TeraSPEED® G652D/G657A1 Singlemode Fiber

Product Classification

Portfolio: CommScope®
Product Type: Optical fiber

General Specifications

Cladding Diameter: 125 µm
Cladding Diameter Tolerance: ±0.7 µm
Cladding Non-Circularity, maximum: 0.7 %
Coating Diameter (Colored): 249 µm
Coating Diameter (Uncolored): 242 µm
Coating Diameter Tolerance (Colored): ±13 µm
Coating Diameter Tolerance (Uncolored): ±5 µm
Coating/Cladding Concentricity Error, maximum: 12 µm
Core Diameter: 8.3 µm
Core/Clad Offset, maximum: 0.5 µm
Proof Test: 689.476 N/mm² | 100000 psi

Dimensions

Fiber Curl, minimum: 4 m | 13.123 ft

Mechanical Specifications

Macrobending, 20 mm Ø mandrel, 1 turn: 0.75 dB @ 1,550 nm | 1.50 dB @ 1,625 nm
Macrobending, 30 mm Ø mandrel, 10 turns: 0.25 dB @ 1,550 nm | 1.00 dB @ 1,625 nm
Macrobending, 60 mm Ø mandrel, 100 turns: 0.05 dB @ 1,550 nm | 0.05 dB @ 1,625 nm
Coating Strip Force, maximum: 8.9 N | 2.001 lbf

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Coating Strip Force, minimum 1.3 N  |  0.292 lbf
Dynamic Fatigue Parameter, minimum 20

Optical Specifications
Cabled Cutoff Wavelength, maximum 1260 nm
Point Defects, maximum 0.1 dB
Zero Dispersion Slope, maximum 0.092 ps/km-nm-nm
Zero Dispersion Wavelength, maximum 1324 nm
Zero Dispersion Wavelength, minimum 1300 nm

Optical Specifications, Wavelength Specific
Attenuation, maximum 0.22 dB/km @ 1,550 nm  |  0.25 dB/km @ 1,490 nm  |  0.25 dB/km @ 1,625 nm  |  0.36 dB/km @ 1,310 nm  |  0.36 dB/km @ 1,385 nm
Attenuation, typical 0.19 dB/m @ 1,550 nm  |  0.33 dB/m @ 1,310 nm
Backscatter Coefficient -79.6 dB @ 1,310 nm  |  -82.1 dB @ 1,550 nm
Dispersion, maximum 18 ps/(nm-km) at 1550 nm  |  3.5 ps/(nm-km) from 1285 nm to 1330 nm at 1310 nm
Index of Refraction 1.467 @ 1,310 nm  |  1.467 @ 1,385 nm  |  1.468 @ 1,550 nm
Mode Field Diameter 10.4 µm @ 1,550 nm  |  9.2 µm @ 1,310 nm  |  9.6 µm @ 1,385 nm
Mode Field Diameter Tolerance ±0.4 µm @ 1310 nm  |  ±0.5 µm @ 1550 nm  |  ±0.6 µm @ 1385 nm
Polarization Mode Dispersion Link Design Value, maximum 0.04 ps/sqrt(km)

Environmental Specifications
Heat Aging, maximum 0.05 dB/km @ 85 °C
Temperature Dependence, maximum 0.05 dB/km
Temperature Humidity Cycling, maximum 0.05 dB/km
Water Immersion, maximum 0.05 dB/km @ 23 °C

Regulatory Compliance/Certifications
Agency Classification
CS-8W-LT

Included Products

CS-8W-200UM-LT - 200 Micron Low Macrobending, Zero Water Peak, Dispersion-Unshifted Singlemode Fiber

* 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