edge OPTICAL SOLUTIONS

Product Data Sheet

10G-SFP-300

Optical Transceiver

Key Features

- Media Type: **Multi-Mode Fiber (MMF) -OM3/OM4/OM5**
- Fiber Count: **Duplex**
- Connector: **Double LC/UPC**
- Maximum Distance: **400 m**
- Guaranteed Link Budget: **6.1 dB**
- Tx Wavelenght: **850 nm**
- Supported Data Rate: **1.25 Gbps - 11.32 Gbps**
- DDM/DOM: **Supported**

Product Description

Our EDGEOPTIC 10G-SFP-300 is multi-vendor compatible 10G Base SR SFP+ dual-fiber SFP+ optical module designed for 10 Gigabit Ethernet applications operating over multimode fiber cabling. The 10G-SFP-300 module operates at 850nm 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 SR SFP+ transceiver utilizes VCSEL (Vertical-Cavity Surface-Emitting Laser) for transmission and PIN photodiode for receiving. Transceiver ensures a 6.1 dB guaranteed optical link budget, which determines the maximum transmission distance. Over OM4/OM5 multimode fiber, the transceiver can reach distance up to 400 meters, while on OM3 cabling approximately 300 meters. 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-300 compatible 10G Base SR 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 SR 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.

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EDGE Technologies Ltd.
Plienciema Street 33, Marupe,
Latvia, LV-2167

+371 27746349
www.edgeoptic.com
sales@edgeoptic.com

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+ SR transceiver is CE/RoHS certified, and it is Compliant with product safety standards.

Typical applications are data center interconnects, metropolitan area networks, campus backbone connections, and carrier-class backhaul systems. 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 cleanness tests and SFP+ transceiver EEPROM memory data validation tests.

Technical Specifications

Specification	Value
Form Factor	SFP+
Media Type	Multi-Mode Fiber (MMF) -OM3/OM4/OM5
Fiber Count	Duplex
Connector	Double LC/UPC
Maximum Distance	400 m
Guaranteed Link Budget	6.1 dB
TX Wavelength	850 nm
RX Wavelength	850 nm
Supported Data Rate	1.25 Gbps - 11.32 Gbps
Supportet 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	20 nm (840-860 nm)
Rx Wavelength Bandwidth	20 nm (840-860 nm)
Minimum Transmitting Power	-5 dBm
Maximum Transmitting Power	0 dBm
Receiver Sensitivity	-11.1 dBm
Receiver Overload	0 dBm
Dispersion	110 ps/nm
Transmitter Type	VSCEL 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-300	Double Fiber 10G SFP+ Module (Tx/Rx 850/850nm, 1.25-11.32 Gbps, Max. 400m over MMF OM4OM5, 6.1 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
AD - Adva (Adtran)
MS - Advantech
MS - Allied Telesis
AR - Arista
MS - Arris
AG - Avago
AV - Avaya
MS - Barracuda
BR - Broadcom
CX - Calix
QL - Cavium (Qlogic)
MS - Ceragon
CH - Checkpoint
MS - Chelsio
CN - Ciena
CI - Cisco
LI - Cisco (Linksys)
MS - Comnet
MS - D-link
MS - Dahua
MS - DCN
DL - Dell
MS - DZS(Dasan-Zhone)
EI - ECI
MS - EdgeCore
MS - EdgeWare
MS - Eltex
MS - Emulex
ER - Ericsson
MS - EXFO
EX - Extreme Networks
F5 - F5 Networks
MS - Finisar
FO - Fortinet
MS - Fujitsu
HI - Hirschmann
HP - HP
AU - HP Aruba
HU - Huawei
IB - IBM
IF - Infinera
MS - Innolight
IN - Intel
MS - Ixia
MS - JDSU
JU - Juniper
MS - KyLand
LN - Lenovo
ML - Mellanox (NVIDIA)
ME - Meraki (Cisco)
MS - MikroTik
MO - Moxa
MS - MRV
NC - NEC
MS - NetApp
MS - Netgear
MS - Netinsight
NK - Nokia (Alcatel)
MS - Nortel
NS - NSN
MS - OE Solutions
MS - Oracle
MS - Palo Alto Network
MS - Planet
QL - Qlogic (Oracle)
MS - QNAP
RD - RAD
MS - RadWare
MS - Raisecom
MS - Ruckus
MS - Ruijie Networks
MS - Sandvine
MS - Silicom
MS - SolarFlare
SW - Sonicwall
MS - Sophos
MS - Sumitomo
MS - Supermicro
MS - Synology
MS - Telco Systems
MS - TP-LINK
TM - Transmode
MS - Trendnet
MS - Ubiquiti Networks
MS - WatchGuard
WS - Waystream
MS - ZTE
MS - Zyxel
XX - Other

Version Control

Version: 3.0
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CERTIFIED
ISO 9001

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Plienciema Street 33, Marupe,
Latvia, LV-2167
+371 27746349
www.edgeoptic.com
sales@edgeoptic.com