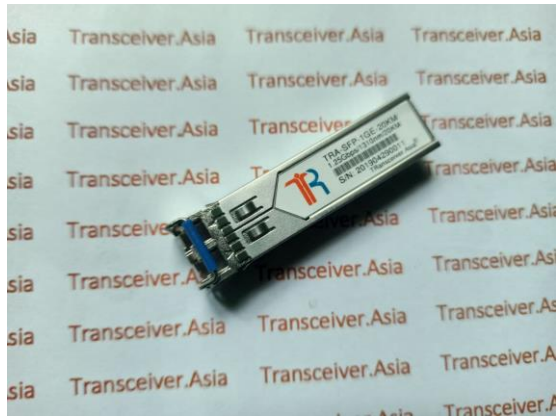
TRA-SFP-1G-10KM

1.25G-1310nm / 10km / Gigabit Ethernet 1000 BASE-LX

Features



- SFP Multi-Source Agreement compliant (INF-8074)
- Hot pluggable SFP footprint
- Serial ID functionality supported according to (SFF-8472)
- Class 1 laser safety standard IEC 60825 compliant
- Dual LC connector
- 1310nm DFB transmitter
- APD receiver
- 10km point-to-point transmission on single mode fiber Optical interface compliant to IEEE 802.3ae 10GBASE-LR
- Operating temperature range 0°C to 70°C or -40°C to 85°C
- Low power dissipation (<1W)
- Digital diagnostics monitoring (DDM)

Applications

- Gigabit Ethernet
- Storage
- 1´Fiber Channel

Description

TRansceiver.Asia is a high performance, TRA-SFP-1G-LX-10Km is a high performance transceiver module for Gigabit Ethernet data links over two single mode fibers. The maximum reach1 is 10km, with 32dB end of life (EOL) power budget. The transmitter is a 1310nm DFB laser, the receiver is an APD photodiode.

This transceiver module is compliant with the Small Form-factor Pluggable (SFP) Multisource Agreement (MSA) and hot pluggable. Always contact **TRansceiver.Asia** commercial agents for compatibility with different equipment platforms.

Optical Interfaces

P/N	Wavelength	Output Optical Power[2]	Optical receiver Sensitivity3	Optical Receiver Overload[4]	Power Budget
	[nm]	[dBm]	[dBm]	[dBm]	[dB]
TRA-SFP-1G-10KM	1310	-10 to -3	≤ -21	0	≥ 11

Recommended Operating Conditions

Parameter	Symbol	Min.	Typ.	Max.	Unit	Notes
Power Supply Voltage	Vcc	3.15	3.3	3.45	V	
Power Supply Current	Icc			300	mA	
Case Operating Temperature	Tc	0		70	°C	Standard
		-20		85	°C	Extended
		-40		85	°C	Industrial
Relative Humidity		5		95	%	
Storage Temperature		-40		85	°C	

Transmitter Optical Specifications

Parameter	Min	Typ	Max	Units
Average Output Power	-10		-3	dBm
Centre Wavelength	1260	1310	1360	nm
Spectral Width (RMS)			3	nm
Extinction Ratio	9			dB

Receiver Optical Specification

Parametter	min	typ	max	unit	note
Sensitifity			-21	dBm	6
Receiver Overload	0			dBm	6
Wavelegth of Operation	1260		1600		

Module Electrical Pin Definition

Pin Number	Name	Function
1	VeeT	Transmitter Ground
2	TX Fault	Transmitter Fault Indication
3	TX_ Disable	Transmitter Disable
4	MOD-DEF2	2-Wire Serial Interface Data
5	MOD-DEF1	2-Wire Serial Interface Clock
6	MOD-DEF0	Grounded in Module
7	Rate Select	Not Connected
8	LOS	Loss of Signal
9	VeeR	Receiver Ground
10	VeeR	Receiver Ground
11	VeeR	Receiver Ground
12	RD-	Inverted Received Data Out
13	RD+	Received Data Out
14	VeeR	Receiver Ground
15	VccR	Receiver Power
16	VccT	Transmitter Power
17	VeeT	Transmitter Ground
18	TD+	Transmit Data In
19	TD-	Inverted Transmit Data In
20	VeeT	Transmitter Ground

Ordering information

Part Number	Description
TRA-SFP-1G-LX-10KM	1G Single Mode SFP Transceiver,Tx : 1310nm , 10km, LC, DDM, 0ºC~+70ºC

Warnings

Process plug

The transceiver optics is supplied with a dust cover. This plug protects the transceiver optics during standard manufacturing processes by preventing contamination from air borne particles. It is recommended that the dust cover remain in the transceiver whenever an optical fiber connector is not inserted.

Handling Precautions

The transceiver optics is susceptible to damage as a result of electrostatic discharge (ESD). A static free environment is highly recommended. Follow guidelines according to proper ESD procedures.

Laser Safety

The transceiver optics is a Class 1 laser product per international standard IEC 60825-1. Radiation emitted by laser