

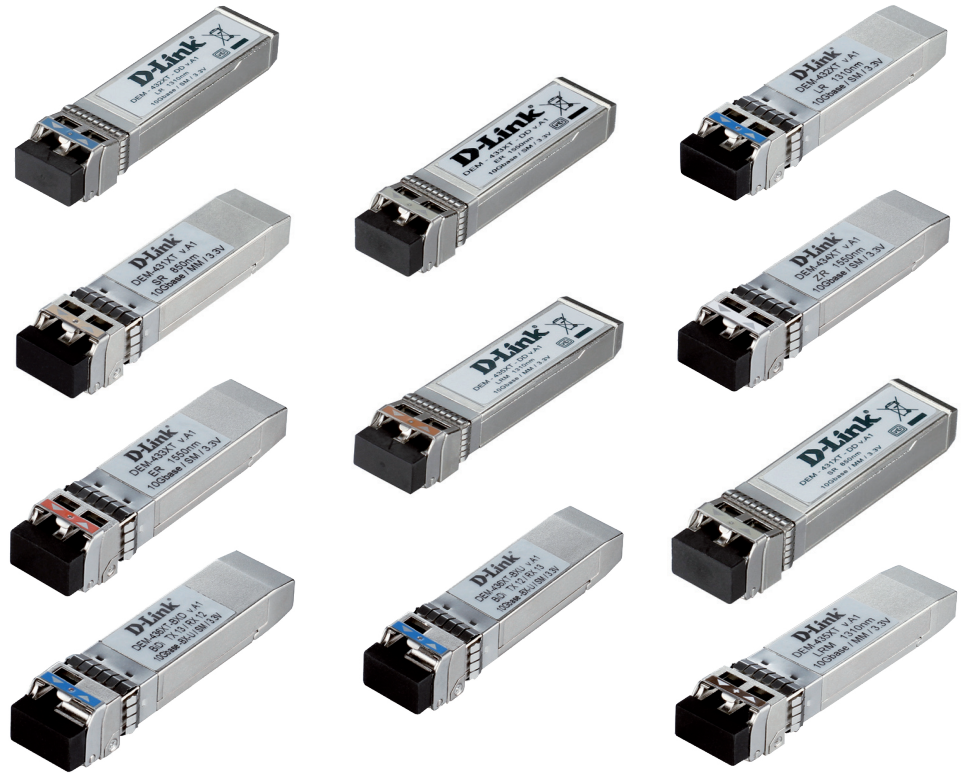
Feature Highlights

- Enhanced Small Form-Pluggable (SFP+) form factor
- Hot pluggable
- Support 10G Ethernet
- Feature Digital Diagnostics Monitoring (DDM)¹
- RoHS Compliant
- Compliant with MSA (Multiple Source Agreement)
- Compliant with IEEE802.3ae and 802.3aq standards

¹DEM-431XT-DD, DEM-432XT-DD, DEM-433XT-DD, and DEM-435XT-DD only.

²DEM-436XT-BXD and DEM-436XT-BXU models only.

10G SFP+ Modules



D-Link's 10G SFP+ Module series are hot-swappable SFP+ transceivers that plug into SFP+ slots on switches and support 10G Ethernet. The D-Link 10GBASE SFP+ Module Series transceivers offer customers a wide variety of 10G Ethernet connectivity options for data centers, enterprise wiring closets, and service provider transport applications.

Enhanced Small Form-factor Pluggable Format

The transceivers use the Enhanced Small Form-factor Pluggable format (SFP+). The SFP+ form factor is smaller than other form factors such as Xenpak, X2, and 10G XFP, ensuring lower costs, lower power disruption, and higher port density. They provide the necessary signal amplification for data to be transmitted to the network cable from the port, and vice versa, for the port to receive data from the network cable.

Hot Pluggable

All D-Link transceivers are hot-pluggable. You can connect a transceiver while the system is powered on without causing any problems. This permits modules to be added or removed without interrupting the network.

10G Ethernet speeds

The transceivers all support 10G Ethernet, which results in very fast data transmissions of up to 10 Gbit/s. This is 10 times faster than Gigabit Ethernet and enables the switch to handle faster and higher data transmissions, making it very suitable for business needs.

