PRODUCT BRIEF Intel® Ethernet SFP+ Twinaxial Cables Network Connectivity



Intel[®] Ethernet SFP+ Twinaxial Cables

SFP+ Direct Attach cables for the Intel® Ethernet Converged Network Adapter X520 Family



Features

- 1 m (3.3 ft), 3 m (9.8 ft.), and 5 m (16.4 ft.) SFP+ 10 GbE direct attach passive copper cables
- SFP+ Direct Attach cables offer a highly cost-effective way to connect within racks and across adjacent racks
- Fully compatible with the Intel[®] Ethernet Converged Network Adapter X520 Family
- Zinc die-cast SFF-8431 SFP+ connectors
- Low cross-talk and pair-to-pair skew
- Fully compliant to the latest SFP Plus MSA (multi-source agreement)
- Data rates backward compatible to 1 Gbps
- Reduced power budget and lower port cost compared to optical solutions
- Conforms to environmental standards as described in the Product Environmental Content Report¹
- One year warranty

The Intel[®] Ethernet Converged Network Adapter X520 family with SFP+ connectivity delivers the most flexible and scalable Ethernet adapters for today's demanding data center environments. The escalating deployments of multi-core processor-based servers and demanding applications such as server virtualization, High Performance Computing (HPC), unified storage deployments, and videoon-demand are driving the need for 10 Gigabit connections. Customers require flexible and scalable I/O solutions to meet the rigorous requirements of these deployments.

Powered by Intel's third-generation 10 GbE network controller, the Intel® Ethernet 82599 10 Gigabit Ethernet Controller, the X520 server adapter family addresses the demanding needs of the next-generation data center by providing unmatched features for virtualization, flexibility for LAN and SAN networking, and proven, reliable performance.

| Intel [®] Ethernet SFP+ Twinaxial Cables |
|---|
| Product Codes |
| XDACBL1M (1 meter) |
| XDACBL3M (3 meter) |
| XDACBL5M (5 meter) |

To ensure maximum flexibility, Intel uniquely supports the ability to mix any combination of SFP+ optical modules, direct attach copper cables, or 1000BASE-T SFP modules on the Intel Ethernet X520 Adapters. For instance, customers can remove the optical modules that come installed on the adapter and replace them with an Intel® Ethernet SFP+ Optic, an Intel® Ethernet SFP+ Twinaxial Cable, or a 1000BASE-T SFP module. Intel® Ethernet SFP+ Twinaxial Cables are ideal for short distances and offer a highly cost-effective way to connect within racks and across adjacent racks. The cables are available in three lengths; 1, 3, and 5 meters, enabling customers to create the configuration that best meets the needs of their data center environment.

Note: Other manufacturers may require specific cables for equipment compatibility. Please check with the manufacturer of your device regarding cable requirements for that device.

Intel[®] Ethernet SFP+ Optics Product Codes E10GSFPSR—Intel[®] Ethernet SFP+ SR Optic E10GSFPLR—Intel[®] Ethernet SFP+ LR Optic

| Compatible Intel [®] Server Adapters Product Codes |
|---|
| E10G42BTDA—Intel® Converged Network Adapter X520-DA2 |
| E10G41BFSR—Intel [®] Converged Network Adapter X520-SR1* |
| E10G42BFSR—Intel® Converged Network Adapter X520-SR2* |
| E10G41BFLR—Intel® Converged Network Adapter X520-LR1* |

* Ships with pluggable optic installed

| Parameter | Symbol | Min | Тур | Max | Unit |
|--|----------------|------|--|------|------------|
| Storage Temperature Range | T _s | -40 | | 85 | ۰C |
| Operating Temperature Range | T _A | -40 | | 85 | ۰C |
| Operating Humidity Range | RH | 0 | | 85 | % |
| Supply Voltage | Vcc | 2.95 | 3.3 | 3.6 | V |
| Supply Current (per cable end) | lcc | | 100 | | μA |
| Power Consumption | | | 0.4 | | m₩ |
| Data Rate | DR | | | 11.3 | Gbps |
| Transmitter | | | | | |
| Differential Input Voltage Swing | V | 300 | | | mVp-p |
| Differential Input Return Loss | SDD11 | | -10 | | dB @ 5 GHz |
| Receiver | | | | | |
| Differential Output Return Loss | SDD22 | | -10 | | dB @ 5 GHz |
| Voltage Modulate Amplitude Loss | L | | | 4.5 | dBe |
| VMA Loss to Crosstalk Ratio | VCR | 32.5 | | | dB |
| Waveform Dispersion Penalty | dWDP | | | 6.8 | dBe |
| Cable | | | | | |
| Cable Differential Impedance | | | 100 | 105 | Ω |
| Cable Outer Diameter | | | 0.175 ^{30AWG} 0.235 ^{24AWG} | | Inches |
| Cable Bend Radius (Measured at Diecast Endface) | | | 0.7 ^{30AWG} 0.95 ^{24AWG} | | Inches |
| Cable Flex Cycle | | | 200 | | cycles |
| Cable Weight | | | 30 ^{30AWG} 50 ^{24AWG} | | kg/km |

| Length and Part Number | | | |
|------------------------|------------------------|-----|--|
| SKU | Length | AWG | |
| XDACBL1M | 1000 mm <u>+</u> 25 mm | 30 | |
| XDACBL3M | 3000 mm <u>+</u> 75 mm | 30 | |
| XDACBL5M | 5000 <u>+</u> 125 mm | 24 | |

| Difference Waveform Dispersion Penalty | | | | |
|--|--------|--------|--------|--|
| Cable | WDPi | WDPo | dWDP | |
| 1 m, 30AWG | 2.0965 | 4.2087 | 2.1122 | |
| 3 m, 30AWG | 2.0965 | 6.6828 | 4.5863 | |
| 5 m, 24AWG | 2.0965 | 6.2477 | 4.1512 | |

Note: dWDP=6.8 (max), SFF-8431

| Voltage Modulation Amplitude to Crosstalk Ratio (VCR) | | | | | | |
|---|-------------|-------------|---------------|-----------------|----------|--|
| Cable | B' VMA (mV) | C' VMA (mV) | VMA LOSS (dB) | NEXT (rms) (mV) | VCR (dB) | |
| 1 m, 30AWG | 700 | 615 | 1.12 | 1.73 | 35.8 | |
| 3 m, 30AWG | 700 | 503 | 2.86 | 1.79 | 34.4 | |
| 5 m, 24AWG | 700 | 505 | 2.84 | 1.87 | 34.0 | |

Notes: VMA LOSS (dB)=4.5 (max), SFF-843. VCR=32.5 dB (min), SFF-8431

Customer Support

Intel® Customer Support Services offers a broad selection of programs including phone support and warranty service. For more information, contact us at:

support.intel.com/support/go/network/

(Service and availability varies by country.)

For Product Information

To speak to a customer service representative regarding Intel products, call 1-800-538-3373 (U.S. and Canada) or visit:

support.intel.com/support/go/network/contact.htm

For more information on the Intel[®] Ethernet SFP+ Twinaxial Cables visit: www.intel.com/go/ethernet

¹ Product Environmental Content Reports are found on Intel Web site at http://gdms.intel.com.

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- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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