

Intel® Ethernet Controllers and Connections

WHY INTEL® ETHERNET?

Driving continuous innovation for more than 35 years, Intel® Ethernet products deliver a reliable out-of-the-box experience, and proven interoperability for your current and future networking infrastructure.

Customers say **it just works**.
Here's why:

High compatibility and broad interoperability

- Fully tested network adapters and accessories (optics and cables)
- Hardware and software is thoroughly validated across server and networking ecosystem
- Supports a broad selection of operating systems

Ease of use

- Works out of the box
- Automatic and highly optimized configuration setups
- Delivers the right traffic to the right VM via match filters

Performance assurance

- Optimized for Intel® architecture and broad OSV ecosystem
- Scales with CPU technology, leverages intelligent hardware offloads, network virtualization, and fast packet processing via Data Plane Development Kit (DPDK)

Worldwide product support

- Pre- and post-sales support
- Adheres to global regulatory, environmental, and market requirements
- Long product lifecycle support

Broad product selection




- Supports all speeds and network interface types
- Available in many different form factors: discrete controller, Intel® SoCs, and add-in cards (PCIe*, OCP, and custom form factors)

MAKE THE CONNECTION WITH INTEL® CONTROLLERS AND CONNECTIONS

INTEL® ETHERNET 700 SERIES NETWORK CONTROLLERS

Accelerate the delivery of new services and capabilities by increasing the speed and efficiency of your network infrastructure. The Intel® Ethernet 700 Series is the foundation for server connectivity, providing broad interoperability, critical performance optimizations, and increased agility for Telecommunications, Cloud, and the Data Center.

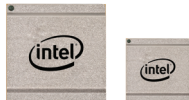
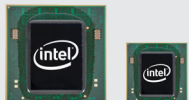


- **Interoperability** – Multiple speeds and media types for broad compatibility backed by extensive testing and validation.
- **Optimization** – Intelligent offloads and accelerators to unlock network performance in servers with Intel® Xeon® processors.
- **Agility** – Both kernel and Data Plane Development Kit (DPDK) drivers for scalable packet processing.

Product	Connection Speed	Ports	Host Interface	Package Size / Physical Package	Network Interfaces Supported	Order Codes
 Intel® Ethernet Controller XL710	40/10/1GbE	Single and Dual	PCIe v3.0 (8.0 GT/s)	25mm x 25mm 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	25/10/1GbE	Single and Dual	PCIe v3.0 (8.0 GT/s)	25mm x 25mm FC-BGA	SFI, KR, KR4, XAUI, KX, KX4, SGMI	FTXXV710-AM1 FTXXV710-AM2
 Intel® Ethernet Controller X710	10/1GbE	Dual	PCIe v3.0 (8.0 GT/s)	25mm x 25mm	SFI, KR, XAUI, KX, KX4, SGMII	FTX710-BM2


INTEL® ETHERNET 500 SERIES NETWORK CONTROLLERS

The best choice for 10GBASE-T, the Intel® Ethernet 500 Series is backward compatible with existing 1000BASE-T networks, simplifying the transition to 10GbE when more bandwidth is needed.



- Supports 100Mb, and 1/2.5/5/10GBASE-T
- Low cost, low power
- Optimized for network virtualization overlays

