



Fiber OSP cable, LightScope® ZWP Blown Micro Single Jacket, 72 fiber, All-Dielectric Stranded Loose Tube Arid-Core™ Construction, Gel-filled, Singlemode G.652.D and G.657.A1, Feet jacket marking, Black jacket color

Product Classification

| | |
|-----------------------|---|
| Regional Availability | Asia Australia/New Zealand EMEA Latin America North America |
| Portfolio | CommScope® |
| Product Type | Fiber OSP cable |
| Product Series | B-LN |

General Specifications

| | |
|------------------------------|--|
| Cable Type | Stranded loose tube |
| Construction Type | Non-armored |
| Subunit Type | Gel-filled |
| Filler, quantity | 0 |
| Jacket Color | Black |
| Jacket Marking | Feet |
| Jacket Marking Method | Laser |
| Jacket Marking Text | COMMSCOPE OPTICAL CABLE OS2 SM 72F (SERIAL NUMBER) MM/YYYY XXXXXXXXFT |
| Subunit, quantity | 6 |
| Fibers per Subunit, quantity | 12 |
| Total Fiber Count | 72 |

Dimensions

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|------------------------------|--------------------|
| Buffer Tube/Subunit Diameter | 1.45 mm 0.057 in |
| Diameter Over Jacket | 5.3 mm 0.209 in |

Representative Image



Material Specifications

Jacket Material

High density polyethylene (HDPE)

Mechanical Specifications

| | |
|-----------------------------------|---------------------------------------|
| Minimum Bend Radius, loaded | 226.1 mm 8.902 in |
| Minimum Bend Radius, unloaded | 68 mm 2.677 in |
| Tensile Load, long term, maximum | 180 N 40.466 lbf |
| Tensile Load, short term, maximum | 600 N 134.885 lbf |
| Compression | 10 N/mm 57.101 lb/in |
| Compression Test Method | IEC 60794-1-21 E3 |
| Flex | 25 cycles |
| Flex Test Method | IEC 60794-1 E6 |
| Impact | 0.3 N-m 2.655 in lb |
| Impact Test Method | IEC 60794-1-21 E4 |
| Strain | See long and short term tensile loads |
| Strain Test Method | IEC 60794-1-21 E1 |
| Twist | 10 cycles |
| Twist Test Method | IEC 60794-1-21 E7 |
| Vertical Rise, maximum | 721 m 2,365.486 ft |

Optical Specifications

Fiber Type

G.652.D | G.652.D and G.657.A1

Environmental Specifications

| | |
|-------------------------------|--------------------------------------|
| Installation temperature | -30 °C to +70 °C (-22 °F to +158 °F) |
| Operating Temperature | -30 °C to +70 °C (-22 °F to +158 °F) |
| Storage Temperature | -30 °C to +75 °C (-22 °F to +167 °F) |
| Cable Qualification Standards | IEC 60794-5-10 |
| Environmental Space | Air-blown, microduct |
| Jacket UV Resistance | UV stabilized |
| Water Penetration | 24 h |
| Water Penetration Test Method | IEC 60794-1 F4 |

Environmental Test Specifications

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|-------------------------------|--------------------------------------|
| Cable Freeze | -2 °C 28.4 °F |
| Cable Freeze Test Method | IEC 60794-1 F15 |
| Drip | 70 °C 158 °F |
| Drip Test Method | IEC 60794-1-21 E14 |
| Heat Age | -30 °C to +85 °C (-22 °F to +185 °F) |
| Heat Age Test Method | IEC 60794-1-22 F9 |
| Low High Bend | -30 °C to +60 °C (-22 °F to +140 °F) |
| Low High Bend Test Method | IEC 60794-1-21 E11 |
| Temperature Cycle | -30 °C to +70 °C (-22 °F to +158 °F) |
| Temperature Cycle Test Method | IEC 60794-1-22 F1 |

Packaging and Weights

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|--------------|--------------------------|
| Cable weight | 24 kg/km 16.127 lb/kft |
|--------------|--------------------------|

Included Products

CS-8W-250-B-LN – TeraSPEED® G652D/G657A1 Singlemode Fiber

* Footnotes

Operating Temperature Specification applicable to non-terminated bulk fiber cable

TeraSPEED®

TeraSPEED® G652D/G657A1 Singlemode Fiber

Product Classification

| | |
|--------------|---------------|
| Portfolio | CommScope® |
| Product Type | Optical fiber |

General Specifications

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|---|------------------------|
| 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 Tensile Stress | 100,000 psi (0.69 GPa) |

Dimensions

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|---------------------|-----------------|
| Fiber Curl, minimum | 4 m 13.123 ft |
|---------------------|-----------------|

Mechanical Specifications

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

CS-8W-250-B-LN

Optical Specifications

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|-------------------------------------|---------------------|
| 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

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|---|---|
| Attenuation, maximum | 0.25 dB/km @ 1,490 nm 0.25 dB/km @ 1,550 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/km @ 1,550 nm 0.33 dB/km @ 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) |
| Standards Compliance | IEC 60793-2-10, edition 6, model A1a.4 ITU-T G.652.D ITU-T G.657.A1 TIA-492CAAB (OS2) |

Environmental Specifications

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|---------------------------------------|--------------------|
| 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 |

* 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 |