SO-SFP-100BASE-T & -T-I

SFP, 10/100Base-T, 100m, RJ45, C-temp & I-temp

OVERVIEW

The SO-SFP-100BASE-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- or 100-Megabit Ethernet over LAN cable.

SO-SFP-100BASE-T is a solution for 10/100 Mbps Ethernet connections within racks and across adjacent racks where the interconnected equipment uses SFP interfaces instead of RJ45.

TECHNICAL DATA

Parameter	Value
Technology	Grey SFP (copper)
Transmission media	Electrical (1x RJ45)
Typical reach	100m
Interface standards	100BASE-TX IEEE 802.3
	10BASE-TX IEEE 802.3
Power consumption	< 1W
Operating temperature	-10°C to +70°C
	-40°C to +85°C (-T-I)
Storage temperature	-40°C to +85°C

Parameter	Value
Distance 10M	100m CAT5 UTP
Distance 100M	100m CAT5 UTP
RX_LOS	Yes
Auto-neg	Yes (on line i/f)
DDM	No
MSA compliance	SFP MSA

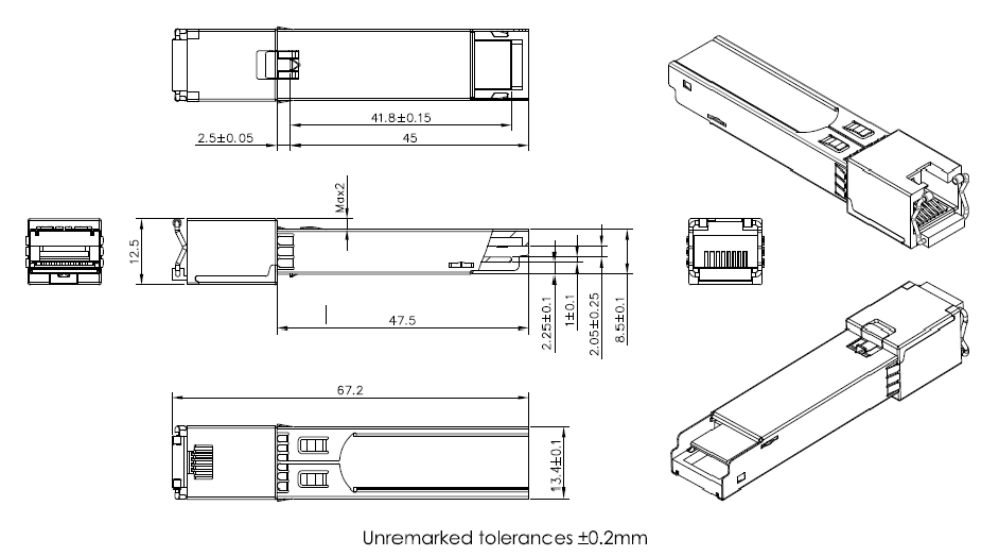
Safety/regulatory compliance:
TUV/UL/FDA (contact Smartoptics for latest certification information)
RoHS compliance

Note: Transceivers with a manufacturing date Nov 2019 or more recent also supports half-duplex configurations.

ORDERING INFORMATION

Ordering number	Description
SO-SFP-100BASE-T	SFP, 100M/10M Ethernet, 100m@CAT5, RJ45
SO-SFP-100Base-T-I	SFP, 100M/10M Ethernet, 100m@CAT5, RJ45, I-temp

MECHANICAL DIMENSIONS



GENERAL DEFINITIONS

Parameter	Description
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 cable with attached connectors. AOC: Active Optical Cable. 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 typical fiber dispersion, fiber loss and power budget properties, i.e. w/o dispersion compensation and optical amplification. Actual distance is dependent on actual optical path loss and dispersion properties.
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(s) from transmitter.
Interface standards	Referenced interface standards or MSA's, e.g. IEEE 802.3 standard for 10GbE services or 100G 4WDM-10 etc.
Power budget	Min and max power budget between Transmitter and Receiver w/o optical path penalties.
Dispersion tolerance/penalty	Maximum amount of tolerated dispersion and required reduction of power budget to maintain stipulated Bit Error Rate (BER) and at a given bit rate.
Temperature range	Max operating case temperature range. Standard temperature range (C-temp): 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. Will vary over temperature.
Transmitter Output power	Average output power. Provided in min and max values.
Receiver minimum input power	Minimum average input power at specified BER, normally $1E^{-12}$. Note that some protocols require FEC to achieve sufficient BER.
Receiver max input power	Maximum average input power giving a BER, normally $1E^{-12}$.
DDM	Digital Diagnostic Monitoring functionality as defined in e.g. SFF-8472 MSA.