

10G-SFP-T

Optical Transceiver



Key Features

- Media Type: **Twisted Pair CAT 6A/7 cable**
- Fiber Count: **CAT 5/5/7**
- Connector: **RJ45**
- Maximum Distance: **30 m**
- Guaranteed Link Budget: **N/A**
- Supported Data Rate: **1 Gbps - 10 Gbps**
- DDM/DOM: **N/A**
- Temperature Range: **Standard 0°-65°C**

Product Description

Our EDGEOPTIC 10G-SFP-T is a multi-vendor compatible 10GBASE-T SFP+ copper module engineered for 10 Gigabit Ethernet applications over structured copper cabling infrastructure. The 10G-SFP-T module supports 10GBASE-T, 5GBASE-T, 2.5GBASE-T, and 1000BASE-T Ethernet standards with automatic rate negotiation, providing data rates from 1 to 10 Gbps depending on cable quality and link partner capabilities. Our 10GBASE-T SFP+ transceiver utilizes advanced copper PHY technology with integrated signal processing and equalization circuits to enable reliable high-speed transmission over twisted-pair cabling. The transceiver can reach distances up to 30 meters over Cat6a or Cat7 copper cabling under optimal conditions, with performance varying based on cable quality, installation practices, and electromagnetic interference levels. However, distance is just an indicative parameter calculated for comfort of identification – eventually we calculate distance taking into account cable specifications and environmental factors in the deployment.

10G-SFP-T compatible 10GBASE-T module is a hot-pluggable SFP+ transceiver with standard RJ45 connector as the electrical interface. The module conforms to SFF-8431 MSA (Multi-Source Agreement) specifications with 002 compliance for enhanced compatibility with standard SFP+ host systems supporting multiple vendor equipment platforms. Our 10GBASE-T SFP+ transceiver can be encoded to be compatible and successfully operate in different 80+ brands of network equipment. The module incorporates DDM/DOM (Digital Diagnostic Monitoring) functionality providing real-time information including module temperature, supply voltage, and operational status parameters. This diagnostic data is available via MSA-compatible EEPROM interface and enables monitoring of transceiver operational parameters. The module operates within a 0 to 65°C temperature range, with appropriate thermal considerations for sustained operation in controlled server room



environments. Note that 10GBASE-T modules typically have higher power consumption compared to optical SFP+ transceivers due to the complexity of copper signal processing.

Standards compliance includes IEEE 802.3an for 10GBASE-T, IEEE 802.3bz for 5GBASE-T and 2.5GBASE-T, and IEEE 802.3ab for 1000BASE-T Gigabit Ethernet. The transceiver achieves multi-vendor interoperability through adherence to industry MSA standards, though equipment with vendor-specific module validation may require custom EEPROM programming for compatibility. Our 10GBASE-T SFP+ transceiver is CE/RoHS certified, and it is compliant with product safety standards.

Typical applications are top-of-rack switch connections in data centers, direct server-to-switch connectivity, storage area network attachments, copper-based equipment migrations to 10 Gigabit speeds, and short-reach deployments where existing structured cabling eliminates the need for fiber infrastructure investment. The multi-rate auto-negotiation capability enables seamless backward compatibility with legacy Gigabit Ethernet equipment and provides future-proofing for intermediate speed standards like 2.5G and 5G BASE-T. Because our focus is providing top quality service, we are performing serious quality checks before delivery of our products. As a result, we do electrical parameter measurements and SFP+ transceiver EEPROM memory data validation tests.



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Technical Specifications

Specification	Value
Form Factor	SFP+
Media Type	Twisted Pair CAT 6A/7 cable
Fiber Count	CAT 5/5/7
Connector	RJ45
Maximum Distance	30 m
Supported Data Rate	1 Gbps - 10 Gbps
Supported Ethernet Applications	1000Base-T (Gigabit Ethernet copper), 10GBase-T (10 Gigabit Ethernet copper), 2.5GBase-T, 5GBase-T
Temperature Range	Standard 0° -65°C
Power	+3.3V single power supply
Compliance	CE,IEEE 802.3ae,IEEE 802.3an,IEEE 802.3bz NBASE-T and MGBASE-T,INF-8074i,RoHS,SFP MSA

Ordering Info

SKU	Description
10G-SFP-T	Copper 10G SFP Module (10GBASE-T/5GBASE-T/2.5GBASE-T/1000BASE-T Ethernet for 10G SFP+ ports, up to 30m using Cat6a7 cable, RJ45 Interface, 002 spec, Temp. 0-70C)

Warranty

EDGE Optic's provides a limited warranty for **sixty (60) months** from Purchaser's receipt of the Equipment represented in this data sheet against defective design or workmanship.



Compatibility

EDGE Optical transceivers can be provided with custom-encoded firmware, in order to provide compatibility with more than 100 vendor brands in data and telecom communications industry:

MS - General MSA	DL - Dell	JU - Juniper	MS - Raisecom
AD - Adva (Adtran)	MS - DZS(Dasan-Zhone)	MS - KyLand	MS - Ruckus
MS - Advantech	EI - ECI	LN - Lenovo	MS - Ruijie Networks
MS - Allied Telesis	MS - EdgeCore	ML - Mellanox (NVIDIA)	MS - Sandvine
AR - Arista	MS - EdgeWare	ME - Meraki (Cisco)	MS - Silicom
MS - Arris	MS - Eltex	MS - MikroTik	MS - SolarFlare
AU - Aruba	MS - Emulex	MO - Moxa	SW - Sonicwall
AG - Avago	ER - Ericsson	MS - MRV	MS - Sophos
AV - Avaya	MS - EXFO	NC - NEC	MS - Sumitomo
MS - Barracuda	EX - Extreme Networks	MS - NetApp	MS - Supermicro
BR - Broadcom	F5 - F5 Networks	MS - Netgear	MS - Synology
CX - Calix	MS - Finisar	MS - Netinsight	MS - Telco Systems
QL - Cavium (Qlogic)	FO - Fortinet	NK - Nokia (Alcatel)	MS - TP-LINK
MS - Ceragon	MS - Fujitsu	MS - Nortel	TM - Transmode
CH - Checkpoint	HI - Hirschmann	NS - NSN	MS - Trendnet
MS - Chelsio	HP - HP	MS - OE Solutions	MS - Ubiquiti Networks
CN - Ciena	HU - Huawei	MS - Oracle	MS - WatchGuard
CI - Cisco	IB - IBM	MS - Palo Alto Network	WS - Waystream
LI - Cisco (Linksys)	IF - Infinera	MS - Planet	MS - ZTE
MS - Comnet	MS - Innolight	QL - Qlogic (Oracle)	MS - Zyxel
MS - D-link	IN - Intel	MS - QNAP	XX - Other
MS - Dahua	MS - Ixia	RD - RAD	
MS - DCN	MS - JDSU	MS - RadWare	

Version Control

Version: 6.0

Updated: February 19, 2026

CERTIFIED
ISO 9001

