SFP Module multi-mode 500SMM02
EDS500 series - Ethernet & DSL switches

- Short Range (SR) SFP for distances up to 2 km
- Suitable for all EDS500 devices with SFP slots
- Duplex LC connector / Multi-mode fiber
- Monitors the optical signal quality / Alarm generation before link loss

Application
This short range (SR) SFP is a pluggable optical transceiver for fiber optical transmission lines of up to 2 km range. A minimum attenuation is not required.

This SFP type supports monitoring the receiver input power, as well as the transceiver temperature and voltage (via DOM, Digital Optical Monitoring). Mechanical form factor and electrical interface are compatible with the multi-source agreement (MSA). Additionally, with this SFP type, the optical signal quality and attenuation can be monitored (for instance via SNMP if supported by host). A signal quality threshold can be defined, to enable alarming even before the optical link is lost (due to material aging or similar).
## Technical data

### Power budget
- **Minimum output power**: -19.0 dBm
- **Maximum output power**: -14.0 dBm
- **Receiver sensitivity**: -30.0 dBm
- **Minimum power budget**: 11.0 dB

### Electrical/ Optical characteristics

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Min.</th>
<th>Typ.</th>
<th>Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optical Wavelength</td>
<td>1270 nm</td>
<td>1310 nm</td>
<td>1360 nm</td>
</tr>
<tr>
<td>Receiver Overload</td>
<td>-14.0 dBm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fiber Type</td>
<td>62.5/125 µm multi mode (and 50/125 µm multi mode with degraded power budget)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transmitter Type</td>
<td>LED</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laser Class</td>
<td>Class 1 (LED) DIN EN 60825-1 eye safety compliant</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supply Voltage</td>
<td>3.1 Volt</td>
<td>3.3 Volt</td>
<td>3.5 Volt</td>
</tr>
<tr>
<td>Power Dissipation</td>
<td></td>
<td></td>
<td>792 mW</td>
</tr>
</tbody>
</table>

### General characteristics
- **Data Rate**: 100 Mbps Ethernet
- **Range Classification**: Short Range (SR) / 2 km
- **Connector**: Duplex LC
- **Connector Contact Type**: Physical Contact (PC)
- **Mean time between failure (MTBF)**: 1,163,198 hrs (132.8 years) at 40 °C
- **MTFB calculation according to**: Telcordia GR-468-CORE
- **RoHS Compliant**: Yes

### Environmental conditions - climatic
- **Operating temperature**: -40 °C ... 85 °C
- **Relative humidity**: 5 ... 95 % (non condensing)

### Ordering information
- **500SMM02 R0001**
- **1KGT038901R0001**

### Compatible devices
- **EDS500 switches (unmanaged, with SFP slots)**: 560NUS12
- **EDS500 switches (managed, with SFP-Slots)**: 500NMxx

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