

# **QSFP CWDM Transceivers S40-QP-LR4-XX-D**

#### **Description:**

The S40-QP-LR4-XX-D is designed to operate over singlemode fiber system using 4x10G CWDM channel in 1310 band and links up to 30km. 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 40Gb/s 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 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)

## **Specifications:**

|   | Unit | 02   | 10   | 30         |
|---|------|--|--|------------|
| Optical Wavelength (min – center -max)    | nm   | $\Lambda 1 = 1284.$<br>$\Lambda 2 = 1304.$ | 5 - 1211 - 1277<br>5 - 1291 - 1297<br>5 - 1311 - 1217<br>5 - 1331 - 1237 | 7.5<br>7.5 |
| Total output power                        | dBm  | 8.3  | 8.3  | 8.3        |
| Average output power per line (min / max) | dBm  | -7 / 0                                     | - 7 / 2.3  | -2 / 2.3   |
| Average lunch power off per line          | dBm  | -30  | -30  | -30        |
| Output Eye Mask                           |      | Compliant                                  | with IEEE802.3t  | a          |
| Optical Extinction ratio                  | dB   | 3.5  | 3.5  | 3.5        |
| Receiver sensitivity per lane             | dBm  | -11.5                                      | -11.5  | -12        |
| Overload                                  | dBm  | 0  | 2.3  | 2.3        |
| Maximum distance                          | km   | 2  | 10   | 30         |
| Fiber type                                | -    | SMF  | SMF  | SMF        |
| Optical link budget                       | dBm  | 4.5  | 4.5  | 10         |

## Safety and regulatory compliance and standards

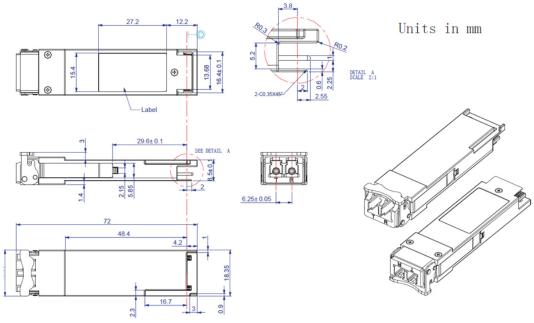
- Compliant to SFF-8436
- Compliant to 802.3ba
- RoHS Compliant



#### Distance

| Туре            | Distance |
|-----------------|----------|
| S40-QP-LR4-02-D | 2 km     |
| S40-QP-LR4-10-D | 10 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

#### **Application:**

- 40G Ethernet
- Infiniband ODR
- Fiber channel

#### **Ordering code:**

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

#### Safety and regulatory compliance and standards

- Compliant to SFF-8436
- Compliant to 802.3ba
- RoHS Compliant

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