

SO-SFP-10GE-T

SFP+, 10GBASE-T, 1000BASE-T, 100BASE-T, 30m, RJ45

OVERVIEW

The SO-SFP-10GE-T is a transceiver with a high-performance integrated duplex data link for bidirectional communication over copper cable. It is specifically designed for high speed communication links that require 10 Gigabit Ethernet over Cat 6a/7 cable. The transceiver also supports Ethernet services at 1 Gbps as well as at 100 Mbps.

SO-SFP-10GE-T is a solution for Ethernet connections within racks and across adjacent racks where the interconnected equipment uses SFP interfaces instead of RJ45.

TECHNICAL DATA

Technology	Grey SFP+
Transmission media	Electrical (1x RJ45)
Typical reach	30m @ 10GbE 100m @ GbE 100m @ FE
Interface standards	10GBASE-T IEEE 802.3an 1000BASE-T IEEE 802.3ab 100BASE-TX IEEE 802.3u
Protocols	Eth: 10GbE GbE 100M (FE)
Temperature range	-10°C to +70°C
Power consumption	< 2.5W

Distance	10G BASE-T	30m with CAT6A/CAT7
	1000BASE-T	100m with CAT5E or better
	100BASE-T	100m with CAT5E or better
Misc. features	Autoneg	
DDM	No	
MSA compliance	SFP Mechanical	

Regulatory compliance

EMC CE	EN 55022:2010 EN 55024:2010
UL/Safety	UL 60950-1
FCC	47 CFR PART 15 OCT, 2013
RoHS	RoHS 6
TUV	EN 60950-1:2006+A11+A1+A12+A2

Storage temp.	-40°C to +85°C
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ORDERING INFORMATION

Part number	Description
SO-SFP-10GE-T	SFP+, 10GBASE-T, 1000BASE-T, 100BASE-T, 30m, RJ45

DEFINITIONS

Technology:	Grey; Transceiver type for non-WDM applications. Electrical or optical. CWDM; Transceiver type for CWDM applications using G.694.2 channel grid. DWDM; Transceiver type for DWDM applications using G.694.1 channel grid. BiDi; Transceiver pair using two different wavelength channels operating on a single-fiber. DAC: Direct Attach Cable. Electrical or optical cable with attached connectors.
Transmission Media:	Type of fiber, e.g. Multimode (MM) or Singlemode (SM). Number of and connector type within brackets (e.g. 2x LC, 1x MPO).
Typical reach:	Nominal distance performance based on dispersion and power budget properties, i.e. w/o dispersion compensation and optical amplification.
Bit rate range:	Supported bit rate range in Gigabit or Megabit per second (Gbps or Mbps).
Protocols:	Protocols within supported bit rate range.
Nominal wavelength:	Typical wavelength from transmitter.
Interface standards:	Referenced interface standards e.g. IEEE 802.3 standard for 10GbE services.
Power budget:	Min and max power budget between Transmitter and Receiver. Excluding any dispersion penalty.
Dispersion tolerance/penalty:	Maximum amount of tolerated dispersion and required reduction of power budget to maintain BER better than $1E^{-12}$. Defined at a specific bit rate.
Temperature range:	Max operating case temperature range. Standard temperature range: Typically 0°C to +70°C (32°F to +158°F) Extended temperature range (E-temp): Typically -20°C to +75°C (-4°F to +167°F) Industrial temperature range (I-temp): -40°C to +85°C (-40°F to +185°F)
Power consumption:	Worst case power consumption.
Transmitter Output power:	Average output power. Provided in min and max values.
Receiver minimum input power:	Minimum average input power at specified BER, normally $1E^{-12}$.
Receiver max input power:	Maximum average input power at specified BER, normally $1E^{-12}$.
DDM:	Digital Diagnostic Monitoring functionality as defined in SFF-8472 MSA.