

100G QSFP28 2km PSM4 Transceivers CL100GQSFP28PSM4-02

Product Features:

- MPO12 optical interface
- Maximum link length up to 2km
- Up to 25.78125Gb/s data links per lane
- +3.3 V power supply
- QSFP MSA compliant package
- Hot Pluggable
- High performance singal mode DML transmitter
- High sensitivity PIN/TIA optical receiver
- Single Mode operation
- BER < 5E-5@-10.5dBm (OMA)
- Built-in CDR
- Case Operating temperature: 0 to 70°C
- Data and Control Interfaces
- Tx Data CML/AC Coupled
- Rx Data CML/AC Coupled
- ModSelL LVTTTL
- ResetL LVTTTL
- ModPrsL LVTTTL
- LPMode LVTTTL
- 2-wire I2C communication bus
- RoHS 6 compliance



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
Signal Rate Each Lane			25.78125±100ppm		Gbps	
Lane Wavelength	L0	1295	1310	1325	nm	
	L1	1295	1310	1325	nm	
	L2	1295	1310	1325	nm	
	L3	1295	1310	1325	nm	
Side Mode Suppression Ratio	SMSR	30			dB	
Total Average Launch Power	P _{tol}			8.5	dBm	
Average Launch Power Each Lane	P _{avg}	-3.5		2.5	dBm	
Optical Modulation Amplitude Each Lane	OMA			2.5	dBm	
Transmitter and dispersion penalty Each Lane	TDP			2.2	dB	



Eye Mask coordinates: X1, X2, X3, Y1, Y2, Y3		{0.31, 0.4, 0.45, 0.34, 0.38, 0.4} 1				
Average launch power of OFF transmitter Each Lane				-30	dBm	
Extinction Ratio	ER	3.5			dB	
Spectral Width _{20dB}				1	nm	
Transmitter Reflectance				-12	dB	
Optical return loss tolerance				20	dB	

Note1: Hit ratio of 5e-5, per IEEE.

Table 2 – Receiver Optical Specifications

Parameter	Symbol	Min.	Typical	Max.	Unit	Notes
Signal Speed Per Lane			25.78125±100ppm		Gbps	
Lane Wavelength	L0	1295	1310	1325	nm	
	L1	1295	1310	1325	nm	
	L2	1295	1310	1325	nm	
	L3	1295	1310	1325	nm	
Damage threshold Each Lane	THd			3.0	dBm	1
Average Receive Power Each Lane		-10.6		2.5	dBm	2
Sensitivity OMA Each Lane	Sen			-10.5	dBm	2
Receiver reflectance				-26	dB	
LOS Assert	LOSA	-24				
LOS Deassert	LOSD			-11.6		
LOS Hysteresis	LOSH	0.5		6		

Note 1: The receiver shall be able to tolerate, without damage, continuous exposure to a modulated optical input signal having this power level on one lane. The receiver does not have to operate correctly at this input power.

Note 2: Measured with conformance test signal at receiver input for BER = 5e-5 BER.

Ordering Information

Table 3 - Ordering Information

Part Number	Product Description
CL100GQSFPPSM4-02	100G QSFP28 2km PSM4 , 0 to 70 °C

CONTACT:

Email: sales@c-light.com <https://www.c-light.com>