

Fiber OSP cable, LightScope ZWP® Blown Micro Single Jacket All-Dielectric Outdoor Stranded Loose Tube Arid-Core® Construction, 144 fiber, Singlemode G.657.A1, Gel-filled, Meters 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 |

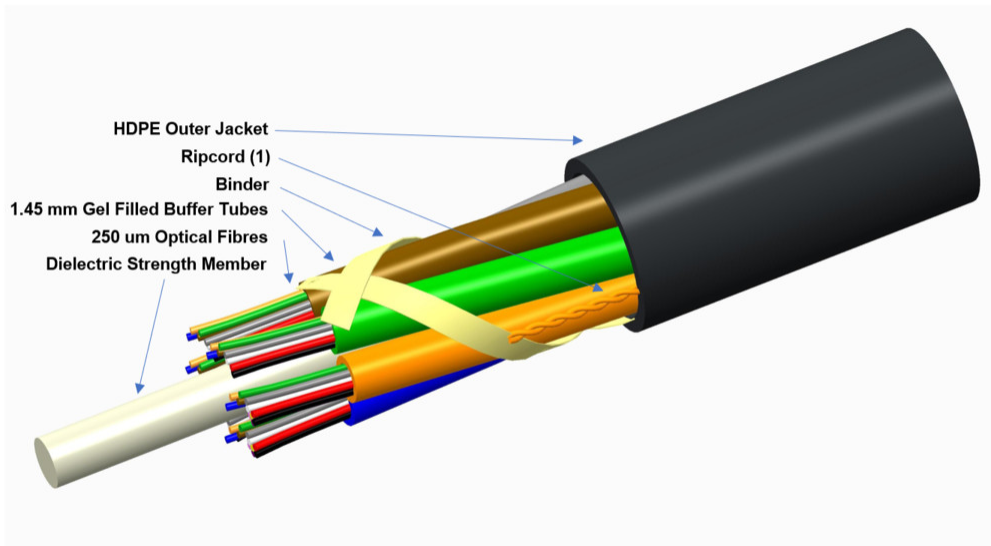
General Specifications

| | |
|-------------------------------------|---|
| Cable Type | Stranded loose tube |
| Construction Type | Non-armored |
| Subunit Type | Gel-filled |
| Filler, quantity | 0 |
| Jacket Color | Black |
| Jacket Marking | Meters |
| Jacket Marking Method | Laser |
| Jacket Marking Text | COMMSCOPE OPTICAL CABLE G657A1 SM 144F (SERIAL NUMBER) [MM /YYYY] [M] |
| Subunit, quantity | 12 |
| Fibers per Subunit, quantity | 12 |
| Total Fiber Count | 144 |

Dimensions

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|-------------------------------------|--------------------|
| Buffer Tube/Subunit Diameter | 1.45 mm 0.057 in |
| Diameter Over Jacket | 8.4 mm 0.331 in |

Representative Image



Material Specifications

Jacket Material High density polyethylene (HDPE)

Mechanical Specifications

| | |
|--|---------------------------------------|
| Minimum Bend Radius, loaded | 348 mm 13.701 in |
| Minimum Bend Radius, unloaded | 110 mm 4.331 in |
| Tensile Load, long term, maximum | 469 N 105.435 lbf |
| Tensile Load, short term, maximum | 1566 N 352.051 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 | 769 m 2,522.966 ft |

Optical Specifications

Fiber Type G.657.A1

Environmental Specifications

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

Cable weight 38 kg/km | 25.535 lb/kft

Included Products

CS-8F-250-EMEA – LightScope ZWP® Singlemode Fiber

* Footnotes

Operating Temperature Specification applicable to non-terminated bulk fiber cable

LightScope ZWP® 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/Clad Offset, maximum | 0.5 µm |
| Proof Test | 689.476 N/mm ² 100000 psi |

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 |

CS-8F-250-EMEA

Dynamic Fatigue Parameter, minimum 20

Optical Specifications

Cabled Cutoff Wavelength, maximum 1250 nm

Point Defects, maximum 0.05 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 0.21 dB/km @ 1,550 nm | 0.24 dB/km @ 1625 nm | 0.25 dB/km @ 1,490 nm | 0.35 dB/km @ 1,310 nm | 0.35 dB/km @ 1,385 nm

Dispersion, maximum 18 ps(nm-km) at 1550 nm | 2.2 ps(nm-km) at 1625 nm | 3.5 ps(nm-km) from 1285 nm to 1330 nm at 1310 nm

Index of Refraction 1.467 @ 1,310 nm | 1.468 @ 1,550 nm

Mode Field Diameter 10.4 μm @ 1,550 nm | 9.2 μm @ 1,310 nm

Mode Field Diameter Tolerance $\pm 0.4 \mu\text{m}$ @ 1310 nm | $\pm 0.5 \mu\text{m}$ @ 1550 nm

Polarization Mode Dispersion Link Design Value, maximum 0.06 ps/sqrt(km)

Standards Compliance ITU-T G.652.D | ITU-T G.657.A1

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

* 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