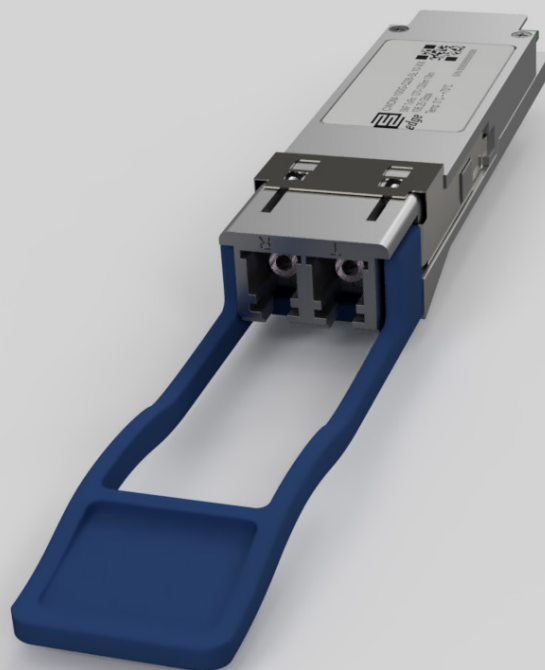


Key Highlights:

- **Type:** 100G CWDM PAM4 QSFP28 Single Wavelength
- **Compatibility:** Multi-Vendor MSA Compatible
- **Tx/Rx Wavelength:** Ch. 27-33 ITU-T G.694.2 standard
- **Laser:** DFB Laser
- **Modulation:** PAM4
- **Fiber Type:** Single-Mode Fiber (SMF)
- **Connector:** Double LC
- **Optical Budget:** 6.3 dB
- **Max. Distance:** 10km
- **Data Rate:** 106.25 Gbps (53.125 Gbps baud rate)
- **Forward Error Correction:** Supported
- **DDM/DOM:** Supported
- **Power Consumption:** ≤ 4.5 W
- **Temperature:** Standard 0°-70°C



Optical Transceiver : CWDM-100G-Q28-SL10-XX

Product Description:

100G CWDM transceiver CWDM-100G-Q28-SL10 is a Multi-Vendor MSA Compatible 100G CWDM QSFP28 (Quad Small Form-Factor Pluggable 28) Transceiver designed for multiple channel 100G transmission over G.652 Single-Mode Fiber (SMF).

100G CWDM QSFP28 transceiver CWDM-100G-Q28-SL10 has a minimum guaranteed optical budget of 6.3 dB, which in most cases is enough to reach 10 km distance. 100G CWDM QSFP28 transceivers support 4 CWDM channels. Supported channels are starting from Channel 27 (1271 nm) up to Channel 33 (1331 nm). Additional channels are available upon request and can be offered as customized products. The 100G CWDM QSFP28 module supports DDM/DOM optical diagnostics, which provide diagnostic information about the present operating conditions. The 100G DWDM optics transceiver operates in the standard 0°-70°C temperature range and has a duplex LC optical connector and on the electrical side supports 4x25.78 Gbps CAUI-4 host interface which is compatible with standard 100G Ethernet switches. 100G CWDM Transceiver has integrated QSFP28 PAM4 (Pulse Amplitude Modulation 4-level) DSP (Digital Signal Processor) chip and module uses a PAM4 gearbox to convert the 4x25.78 Gbps CAUI-4 electrical signals to a single lane PAM4 100G optical signal. Transceiver uses DFB (Distributed



Feedback Laser), Silicon Photonics external modulator and receiver use wideband PIN-Photodiode and is CWDM channel independent. Module has an integrated FEC, while FEC on the host platform needs to be disabled.

