

# 100G QSFP28 CWDM4 光收发模块



## 产品描述

100Gbps QSFP28 CWDM4 光收发模块设计用于 100G 以太网链路，传输距离可以达到 2km。CWDM4 光模块采用4个通道波长 1279nm, 1290nm, 1310nm, 1330nm，在发射侧合波复用，接收侧分波解复用。光模块通过 QSFP28 MSA 中定义的 I2C 接口提供监测，控制和数字诊断。光模块符合 QSFP28 MSA、CWDM4 MSA 和 IEEE 802.3bm 标准。

注：100G F/W, M-LD

## 产品特点

- QSFP28 热插拔接口
- 双线通用管理接口 (SFF-8636 MSA)
- 符合 CAUI-4 标准的电接口 (4 × 25.78125 Gbps)
- 传输距离可达 2km
- 低功耗: <3.5W
- 工作温度操作可达 70°C
- 用于光连接的双工 LC 插座
- 使用 I2C 接口的远程固件升级功能
- 可编程输出去重点和输入 CTLE

## 产品应用

- 100Gbe 数据中心。
- 用于路由和传输网络的客户端接口连接
- 本地网和广域网

## Electrical Characteristics

Parameter	Min.	Typ.	Max.
Supply Voltage	3.135V		3.465V
Supply Current (@3.3V)			1.09A
Module Total Power			3.5W
Programmable Differential Data Output Per Lane (mVppd) <sup>1</sup>	300mV	800mV	930mV
Programmable Output De-emphasis <sup>2</sup>	0dB		7.5dB
Data Output Rise/ Fall Time (20/80%)			20psec
Differential Data Input Per Lane (mVppd)	200mV		1000mV
Programmable CTLE Peaking <sup>3</sup>	1dB		10dB

Note 1: Default factory setting is 800 mV

Note 2: Default factory setting is 0 dB

Note 3: Default factory setting is 1 dB

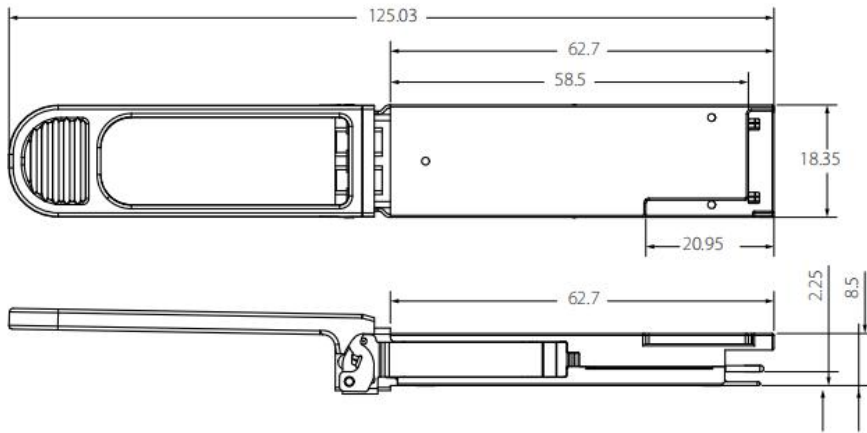
## Absolute Maximum Ratings

Parameter	Min.	Max.
Storage Temperature	-40°C	+85°C
Operating Case Temperature	0°C	+70°C
Relative Humidity (Non-condensing)	0%	85%
Supply Voltage	-0.5V	+3.6V
Receiver Damage Threshold, Per Lane	+3.5dBm	

## Optical Transmit & Receive Characteristics

Parameter	Value
Signaling speed, each lane	25.78125 ± 100 ppm GBd
Center wavelength range, each Lane	1264.5 to 1277.5/ 1284.5 to 1297.5/ 1304.5 to 1317.5/ 1324.5 to 1337.5 nm
Side-mode suppression ration (SMSR), min	30.0 dB
Total average launch power (max)	8.5 dBm
Average launch power, each lane (max)	2.5 dBm
Average launch power, each lane (min)	-6.5 dBm
Optical Modulation Amplitude (OMA), each lane (max)	2.5 dBm
Optical Modulation Amplitude (OMA), each lane (min)	-4.0 dBm
Transmitter and dispersion penalty (TDP), each lane (max)	3.0 dB
Launch power in OMA – TDP (min)	-5.0 dBm
Average launch power in OFF transmitter, each lane (max)	-30.0 dBm
Extinction ratio (min)	3.5 dB
Transmitter and Dispersion Eye Closure (TDEC, max)	3 dB
Vertical Eye Closure Penalty (VECP, max)	3.5 dB
Tx Power Monitor Accuracy	±1.5 dB
Transmitter reflectance (max)	-12.0 dB
Optical return loss tolerance (max)	20.0 dB
Receiver damage threshold, each lane (min)	3.5 dBm
Average receive power, each lane (max)	2.5 dBm
Average receive power, each lane (min)	-11.5 dBm
Receive power, each lane (OMA) (max)	2.5 dBm
Receiver sensitivity (OMA), each lane (max) at 2.1 x 10 <sup>-5</sup> BER	-10.0 dBm
Stressed receiver sensitivity (OMA), each lane (max)	-7.3 dBm
Rx Power Monitor Accuracy	±1.5 dB
Receiver reflectance (max)	-26.0 dB

## Dimensions



Unit: mm

注：产品技术规格如有变更，恕不另行通知，如有疑问，请与我司联系。

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