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 with 128 perfect 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**
- World-class pre- and post-sales support provide convenient accessibility to customers
- Adheres to global regulatory, environmental, and market requirements
- Long product lifecycle support

**Broad product selection and accessories**
- Supports all speeds (1/10/25/40GbE) and media types (BASE-T, Fiber, SFP+, QSFP+, SFP28, QSFP28, KR, XAUI)
- 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® ETHERNET ADAPTERS.

INTEL® ETHERNET 700 SERIES NETWORK ADAPTERS

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.

All Intel® Ethernet 700 Series and 500 Series Network Adapters include intelligent offloads, are optimized for Data Plane Development Kit (DPDK) and Intel® Ethernet Flow Director, and include these server virtualization attributes: on-chip QoS and traffic management, Flexible Port Partitioning, Virtual Machine Device Queues (VMDq), PCI-SIG® SR-IOV capable.

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1. Learn more about DPDK at intel.com/dpdk

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ONE ARCHITECTURE. MULTIPLE SPEEDS.

Intel® Ethernet 700 Series Network Adapters offer customers a common architecture.

- Greater intelligence and performance for NFV
- Enhanced network virtualization overlays (NVOs)
- Flexible and scalable I/O for virtualized infrastructures
- Improved performance and efficiency
- Flexible port partitioning (FPP)
- Advanced traffic steering
INTEL® ETHERNET 500 SERIES NETWORK ADAPTORS

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

<table>
<thead>
<tr>
<th>Product</th>
<th>Connector &amp; Cable Medium</th>
<th>Cabling Type</th>
<th>Intel® Ethernet Controller</th>
<th>Slot Type, Maximum Bus Speed &amp; Bus Width</th>
<th>Connection Speed</th>
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<th>Supported Slot Heights</th>
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<tr>
<td>X550-T1</td>
<td>RJ45 Copper Twisted-pair</td>
<td>Category 6:  - up to 55 m (10GbE) Category 6A or better:  - up to 100 m (10GbE) Category 5 or better:  - up to 100 m (1Gbe/2.5GbE/5GbE)</td>
<td>X550</td>
<td>PCI Express* v3.0 8.0 GT/s, x4 Lanes Operable in x8 and x16 slots</td>
<td>100Mb/1GbE/2.5GbE/5GbE/10GbE</td>
<td>Single and Dual Port</td>
<td>Low Profile and Full Height</td>
<td>Multi-Queue and Stateless Offloads for NVO, such as VXLAN, NVGRE, and GENEVE Enhanced DPDK packet-processing support*</td>
<td>iSCSI, FCoE, NFS, SMB</td>
<td>X550T1, X550T1BLK, X550T2, X550T2BLK</td>
</tr>
<tr>
<td>X550-T2</td>
<td>RJ45 Copper Twisted-pair</td>
<td>Category 6:  - up to 55 m (10GbE) Category 6A or better:  - up to 100 m (10GbE) Category 5 or better:  - up to 100 m (1Gbe/2.5GbE/5GbE)</td>
<td>X540</td>
<td>PCI Express* v2.1 5.0 GT/s, x8 Lanes</td>
<td>100Mb/1GbE/10GbE</td>
<td>Single and Dual Port</td>
<td>Low Profile and Full Height</td>
<td>RSS for UDP for VXLAN Enhanced DPDK packet-processing support*</td>
<td>iSCSI, FCoE, NFS, SMB</td>
<td>X540T1, X540T1BLK, X540T2, X540T2BLK</td>
</tr>
<tr>
<td>X520-DA2</td>
<td>SFP+ Direct Attach Copper Twinnaxial, SFP+ LC Fiber Optic Module</td>
<td>Direct Attach Twinnaxial:  - up to 15 m Multimode Fiber:  - up to 300 m (OM3) - up to 400 m (OM4) Single-mode Fiber:  - up to 10 km</td>
<td>B2599ES</td>
<td>PCI Express* v2.0 5.0 GT/s, x8 Lanes</td>
<td>1GbE/10GbE</td>
<td>Dual Port</td>
<td>Low Profile and Full Height</td>
<td>RSS for UDP for VXLAN Enhanced DPDK packet-processing support*</td>
<td>iSCSI, FCoE, NFS, SMB</td>
<td>E10G42BDTA, E10G42BDTADBLK</td>
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<tr>
<td>X520-SR1</td>
<td>LC Fiber Optic</td>
<td>Customer may remove optics as needed.</td>
<td>B2599ES</td>
<td>PCI Express* v2.0 5.0 GT/s, x8 Lanes</td>
<td>1GbE/10GbE</td>
<td>Single and Dual Port</td>
<td>Low Profile and Full Height</td>
<td>RSS for UDP for VXLAN Enhanced DPDK packet-processing support*</td>
<td>iSCSI, FCoE, NFS, SMB</td>
<td>X540T1, X540T1BLK, X540T2, X540T2BLK</td>
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<tr>
<td>X520-LR1</td>
<td>LC Fiber Optic</td>
<td>Customer may remove optics as needed.</td>
<td>B2599ES</td>
<td>PCI Express* v2.0 5.0 GT/s, x8 Lanes</td>
<td>1GbE/10GbE</td>
<td>Single Port</td>
<td>Low Profile and Full Height</td>
<td>RSS for UDP for VXLAN Enhanced DPDK packet-processing support*</td>
<td>iSCSI, FCoE, NFS, SMB</td>
<td>E10G42BFLR, E10G42BFLRBLK</td>
</tr>
</tbody>
</table>

