Omada
by tp-link

RJ45 SFP+ Module

Datasheet
SM5310-T
10G BASE-T RJ45 SFP+ Module

Highlights

- Support 10GBASE-T, 5GBASE-T, 2.5GBASE-T, and 1000BASE-T*
- Transmit data up to 30m** at 10 Gbps (UTP cat.6a or above)
- Support DDM (Temperature and Voltage)
- Hot-Pluggable SFP+ Footprint Features
- Support TX Disable function
- Fully Metallic Enclosure for Low EMI

Overview

SM5310-T is a high-speed SFP+ module that converts SFP+ ports to RJ45 ports, supporting multi-rate Ethernet speeds up to 10 Gbps over distances of up to 30 meters with UTP Cat6a or higher cables. Compliant with SFP+ MSA standards, it ensures broad compatibility with a wide range of network devices.
Featuring Digital Diagnostic Monitoring (DDM) as per the SFF-8472 standard, this module enables real-time monitoring of key parameters, enhancing network reliability and performance. Ideal for diverse business networking scenarios, SM5310-T is a top choice for high-speed data transmission in switches, gateways, and other SFP+ port-equipped network equipment.

Specifications

Hardware Features & Performance		
Model		SM5310-T
General	Standards	IEEE 802.3, IEEE 802.3ab, IEEE 802.3bz, IEEE 802.3an, SFF-8472, SFF-8431
	Data Rate	10.3125 Gbps
	MAC Interface	2.5/5/10 Gbps: XFI 1000 Mbps: 1000BASE-X
	Power Input	3.3V
	Maximum Power Consumption	2.442 W @ 10000 Mbps Full Duplex
	Cable Distance	1000BASE-T/2.5GBASE-T/5GBASE-T: UTP Cat. 5e or above (max. 100m) 10GBASE-T: UTP Cat. 6a or above (max. 30m)
	Tx Output Impedance	100 Ω
	Rx Input Impedance	100 Ω
	Input Swing	100-1500 mVpp
	Output Swing	100-2000 mVpp
	TX_Disable	Yes
	Hot Swappable	Yes
	DDM	Yes (temperature and voltage)
	Dimensions	2.7*0.5*0.5 in (67.4*13.4*13.8 mm)
Physical & Environment	Operating Temperature	0 – 70 °C (32 – 158 °F)
	Storage Temperature	-40 – 85 °C (-40 – 185 °F)
	Operating Humidity	10% to 90% RH non-condensing
	Storage Humidity	5% to 90% RH non-condensing

*When a 10G RJ45 SFP+ module is used at 1 Gbps, extra configuration for port data rate may be required. And when it is inserted into a 10 Gbps SFP+ slot and the maximum rate of the peer connection port is 5 Gbps or 2.5 Gbps, the flow control for the 10 Gbps SFP+ slot needs to be manually enabled.

**Data measured in a laboratory environment under specific conditions. The actual transmission distance may vary due to transmission speed or the cable quality and type.