

## 800G QSFP-DD 2SR4-12 100m CL800GQDD2SR4-12

### Product Features:

- OSFP Serial Optical Interface
  - > 8x100G PAM4 retimed 800GAUI-8 electrical interface
  - > Dual MPO- 12 APC connector
  - > 8 channel VCSEL arrays and 8 channels PIN photo detector arrays
  - > Maximum link length of 60m on OM3 or 100m on OM4
- OSFP MSA Compliant
  - > Hot Pluggable OSFP form factor
  - > Compliant to OSFP Module Specification Rev 5.0
  - > Compliant with CMIS 5.2
- Support Protocol
  - > Compliant with IEEE 802.3db
  - > Compliant to IEEE 802.3ck
- Low Power Consumption
  - > Less than 16W in temperature range of 0 to 70°C

### Functional Characteristics (Optical)

The following tables list the performance specifications for the various functional blocks of the integrated optical transceiver module.

**Table 1 – Transmitter Optical Specifications**

Parameter	Symbol	Min.	Typical	Max.	Unit	Notes
Data rate per lane	DR		53.125		GBd	
Modulation format		PAM4				
Center Wavelength	$\lambda$	840	860	868	nm	1
RMS spectral width	$\sigma$			0.6	nm	
Average Launch power, each lane	Pavg	-1		4	dBm	
Optical Power OMA, each Lane , max		3.5	dBm			
OMAouter, each lane min	max (TECQ, TDECQ) < 1.8 dB	POMA	max [-2.6,max(TECQ,TECQ)- 4.4]		dBm	
	1.8 < max (TECQ, TDECQ) < 4.4 dB					
Transmitter and dispersion eye closure (TDECQ), each lane	TDECQ			4.4	dB	
Transmitter eye closure for PAM4 (TECQ), each lane	TECQ			4.4	dB	
Extinction ratio	ER	2.5			dB	
Transmitter power excursion, each lane				2.3	dBm	
Optical Return Loss Tolerance	ORLT			14	dB	



Optical Power for TX DISABLE					-30	dBm	
Encircled fluxb			≥86% at 19 um ≤30% at 4.5 um				2

Note 1: Defined according to the performance of the laser used.

Note 2: Measured into type A1a.2 or type A1a.3, or A1a.4, 50 um fiber, in accordance with IEC 61280-1-4

**Table 2 – Receiver Optical Specifications**

Parameter	Symbol	Min.	Typical	Max.	Unit	Notes
Data rate per lane	BR		53.125		Gbd	
Modulation format		PAM4				
Center Wavelength	$\lambda$	842	850	948	nm	
Damage threshold		5			dBm	
Average receive power, each lane		-6.4		4	dBm	
Receive power, each lane (OMAouter)				3.5	dBm	
Receiver reflectance	Rr			-15	dB	
Receiver sensitivity, each lane		RS = max (-4.6 , TECQ - 6.4)			dBm	2
Stressed receiver sensitivity, each lane				-2	dBm	
Rx LOS	Assert		-15		dBm	
	De-assert			-7.5	dBm	
	Hysteresis		0.5	5	dB	

Note 1: Receiver sensitivity is informative and is defined for a transmitter with a value of TECQ. Measured with conformance test signal at TP3 for BER = 2.4E-4 Pre-FEC.

## Ordering Information

**Table 3 - Ordering Information**

Part Number	Temperature Range	Distance	Fiber Type	E/O	O/E	Optical Interface
CL800GOSFP2SR4-12	0 to 70°C	100m	MMF	VCSEL850nm	PIN	Dual MPO12

## CONTACT:

Email: [sales@c-light.com](mailto:sales@c-light.com) <https://www.c-light.com>