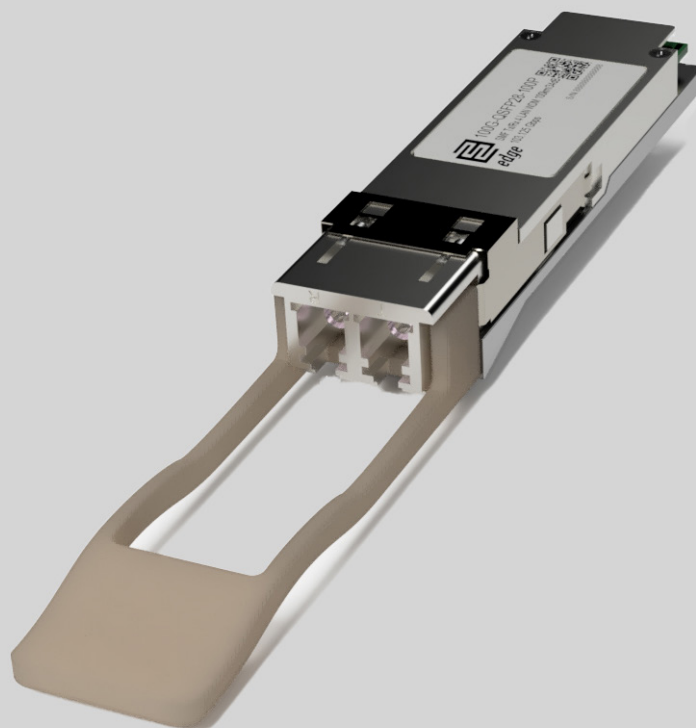


Key Highlights:

- **Type:** 100GBASE-ZR4+ QSFP28
- **Compatibility:** Multi-Vendor MSA Compatible
- **Tx/Rx Wavelength:** 1295.56, 1300.05, 1304.58, 1309.14 nm
- **Laser:** EML Cooled LAN WDM TOSA
- **Fiber Type:** Single-Mode Fiber (SMF)
- **Connectors:** Double LC
- **Optical Budget:** 34dB (with host FEC)
- **Max. Distance:** 100km (with host FEC)
- **Data Rate:** 103.125 Gbps
- **FEC Forward Error Correction:** Supported
- **DDM/DOM:** Supported
- **Power Consumption:** ≤ 6.5W
- **Temperature:** Standard 0° - 70°C



Optical Transceiver : 100G-QSFP28-100P

Product Description:

100G-QSFP28-100P is Multi-Vendor MSA Compatible 100GBASE-ZR4+ QSFP28 (Quad Small Form-Factor Pluggable 28) Transceiver, operating over pair of single-mode optical fiber with four independent optical communication lanes, separated from each other using LAN WDM technology. Module has minimum guaranteed optical budget of 34 dB (with host FEC), which in most cases is enough to reach 100km 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. 100G-QSFP28-100P uses EML cooled 4x25Gb/s LAN WDM TOSA (1295.56, 1300.05, 1304.58, 1309.14nm) laser transmitters and 4x25Gb/s SOA+PIN receivers. Module support DDM/DOM optical diagnostics, which provide diagnostic information about the present operating conditions. Additionally module supports KR4 FEC (Forward Error Correction) function which will help receiving side detect and correct bit errors and improve the overall quality of the link. 100G-QSFP28-100P operates in Standard 0°-70°C temperature range and has double LC connectors. 100GBASE-ZR4+ QSFP28 support up to 103.125 Gbps data rate and such applications as 100G Ethernet (103.125 Gbps). 100G-QSFP28-100P optical transceiver is multi-purpose module used in number of different places in



today's networking environment. Most popular applications are Internet Service Provider (ISP) Fiber to the Home Aggregation and Backbone, Mobile Operator Core Networks and Mobile Backhaul and Data Center networking environment. Most popular applications are Internet Service Provider (ISP) Fiber to the Home Aggregation and Backbone, Mobile Operator Core Networks and Mobile Backhaul and Data Center networking site interconnections.

Transceiver is CE/RoHS certified and it is Compliant with product safety standards. 100G-QSFP28-100P Transceiver is fully compliant to QSFP28 Multi Source Agreement (MSA) and IEEE 802.3ba 100GBASE-ZR4+. 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. However – our technical team has accumulated deep expertise in custom-encoded firmware's for 100GBASE-ZR4+ QSFP28 transceiver in order to make it work in almost any brand equipment. We will be glad to know your requirements – contact us.