Digital Diagnostics Monitoring (DDM)

Several of the 10G SFP+ Modules¹ feature DDM real-time monitoring of critical parameters, including transmitted and received power, temperature, and voltage. This allows for convenient monitoring of the module's fiber connection and early detection of problems.

Bi-directional WDM transmission²

Bi-directional WDM transmission allows data to be transmitted simultaneously in both directions on a fiber cable. This helps you save on the cost of deploying extra fiber cables as well as allows for more flexible bandwidth allocation.

Technical Specifications

DEM-431XT

DEM-431XT-DD

DEM-432XT



| Standard | | DEM-431XT | DEM-431XT-DD | DEM-432XT |
|--------------------------|---|---|---|---|
| Standard | Standard Compliance | IEEE-802.3ae 10GBASE-SR | IEEE-802.3ae 10GBASE-SR | IEEE-802.3ae 10GBASE-LR |
| | Form Factor Type | SFP+ | SFP+ | SFP+ |
| | Fibre Channel FC-PI Standard | 1200-Mx-SN-I | 1200-Mx-SN-I | 1200-SM-LL-L |
| | Fiber Media Support | Multi-Mode | Multi-Mode | Single-Mode |
| | Distance Capacity | 62.5 μm, 160 MHz-km: 26 m 62.5 μm, OM1 200 MHz-km: 33 m 50 μm, 400 MHz-km: 66 m 50 μm, OM2 500 MHz-km: 82 m 50 μm, OM3 2000 MHz-km: 300 m | 62.5 μm, 160 MHz-km: 26 m 62.5 μm, OM1 200 MHz-km: 33 m 50 μm, 400 MHz-km: 66 m 50 μm, OM2 500 MHz-km: 82 m 50 μm, OM3 2000 MHz-km: 300 m | 62.5 μm, 160 MHz-km: 26 m 62.5 μm, OM1 200 MHz-km: 33 m 50 μm, 400 MHz-km: 66 m 50 μm, OM2 500 MHz-km: 82 m 50 μm, OM3 2000 MHz-km: 300 m |
| Features | Hot Pluggable | ✓ | ✓ | ✓ |
| | MSA Compliant | ✓ | ✓ | ✓ |
| | RoHS Compliant | ✓ | ✓ | ✓ |
| Speed | Speed | 10 Gbps | 10 Gbps | 10 Gbps |
| Interface | Connector | Duplex LC Connector | Duplex LC Connector | Duplex LC Connector |
| | Single/Bi-Directional | Single Direction | | |
| | Wavelength | 850 nm | 850 nm | 1310 nm |
| | Output Optical Power (TX Optical Power) | Max.: -1 dBm Min.: -6.5 dBm | Max.: -1 dBm Min.: -5 dBm | Max.: 0.5 dBm Min.: -8.5 dBm |
| | Input Optical Power (RX Optical Power) | Max.: -1 dBm Min.: -11.1 dBm | Max.: 0.5 dBm Min.: -11.1 dBm | Max.: 0.5 dBm Min.: -8.5 dBm |
| | Sensitivity | -11.1 dBm | -11.1 dBm | -12.6 dBm |
| | Cable Type | Multi-mode 50/125 μm or 62.5/125 μm fiber | Multi-mode 50/125 μm or 62.5/125 μm fiber | Single-mode 9/125 μm fiber |
| Operating | Power | 3.3 V | 3.3 V | 3.3 V |
| | Maximum Input Current | 3.3 V: 300 mA | 3.3 V: 250 mA | 3.3 V: 300 mA |
| | Minimum Power Budget | 4.6 dB | 6.1 dB | 4.1 dB |
| | Maximum Power Budget | 10.1 dB | 10.1 dB | 10.1 dB |
| | Heat Generated | 3.6 kJ/h | 2.9 kJ/h | 3.6 kJ/h |
| Reliability | MTBF (Hours) | 3,960,000 | 5,948,000 | 4,650,000 |
| Function | DDM (Digital Diagnostics Monitoring) | — | ✓ | — |
| Physical and Environment | Operating Temperature | 0 to 70 °C | 0 to 70 °C | 0 to 70 °C |
| | Storage Temperature | -40 to 85 °C | -40 to 85 °C | -40 to 85 °C |
| | Operating Humidity | 5 to 85% | 0 to 85% | 5 to 85% |
| | Storage Humidity | 5 to 95% | 0 to 85% | 5 to 95% |
| | Dimensions (W x D x H) | (0.58 x 2.22 x 0.47 inches) Compliant with SFF8432, 14.8 x 56.5 x 11.85 mm | (0.58 x 2.22 x 0.47 inches) Compliant with SFF8432, 14.8 x 56.5 x 11.85 mm | (0.58 x 2.22 x 0.47 inches) Compliant with SFF8432, 14.8 x 56.5 x 11.85 mm |
| | Weight | 18 g (0.04 lbs) | 22 g (0.05 lbs) | 19.5 g (0.04 lbs) |
| | Bail Latch Color | Beige | Beige | Blue |
| Emission(EMI) and Safety | EMI | CE, FCC, VCCI | CE, FCC, VCCI | CE, FCC, VCCI |
| | Safety | UL, TUV, CDRH | CSA, TUV, CDRH | UL, TUV, CDRH |

