SO-SFP-1000BASE-ZXD & ZXD-I
SFP, 1.25 Gbps GbE, 1550nm, SM, DDM, 24dB, 80km

OVERVIEW

SO-SFP-1000BASE-ZXD is a 1550nm SFP high performance transceiver for SingleMode (SM) fiber for Gigabit Ethernet (GbE) and 1G Fiber Channel (1G FC) services. The optical performance provides a bridgeable distance of up to 80 km.

This transceiver provides digital diagnostic functions via a 2-wire serial interface as defined by the SFF-8472 specification. The transceiver is available in two temperature range options, one being the Industrial temperature range (I-temp): -40°C to 85°C (-40°F to 185°F).

TECHNICAL DATA

<table>
<thead>
<tr>
<th>Technology</th>
<th>Grey SFP</th>
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<tbody>
<tr>
<td>Transmission media</td>
<td>SM (2x LC)</td>
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<tr>
<td>Typical reach</td>
<td>80 km</td>
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<tr>
<td>Nominal wavelength</td>
<td>1550 nm</td>
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<tr>
<td>Bit rate range</td>
<td>1.0Gbps / 1.25 Gbps</td>
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<tr>
<td>Protocols</td>
<td>Eth: GbE, FC: 1G FC</td>
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<tr>
<td>Power budget</td>
<td>8 - 24 dB</td>
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<tr>
<td>Dispersion tolerance</td>
<td>1600 ps/nm</td>
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<tr>
<td>Dispersion penalty</td>
<td>1 dB</td>
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<tr>
<td>Temperature range</td>
<td>0°C to +70°C (ZXD)</td>
</tr>
<tr>
<td></td>
<td>-40°C to +85°C (ZXD-I)</td>
</tr>
<tr>
<td>Power consumption</td>
<td>&lt; 1.0W</td>
</tr>
</tbody>
</table>

Transmitter data

Output power:
- Min: 0.0 dBm
- Max: +5.0 dBm

Tx wavelength:
- Min: 1500 nm
- Max: 1580 nm

Receiver data

Minimum input power:
- -24.0 dBm

Overload (max power):
- -3.0 dBm

Wavelength range:
- 1260 - 1600 nm

DDM
- Yes

MSA compliance
- SFP MSA
- SFF-8472

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+A12+A2
- EN 60950-1:2014
- EN 60825-1:2004+A1+A2

Storage temp.
- -40°C to +85°C

Note! See “Definitions” below.

ORDERING INFORMATION

<table>
<thead>
<tr>
<th>Part number</th>
<th>Description</th>
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<tr>
<td>SO-SFP-1000Base-ZXD</td>
<td>SFP, 1.25 Gbps GbE, 1550nm, SM, DDM, 24dB, 80km</td>
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</table>

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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 $10^{-12}$. 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 $10^{-12}$.
Receiver max input power: Maximum average input power at specified BER, normally $10^{-12}$.

DDM: Digital Diagnostic Monitoring functionality as defined in SFF-8472 MSA.

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