

10G-SFP-10

Optical Transceiver



Key Features

- Media Type: **Single-Mode Fiber (SMF)**
- Fiber Count: **Duplex**
- Connector: **Double LC/UPC**
- Maximum Distance: **10 km**
- Guaranteed Link Budget: **6 dB**
- Tx Wavelength: **1310 nm**
- Supported Data Rate: **1.25 Gbps - 11.32 Gbps**
- DDM/DOM: **Supported**

Product Description

Our EDGEOPTIC 10G-SFP-10 is multi-vendor compatible 10G Base LR SFP+ dual-fiber optical module designed for 10 Gigabit Ethernet applications operating over single-mode fiber cabling. The 10G-SFP-10 module operates at 1310nm wavelength for transmission and reception, with data rates from 1.25 to 11.32 Gbps and supports multiple protocol standards and applications. Our 10G Base LR SFP+ transceiver utilizes DFB (Distributed Feedback) laser for transmission and PIN photodiode for receiving. Transceiver ensures a 6 dB guaranteed optical link budget, which determines the maximum transmission distance. Over standard single-mode fiber (SMF), the transceiver can reach distance up to 10 kilometers. However, distance is just indicative parameter calculated for comfort of identification – eventually we calculate distance taking in account minimal optical budget and average attenuation of optical cabling in industry.

10G-SFP-10 compatible 10G Base LR module is hot-pluggable SFP+ with duplex LC/UPC connectors as an optical interface. The electrical interface conforms to SFF-8431 MSA (Multi-Source Agreement) specifications, ensuring compatibility with standard SFP+ host systems supporting multiple vendor equipment platforms. Our 10G Base LR SFP+ transceiver can be encoded to be compatible and successfully operate in different 80+ brands of equipment. The module incorporates DDM/DOM (Digital Diagnostic Monitoring) functionality providing real-time information including transmitted and received optical power levels, module temperature, bias current, and supply voltage. This diagnostic data are available via MSA-compatible EEPROM interface and enables monitoring of transceiver operational parameters. The module operates within a 0 to 70°C temperature range, with appropriate thermal considerations for sustained operation in controlled server room environments.



Standards compliance includes IEEE 802.3ae for 10 Gigabit Ethernet, along with SDH/SONET specifications and Fiber Channel support. 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 10G SFP+ LR transceiver is CE/RoHS certified, and it is Compliant with product safety standards.

Typical applications are metropolitan area networks, campus backbone connections, carrier-class backhaul systems, and enterprise WAN connectivity. The multi-rate capability accommodates legacy Gigabit Ethernet operation at 1.25 Gbps alongside native 10 Gigabit rates, providing operational flexibility for mixed-speed network deployments. Because our focus is providing top quality service, we are performing serious quality checks before delivery of our products. As a result, we do optical parameter measurements, connector cleanliness tests and SFP+ transceiver EEPROM memory data validation tests.

Technical Specifications

Specification	Value
Form Factor	SFP+
Media Type	Single-Mode Fiber (SMF)
Fiber Count	Duplex
Connector	Double LC/UPC
Maximum Distance	10 km
Guaranteed Link Budget	6 dB
TX Wavelength	1310 nm
RX Wavelength	1310 nm
Supported Data Rate	1.25 Gbps - 11.32 Gbps
Supported Ethernet Applications	10G Ethernet (10.31Gbps), Gigabit Ethernet (1.25 Gbps)
Supported Fiber Channel Applications	10G Fiber Channel (10.52 Gbps), 1G Fiber Channel (1.0625 Gbps), 2G Fiber Channel (2.125 Gbps), 4G Fiber Channel (4.25 Gbps), 8G Fiber Channel (8.5 Gbps)



SDH/SONET Standards	STM-64 (9.95Gbps)
DDM/DOM	Supported
Tx Wavelength Bandwidth	100 nm (1260-1360 nm)
Rx Wavelength Bandwidth	100 nm (1260-1360 nm)
Minimum Transmitting Power	-8.2 dBm
Maximum Transmitting Power	0.5 dBm
Receiver Sensitivity	-14.5 dBm
Receiver Overload	0 dBm
Dispersion	70-100 ps/nm
Transmitter Type	DFB Laser
Receiver Type	PIN photodiode
Temperature Range	Standard 0°-70°C
Power	+3.3V single power supply
Compliance	CE,Class 1 FDA and IEC60825-1 Laser Safety Compliant,RoHS,SFF-8431,SFP MSA

Ordering Info

SKU	Description
10G-SFP-10	Double Fiber 10G SFP+ Module (Tx/Rx 1310/1310nm, 1.25-11.32 Gbps, Max. 10km over SMF, 6 dB, Temp. 0-70C, LC/UPC)

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

Version Control

Version: 4.0

Updated: January 16, 2026

CERTIFIED
ISO 9001

