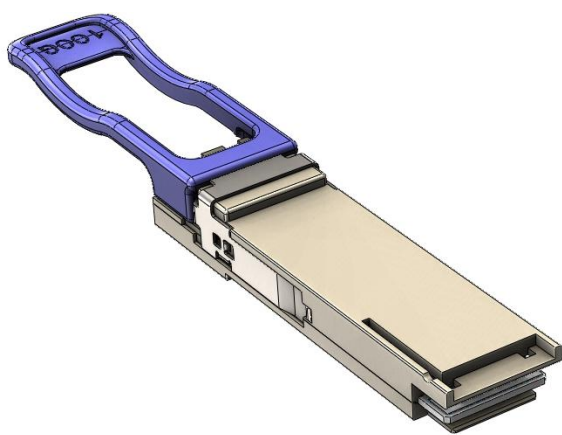


100G CWDM4 QSFP28 光收发模块



产品简介

光迅科技的 100G QSFP28 CWDM4 模块能够满足数据中心 2km 的互联需求，具有低功耗、高端口密度的优点。每个模块在发送端集成了 4 只直接调制 DFB 激光器和光合波器，在接收端包含光解波器、4 只 PIN 探测器和 4 路 TIA 芯片。模块的光接口为双相 LC 连接器，符合 QSFP+ 协议标准。

特征

- 单通道速率达到 25.8Gbps
- 传输距离为 2 公里
- 符合 QSFP+ 协议标准
- CWDM 波长无制冷直接调制 DFB 激光器
- 双相 LC 连接器
- 单个 3.3V 供电电源
- 功耗小于 3.5W
- 工作壳温为 0-70℃
- 符合 RoHS6 标准

应用

- 100G 以太网
- 数据中心光互联

标准

- QSFP28:SFF-8665,SFF-8679, SFF-8636
- IEEE802.3bm
- 100G CWDM4 MSA Technical Specifications: 2km Optical Specifications”, Rev. 1.1

规格

Parameter	Symbol	Unit	Specifications
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			Min	Typ	Max
Tx					
Center wavelength		nm	1264.5 1284.5 1304.5 1324.5		1277.5 1297.5 1317.5 1337.5
Signaling rate, per lane		Gbit/s	25.78125±100ppm		
Operating link reach		km	0.002		2
Optical modulation amplitude, per lane	OMA	dBm	-4		2.5
Transmitter and dispersion penalty, per lane	TDP	dB			3
Optical extinction ratio	ER	dB	3.5		
Average launch power, per lane		dBm	-6.5		2.5
Average launch power of OFF transmitter, per lane		dBm			-30
Transmitter reflectance		dB			-12
Relative intensity noise	RIN	dB/Hz			-130
Rx					
Center wavelength		nm	Same as Tx		
Signaling rate, per lane		Gbit/s	Same as Tx		
Damage threshold	DT	dBm	3.5		
Average launch power, per lane		dBm	-11.5		2.5
Receive Power(OMA) per lane		dBm			2.5
Receive Sensitivity(OMA) per lane ¹		dBm			-10
Receiver reflectance		dB			-26
LOS De-Assert (OMA)	LOSD	dBm	-30		-17
LOS Assert (OMA)	LOSA	dBm			-16

Note: 1 At TP2, 2 PRBS2³¹-1 and BER<5E-5

订购信息

Part No.	Specifications									Application
	Package	Datarate (Gb/s)	Laser	Optical Power (dBm)	Detector	Sensitivity (OMA) dBm	Top	Reach (m)	Other	
RTXM420-431	QSFP28	4*25.78	DFB	-6.5~2.5	PIN	-10	0~70°C	2000	DDM	100G CWDM4

电口定义

Parameter	Symbol	Unit	Min	Typ	Max
Supply Voltage	V _{CC}	V	3.14	3.3	3.47
Supply Current	I _{CC}	mA			1000
Transmitter					

Input Differential Impedance	R_{IN}	Ω	90	100	100
Single Ended Data Input Swing	V_{IN}	mVp-p	350		800
Transmit Disable Voltage	V_{DIS}	V	2		3.5
Transmit Enable Voltage	V_{EN}	V	-0.3		0.8
Transmit Fault Assert Voltage	V_{FA}	V	2		3.5
Transmit Fault De-Assert Voltage	V_{FDA}	V	-0.3		0.8
Receiver					
Single Ended Data Output Swing	V_{OD}	mVp-p	185		900
LOS Fault	V_{LOSFT}	V	2		3.5
LOS Normal	V_{LOSNR}	V	-0.3		0.8