SO-SFP-MR2D

SFP, 100Mbps-2.7Gbps, Multirate, 1310nm, SM, DDM, 8dB, 2km

OVERVIEW

SO-SFP-MR2D is a 1310nm SFP transceiver for SingleMode fiber, covering a wide range of services up to 2.67Gbps, such as the SDH/SONET range STM-1/OC-3 to STM-16/OC-48 as well as 1Gbps Ethernet (GbE) services etc.

The optical performance provides a bridgeable distance of up to 2km. The transceiver has no minimum distance (i.e. no minimum attenuation) which is ideal for intra-office connections since extra attenuators need not be considered.

This transceiver provides digital diagnostic functions via a 2-wire serial interface as defined by the SFF-8472 specification.

TECHNICAL DATA

Technology		Grey SFP
Transmission media		SM (2x LC)
Typical reach		2 km
Nominal wavelength		1310 nm
Bit rate range		125 – 2.67 Mbps
Protocols	Eth:	GbE
	SDH/SONET:	STM-1/OC-3 STM-4/OC-12 STM-16/OC-48
	OTN;	OTU1
	FC:	1G FC 2G FC
	CPRI:	Opt 1 (0.6144 Gbps) Opt 2 (1.2288 Gbps) Opt 3 (2.4576 Gbps)
	OBSAI:	0.768 Gbps 1.536 Gbps
Power budget		0 - 8 dB [1]
Temperature range		0°C to +70°C
Power consumption		< 1.0W

Transmitter data	Output power:	Min: -10.0 dBm Max: -3.0 dBm
	Tx wavelength:	Min: 1260 nm Max: 1360 nm
Receiver data	Minimum input power:	-18.0 dBm [1]
	Overload (max power):	-3.0 dBm
	Wavelength range:	1260 - 1600 nm
DDM		Yes
MSA compliance		SFP MSA SFF-8472

[1] @ 2.488 Gbps & BER 1E-12

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 EN 60825-1:2014 EN 60825-2:2004+A1+A2

Storage temp.	-40°C to +85°C

Note! See "Definitions" below.

ORDERING INFORMATION

Part number	Description
SO-SFP-MR2D	SFP,100Mbps-2.7Gbps, Multirate, 1310nm, SM, DDM, 8dB, 2km

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.