1. Learn more about DPDK at intel.com/dpdk

INTEL® ETHERNET OPTICS AND CABLES FOR INTEL® ETHERNET 700 SERIES AND 500 SERIES NETWORK ADAPTORS

Combine these accessories with Intel Ethernet 700 Series and 500 Series Network Adapters, for dependable interoperability and consistent performance across the network.
# 1 GBE INTEL® ETHERNET NETWORK ADAPTERS

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<tr>
<th>Product</th>
<th>Connector &amp; Cable Medium</th>
<th>Cabling Type</th>
<th>Intel® Ethernet Controller</th>
<th>Slot Type, Maximum Bus Speed &amp; Bus Width</th>
<th>Ports</th>
<th>Supported Slot Heights</th>
<th>Halogen Free</th>
<th>Intelligent Offloads</th>
<th>Intel® Virtualization Technology for Connectivity</th>
<th>Storage over Ethernet</th>
<th>Intel Ethernet Power Management*</th>
<th>Order Codes</th>
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</thead>
<tbody>
<tr>
<td>I210-T1</td>
<td>RJ45 Copper Twisted-pair</td>
<td>Category 5 or better: - up to 100 m</td>
<td>I210</td>
<td>PCI Express v2.1 2.5 GT/s, x1 Lane</td>
<td>Single Port</td>
<td>Low Profile and Full Height</td>
<td>Yes</td>
<td>Yes</td>
<td>Includes Audio-Video Bridging (AVB) support (802.1Qav)</td>
<td>iSCSI, NFS, SMB</td>
<td>Yes</td>
<td>I210T1 I210T1BLK</td>
</tr>
<tr>
<td>I350-T4</td>
<td>RJ45 Copper Twisted-pair</td>
<td>Category 5 or better: - up to 100 m</td>
<td>I350</td>
<td>PCI Express v2.1 5 GT/s, x4 Lanes</td>
<td>Quad Port</td>
<td>Low Profile and Full Height</td>
<td>Yes</td>
<td>Yes</td>
<td>On-chip QoS and traffic management Flexible Port Partitioning (PPP) Virtual Machine Device Queues (VMDq) PCI-SIG® SR-IOV capable</td>
<td>iSCSI, NFS, SMB</td>
<td>Yes</td>
<td>I350T4V2</td>
</tr>
<tr>
<td>I350-T2</td>
<td>RJ45 Copper Twisted-pair</td>
<td>Category 5 or better: - up to 100 m</td>
<td>I350</td>
<td>PCI Express v2.1 5 GT/s, x4 Lanes</td>
<td>Dual Port</td>
<td>Low Profile and Full Height</td>
<td>Yes</td>
<td>Yes</td>
<td>On-chip QoS and traffic management Flexible Port Partitioning (PPP) Virtual Machine Device Queues (VMDq) PCI-SIG® SR-IOV capable</td>
<td>iSCSI, NFS, SMB</td>
<td>Yes</td>
<td>I350T2V2</td>
</tr>
<tr>
<td>I350-F2</td>
<td>LC Fiber Optic</td>
<td>Multimode Fiber OM1 (62.5 μm): - up to 275 m Multimode Fiber OM2 or better (50 μm): - up to 550 m</td>
<td>I350</td>
<td>PCI Express v2.1 5 GT/s, x4 Lanes</td>
