**OVERVIEW**

SO-SFP-155M-L200D 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 200 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>200 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) SDH/SONET: STM-1/OC-3</td>
</tr>
<tr>
<td>Power budget</td>
<td>17 - 47 dB ¹</td>
</tr>
<tr>
<td>Dispersion tolerance</td>
<td>4000 ps/nm</td>
</tr>
<tr>
<td>Dispersion penalty</td>
<td>1 dB</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>

**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:       | -45.0 dBm ¹ |
| 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

**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-155M-L200D</td>
<td>SFP, 100/155Mbps, 1550nm, SM, DDM, 47dB, 200km</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 (DAC). Electrical or optical 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 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 giving a BER, normally 1E⁻¹².

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