

QSFP+ CWDM Transceivers S40-QP-LR4-XX-D

The S40-QP-LR4-XX-D is designed to operate over single-mode fiber system using 4x10G CWDM channel in 1310 band and links **up to 30 km**. The module converts 4 inputs channel of 10Gb/s electrical data to 4 CWDM optical signals, and multiplexes them into a single channel for 40Gb/s optical transmission. Reversely, on the receiver side, the module optically de-multiplexes a **40 Gbps** input into 4 CWDM channels signals, and converts them to 4 channel output electrical data.



Features:

- High Channel Capacity: 40 Gbps per module
- CWDM 1271, 1291, 1311, 1331 nm wavelengths
- Up to 11.1Gbps Data rate per channel
- Link length of 2, 10, 20 and 30 km
- Electrically hot-pluggable
- Digital diagnostic Monitoring interface
- Compliant with QSFP+ MSA with LC connector
- Case operating temperature range: 0°C to 70°C
- Power dissipation < 2.5 W (3,5 W for 30 km distance)

Application:

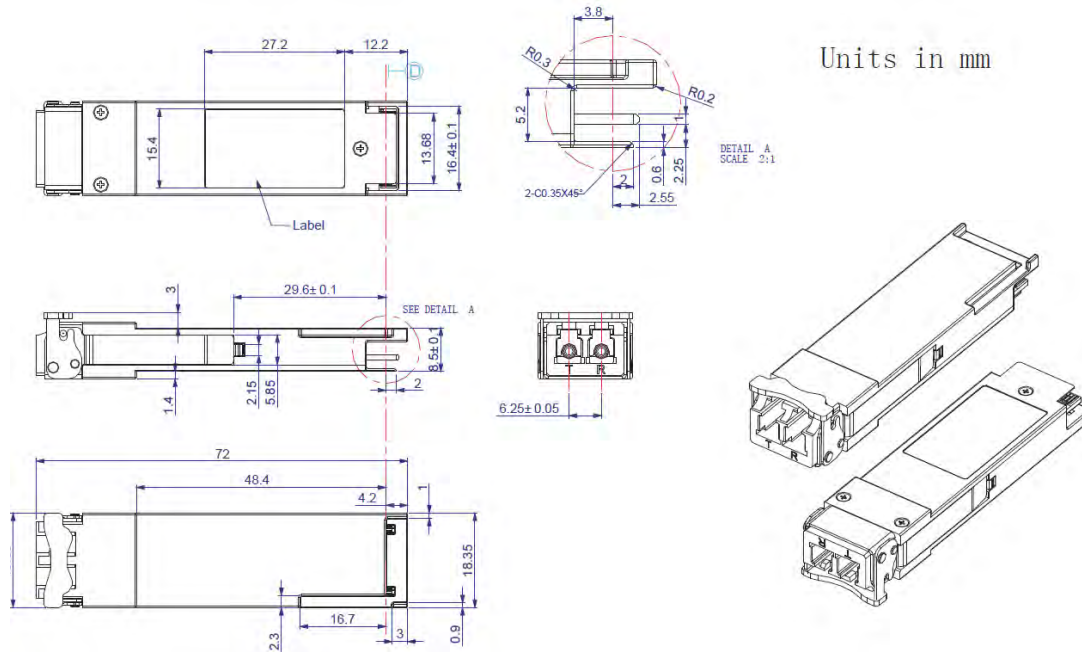
- 40G Ethernet
- Infiniband QDR
- Fiber Channel

	Unit	02	10	20	30
Optical Wavelength (min – center -max)	nm	$\lambda_0 = 1264.5 - 1271 - 1277.5$ $\lambda_1 = 1284.5 - 1291 - 1297.5$ $\lambda_2 = 1304.5 - 1311 - 1317.5$ $\lambda_3 = 1324.5 - 1331 - 1337.5$			
Total output power	dBm	8.3	8.3	8.3	8.3
Average output power per line (min / max)	dBm	-7 / 0	- 7 / 2.3	- 7 / 2.3	-2 / 2.3
Average launch power off per line	dBm	-30	-30	-30	-30
Output Eye Mask		Compliant with IEEE802.3ba			
Optical Extinction ratio	dB	3.5	3.5	3.5	3.5
Receiver sensitivity per lane	dBm	-11.5	-11.5	-11.5	-12
Overload	dBm	0	2.3	3.4	2.3
Maximum distance	km	2	10	20	30
Fiber type	-	SMF	SMF	SMF	SMF
Optical link budget	dBm	4.5	4.5	4.5	10

Distance:

Type	Distance
S40-QP-LR4-02-D	2 km
S40-QP-LR4-10-D	10 km
S40-QP-LR4-20-D	20 km
S40-QP-LR4-30-D	30 km

Dimension:



Digital Diagnostics Functions:

OPTOKON transceivers support the 2-wire serial communication protocol as defined in the QSFP+ MSA, which allows real-time access to the following operating parameters:

- Transceiver temperature
- Laser bias current
- Transmitted optical power
- Received optical power
- Transceiver supply voltage

Safety and regulatory compliance and standards:

- Compliant to SFF-8436
- Compliant to IEEE802.3ba
- RoHS Compliant

Ordering code:

Parameter	Description
S40-QP-LR4-02-D-XX	40 Gbps SM, CWDM QSFP+: 1271, 1291, 1311, 1331 nm distance: 2 km and temperature: 0 °C to +70 °C
S40-QP-LR4-10-D-XX	40 Gbps SM, CWDM QSFP+: 1271, 1291, 1311, 1331 nm distance: 10 km and temperature: 0 °C to +70 °C
S40-QP-LR4-20-D-XX	40 Gbps SM, CWDM QSFP+: 1271, 1291, 1311, 1331 nm distance: 20 km and temperature: 0 °C to +70 °C
S40-QP-LR4-30-D-XX	40 Gbps SM, CWDM QSFP+: 1271, 1291, 1311, 1331 nm distance: 30 km and temperature: 0 °C to +70 °C