

KEY FEATURES

- 100G-CWDM4
- Typical power of < 3.5W
- 2km reach via single mode fiber
- CWDM wavelengths 1310nm range
- SMF LC duplex connector
- 0-70°C transceiver operating case temperature
- Hot pluggable

XQX4000 100G-CWDM4 QSFP28

2 km Reach Optimized for Data Center

Leveraging its novel hybrid integration technology, **Kaiam** is able to design and produce high-speed optical modules for high bandwidth applications such as router and data center interconnect. All of **Kaiam's** products allow for superior performance at 40Gb/s and beyond with duplex single mode fiber.

The pluggable **QSFP28 100G-CWDM4** transceiver is the latest addition to **Kaiam's** product portfolio supporting diverse data rates with reach up to 10km.

The target applications for this transceiver are 100G-CWDM4, high-port-count 100G systems, and client-side 100G interfaces.



OPTICAL TRANSMITTER PERFORMANCE

| PARAMETER | | SYMBOL | MIN | MAX | UNITS |
|--|-----|-------------|---------------------------|--------|-------|
| Channel Wavelength | Ch0 | λ_0 | 1264.5 | 1277.5 | nm |
| | Ch1 | λ_1 | 1284.5 | 1297.5 | |
| | Ch2 | λ_2 | 1304.5 | 1317.5 | |
| | Ch3 | λ_3 | 1324.5 | 1337.5 | |
| Bit Rate per Channel | | B | 25.78125±100ppm | | Gb/s |
| Side-Mode Suppression Ratio | | SMSR | 30 | | dB |
| Average launch power, each lane | | | -6.5 | 2.5 | dBm |
| Optical Modulation Amplitude (each lane) | | OMA | -4.0 | 2.5 | dBm |
| Launch power in OMA minus TDP, each lane | | OMA-TDP | -5.0 | | dBm |
| Transmission & dispersion penalty | | TDP | | 3.0 | dB |
| RIN _{20 OMA} | | | | -130 | dB/Hz |
| Transmitter Reflectance | | | | -12 | dB |
| Extinction Ratio | | ER | 3.5 | | dB |
| Transmitter Optical Mask | | MM | Compliant with 100G-CWDM4 | | |

