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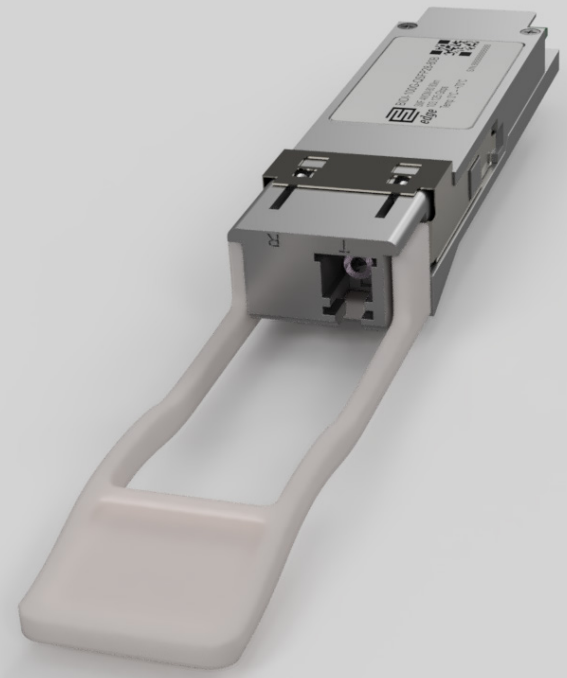
Product Data

Key Highlights:

- **Type**: 100G BIDI ZR4
- **Compatibility:** Multi-Vendor MSA Compatible
- **Tx Wavelength:** 1295.56, 1300.05, 1304.58, 1309.14 nm
- **Rx Wavelength:** 1273.55, 1277.89, 1282.26, 1286.66 nm
- **Laser:** EML Laser
- **Modulation:** NRZ
- **Fiber Type:** Single-Mode Fiber (SMF)
- **Connector:** Simplex LC
- **Optical Budget:** 30dB
- **Max. Distance:** 80 km with RS(528,514) FEC
- **Data Rate:** 103.125 Gbps
- **Forward Error Correction:** Supported
- **DDM/DOM:** Supported
- **Power Consumption:** ≤6.5 W
- **Temperature:** Standard 0°-70°C



Optical Transceiver : BIDI-100G-QSFP28-80B

Product Description:

BIDI-100G-QSFP28-80B is an B side 100G BIDI ZR4 Multi-Vendor MSA Compatible Bidirectional QSFP28 (Quad Small Form-Factor Pluggable 28) Transceiver designed for operation over Single-Mode Fiber (SMF). 100G BIDI ZR4 QSFP28 4WDM has cooled 4x25Gb/s LAN-WDM NRZ modulated, EML lasers, therefore modules can be used in legacy 100G switches and routers and not require PAM4 modulation support or RS (544,514) FEC support to achieve desired distance as it is required.

100G BIDI ZR4 B side module has a minimum guaranteed optical budget of 30 dB, which in most cases is enough to reach 80km over OS2 single-mode fiber with RS(528,514) FEC enabled on the host device.. BIDI 100G ZR QSFP28 4WDM uses 4 channel 25 Gbps EML (External Modulation Laser) 1295.56, 1300.05, 1304.58, 1309.14 nm transmitters and 4 channel 25 Gbps 1273.55, 1277.89, 1282.26, 1286.66 nm PIN photodiode receivers. On the transmission side module converts four electrical interface lanes (CAUI-4) 25-Gbps into a four 25-Gbps optical signal (NRZ modulated) and reversely at the receiver side four 25-Gbps optical signals are converted into four 25-Gbps electrical signals. Module supports DDM/DOM optical diagnostics,. BIDI 100G ZR QSFP28 4WDM operates in the stadard 0°-+70°C temperature range and has a Single LC connector. BIDI-100G-

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QSFP28-80B supports 103.125 Gbps data rate and such applications as 100G Ethernet.

100G BIDI ZR4 B side module can be used in Cisco, HP, Mellanox, Intel, Arista, Huawei and other industry well known manufacturers equipment. Transceivers are CE/RoHS2.0 certified and are compliant with product safety standards. BIDI-100G-QSFP28-80B transceivers are fully compliant to QSFP28 MSA (Multi Source Agreement), where IEEE 802.3cu defines physical and management layer specifications CAUI-4 electrical interface, SFF-8679 defines QSFP+ 4X Hardware and Electrical Specification. Consequently, compliance to above standards guarantees that module is compatible and works with majority of networking equipment, where is not implemented special algorithm for protection against third party modules.

Product Specification:

General parameter	Value
Media Type:	Single-Mode Fiber (SMF)
Connectors:	Single LC
TX Wavelength:	1295.56nm, 1300.05nm, 1304.58nm, 1309.14nm
RX Wavelength:	1273.55nm, 1277.89nm, 1282.26nm, 1286.66nm
Minimum Optical Budget:	30 dB
Maximum Distance:	80km
Supported Data Rate:	103.125 Gbps
Modulation:	NRZ (Non-return-to-zero)
Supported Applications:	100G Ethernet (103.125Gbps)
Digital Diagnostic Monitoring (DDM):	Supported
Forward Error Correction (FEC):	Integrated in DSP
Operating Temperature Range:	Standard 0°- 70°C
Storage Temperature Range:	- 40° to 85°C
Relative Humidity (Non-Condensation):	0 to 85%
Power Consumption:	≤6.5W
Power Supply Voltage Typical:	+ 3.3V

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Product Data

General parameter	Value
Power Supply Voltage Range:	-3.135 to 3.465V
Compliance:	CAUI-4, IEEE 802.3cu, SFF-8679, CE, QSFP28 MSA, RoHS

