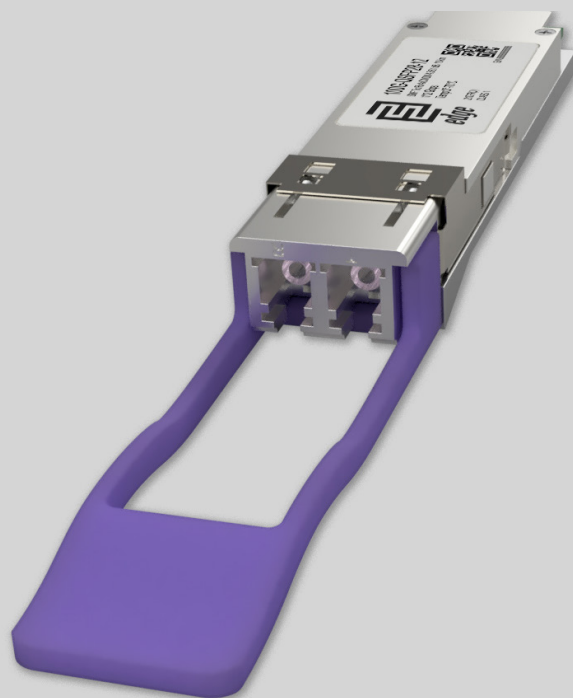


## Key Highlights:

- Type: QSFP28
- Compatibility: Multi-Vendor MSA Compatible
- Tx/Rx Wavelength: 4 LAN WDM lines
- Media Type: Double SMF
- Optical Budget: 100G Ethernet 4.3 dB / OTU4: 6.1 dB
- Max. Distance: 10 km
- Data Rate: 112 Gbps
- Temperature: Standard 0°-70°C



## Optical Transceiver: 100G-QSFP28-12

### Product Description:

100G-QSFP28-12 is Multi-Vendor MSA Compatible QSFP (Quad Small Form-factor Pluggable) Transceiver, operating over pair of single-mode optical fiber with four independent optical communication lanes, separated from each other using WDM technology. Module has minimum guaranteed optical budget of 4.3 dB when running 100G Ethernet applications and 6.1 dB when running OTU4 applications, which in most cases is enough to reach 10 km distance using single-mode cable. 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-QSFP28-12 uses cooled 4x28Gb/s LAN WDM EML TOSA (1295.56, 1300.05, 1304.58, 1309.14nm) Laser transmitters and 4x28Gb/s PIN ROSA receivers. Module support DDM/DOM optical diagnostics, which provide diagnostic information about the present operating conditions. 100G-QSFP28-12 operates in Standard 0°-70°C temperature range and has double LC connector. QSFP28 support up to 112 Gbps data rate and such applications as 100G Ethernet (103.125 Gbps) and OTU4 4x1-9D1F (112 Gbps). 100G-QSFP28-12 optical transceiver is multi-purpose module used in number of different places of today's networking. Consequently, most popular applications are Internet Service Provider (ISP) Fiber To The Home aggregation and backbone, Mobile operator core and back-haul 100G applications, Data Center networking site interconnections and other optical links.

Transceiver is CE/RoHS certified and it is Compliant with product safety standards. 100G-QSFP28-12 Transceiver is fully compliant to QSFP28 Multi Source Agreement. 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 QSFP28 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 cleanliness tests and QSFP28 transceiver EEPROM memory data validation tests.



## Product Specification:

Parameter	Value
Media Type:	Single Mode Fiber
TX Wavelength:	LAN WDM lines: 1295.56, 1300.05, 1304.58, 1309.14nm
RX Wavelength:	LAN WDM lines: 1295.56, 1300.05, 1304.58, 1309.14nm
Minimum Optical Budget:	4.3 dB (100G Ethernet) / 6.1 dB (OTU4)
Maximum Distance:	10 km
Supported Data Rate:	up to 112 Gbps
Supported Applications:	100G Ethernet (103.125 Gbps), OTU4 4I1-9D1F (112 Gbps)
DDM/DOM:	Supported
Temperature Range:	Standard 0° - 70°C
Connectors:	Double LC
Tx Wavelength Bandwidth:	Four Lanes, each 2.6 nm (1294.53 - 1310.19 nm) <ul style="list-style-type: none"> <li>• L0 Tx center 1295.56nm (1294.53 - 1296.59nm)</li> <li>• L1 Tx center 1300.05nm (1299.02 - 1301.09nm)</li> <li>• L2 Tx center 1304.58nm (1303.54 - 1305.63nm)</li> <li>• L3 Tx center 1309.14nm (1308.09 - 1310.19nm)</li> </ul>
Rx Wavelength Bandwidth:	15.66 nm (1294.53 - 1310.19nm)
Minimum Transmitting Power:	100G Ethernet: Each Lane -4.3 dBm OTU4: Each Lane -2.5 dBm
Maximum Transmitting Power:	100G Ethernet: Each Lane 4.5 dBm OTU4: Each Lane 2.9 dBm
Receiver Sensitivity:	100G Ethernet: Each Lane -8.6 dBm OTU4: Each Lane -8.6 dBm
Receiver Overload:	100G Ethernet: Each Lane 4.5 dBm OTU4: Each Lane 4.5 dBm
Transmitter Type:	4 x LAN WDM TOSA
Receiver Type:	4 x PIN ROSA
Power:	+3.3V single power supply
Compliance:	QSFP28 MSA, SFF-8665, SFF-8636, 100GBASE-LR4, CE, Class 1 FDA and IEC60825-1 Laser Safety Compliant, RoHS



## Compatibility:

EDGE Optical transceivers can be provided with custom-encoded firmware, in order to provide compatibility with more than 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.