OPTICAL RECEIVER PERFORMANCE

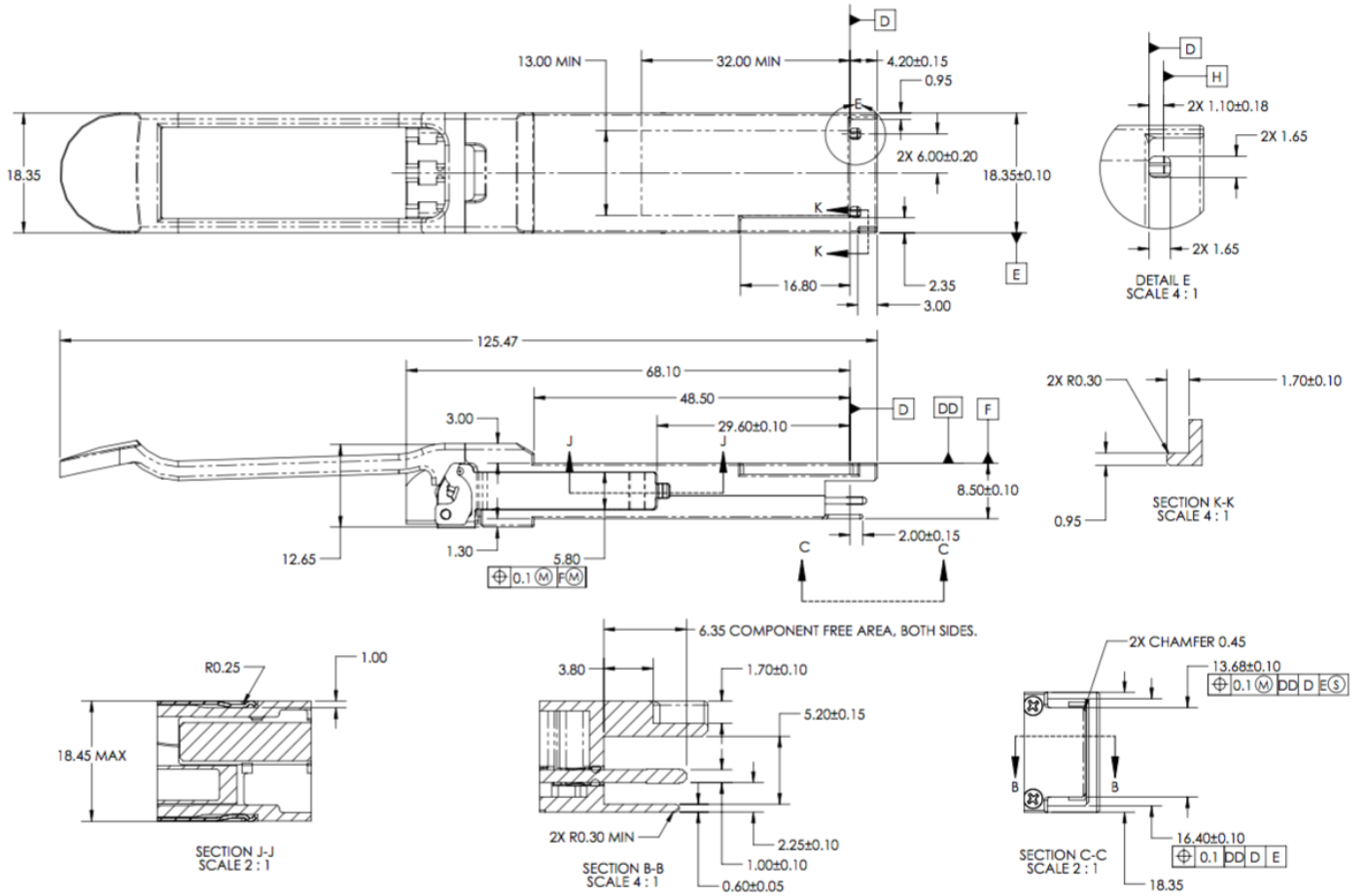
| PARAMETER | | SYMBOL | MIN | TYP | MAX | UNITS |
|---|-----|-----------------------|--------|------|--------|-------|
| Channel Wavelength | Ch0 | λ_0 | 1264.5 | 1271 | 1277.5 | nm |
| | Ch1 | λ_1 | 1284.5 | 1291 | 1297.5 | |
| | Ch2 | λ_2 | 1304.5 | 1311 | 1317.5 | |
| | Ch3 | λ_3 | 1324.5 | 1331 | 1337.5 | |
| Bit Rate per Channel | | B | 25.78 | | 27.95 | Gb/s |
| Unstressed Sensitivity (OMA) | | OMA _{in} | | | -10 | dBm |
| Stressed Sensitivity (OMA) | | OMA _{in,str} | | | -7.3 | dBm |
| Receiver Reflectance | | ORL | | | -26 | dB |
| Vertical eye closure penalty, each lane | | VECP | | | 1.95 | dB |
| Stressed eye J2 Jitter, each lane | | J2 | | | 0.3 | UI |
| Stressed eye J9 Jitter, each lane | | J9 | | | 0.5 | UI |

OPERATING CONDITIONS

| PARAMETER | MIN | TYP | MAX | UNITS | NOTES |
|----------------------------|-------|-----|-------|-------|--------|
| Operating Case Temperature | 0 | | 70 | °C | |
| Storage Temperature | -40 | | 85 | °C | |
| Relative Humidity | 5 | | 85 | % | |
| Supply Voltage | 3.135 | 3.3 | 3.465 | V | +/- 5% |

QSFP28 MODULE MECHANICAL OUTLINE

(all dimensions in mm)



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