Transmitter Parameters:	Value
Transmitter Type:	Cooled EML TOSA
Tx Wavelength Bandwidth:	4 LAN WDM Separated Lanes (9.02 nm 1295.56 – 1304.58nm) (L0 Tx center 1295.56nm, L1 Tx center 1300.05nm, L2 Tx center 1304.58nm, L3 Tx center 1309.14nm)
Average Launch Power, Each Lane (Min):	2 dBm
Average Launch Power, Each Lane (Max):	6.5 dBm
Extinction Ratio (Min):	6 dB

Receiver Parameters:	Value
Receiver Type:	PIN Photodiode Array
Rx Wavelength Bandwidth:	4 LAN WDM Separated Lanes (13.11 nm 1273.55 – 1286.66nm) (L0 Tx center 1273.55nm, L1 Tx center 1277.89nm, L2 Tx center 1282.26nm, L3 Tx center 1286.66nm)
Average Receive Power Each Lane (Min):	-28 dBm
Average Receive Power Each Lane (Max):	0 dBm
Receiver Overload:	5.5 dBm

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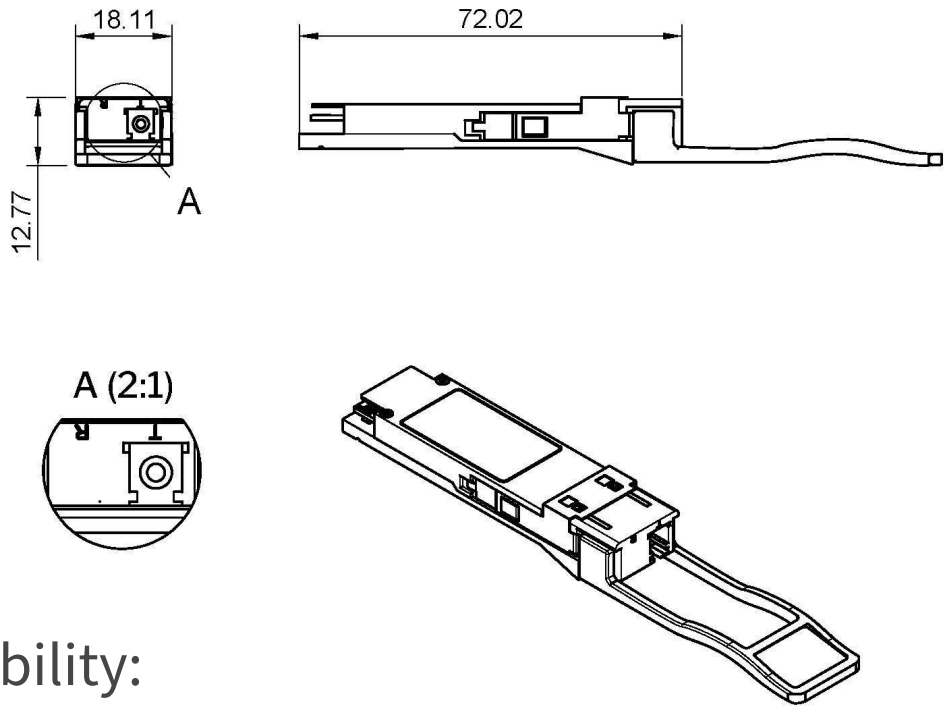
Product Data

Mechanical Drawing



Compatibility:

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

MS - General MSA
AD - ADVA
AE - Advantech
AL - Alcatel (Nokia)
AT - Allied Telesis
AR - Arista
AS - Arris
AV - Avaya
BC - Barracuda
BR - Broadcom
QL - Cavium (Qlogic)
CR- Ceragon
CP - Checkpoint
CH - Chelsio
CN - Ciena
CI - Cisco
LI - Cisco (Linksys)
CE - Comnet
CO - Coriant
DH - Dahua
DC - DCN
DL - Dell & Force10
DK - D-Link

DZ - DZS(Dasan-Zhone)
EI - ECI
EC - EdgeCore
EW - EdgeWare
EL - Eltex
EM - EMC2
EN - Enterasys
ER - Ericsson
EF - EXFO
EX - Extreme Networks
F5 - F5 Networks
FI - Finisar
FO - Fortinet
FU - Fujitsu
H3 - H3C
HI - Hirschmann
HU - Huawei
IB - IBM
IF - Infinera
IN - Intel
IX - Ixia
JU - Juniper Networks
KM - KeyMile

KY - KyLand
LN - Lenovo
ML - Mellanox
ME - Meraki (Cisco)
MT - MikroTik
MO - Moxa
MR - MRV
NC - NEC
NG - Netgear
NK - Nokia
NT - Nortel
NS - NSN
OR - Oracle
PA - Palo Alto Network
PL - Planet
QC - QCT(Quanta)
QN - QNAP
RD - RAD
RW - RadWare
RC - Raisecom
RK - Ruckus
RU - Ruijie Networks
SG - Samsung

SV - Sandvine
SC - Silicom
SF - SolarFlare
SW - Sonicwall
SM - Supermicro
SY - Synology
TC - Telco Systems
TP - TP-LINK
TN - Trendnet
UN - Ubiquiti Networks
VX - VeEx
WG - WatchGuard
WS - Waystream
WT - Westermo
ZT - ZTE
ZX - Zyxel
HP - HP
AG - Avago
OC - Oclaro
EU - Emulex
TM - Transmode
AU - HP Aruba
XX - Other

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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. Warranty does not cover damage caused by improper deployment, misuse and accidents.

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