<td>Dual Port</td>
<td>Low Profile and Full Height</td>
<td>N/A</td>
<td>Yes</td>
<td>On-chip QoS and traffic management Flexible Port Partitioning (PPP) Virtual Machine Device Queues (VMDq) PCI-SIG® SR-IOV capable</td>
<td>iSCSI, NFS, SMB</td>
<td>Yes</td>
<td>I350F2 I350F2BLK</td>
</tr>
<tr>
<td>I350-F4</td>
<td>LC Fiber Optic</td>
<td>Multimode Fiber OM1 (62.5 μm): - up to 275 m Multimode Fiber OM2 or better (50 μm): - up to 550 m</td>
<td>I350</td>
<td>PCI Express v2.1 5 GT/s, x4 Lanes</td>
<td>Quad Port</td>
<td>Full Height</td>
<td>N/A</td>
<td>Yes</td>
<td>On-chip QoS and traffic management Flexible Port Partitioning (PPP) Virtual Machine Device Queues (VMDq) PCI-SIG® SR-IOV capable</td>
<td>iSCSI, NFS, SMB</td>
<td>Yes</td>
<td>I350F4 I350F4BLK</td>
</tr>
<tr>
<td>I340-F4</td>
<td>LC Fiber Optic</td>
<td>Multimode Fiber OM1 (62.5 μm): - up to 275 m Multimode Fiber OM2 or better (50 μm): - up to 550 m</td>
<td>82580</td>
<td>PCI Express v2.1 5 GT/s, x4 Lanes</td>
<td>Quad Port</td>
<td>Full Height</td>
<td>N/A</td>
<td>Yes</td>
<td>On-chip QoS and traffic management Flexible Port Partitioning (PPP) Virtual Machine Device Queues (VMDq) PCI-SIG® SR-IOV capable</td>
<td>iSCSI, NFS, SMB</td>
<td>N/A</td>
<td>E1G44HF</td>
</tr>
</tbody>
</table>

# 1 GBE FOR DESKTOP

<table>
<thead>
<tr>
<th>Product</th>
<th>Connector &amp; Cable Medium</th>
<th>Cabling Type</th>
<th>Intel® Ethernet Controller</th>
<th>Slot Type, Maximum Bus Speed &amp; Bus Width</th>
<th>Ports</th>
<th>Supported Slot Heights</th>
<th>Halogen Free</th>
<th>Intelligent Offloads</th>
<th>Intel® Virtualization Technology for Connectivity</th>
<th>Storage over Ethernet</th>
<th>Intel Ethernet Power Management*</th>
<th>Order Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intel® Gigabit CT Desktop Adapter</td>
<td>RJ45 Copper Twisted-pair</td>
<td>Category 5 or better: - up to 100 m</td>
<td>82574</td>
<td>PCI Express v1.1 2.5 GT/s, x1 Lane</td>
<td>Single Port</td>
<td>Low Profile and Full Height</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>iSCSI, NFS, SMB</td>
<td>N/A</td>
<td>EXPi9301CT EXPi9301CTBLK</td>
</tr>
</tbody>
</table>

3. Intel Ethernet Power Management includes Energy Efficient Ethernet (EEE) and DMA Coalescing.

**MAKE THE CONNECTION WITH INTEL® ETHERNET ADAPTERS AT INTEL.COM/ETHERNET**

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