| Technical Specifications | | DEM-432XT-DD | DEM-433XT | DEM-433XT-DD |
|--------------------------|--|--------------|-----------|--------------|
|--------------------------|--|--------------|-----------|--------------|



| | | | | |
|---------------------------|---|---|---|---|
| Standard | Standard Compliance | IEEE-802.3ae 10GBASE-LR | IEEE-802.3ae 10GBASE-ER | IEEE-802.3ae 10GBASE-ER |
| | Form Factor Type | SFP+ | SFP+ | SFP+ |
| | Fibre Channel FC-PI Standard | 1200-SM-LL-L | N/A | N/A |
| | Fiber Media Support | Single-Mode | Single-Mode | Single-Mode |
| | Distance Capacity | 10 km | 40 km | 40 km |
| Features | Hot Pluggable | ✓ | ✓ | ✓ |
| | MSA Compliant | ✓ | ✓ | ✓ |
| | RoHS Compliant | ✓ | ✓ | ✓ |
| Speed | Speed | 10 Gbps | 10 Gbps | 10 Gbps |
| Interface | Connector | Duplex LC Connector | Duplex LC Connector | Duplex LC Connector |
| | Single/Bi-Directional | Single Direction | | |
| | Wavelength | 1310 nm | 1550 nm | 1550 nm |
| | Output Optical Power (TX Optical Power) | Max.: 0.5 dBm Min.: -8.2 dBm | Max.: 3 dBm Min.: -3 dBm | Max.: 4 dBm Min.: -4.7 dBm |
| | Input Optical Power (RX Optical Power) | Max.: 0.5 dBm Min.: -12.6 dBm | Max.: -1 dBm Min.: -14.1 dBm | Max.: -1 dBm Min.: -14.1 dBm |
| | Sensitivity | -12.6 dBm | -14.1 dBm | -14.1 dBm |
| | Cable Type | Single-mode 9/125 um fiber | Single-mode 9/125 um fiber | Single-mode 9/125 um fiber |
| Operating | Power | 3.3 V | 3.3 V | 3.3 V |
| | Maximum Input Current | 3.3 V: 285 mA | 3.3 V: 500 mA | 3.3 V: 400 mA |
| | Minimum Power Budget | 4.4 dB | 11.1 dB | 9.4 dB |
| | Maximum Power Budget | 17.6 dB | 17.1 dB | 18.1 dB |
| | Heat Generated | 3.3858 kJ/h | 5.94 kJ/h | 4.752 kJ/h |
| Reliability | MTBF (Hours) | 3,390,000 | 1,580,000 | 2,520,000 |
| Function | DDM (Digital Diagnostics Monitoring) | ✓ | — | ✓ |
| Physical and Environment | Operating Temperature | -5 to 70 °C | 0 to 70 °C | 0 to 70 °C |
| | Storage Temperature | -40 to 85 °C | -40 to 85 °C | -40 to 85 °C |
| | Operating Humidity | 0 to 85% | 5 to 85% | 0 to 85% |
| | Storage Humidity | 0 to 85% | 5 to 95% | 0 to 85% |
| | Dimensions (W x D x H) | 14.8 x 56.5 x 11.85 mm (0.58 x 2.22 x 0.47 inches) Compliant with SFF8432 | 14.8 x 56.5 x 11.85 mm (0.58 x 2.22 x 0.47 inches) Compliant with SFF8432 | 14.8 x 56.5 x 11.85 mm (0.58 x 2.22 x 0.47 inches) Compliant with SFF8432 |
| | Weight | 22 g (0.05 lbs) | 20 g (0.04 lbs) | 22 g (0.05 lbs) |
| | Bail Latch Color | Blue | Red | Red |
| Emission (EMI) and Safety | EMI | CE, FCC, VCCI | CE, FCC, VCCI | CE, FCC, VCCI |
| | Safety | UL, TUV, CDRH | CSA, TUV, CDRH | UL, TUV, CDRH |

