



— DGS-712

## 1000BASE-T Copper SFP Transceiver

### Gigabit Transmission on Cat. 5 Twisted-Pair Cable

The D-Link DGS-712 1000BASE-T Copper Small Form Pluggable (SFP) transceiver is based on the SFP Multi Source Agreement (MSA). It is compatible with the Gigabit Ethernet and 1000BASE-T standards as specified in IEEE Std 802.3z and IEEE Std 802.3ab. The 1000BASE-T physical layer IC (PHY) can be accessed via I2C, allowing access to all PHY settings and features.

The DGS-712 1000BASE-T copper SFP transceiver plugs into an SFP slot provided for on a D-Link Gigabit switch or optional switch module. It provides Gigabit transmission on the common Category 5 twisted-pair network cable.

#### Key Features

- Up to 1.25Gb/s bi-directional data links
- Hot-pluggable SFP footprint
- Extended case temperature range
- Fully metallic enclosure for low EMI
- Low power dissipation (typical 1.2 watts)
- RJ-45 connector assembly
- Access to physical layer IC via 2-wire serial bus
- 10/100/1000 BASE-T operation in host systems with SGMII interface
- Gigabit Ethernet over Cat. 5 cable
- +3.3V electrical power interface

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## Technical Specifications

## Transceiver

### Standard

IEEE 802.3ab 1000BASE-T Gigabit Ethernet

### Transceiver Type

SFP (Small Form Pluggable)

### Connector

RJ-45

### Auto MDI/MDIX

- Automatic crossover detection enabled
- External crossover cable not required

### Data Rate

- 1,000 Mbps (IEEE 802.3 compatible)
- 10/100/1000 BASE-T operation requires the host system to have an SGMII interface with no clocks. With a SERDES interface, this transceiver will operate at 1000BASE-T only.

### Cable Type

Cat. 5 twisted-pair cable

### Maximum Cable Distance Coverage

100 meters

### Supply Current

- 350mA (typical)
- 400mA (maximum)
- 1.3W max power over full range of voltage and temperature \*

\* Caution: power consumption and surge current are higher than the specified values in the SFP MSA

### Input Voltage

- 3.1V (minimum)
- 3.3V (typical)
- 3.5V (maximum)
- Referenced to GND

### Maximum Voltage

4V

### Surge Current

- 30mA
- Hot plug above steady state current \*

\* Caution: power consumption and surge current are higher than the specified values in the SFP MSA

### Operating Temperature

0° to 85 °C

### Storage Temperature

-40° to 85 °C



## Ordering Information

DGS-712 1000BASE-T Copper SFP Transceiver



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