CS-5D1-MP

LazrSPEED® 550

LazrSPEED® 550 OM4 Bend-Insensitive Multimode Fiber

Product Classification

Portfolio	CommScope®
Product Type	Optical fiber

General Specifications

Cladding Diameter	125 µm
Cladding Diameter Tolerance	±5 µm
Cladding Non-Circularity, maximum	1 %
Coating Diameter (Colored)	254 µm
Coating Diameter (Uncolored)	242 µm
Coating Diameter Tolerance (Colored)	±5 µm
Coating Diameter Tolerance (Uncolored)	±7 µm
Coating/Cladding Concentricity Error, maximum	8 µm
Core Diameter	50 µm
Core Diameter Tolerance	±0.5 µm
Core/Clad Offset, maximum	1 µm
Proof Tensile Stress	100,000 psi (0.69 GPa)

Mechanical Specifications

Macrobending, 15 mm Ø mandrel, 2 turns	0.20 dB @ 850 nm | 0.50 dB @ 1,300 nm
Macrobending, 30 mm Ø mandrel, 2 turns	0.10 dB @ 850 nm | 0.30 dB @ 1,300 nm
Macrobending, 75 mm Ø mandrel, 100 turns	0.50 dB @ 1,300 nm | 0.50 dB @ 850 nm
Coating Strip Force, maximum	8.9 N | 2.001 lbf
Coating Strip Force, minimum	1.3 N | 0.292 lbf
Dynamic Fatigue Parameter, minimum	18

Optical Specifications

Numerical Aperture	0.2

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Numerical Aperture Tolerance	±0.015
Point Defects, maximum	0.15 dB
Zero Dispersion Slope, maximum	0.105 ps/[km-nm-nm]
Zero Dispersion Wavelength, maximum	1340 nm
Zero Dispersion Wavelength, minimum	1295 nm

Optical Specifications, Wavelength Specific

1 Gbps Ethernet Distance	1,110 m @ 850 nm | 600 m @ 1,300 nm
10 Gbps Ethernet Distance	550 m @ 850 nm
Attenuation, maximum	1.00 dB/km @ 1,300 nm | 3.00 dB/km @ 850 nm
Backscatter Coefficient	-68.0 dB @ 850 nm | -75.7 dB @ 1,300 nm
Bandwidth, Laser, minimum	4,700 MHz-km @ 850 nm | 500 MHz-km @ 1,300 nm
Bandwidth, OFL, minimum	3,500 MHz-km @ 850 nm | 500 MHz-km @ 1,300 nm
Differential Mode Delay	0.70 ps/m @ 850 nm
Differential Mode Delay Note	Superior to ANSI/TIA TIA-492AAAF and IEC 60793-2-10 at 850 nm
Index of Refraction	1.478 @ 1,300 nm | 1.482 @ 850 nm
Standards Compliance	ANSI/TIA-492AAAF (OM4) | IEC 60793-2-10, A1 (OM4)

Environmental Specifications

Heat Aging, maximum	0.10 dB/km @ 85 °C
Temperature Dependence, maximum	0.1 dB/km
Temperature Humidity Cycling, maximum	0.1 dB/km
Water Immersion, maximum	0.10 dB/km @ 23 °C

* 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

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