SO-SFP-155M-L160D
SFP, 100/155Mbps, 1550nm, SM, DDM, 37dB, 160km

OVERVIEW

SO-SFP-155M-L160D is a 1550nm SFP transceiver for SingleMode (SM) fiber for 155 Mbps SDH/SONET and 100M Fast Ethernet services. The optical performance provides a bridgeable distance of up to 160 km.

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>SM (2x LC)</td>
</tr>
<tr>
<td>Typical reach</td>
<td>160 km</td>
</tr>
<tr>
<td>Nominal wavelength</td>
<td>1550 nm</td>
</tr>
<tr>
<td>Bit rate range</td>
<td>125 / 155.520 Mbps</td>
</tr>
<tr>
<td>Protocols</td>
<td>Eth: 100M Ethernet (FE)</td>
</tr>
<tr>
<td></td>
<td>SDH/SONET: STM-1/OC-3</td>
</tr>
<tr>
<td>Power budget</td>
<td>17 - 37 dB</td>
</tr>
<tr>
<td>Dispersion tolerance</td>
<td>3200 ps/nm</td>
</tr>
<tr>
<td>Dispersion penalty</td>
<td>1 dB</td>
</tr>
<tr>
<td>Power consumption</td>
<td>&lt;1.0W</td>
</tr>
</tbody>
</table>

Transmitter data
- Output power: Min: +2.0 dBm, Max: +7.0 dBm
- Tx wavelength: Min: 1480 nm, Max: 1580 nm

Receiver data
- Minimum input power: -35.0 dBm
- Overload (max power): -10.0 dBm
- Wavelength range: 1260 - 1600 nm

DDM
- Yes

MSA compliance
- SFP MSA
- SFF-8472

1) @ 155 Mbps & BER 1E-12

Regulatory compliance
- EMC CE: EN 55022:2010, EN 55024:2010
- UL/Safety: UL 60950-1
- RoHS: RoHS 6

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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Subject to change without notice.
For more information visit smartoptics.com.
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 (DAC). 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/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 giving a BER, normally $10^{-12}$.

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