Módulo Óptico
SFP+ 850nm 10G 300m C-temp

TS8511A-CN

Módulo óptico (gbics) SFP+ 850nm que suportam taxas de dados de 10 Gbps e seu alcance máximo de enlace é de 300m.

Observações

Somente remova a tampa quando for realizar a conexão do cordão/cabo, evitando assim sujeiras indesejadas no conector. Nunca olhe diretamente no interior do módulo óptico. A radiação óptica pode ser prejudicial aos olhos.

10Gb/s SFP+ 850nm 300m Optical Transceiver

FEATURES

- Support 10GBASE-SR/10G Fiber Channel application
- Compliant to SFP+ Electrical MSA SFF-8431
- Compliant to SFP+ Mechanical MSA SFF-8432
- Transmission distance up to 300m (OM3)
- +3.3V single power supply
- Low power consumption
- Operating case temp Commercial: 0°C to +70 °C
- RoHS compliant
- Password protection for A0h and A2h

APPLICATIONS

- 10 Gigcabit Ethernet
- InfiniBand QDR, DDR, SDR
- High-performance computing clusters
- Servers, switches, storage and host card adapters

ORDERING INFORMATION

Part Number	Form Factor	Data Rate	Media	Distance (km)	Wavelength (nm)	Temperature (℃)
TS8511A-CN	SFP+	10G	MMF	0.3	850	0~70

1. ABSOLUTE MAXIMUM PARAMETERS

Parameter	Symbol	Min.	Max.	Unit.
Supply Voltage	Vcc	-0.5	+3.6	V
Storage Temperature	Ts	-40	+85	°C
Operating Humidity	RH	+5	+85	%

2. RECOMMENDED OPERATING CONDITIONS

Parameter	Symbol	Min.	Typ.	Max.	Unit.
Operating Case Temperature	TC	0	-	+70	°C
Power Supply Voltage	Vcc	3.14	3.3	3.47	V
Power Supply Current	Icc	-	-	300	mA
Power Dissipation	Pd	-	-	1.0	W
Bit Rate	BR	-	10.3125	-	Gbps

3. ELECTRICAL CHARACTERISTICS

Electrical Characteristics							
Parameter		**Symbol**	**Min**	**Typical**	**Max**	**Unit**	**Notes**
Differential Data Input Swing		Vin,P-P	200	-	1000	mVPP	
Input Differential Impedance		ZIN	90	100	110	Ω	
Tx_Fault	Normal Operation	VOL	VEE-0.3	-	0.4	V	
	Transmitter Fault	VOH	2.0	-	VCC+0.3	V	
Tx_Disable	Normal Operation	VIL	VEE-0.3	-	0.8	V	
	Laser Disable	VIH	2.0	-	VCC+0.3	V	

4. OPTICAL CHARACTERISTICS

Optical transmitter Characteristics						
Parameter	**Symbol**	**Min**	**Typical**	**Max**	**Unit**	**Notes**
Bit Rate	BR	1.06	10.3125		Gbps	
Center Wavelength Range	λc	840	850	860	nm	
RMS spectral width	△λ			0.6	nm	
Average Launch power Tx_off	Poff	-	-	-30	dBm	
Launch Optical Power	P0	-6.5		-1	dBm	1

Extinction Ratio	ER	3	-	-	dB	
Optical receiver Characteristics						
Parameter	**Symbol**	**Min**	**Typical**	**Max**	**Unit**	**Notes**
Bit Rate	BR	1.06	10.3125		Gbps	
Receiver Sensitivity	RS	-	-	-9.9	dBm	2
Overload Input Optical Power	PIN	-1	-	-	dBm	2
Center Wavelength Range	λc	840	-	860	nm	
Los De-Assert	LOSD	-	-	-12	dBm	
Los Assert	LOSA	-26	-	-	dBm	
LOS Hysteresis		0.5	-	-	dB	

Notes:

1) Coupled into 50/125 MMF
2) Measured with PRBS 2^31-1 test pattern @10.3125Gbps.BER=1E-12

