SO-SFP-100BASE-FXD
SFP, 100Base, 1310nm, MM, DDM, 12dB, 2km

OVERVIEW

SO-SFP-100BASE-FXD is a 1310nm SFP transceiver for MultiMode (MM) fiber for 100 Mbps Ethernet (FE) and STM-1/OC-3 services. The optical performance provides a bridgeable distance of up to 2 km. 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

<table>
<thead>
<tr>
<th>Technology</th>
<th>Grey SFP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transmission media</td>
<td>MM (2x LC)</td>
</tr>
<tr>
<td>Typical reach</td>
<td>2 km</td>
</tr>
<tr>
<td>Nominal wavelength</td>
<td>1310 nm</td>
</tr>
<tr>
<td>Bit rate range</td>
<td>125 – 155.5 Mbps</td>
</tr>
<tr>
<td>Protocols</td>
<td>Eth: 100M Ethernet (FE) SDH/SONET: STM-1/OC-3</td>
</tr>
<tr>
<td>Power budget</td>
<td>0 - 12 dB ¹</td>
</tr>
<tr>
<td>Temperature range</td>
<td>0°C to +70°C</td>
</tr>
<tr>
<td>Power consumption</td>
<td>&lt; 1.0W</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Transmitter data</th>
<th>Output power:</th>
<th>Min: -19.0 dBm Max: -14.0 dBm</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tx wavelength:</td>
<td>Min: 1260 nm Max: 1360 nm</td>
</tr>
<tr>
<td>Receiver data</td>
<td>Minimum input power:</td>
<td>-31.0 dBm ¹</td>
</tr>
<tr>
<td></td>
<td>Overload (max power):</td>
<td>-12.0 dBm</td>
</tr>
<tr>
<td></td>
<td>Wavelength range:</td>
<td>1260 - 1600 nm</td>
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<tr>
<td>DDM</td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>MSA compliance</td>
<td></td>
<td>SFP MSA SFF-8472</td>
</tr>
</tbody>
</table>

¹) @ 155 Mbps & 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

<table>
<thead>
<tr>
<th>Part number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SO-SFP-100Base-FXD</td>
<td>SFP, 100Base, 1310nm, MM, DDM, 12dB 2km</td>
</tr>
</tbody>
</table>
### 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.

**Dispersion budget/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.