100G CWDM transceivers CWDM-100G-Q28-SL10 are certified and are compliant with product safety standards. Transceivers are fully compliant to QSFP28 Multi Source Agreement SFF-8636, QSFP28 MSA digital monitoring functions and are SFF-8636 Rev 2.10a compliant. 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:

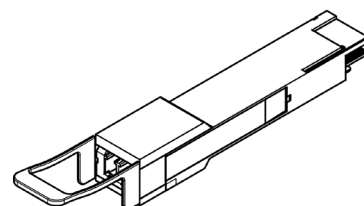
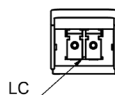
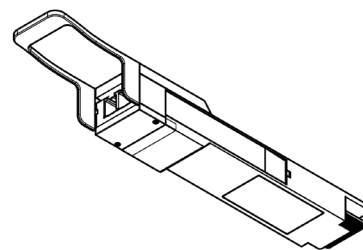
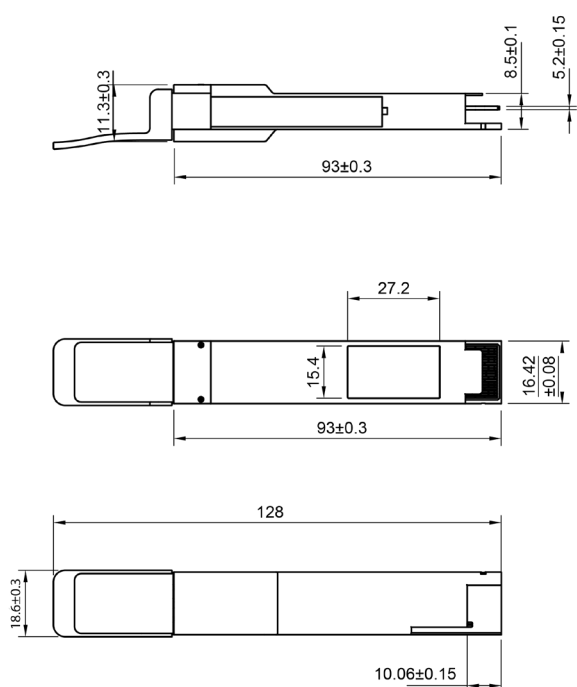
General parameter	Value
Media Type:	Single-Mode Fiber (SMF)
Connectors:	Duplex LS
TX Wavelength:	1271 nm, 1331 nm, 1291 nm, 1311 nm
RX Wavelength:	1271 nm, 1331 nm, 1291 nm, 1311 nm
Minimum Optical Budget:	6.3 dB
Maximum Distance:	10km
Supported Data Rate:	106.25 Gbps
Modulation:	PAM4 (Pulse Amplitude Modulation 4-level)
Supported Applications:	100G Ethernet (106.25 Gbps)
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:	≤4.5W
Power Supply Voltage Typical:	+ 3.3V
Power Supply Voltage Range:	-3.135 to 3.465V
Compliance:	100G Lambda MSA, CAUI-4, RoHS-6, SFF-8636 Rev 2.10a, CE, QSFP28 MSA



Transmitter Parameters:	Value
Transmitter Type:	4 x CWDM DFB Laser
Tx Wavelength Bandwidth:	20 nm
Average Launch Power, Each Lane (Min):	-1.4 dBm
Average Launch Power, Each Lane (Max):	4.5 dBm
Extinction Ratio (Min):	3.5 dB

Receiver Parameters:	Value
Receiver Type:	PIN Photodiode Array
Rx Wavelength Bandwidth:	20 nm
Average Receive Power Each Lane (Min):	-7.7 dBm
Average Receive Power Each Lane (Max):	4.5 dBm
Receiver Overload:	5.5 dBm

Mechanical Drawing



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**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

Ordering info:

Part Number	Data Rate	Applications	Temperature Range	Available DWDM Channels
CWDM-100G-Q28-SL10-XX	100 Gbps	Up to 10 km	0°- 70°C	27 to 33 1271 nm to 1330 nm

XX represents the chosen channel, thus Ch.27 would be CWDM-100G-Q28-SL10-27.

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.

