

KEY FEATURES

- 40Gb/s = 4x10 Gb/s
- 40GBASE-LR4
- Max power of <2.5W
- 2km reach via single mode fiber
- CWDM wavelengths 1310nm range
- SMF LC duplex connector
- Hot pluggable
- Optimized for data center

XQX2502 QSFP+ 40G-LR4-Lite with 2km 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 **QSFP+ 40GBASE-LR4-Lite** product is aimed at datacenter applications with reduced environmental and operating requirements, and a limited 2km reach. **Kaiam** also offers standard-compliant LR4 modules that meet all the requirements and have a 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 (XQX2500).



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	-6		3.5	dBm	at TP2
Difference in Launch Power between any two lanes			6.5	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				5% mask margin 5 x 10 ⁻⁵ hit ratio
Transmitter OPM Accuracy	-3		+3	dB	

OPTICAL RECEIVER PERFORMANCE

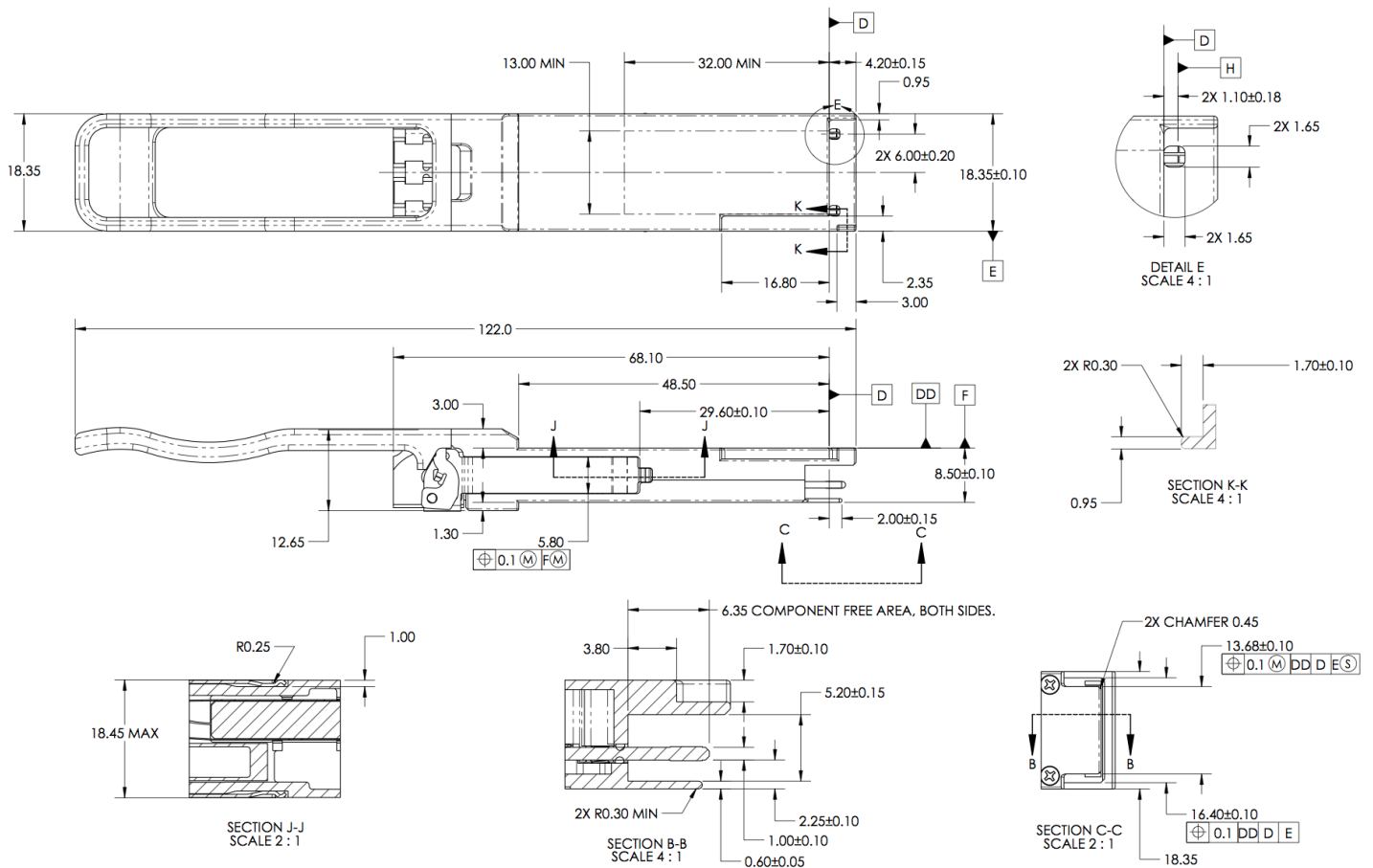
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Receiver Sensitivity (OMA) per Channel		-13.5	-11.5	dBm	10.3Gb/s @ BER=10 ⁻¹² and PBRS 2 [^] 31-1
Receiver Saturation	3.5			dBm	per channel
LOS Assert	-30	-20	-15	dBm	per channel
LOS De-Assert	-28	-18	-14	dBm	per channel
RSSI Accuracy	-3		+3	dB	per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

OPERATING CONDITIONS

PARAMETER	MIN	TYP	MAX	UNITS	NOTES
Operating Case Temperature	10		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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