

QSFP28 CWDM4

100 Gbps Rate Optical Transceiver, 2 km over SMF

Description:

OPTOKON **100G QSFP28 CWDM4** optical transceivers is designed to operate over single-mode fiber system using 4X25 CWDM channel up to 2km. The module converts 4 inputs channel of 25Gb/s electrical data to 4 CWDM optical signals, and multiplexes them into a single channel for 100Gb/s optical transmission. Reversely, on the receiver side, the module optically de-multiplexes a 100Gb/s input into 4 CWDM channels signals, and converts them to 4 channel output electrical data. Each data stream is recovered by a PIN photo-detector and trans-impedance amplifier, retimed. The central wavelengths of the 4 CWDM channels are 1271, 1291, 1311 and 1331 nm. It contains a duplex LC connector for the optical interface and a 38-pin connector for the electrical interface. Single-mode fiber (SMF) is applied in this module.

100G QSFP28 CWDM4 features are a hot-pluggable electrical interface, low power consumption and MDIO management interface. The product is designed with form factor, optical/electrical connection and digital diagnostic interface according to the QSFP28 Multi-Source Agreement (MSA) and compliant to IEEE 802.3ba.



Features:

- 4 CWDM lanes Mux/De-mux design
- CWDM TOSA integrated Driver
- Build in CDR on both TX and RX
- Up to 25.78 Gbps Data rate per wavelength
- Up to 2km transmission on SMF
- Electrically hot-pluggable
- Digital Diagnostics Monitoring Interface
- Compliant with QSFP28 MSA with LC connector
- Case operating temperature range: 0°C to 70°C
- Power dissipation < 3.5 W

Compliance and standards:

- Compliant to IEEE 802.3ba and 100G CLR4/CWDM4
- Compliant to SFF-8636
- RoHS Compliant

Applications:

- 100G Ethernet & 100G LAN
- ITU-T OTU4

Recommended operating conditions:

Parameter	Min	Typ	Max	Unit	Note
Case Operating Temperature	0	-	70	°C	Without air flow
Power Supply Voltage	3.13	3.3	3.47	%	
Power Supply Current	-		900	mA	
Data Rate		25.78125		Gbps	Each channel
Transmission Distance		-	2	km	
Coupled fiber	Single mode fiber				9/125um SMF

Optical characteristics:

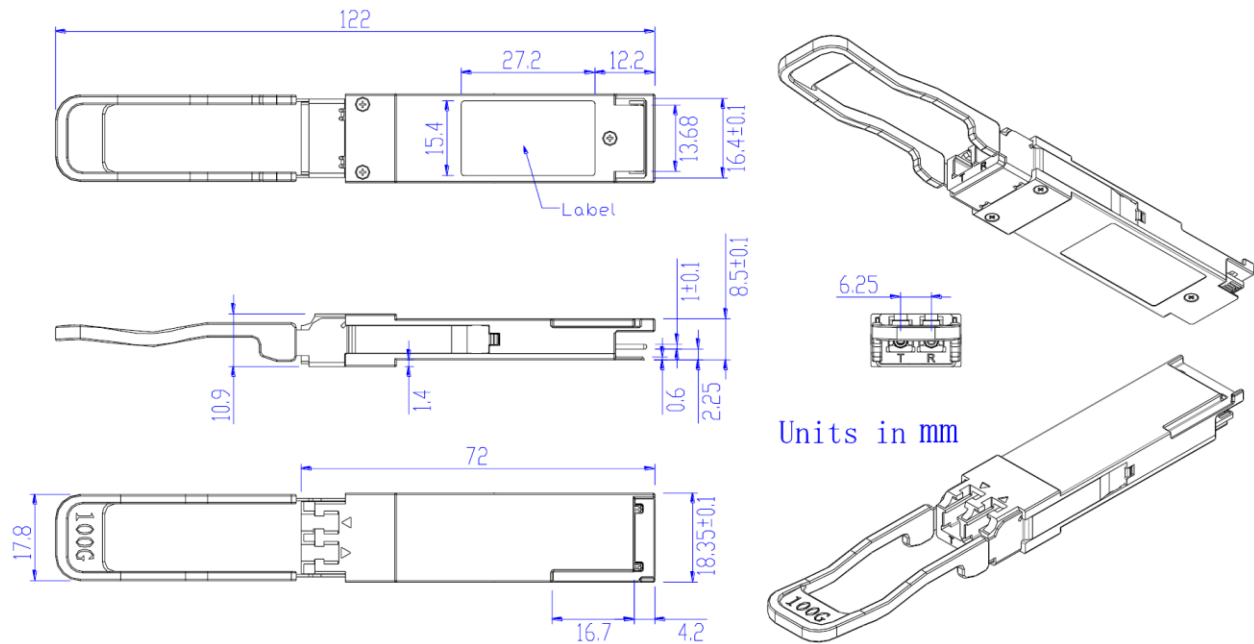
Transmitter

<i>Parameter</i>	<i>Min</i>	<i>Typ</i>	<i>Max</i>	<i>Unit</i>
Spectral Width (-20dB)			1	nm
Wavelength Assignment	1264.5	1271	1277.5	nm
	1284.5	1291	1297.5	nm
	1304.5	1311	1317.5	nm
	1324.5	1331	1337.5	nm
Optical Extinction Ratio	3.5			dB
Total Output Power			8.5	dBm
Average Launch Power per Lane	-6.5		2.5	dBm
Average launch Power OFF per Lane			-30	dBm

Receiver

<i>Parameter</i>	<i>Min</i>	<i>Typ</i>	<i>Max</i>	<i>Unit</i>
Receive Power per Lane			-10	dBm
Input Saturation Power (Overload)			2.5	dBm
Receiver Reflectance			-26	dB

Dimension:



Ordering code:

Code	Description
S100G-QP28-CWDM4-02-D-XX	100 Gbps (4x25 Gbps), QSFP28 CWDM4, up to 2 km, 0°C to +70°C, LC connector