LazrSPEED® OM5 WideBand Multimode Fiber

Product Classification

Portfolio: CommScope®
Product Type: Optical fiber

Optical Specifications, Wavelength Specific

Standards Compliance
- ANSI/TIA-568.3-D wideband multimode fiber cable
- IEC 60793-2-10, edition 6, model A1a.4
- ISO 11801-1 cabled optical fiber performance category OM5
- TIA-492AAAE (OM5)

Attenuation, maximum
- 1.00 dB/km @ 1,300 nm
- 2.20 dB/km @ 953 nm
- 3.00 dB/km @ 850 nm

Index of Refraction
- 1.478 @ 1,300 nm
- 1.483 @ 850 nm

1 Gbps Ethernet Distance
- 1,110 m @ 850 nm
- 600 m @ 1,300 nm

10 Gbps Ethernet Distance
- 550 m @ 850 nm

Bandwidth, Laser, minimum
- 2,600 MHz-km @ 953 nm
- 4,700 MHz-km @ 850 nm
- 500 MHz-km @ 1,300 nm

Bandwidth, OFL, minimum
- 1,950 MHz-km @ 953 nm
- 3,500 MHz-km @ 850 nm
- 500 MHz-km @ 1,300 nm

Physical Specifications

Cladding Diameter: 125.0 µm
Cladding Diameter Tolerance: ±0.8 µm
Cladding Non-Circularity, maximum: 0.7 %
Coating Diameter (Colored): 254 µm
Coating Diameter (Uncolored): 242 µm
Coating Diameter Tolerance (Colored): ±7 µm
Coating Diameter Tolerance (Uncolored): ±5 µm
Coating/Cladding Concentricity Error, maximum: 12 µm
Core Diameter: 50.0 µm
Core Diameter Tolerance: ±2.5 µm
Core/Clad Offset, maximum: 1.0 µm

Optical Specifications, General

Numerical Aperture: 0.200
Numerical Aperture Tolerance: ±0.010
Point Defects, maximum: 0.15 dB
Zero Dispersion Slope, maximum (OM5): -412/(840(1-(λ₀/840)^4)) ps/[km-nm-nm]
Zero Dispersion Wavelength, maximum: 1328 nm
Zero Dispersion Wavelength, minimum 1297 nm

Mechanical Specifications

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coating Strip Force, maximum</td>
<td>4.5 N</td>
</tr>
<tr>
<td>Coating Strip Force, minimum</td>
<td>0.9 N</td>
</tr>
<tr>
<td>Dynamic Fatigue Parameter, minimum</td>
<td>18</td>
</tr>
<tr>
<td>Macrobending, 15 mm mandrel, 2 turns</td>
<td>0.10 dB @ 850 nm</td>
</tr>
<tr>
<td>Macrobending, 7.5 mm mandrel, 2 turns</td>
<td>0.20 dB @ 850 nm</td>
</tr>
<tr>
<td>Proof Test</td>
<td>689.48 N/mm²</td>
</tr>
</tbody>
</table>

Environmental Specifications

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heat Aging, maximum</td>
<td>0.10 dB/km @ 85 °C</td>
</tr>
<tr>
<td>Temperature Dependence, maximum</td>
<td>0.10 dB/km</td>
</tr>
<tr>
<td>Temperature Humidity Cycling, maximum</td>
<td>0.10 dB/km</td>
</tr>
<tr>
<td>Water Immersion, maximum</td>
<td>0.10 dB/km @ 23 °C</td>
</tr>
</tbody>
</table>

Regulatory Compliance/Certifications

**Agency**  
ISO 9001:2015

**Classification**  
Designed, manufactured and/or distributed under this quality management system

* Footnotes

**Temperature Dependence, maximum**  
Temperature dependence is conducted at -60 °C to +85 °C (-76 °F to +185 °F)

**Temperature Humidity Cycling, maximum**  
Temperature humidity cycling is conducted at -10 °C to +85 °C (+14 °F to +185 °F) up to 95% relative humidity