Product	Connection Speed	Ports	Host Interface	Package Size / Physical Package	Network Interfaces Supported	Order Codes
 Intel® Ethernet Connection X557	10/1GbE	Single, Dual and Quad	N/A	X557-AT and -AT2: 19mm x 19mm X557-AT4: 25mm x 25mm	KR, KX, 100Base-T, 1000BASE-T, 10GBASE-T, SGMII	EZX557AT, EZX557AT2, EZX557AT4
 Intel® Ethernet Controller X550	10/5/2.5/1GbE (NBASE-T in Linux only)	Single and Dual	X550-AT and -AT2: PCIe v3.0 (8.0 GT/s) X550-BT2: PCIe v2.1 (5.0 GT/s)	X550-AT: 17mm x 17mm X550-AT2 and -BT2: 25mm x 25mm	100BASE-T, 1000BASE-T, 10GBASE-T	ELX550AT, ELX550AT2, ELX550BT2
 Intel® Ethernet Controller X540	10GbE/1GbE/100Mb	Dual	PCIe v2.1 (5.0 GT/s)	25mm x 25mm	100BASE-T, 1000BASE-T, 10GBASE-T	ELX540AT2, ELX540BT2
 Intel® 82599 10 Gigabit Ethernet Controller	10/1GbE	Single and Dual	PCIe v2.0 (5.0 GT/s)	25mm x 25mm	82599EB: XAUI, KX, KX4, BX, BX4, CX4 82599ES: SFI, KR, XAUI, 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
 <p>Intel® Ethernet Multi-host Controller FM10420 and FM10840</p>	100/25/10/1GbE	Multi	PCIe Gen3	37.5mm x 37.5mm	SFI, KR, KR4, KX, SGMII, SERDES	EZFM10420 EZFM10840

RETIMERS

Product	Connection Speed	Ports	Host Interface	Package Size / Physical Package	Network Interfaces Supported	Order Codes
 <p>Intel® Ethernet Connection C827</p>	25GbE	Quad	N/A	14mm x 14mm	100GbE: KR4/CR4, CAUI-4 50GbE: KR2/CR2 (Consortium) 40GbE: XLAUI, XLPPI, KR4/CR4 10GbE: SFF-8431, SFI, KR	EZC827AM, EZC827IM
 <p>Intel® Ethernet Connection XL827</p>	40GbE	Quad	N/A	14mm x 14mm	100GbE: KR4/CR4, CAUI-4 50GbE: KR2/CR2 (Consortium) 40GbE: XLAUI, XLPPI, 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 I350	1GbE	Dual	PCIe v2.0 (5.0 GT/s)	I350-AM2 and -AM4: 17mm x 17mm I350-BM2: 25mm x 25mm	1000BASE-T, SGMII, SERDES	NHI350AM2, NHI350AM4, NHI350BT2
 Intel® 82580 Gigabit Ethernet Controller	1GbE	Dual and Quad	PCIe v2.0 (5.0 GT/s)	17mm x 17mm	1000BASE-T, SGMII, SERDES	NH82580EB, NH82580DB
 Intel® Ethernet Controller I211	1GbE	Single	PCIe v2.1 (2.5 GT/s)	9mm x 9mm	1000BASE-T	WGI211AT
 Intel® 82583V Gigabit Ethernet Controller	1GbE	Single	PCIe v1.1 (2.5 GT/s)	9mm x 9mm	1000BASE-T	WG82583V
 Intel® Ethernet Network Connection I210	1GbE	Single	PCIe v2.1 (2.5 GT/s)	9mm x 9mm	I210-IS, -CS and -CL: SGMII, SERDES I210-AT and -IT: 1000BASE-T	WGI210AT, WGI210IS, WGI210IT Automotive: WGI210CL, WGI210CS
 Intel® 82574 Gigabit Ethernet Controller	1GbE	Single	PCIe v1.1 (2.5 GT/s)	9mm x 9mm	1000BASE-T	WG82574L, WG82574IT

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	6mm x 6mm	1000BASE-T	WGI219LM, WGI219V
 Intel® Ethernet Network Connection I218	1GbE	Single	Proprietary	6mm x 6mm	1000BASE-T	WGI218LM, WGI218V
 Intel® Ethernet Network Connection I217	1GbE	Single	Proprietary	6mm x 6mm	1000BASE-T	WGI217LM, WGI217V
 Intel® 82579 Gigabit Ethernet PHY	1GbE	Single	Proprietary	6mm x 6mm	1000BASE-T	WG82579LM, WG82579V