabit Ethernet Controller	10/1GbE	Single and Dual	PCIe 2.0 (5.0 GT/s)	25 mm x 25 mm	82599EB: XAU1, KX, KX4, BX, BX4, CX4 82599ES: SFI, KR, XAU1, KX, KX4, BX, CX4 82599EN: SFI	JL82599EB, JL82599EN, JL82599ES


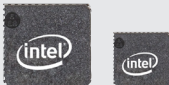


# Intel Ethernet Multi-host Controller

Product	Connection Speed	Ports	Host Interface	Package Size / Physical Package	Network Interfaces Supported	Order Codes
 Intel Ethernet Multi-host Controller FM10420 and FM10840	100/25/10/1GbE	Multi	PCIe 3.0	37.5 mm x 37.5 mm	SFI, KR, KR4, KX, SGMII, SERDES	EZFM10420, EZFM10840





# Retimers

Product	Connection Speed	Ports	Host Interface	Package Size / Physical Package	Network Interfaces Supported	Order Codes
 Intel Ethernet Connection C827-AM1/IM1	25GbE	Quad	N/A	14 mm x 14 mm	100GbE: KR4/CR4, CAUI-4 50GbE: KR2/CR2 (Consortium) 40GbE: XLAUI, XLPP1, KR4/CR4 10GbE: SFF-8431, SFI, KR	EZC827AM, EZC827IM
 Intel Ethernet Connection XL827-AM1	40GbE	Quad	N/A	14 mm x 14 mm	100GbE: KR4/CR4, CAUI-4 50GbE: KR2/CR2 (Consortium) 40GbE: XLAUI, XLPP1, KR4/CR4 10GbE: SFF-8431, SFI, KR	EZXL827AM

# Gigabit Ethernet Controllers

Product	Connection Speed	Ports	Host Interface	Package Size / Physical Package	Network Interfaces Supported	Order Codes
 Intel Ethernet Network Controller I225-IT/K/LM/V	2.5GbE	Single	PCIe 3.1 (3.0 GT/s)	7 mm x 7 mm	NBASE-T	KTI225IT, KTI225K, KTI225LM, KTI225V
 Intel Ethernet Network Controller I350-AM2/AM4/BT2	1GbE	Dual	PCIe 2.0 (5.0 GT/s)	I350-AM2 and -AM4: 17 mm x 17 mm I350-BM2: 25 mm x 25 mm	1000BASE-T, SGMII, SERDES	NHI350AM2, NHI350AM4, NHI350BT2
 Intel Ethernet Controller I211-AT	1GbE	Single	PCIe 2.1 (2.5 GT/s)	9 mm x 9 mm	1000BASE-T	WGI211AT
 Intel Ethernet Network Controller I210-AT/IS/IT/CL/CS	1GbE	Single	PCIe 2.1 (2.5 GT/s)	9 mm x 9 mm	I210-IS, -CS and -CL: SGMII, SERDES I210-AT and -IT: 1000BASE-T	WGI210AT, WGI210IS, WGI210IT Automotive: WGI210CL, WGI210CS

# Gigabit Ethernet PHY Connections

Product	Connection Speed	Ports	Host Interface	Package Size / Physical Package	Network Interfaces Supported	Order Codes
 Intel Ethernet Network Connection I219	1GbE	Dual	Proprietary	6 mm x 6 mm	1000BASE-T	WGI219LM, WGI219V
 Intel Ethernet Network Connection I218	1GbE	Single	Proprietary	6 mm x 6 mm	1000BASE-T	WGI218LM, WGI218V
 Intel Ethernet Network Connection I217	1GbE	Single	Proprietary	6 mm x 6 mm	1000BASE-T	WGI217LM, WGI217V
 Intel® 82579 Gigabit Ethernet PHY	1GbE	Single	Proprietary	6 mm x 6 mm	1000BASE-T	WG82579LM, WG82579V

## Move data faster with Intel® Ethernet Products

Learn more about Intel Ethernet Products and Technologies at [intel.com/ethernet](https://intel.com/ethernet)