Technical Specifications

DEM-434XT

DEM-435XT

DEM-435XT-DD



| Standard | | IEEE-802.3ae 10GBASE-ZR | IEEE-802.3ae IEEE-802.3aq 10GBASE-LRM | IEEE-802.3ae IEEE-802.3aq 10GBASE-LRM |
|--------------------------|---|---|---|---|
| Standard | Standard Compliance | IEEE-802.3ae 10GBASE-ZR | IEEE-802.3ae IEEE-802.3aq 10GBASE-LRM | IEEE-802.3ae IEEE-802.3aq 10GBASE-LRM |
| | Form Factor Type | SFP+ | SFP+ | SFP+ |
| | Fibre Channel FC-PI Standard | 1200-SM-LL-L 10G Fiber Channel | N/A | N/A |
| | Fiber Media Support | Single-Mode | Multi-Mode | Multi-Mode |
| | Distance Capacity | 80 km | 62.5 um, 160MHz-km: 220 m 62.5 um, OM1, 200MHz-km: 220 m 50 um, 400MHz-km: 100 m 50 um, OM2, 500MHz-km: 220 m 50 um, OM3, 2000MHz-km: 220 m | 62.5 um, 160MHz-km: 220 m 62.5 um, OM1, 200MHz-km: 220 m 50 um, 400MHz-km: 100 m 50 um, OM2, 500MHz-km: 220 m 50 um, OM3, 2000MHz-km: 220 m |
| Features | Hot Pluggable | ✓ | ✓ | ✓ |
| | MSA Compliant | ✓ | ✓ | ✓ |
| | RoHS Compliant | ✓ | ✓ | ✓ |
| Speed | Speed | 10 Gbps | 10 Gbps | 10 Gbps |
| Interface | Connector | Duplex LC Connector | Duplex LC Connector | Duplex LC Connector |
| | Single/Bi-Directional | | Single Direction | |
| | Wavelength | 1550 nm | 1310 nm | 1310 nm |
| | Output Optical Power (TX Optical Power) | Max.: 4 dBm Min.: 0 dBm | Max.: 0.5 dBm Min.: -8.5 dBm | Max.: 1.5 dBm Min.: -4.5 dBm |
| | Input Optical Power (RX Optical Power) | Max.: -7 dBm Min.: -24 dBm | Max.: 0.5 dBm Min.: -6.5 dBm | Max.: 1.5 dBm Min.: -6.5 dBm |
| | Sensitivity | -24 dBm | -6.5 dBm | -6.5 dBm |
| | Cable Type | Single-mode 9/125 um fiber | Multi-mode 50/125 um or 62.5/125 um fiber | Multi-mode 50/125 um or 62.5/125 um fiber |
| Operating | Power | 3.3 V | 3.3 V | 3.3 V |
| | Maximum Input Current | 450 mA | 3.3 V: 300 mA | 3.3 V: 300 mA |
| | Minimum Power Budget | 24 dB | 2 dB | 2 dB |
| | Maximum Power Budget | 28 dB | 7 dB | 8 dB |
| | Heat Generated | 5.35 kJ/h | 3.6 kJ/h | 3.564 kJ/h |
| Reliability | MTBF (Hours) | 1,584,786 | 3,590,000 | 4,140,000 |
| Function | DDM (Digital Diagnostics Monitoring) | — | — | ✓ |
| Physical and Environment | Operating Temperature | 0 to 70 °C | 0 to 70 °C | -5 to 70 °C |
| | Storage Temperature | -40 to 85 °C | -40 to 85 °C | -40 to 85 °C |
| | Operating Humidity | 5 to 85% | 5 to 85% | 0 to 85% |
| | Storage Humidity | 5 to 85% | 5 to 95% | 0 to 85% |
| | Dimensions (W x D x H) | 14.3 x 56.5 x 11.85 mm (0.58 x 2.22 x 0.47 inches) Compliant with SFF8432 | 14.8 x 56.5 x 11.85 mm (0.58 x 2.22 x 0.47 inches) Compliant with SFF8432 | 14.8 x 56.5 x 11.85 mm (0.58 x 2.22 x 0.47 inches) Compliant with SFF8432 |
| | Weight | 20 g (0.04 lbs) | 18.5 g (0.04 lbs) | 22 g (0.05 lbs) |
| | Bail Latch Color | White | Brown | Brown |
| Emission(EMI) and Safety | EMI | CE, FCC, VCCI | CE, FCC, VCCI | CE, FCC, VCCI |
| | Safety | UL, TUV | UL, TUV, CDR | CSA, TUV, CDRH |

