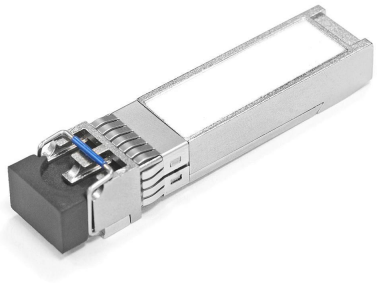
10GB/s 10Km SFP+ 1310nm 光收发模块



产品简介

RTXM228-401 10Gigabit 1310nm DFB 光收发模块支持 8.5Gb/s～10.52Gb/s 速率光数据传输，通过单模光纤传输距离可达 10Km，符合 SFF-8432、10GFC、FC-PI-4、IEEE802.3ae 及 SFF-8431 标准。模块通过 I2C 接口实现数字诊断功能，符合 SFF-8472 标准。

功能

- 传输距离达 10Km
- LC 收发连接器
- 功耗<1.0W
- 工作温度 0℃～70℃
- 供电电压+3.3V±5%
- 数字诊断符合 SFF-8472 标准

应用

- 10GBASE-LR/LW 10G 以太网
- 10GFC
- 8GFC

标准

- IEEE 802.3ae
- SFF-8431
- SFF-8472
- 10GFC
- FC-PI-4

规格

Parameter	Symbol	Unit	Min	Typ	Max
Transmitter					
Nominal Wavelength	λ	nm	1260	1310	1355
Side Mode Suppression Ratio	SMSR	dB	30		
Optical Modulation Amplitude	POMA	dBm	-5.2		
Optical Output Power	Pav	dBm	-8.2		0.5
Extinction Ratio	ER	dB	3.5		
Transmitter and Dispersion Penalty	TDP	dB			3.2
Average launch power of OFF transmitter	P_{OFF}	dBm			-30
Relative Intensity Noise	R_{IN}	dB/Hz			-128
Optical Return Loss Tolerance	ORLT	dB			12
Spectral width		nm			1
Receiver					
Center Wavelength	λ	nm	1260		1355
Average Receiver Power	P_{AVG}	dBm	-14.4		+0.5
Receiver Sensitivity (OMA)	R_{SENSE1}	dBm			-12.6
Stressed Receiver Sensitivity (OMA)	R_{SENSE2}	dBm			-10.3
Receiver Sensitivity(Average Receiver Power)	R_{SENSE3}	dBm			-14.4
Max Input power		dBm	1.5		
Receiver Reflectance	R_{REFL}	dB			-12
Assert LOS	LOS_A	dBm	-30		
De-Assert LOS	LOS_D	dBm			-16
LOS Hysteresis		dB	0.5		

订购信息

Part No.	Specifications								Application
	Package	Datarate (Gb/s)	Laser	Optical Power (dBm)	Detector	Sensitivity (OMA) dBm	Top	Reach (km)	Other
RTXM228-401	SFP+	8.5 ~10.52	1310nm DFB	-8.2 ~+0.5	PIN	< -12.6	0~70 °C	10km	DDM	10GBASE-LR/LW 8G/10GFC

电接口定义

Parameter	Symbol	Unit	Min	Typ	Max
Supply Voltage	V_{CC}	V	3.14	3.3	3.46
Supply Current	Icc	mA			315
Transmitter					
Input Differential Impedance	R_{IN}	Ω	80	100	120
Differential Data Input Swing	V_{IN}	mVp-p	190		700
Transmit Disable Voltage	V_{DIS}	V	2		V_{CCHOST}
Transmit Enable Voltage	V_{EN}	V	V_{EE}		V_{EE}+0.8
Transmit Fault Assert Voltage	V_{FA}	V	2.2		V_{CCHOST}

Transmit Fault De-Assert Voltage	V_{FDA}	V	V_{EE}		V_{EE}+0.4
Receiver					
Differential Data Output Swing	V_{OD}	mVp-p	300		850
Output Rise Time	t_{RISE}	ps	25		
Output Fall Time	t_{FALL}	ps	25		
LOS Fault	V_{LOSFT}	V	2.2		V_{CCHOST}
LOS Normal	V_{LOSNR}	V	V_{EE}		V_{EE}+0.4