5. PIN DESCRIPTIONS

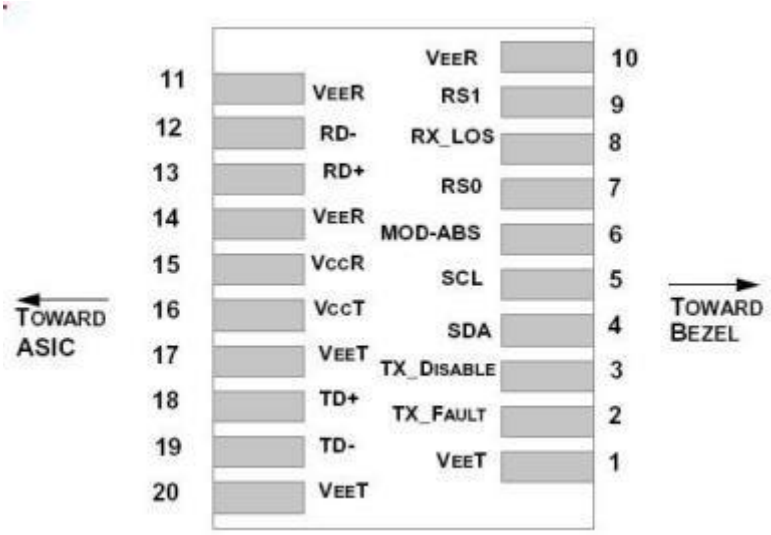
Pin	Symbol	Name/Description	Notes
1	VEET	Module Transmitter Ground	1
2	TX_FAULT	Module Transmitter Fault	2
3	TX_DISABLE	Transmitter Disable; Turns off transmitter laser output	3
4	SDA	2-Wire Serial Interface Data Line (MOD-DEF2)	
5	SCL	2-Wire Serial Interface Clock (MOD-DEF1)	
6	MOD_ABS	Module Absent, connected to VEET or VEER in the module	2
7	RS0	Rate Select 0	
8	RX_LOS	Receiver Loss of Signal Indication (In FC designated as Rx_LOS and in Ethernet designated as Signal Detect)	2
9	RS1	Rate Select 1	
10	VEER	Module Receiver Ground	1

11	VEER	Module Receiver Ground	1
12	RD-	Receiver Inverted Data Output	
13	RD+	Receiver Non-Inverted Data Output	
14	VEER	Module Receiver Ground	1
15	VCCR	Module Receiver 3.3 V Supply	
16	VCCT	Module Transmitter 3.3 V Supply	
17	VEET	Module Transmitter Ground	1
18	TD+	Transmitter Non-Inverted Data Input	
19	TD-	Transmitter Inverted Data Input	
20	VEET	Module Transmitter Ground	1

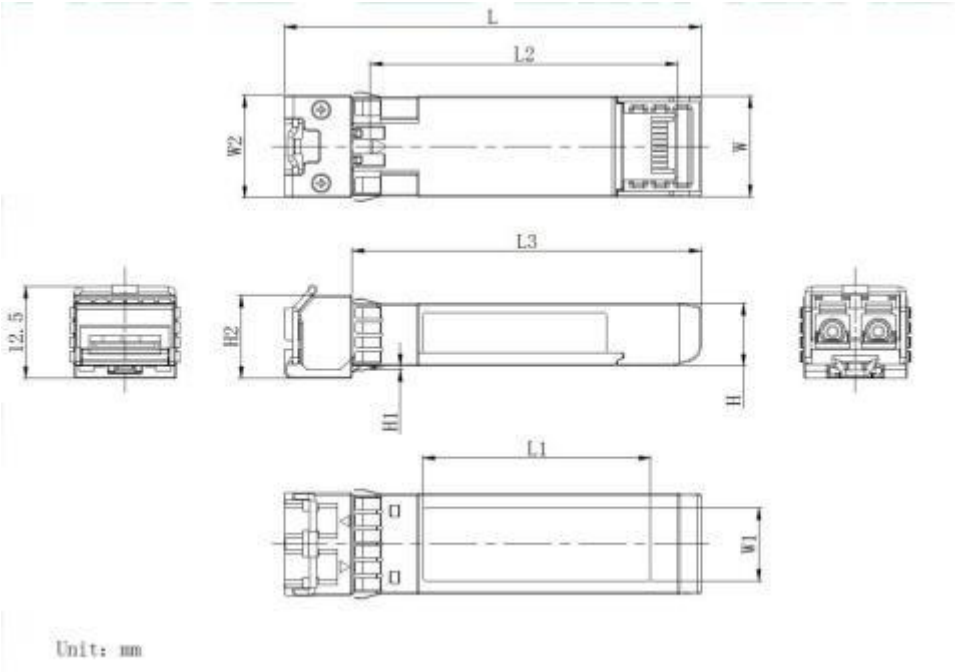
Note:

1. The module ground pins are isolated from the module case
2. The pins shall be pulled up with 4.7K-10Kohms to a voltage between 3.14V and 3.46V on host board.
3. The pin is pulled up to VCCT with a 4.7K-10KΩ resistor in the module

6. PIN DIAGRAM



7. Mechanical Design Diagram (mm)



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