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Building Networks for People

## Product Highlights

**Covers Vast Distances**

Support for maximum cable lengths of between 550 meters and 80 kilometers[1] is ideal for businesses spanning multiple premises

**High Performance**

Full duplex Gigabit data transfer rates provide the network transmission speeds that business environments demand

**Hot Pluggable**

Easily switch out transceivers while the power is on, facilitating network maintenance and minimizing downtime



## DEM-300 Series

# Gigabit SFP Transceivers

### Features

- Small Form factor Pluggable (SFP)
- Multi-Source Agreement (MSA) specification compliant
- IEEE 802.3z standard
- Supports cable distances of up to 100 m / 550 m / 2 km / 10 km / 40 km / 50 km / 80km[1]
- Hot pluggable
- FDA, CDRH, TUV Laser Eye safety certified
- TTL signal detect indicator
- Metal enclosure for lower EMI

D-Link Gigabit SFP Transceivers plug into Gigabit and Fast Ethernet switches via their GBIC slots. They allow for the expansion of Gigabit Ethernet networks by providing high-speed connections over a fiber-optic or twisted-pair cable. The fiber-optic transceivers have standard duplex LC connectors to provide maximum compatibility. They are hot pluggable and Small Form Factor Pluggable (SFP) compliant with the Multi-Source Agreement (MSA) specification.

### Small Form Pluggable (SFP) Package

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

### Multiple Applications

Applications of the DEM-300 Series fiber transceivers include distributed multi-processing, Gigabit switch cascading, high-speed I/O file transfer, bus extension application, and channel extender/data storage. This versatility is invaluable for an expanding network, and helps the infrastructure grow with the business.

### Hot Pluggable

All D-Link transceivers are hot pluggable. You can connect a transceiver while the system is powered on without causing any issues, and easily swap one for another without having to reboot the switch each time. This permits modules to be added or removed without interrupting the network, facilitating maintenance and greatly reducing downtime.

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# DEM-300 Series Gigabit SFP Transceivers

## Technical Specifications

| | DEM-310GT | DEM-311GT | DEM-312GT2 |
|---|---|---|---|
| Transceiver Type | • SFP | • SFP | • SFP |
| Fiber Media Support | • Single-Mode | • Multi-Mode | • Multi-Mode |
| Speed | • 1.25 Gbps | • 1 Gbps | • 1Gbps |
| Distance | • 10 km | • 550 m | • 62.5/125 um fiber: 1 km<br>• 50/125 um fiber: 2 km |
| Compliant Standard | • IEEE802.3z 1000BASE-LX | • IEEE802.3z 1000BASE-SX | • IEEE802.3z 1000BASE-SX |
| Connector | • Duplex LC connector | • Duplex LC connector | • Duplex LC connector |
| Single/Bi Direction | • Single-direction | • Single-direction | • Single-direction |
| Wavelength | • 1310 nm | • 850 nm | • 1310 nm |
| Cable Type | • Single-mode 9 um fiber | • Multi-mode 50 um or 62.5 um fiber | • Multi-mode 50/125um or 62.5/125um fiber |
| Power Supply | • 3.3 V | • 3.3 V | • 3.3 V |
| Hot Pluggable | ✓ | ✓ | ✓ |
| MSA Compliant | ✓ | ✓ | ✓ |
| RoHS Compliant | ✓ | ✓ | ✓ |

| | DEM-314GT | DEM-315GT | DGS-712 |
|---|---|---|---|
| Transceiver Type | • SFP | • SFP | • RJ45 |
| Fiber Media Support | • Single-Mode | • Single-Mode | • N/A |
| Speed | • 1.25 Gbps | • 1 Gbps | • 1 Gbps |
| Distance | • 50 km | • 80 km | • 100 m |
| Compliant Standard | • IEEE802.3z 1000BASE-LHX | • IEEE802.3z 1000BASE-ZX | • IEEE 802.3ab 1000BASE-T |
| Connector | • Simplex LC connector | • Simplex LC Connector | • RJ45 |
| Single/Bi Direction | • WDM bi-direction | • WDM bi-direction | • N/A |
| Wavelength | • 1550 nm | • 1550 nm | • N/A |
| Cable Type | • Single-mode 9 um fiber | • Single-mode 9 um fiber | • Cat5, Cat5e, Cat6 |
| Power Supply | • 3.3 V | • 3.3 V | • 3.3 V |
| Hot Pluggable | ✓ | ✓ | ✓ |
| MSA Compliant | ✓ | ✓ | ✓ |
| RoHS Compliant | ✓ | ✓ | ✓ |

# DEM-300 Series Gigabit SFP Transceivers

| | DEM-330T | DEM-330R | DEM-331T | DEM-331R |
|---|---|---|---|---|
| Transceiver Type | • SFP | • SFP | • SFP | • SFP |
| Fiber Media Support | • Single-Mode | • Single-Mode | • Single-Mode | • Single-Mode |
| Speed | • 1.25 Gbps | • 1.25 Gbps | • 1.25 Gbps | • 1.25 Gbps |
| Distance | • 10 km | • 10 km | • 40 km | • 40 km |
| Compliant Standard | • IEEE802.3ah 1000BASE-BX-D | • IEEE802.3ah 1000BASE-BX-U | • IEEE802.3ah 1000BASE-BX-D | • IEEE802.3ah 1000BASE-BX-U |
| Connector | • Simplex LC connector | • Simplex LC connector | • Simplex LC connector | • Simplex LC connector |
| Single/Bi Direction | • WDM bi-direction | • WDM bi-direction | • Bi-direction | • Bi-direction |
| Wavelength | • Tx: 1550 nm<br>• Rx: 1310 nm | • Tx: 1310 nm<br>• Rx: 1550 nm | • Tx: 1550nm<br>• Rx: 1310nm | • Tx: 1310 nm<br>• Rx: 1550 nm |
| Cable Type | • Single-mode 9/125 um fiber | • Single-mode 9/125 um fiber | • Single-mode 9/125 um fiber | • Single-mode 9/125 um fiber |
| Power Supply | • 3.3 V | • 3.3 V | • 3.3 V | • 3.3 V |
| Hot Pluggable | ✓ | ✓ | ✓ | ✓ |
| MSA Compliant | ✓ | ✓ | ✓ | ✓ |
| RoHS Compliant | ✓ | ✓ | ✓ | ✓ |

## Order Information

| *Part Number* | *Description* |
|---|---|
| DEM-310GT | 1000BASE-LX Single-Mode 10KM SFP Transceiver |
| DEM-311GT | 1000BASE-SX Multi-Mode 550M SFP Transceiver |
| DEM-312GT2 | 1000BASE-SX Multi-Mode 2KM SFP Transceiver |
| DEM-314GT | 1000BASE-LHX Single-Mode 50KM SFP Transceiver |
| DEM-315GT | 1000BASE-ZX Single-Mode 80KM SFP Transceiver |
| DEM-330T | 1000BASE-BX-D Single-Mode 10KM(TX-1550/RX-1310 nm) SFP Transceiver |
| DEM-330R | 1000BASE-BX-U Single-Mode 10KM(TX-1310/RX-1550 nm) SFP Transceiver |
| DEM-331T | 1000BASE-BX-D Single-Mode 40KM(TX-1550/RX-1310 nm) SFP Transceiver |
| DEM-331R | 1000BASE-BX-U Single-Mode 40KM(TX-1310/RX-1550 nm) SFP Transceiver |
| DGS-712 | 1000BASE-T Copper 100M SFP Transceiver |

[1] Distance capacity dependent on model.

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