TRA-SFP-10G-SR

10G-850nm / 300m / Gigabit Ethernet 10GBASE-SR

Features

- SFP+ Multi-Source Agreement compliant (SFF-8431)
- Hot pluggable SFP+ footprint
- Serial ID functionality supported according to (SFF-8472)
- Class 1 laser safety standard IEC 60825 compliant
- Dual LC connector
- 850nm VCSEL transmitter
- 300m, point-to-point transmission on single mode fiber
- Gigabit Ethernet compliant
- Operating temperature range 0°C to 70°C or -40°C to 85°C
- Low power dissipation (<1W)
- Digital diagnostics monitoring (DDM)

Applications

- 10x Gigabit Ethernet
- 9.83 Gbps CPRI
- 8x Fiber Channel
- 4x Fiber Channel
- 2x´Fiber Channel

Description

TRansceiver is a high-performance transceiver module for up to 10x Gigabit Ethernet data links over a multimode fibre pair. The maximum reach[1] is 300m (50/125µm), with 4dB end of life (EOL) power budget. The transmitter is an 850nm VCSEL, 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-10G-SR	850	-6 to -1	≤ -10	-1	≥ 4

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
		-40		85	°C	Extended
Relative Humidity		5		95	%	
Storage Temperature		-40		85	°C	

Transmitter Optical Specifications

Parameter	Min	Typ	Max	Units
Average Output Power	-6		-1	dBm
Centre Wavelength	840		860	nm
Spectral Width (RMS)			0.45	nm
Extinction Ratio	3			dB

Receiver Optical Specification

Parametter	min	Typ	max	unit	note
Sensitifity			-10	dBm	6
Receiver Overload	-1			dBm	6
Wavelegth of Operation	840		860	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 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-10G-SR	10G Single Mode SFP+ Transceiver,Tx : 850nm , 300m, 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