Product Specification:

General parameter	Value
Media Type:	Single-Mode Fiber (SMF)
Connectors:	Double LC
TX Wavelength:	1295.56, 1300.05, 1304.58, 1309.14 nm
RX Wavelength:	1295.56, 1300.05, 1304.58, 1309.14 nm
Minimum Optical Budget:	34dB (with host FEC)
Maximum Distance:	100km (with host FEC)
Supported Data Rate:	103.125
Data Rate, each Lane up to:	28.05 Gbps
Supported Applications:	100G Ethernet (103.125Gbps)
Digital Diagnostic Monitoring (DDM):	Supported
Optical Clock And Data Recovery (CDR):	Supported
Forward Error Correction (FEC):	Supported
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



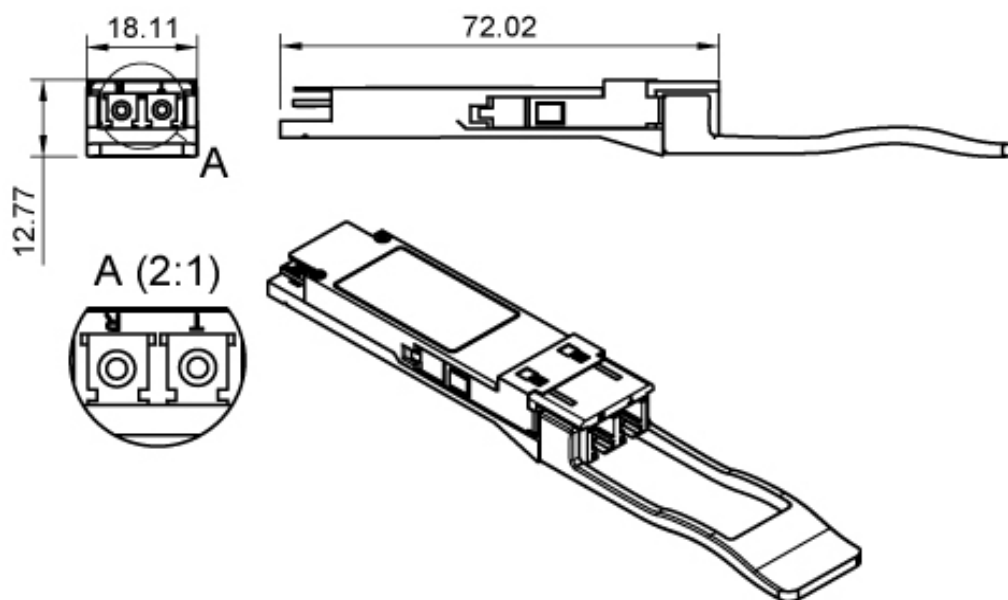
General parameter	Value
Power Supply Voltage Range:	-3.135 to 3.465V
Chipset:	Lumentum
Compliance:	QSFP28 MSA, IEEE 802.3bm, ITU-T G.959, SFF-8636, SFF-8679, CE, RoHS-6, Class 1 FDA, IEC60825-1 Laser Safety Compliant

Transmitter Parameters:	Value
Transmitter Type:	EML Cooled LAN WDM TOSA
Tx Wavelength Bandwidth:	4 LAN WDM Separated 1310 nm Lanes (15.66 nm 1294.53 – 1310.19nm) (L0 Tx center 1295.56nm, L1 Tx center 1300.05nm, L2 Tx center 1304.58nm, L3 Tx center 1309.14nm)
Average Launch Power (Min) Each Lane:	3 dBm
Average Launch Power (Max) Each Lane:	5 dBm
Extinction Ratio (Min):	6 dB
Average Launch Power OFF Transmitter (Max) Each Lane:	- 30 dBm

Receiver Parameters:	Value
Receiver Type:	APD ROSA
Rx Wavelength Bandwidth:	4 LAN WDM Separated 1310 nm Lanes (15.66 nm 1294.53 – 1310.19nm) (L0 Tx center 1295.56nm, L1 Tx center 1300.05nm, L2 Tx center 1304.58nm, L3 Tx center 1309.14nm)
Average Receiver Sensitivity (Min) Each Lane:	- 30 dBm
Average Receiver Sensitivity (Max) Each Lane:	4.5 dBm
Receiver Overload:	- 6 dB
LOS Assert (Min):	- 40 dBm
LOS De-assert (Max):	- 31 dBm
LOS Hysteresis (Min):	0.5-5 dB



Mechanical Dimensions:



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
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.

