Edge
OPTICAL SOLUTIONS

Product Data Sheet

Key Highlights:

- **Type:** SFP+
- **Compatibility:** Multi-Vendor MSA Compatible
- **Tx Wavelength:** 1270 nm
- **Rx Wavelenght:** 1330 nm
- **Media Type:** Single-Mode Fiber (SMF)
- **Optical Budget:** 9 dB
- **Max. Distance:** 20 km
- **Data Rate:** 1.25-10.31 Gbps
- **Temperature:** Industrial -45°C - +85°C

Optical Transceiver: BIDI-10G-SFP-20AI

Product Description:

BIDI-10G-SFP-20AI is Multi-Vendor MSA Compatible SFP+ (Small Form factor Pluggable) Transceiver, operating over Single Fiber Single-Mode Fiber (SMF) optical cable. It has minimum guaranteed optical budget of 9 dB, with in most cases is enough to reach about 20 km distance. 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. This transceiver use top quality DFB Laser transmitter with operating at nominal wavelength 1270 nm and 1330 nm PIN Photodiode receiver. It support DDM/DOM optical diagnostics, with provide diagnostic information about the present operating conditions. BIDI-10G-SFP-20AI operates in Industrial -45°C - +85°C temperature range and has Single LC interface. SFP+ support 1.25-10.31 Gbps data rate and such applications as 10G Ethernet (10.31 Gbps)|Gigabit Ethernet (1.25 Gbps)|STM-64 (9.95 Gbps). BIDI-10G-SFP-20AI SFP+ Single Fiber optical transceiver is multi-purpose module used in number of different places of today's networking. Consequently, most popular applications are Difrent Ethernet Links in extreme industrial environment, Mobile operator core and backhaul SDH/SONET applications Data Center networking for Ethernet connections and other optical links.

    Transceiver is CE/RoHS certified and it is Compliant with product safety standards. BIDI-10G-SFP-20AI SFP+ Transceiver is fully compliant to SFP+ Multi Source Agreement SFF-8431. Consequently, it means that module is compatible with 80% of networking equipment, where is not implemented a special algorithm for protection against third party modules. However – we can provide SFP+ transceiver with custom-encoded firmware in order to make it work almost in any equipment. Therefore, we will be glad to know what your requirement is. 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.

Product Data Sheet

Product Specification:

Parameter	Value
Media Type:	Single-Mode Fiber (SMF)
Tx Wavelength:	1270 nm
Rx Wavelength:	1330 nm
Minimum Optical Budget:	9 dB
Maximum Distance:	20 km
Supported Data Rate:	1.25-10.31 Gbps
Supported Applications:	10G Ethernet (10.31 Gbps)|Gigabit Ethernet (1.25 Gbps)|STM-64 (9.95 Gbps)
DDM/DOM:	Support
Temperature Range:	Industrial -45°C - +85°C
Connectors:	Single LC
Tx Wavelength Bandwidth:	40 nm (1250-1290 nm)
Rx Wavelength Bandwidth:	40 nm (1310-1350 nm)
Minimum Transmitting Power:	-5 dB
Maximum Transmitting Power:	1 dB
Receiver Sensitivity:	-14 dBm
Receiver Overload:	0.5 dBm
Dispersion:	140-160 ps/nm
Transmitter Type:	DFB Laser
Receiver Type:	PIN Photodiode
Sidemode Suppression Ratio:	35 dB
Max. Receiver Reflectance:	- 12 dB
Power:	+3.3V single power supply
Power Consumption:	220 mA
MTBF value at 35 °C:	1'000'000 Hours.
Chip-set:	MAXIM|MINDSPEED|SEMTECH
Compliance:	CE|Class 1 FDA and IEC60825-1 Laser Safety Compliant|RoHS|SFF-8431|SFP MSA

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Compatibility:

EDGE Optical transceivers can be provided with custom-encoded firmware, in order to provide compatibility with more then 50 vendor brands in data and telecom communications industry:

MS - General MSA
AD - ADVA
AL - Alcatel-Lucent
AR - Arista
AV - Avaya
BR - Brocade
CN - Ciena
CI - Cisco
DL - Dell & Force10
DK - D-Link
EM - EMC2
ET - Enterasys

ER - Ericsson
EX - Extreme Networks
F5 - F5 Networks
FO - Fortinet
FU - Fujitsu
H3 - H3C
HI - Hirschmann
HP* - HP Networking
HS* - HP Storage
HU - Huawei
IB - IBM
IF - Infinera

IN - Intel
JU - Juniper Networks
LI - Linksys
ML - Mellanox
ME - Meraki (Cisco)
MT - MikroTik
MO - Moxa
MR - MRV
NG - Netgear
NS - NSN
PA - Palo Alto Network
QL - Qlogic

RD - RAD
RU - Ruijie Networks
SM - Supermicro
SY - Synology
TC - Telco Systems
TP - TP-LINK
TN - Trendnet
WG - WatchGuard
ZT - ZTE
XX - Other

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.

EDGE Technologies Ltd.
Plienciema Street 33, Marupe
Latvia, LV-2167
sales@edgeoptic.com
www.edgeoptic.com