Technical Specifications

DEM-436XT-BXD

DEM-436XT-BXU



| Standard | | IEEE-802.3ae, 10GBASE-LR | IEEE-802.3ae, 10GBASE-LR |
|---------------------------|---|---|---|
| Standard | Standard Compliance | IEEE-802.3ae, 10GBASE-LR | IEEE-802.3ae, 10GBASE-LR |
| | Form Factor Type | SFP+ | SFP+ |
| | Fibre Channel FC-PI Standard | N/A | N/A |
| | Fiber Media Support | Multi-Mode | Single-Mode |
| | Distance Capacity | 20 km | 20 km |
| Features | Hot Pluggable | ✓ | ✓ |
| | MSA Compliant | ✓ | ✓ |
| | RoHS Compliant | ✓ | ✓ |
| Speed | Speed | 10 Gbps | 10 Gbps |
| Interface | Connector | Simplex LC Connector | Simplex LC Connector |
| | Single/Bi-Directional | WDM Bi-directional | WDM Bi-directional |
| | Wavelength | TX: 1330 nm, RX: 1270 nm | TX: 1270 nm, RX: 1330 nm |
| | Output Optical Power (TX Optical Power) | Max.: 0.5 dBm Min.: -5.2 dBm | Max.: 0.5 dBm Min.: -5.2 dBm |
| | Input Optical Power (RX Optical Power) | Max.: 0.5 dBm Min.: -12.5 dBm | Max.: 0.5 dBm Min.: -12.5 dBm |
| | Sensitivity | -12.5 dBm | -12.5 dBm |
| | Cable Type | Single-mode 9/125 um fiber | Single-mode 9/125 um fiber |
| Operating | Power | 3.3 V | 3.3 V |
| | Maximum Input Current | 3.3 V: 300 mA | 3.3 V: 300 mA |
| | Minimum Power Budget | 7.3 dB | 7.3 dB |
| | Maximum Power Budget | 13 dB | 13 dB |
| | Heat Generated | 3.6 kJ/h | 3.6 kJ/h |
| Reliability | MTBF (Hours) | 1,920,000 | 1,920,000 |
| Function | DDM (Digital Diagnostics Monitoring) | — | — |
| Physical and Environment | Operating Temperature | -40 to 85 °C | -40 to 85 °C |
| | Storage Temperature | -40 to 85 °C | -40 to 85 °C |
| | Operating Humidity | 5 to 85% | 5 to 85% |
| | Storage Humidity | 5 to 95% | 5 to 95% |
| | Dimension (W x D x H) | (0.58 x 2.22 x 0.47 inches) Compliant with SFF8432, 14.8 x 56.5 x 11.85 mm | (0.58 x 2.22 x 0.47 inches) Compliant with SFF8432, 14.8 x 56.5 x 11.85 mm |
| | Weight | 22 g (0.05 lbs) | 22 g (0.05 lbs) |
| | Bail Latch Color | Blue | Blue |
| Emission (EMI) and Safety | EMI | CE, FCC, VCCI | CE, FCC, VCCI |
| | Safety | UL, TUV, CDRH | UL, TUV, CDRH |



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