TRA-SFP-1G-ZX

1550nm / 80km / Gigabit Ethernet / 1GBASE-ZX

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
- 1550nm DFB Laser Transmitter
- 80km point-to-point transmission on single mode fibre
- Gigabit Ethernet compatible
- 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 Switches and Routers
- Fibre Channel Switch Infrastructure
- 1× Fiber Channel 1× Fiber Channel

Description

TRansceiver.Asia is a high-performance transceiver module for up to 1.25Gbps data links over a single mode fibre pair. The maximum reach[1] is 80km, for a 23dB end of life (EOL) power budget. The transmitter is a 1550nm Distributed Feedback (DFB) laser, the receiver is a PIN 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-ZX	1550nm	0 to 5	≤ -23	0	≥ 23

Recommended Operating Conditions

Parameter	Min	Typ	Max	Units	Notes
Storage temperature	-40		85	°C	
Operating Case Temperature	0		70		
	-40		85	°C	
Relative Humidity	5		95	%	Non condensing
Power Supply Voltage	3.15	3.3	3.45	V	
Power Supply Current			300	mA	

Transmitter Optical Specifications

Parameter	Min	Typ	Max	Unit	Notes
Average Output Power	-5		0	dBm	5
Centre Wavelength	1500	1550	1600	nm	
Spectral Width (-20dB)			1	nm	
Extinction Ratio	9			dB	

Receiver Optical Specification

Parametter	min	typ	max	unit	note
Sensitifity			-24	dBm	6
Receiver Overload	0			dBm	
Wavelegth of Operation	1260		1600	nm	

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 Used
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-ZX	SFP dual fibre, Tx 1550nm (DFB), Rx (PIN), maximum distance 80km, power budget 23dB, Dual Rate, LC connector, 0°C to 70°C, DDM

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