

XQX2402 QSFP+ 40G-LR4

10km Reach Optimized for Data Center

KEY FEATURES

- 40Gb/s = 4x10 Gb/s
- 40GBASE-LR4
- Max power of < 3.0W
- 10km reach via single mode fiber
- CWDM wavelengths 1310nm range
- SMF LC duplex connector
- Hot pluggable
- 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 **QSFP+ 40GBASE-LR4** product is optimized for power and cost to fit the needs of modern datacenters while maintaining LR4 10km reach.

Kaiam's vertically integrated portfolio allows components to be optimized for performance that fits the application, achieving best-in-class results built upon flexible, scalable platforms that grow with the market and customer needs.

A version with bail latch (instead of pull tab) is also available (XQX2400).



OPTICAL TRANSMITTER PERFORMANCE

PARAMETER	MIN	TYP	MAX	UNITS	NOTES
Lane Wavelengths	1264.5	1271	1277.5	nm	ITU +/- 6.5nm
	1284.5	1291	1297.5		
	1304.5	1311	1317.5		
	1324.5	1331	1337.5		
Modulation Bandwidth	9.95328	10.3125	11.318	Gb/s	
Extinction Ratio	3.5			dB	
OMA per Channel	-4		3.5	dBm	at TP2
Difference in Launch Power between any two lanes			5	dB	OMA
Side Mode Suppression Ratio	30			dB	modulated
-20 dB Spectral Width			1	nm	modulated
Relative Intensity Noise			-128	dB/Hz	RIN20
Transmitter Reflectance			-12	dB	
Total Jitter Generation			0.2	UI	
Transmitter Optical Mask	Compliant with 40GBASE-LR4				10% mask margin 5 x 10 ⁻⁵ hit ratio
Transmitter OPM Accuracy	-3		+3	dB	

OPTICAL RECEIVER PERFORMANCE

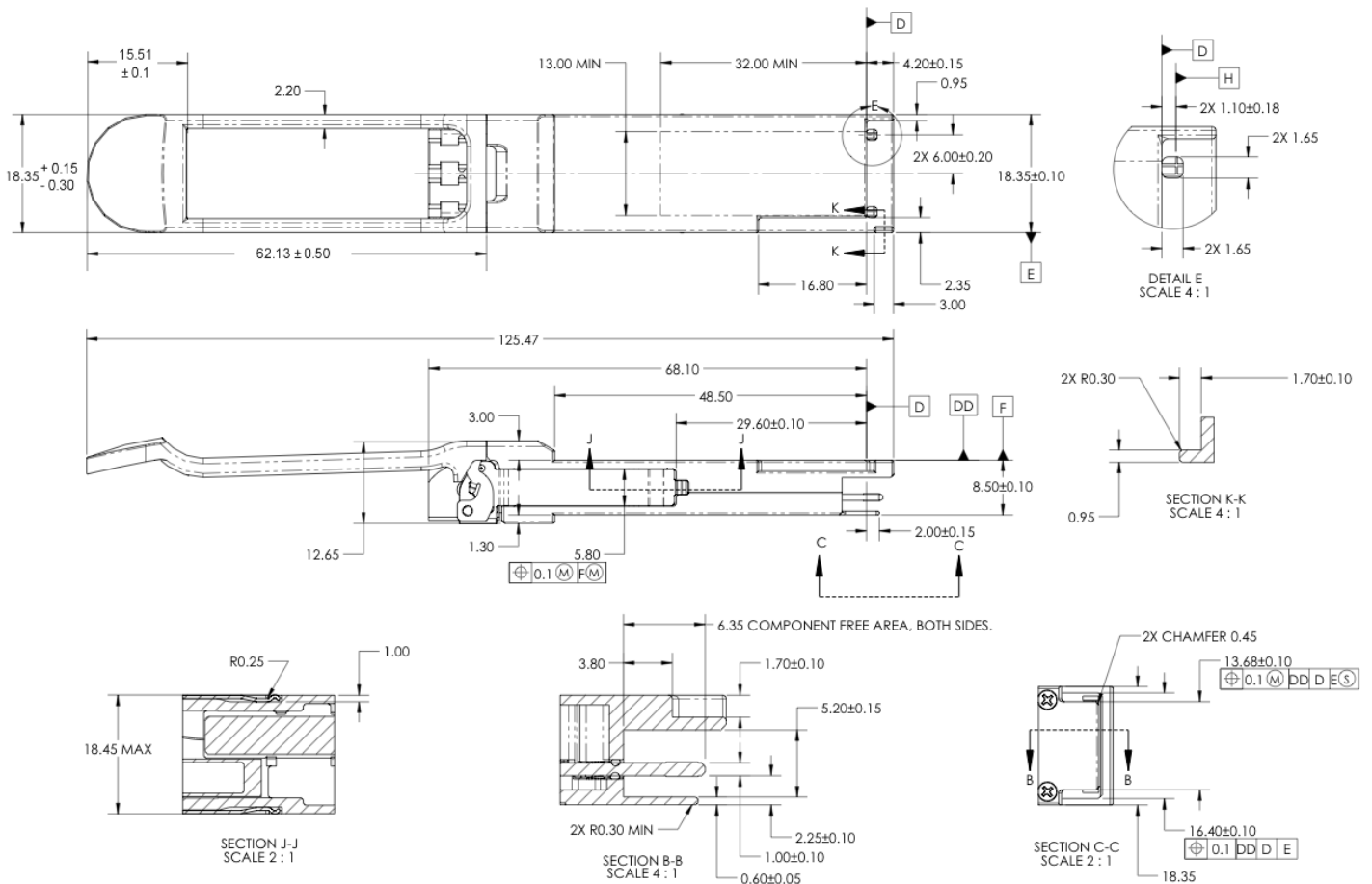
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Receiver Sensitivity (OMA) per Channel		-13.5	-11.5	dBm	10.3Gb/s @ BER=10 ⁻¹² and PBRS 2 ³¹ -1
Receiver Saturation	3.5			dBm	per channel
LOS Assert	-30	-20	-15	dBm	per channel
LOS De-Assert	-28	-18	-14	dBm	per channel
RSSI Accuracy	-3		+3	dB	per channel
Receiver Reflectance			-26	dB	

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%

QSFP+ MODULE MECHANICAL OUTLINE

(all dimensions are in mm)



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