

Fiber OSP cable, LightScope® ZWP All-Dielectric Self-Supporting, 144 fiber, 2.5mm Gel-filled Tubes, Singlemode G.652.D and G.657.A1, Feet jacket marking, Black jacket color

- *Product complies with the Build America, Buy America Act (BABAA) requirements of the Infrastructure Investment and Jobs Act of 2021 (Pub. L. 117- 58, §§ 70901-70953), or is the subject of a waiver approved by the Secretary of Commerce or designee. Compliance requirements and waiver applicability vary based on government funding program. Check the laws and regulations for your specific program.

Product Classification

| | |
|-------------------------|---|
| Regional Availability | Asia Australia/New Zealand EMEA Latin America North America |
| Portfolio | CommScope® |
| Product Type | Fiber OSP cable |
| Product Series | S-LN |
| Government Requirements | Build America Buy America (BABA) compliant* |

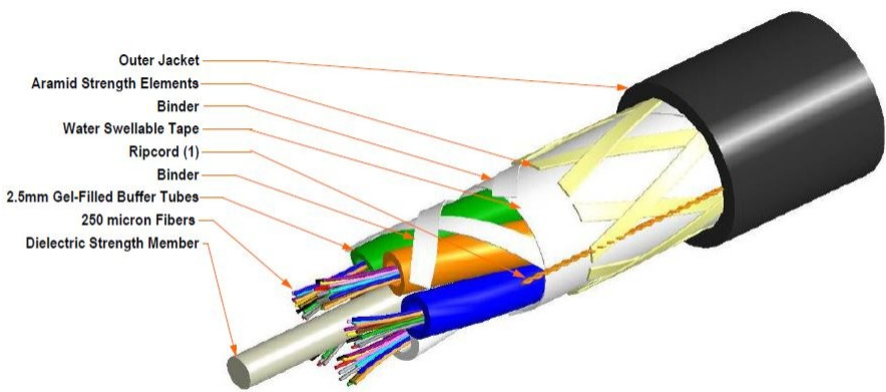
General Specifications

| | |
|------------------------------|---------------------------|
| Cable Type | Stranded loose tube |
| Construction Type | Non-armored |
| Subunit Type | Gel-filled |
| Filler, quantity | 0 |
| Jacket Color | Black |
| Jacket Marking | Feet |
| Location of Manufacturing | Claremont, North Carolina |
| Subunit, quantity | 12 |
| Fibers per Subunit, quantity | 12 |
| Total Fiber Count | 144 |

Dimensions

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|------------------------------|---------------------|
| Buffer Tube/Subunit Diameter | 2.5 mm 0.098 in |
| Diameter Over Jacket | 16.28 mm 0.641 in |

Representative Image



Material Specifications

Jacket Material

PE

Mechanical Specifications

| | |
|-----------------------------------|---|
| Minimum Bend Radius, loaded | 244 mm 9.606 in |
| Minimum Bend Radius, unloaded | 163 mm 6.417 in |
| Tensile Load, long and short term | See Sag and Tension tables in Product Documentation section |
| Compression | 22 N/mm 125.623 lb/in |
| Compression Test Method | FOTP-41 IEC 60794-1 E3 |
| Flex | 25 cycles |
| Flex Test Method | FOTP-104 IEC 60794-1 E6 |
| Impact | 2.94 N-m 26.021 in lb |
| Impact Test Method | FOTP-25 IEC 60794-1 E4 |
| Strain | See long and short term tensile loads |
| Strain Test Method | FOTP-33 IEC 60794-1 E1 |
| Twist | 10 cycles |
| Twist Test Method | FOTP-85 IEC 60794-1 E7 |

Optical Specifications

Fiber Type

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

Environmental Specifications

| | |
|-------------------------------|--------------------------------------|
| Installation temperature | -30 °C to +70 °C (-22 °F to +158 °F) |
| Operating Temperature | -40 °C to +70 °C (-40 °F to +158 °F) |
| Storage Temperature | -40 °C to +75 °C (-40 °F to +167 °F) |
| Cable Qualification Standards | ANSI/ICEA S-87-640 IEEE-1222 |
| Environmental Space | Aerial, self-support |
| Jacket UV Resistance | UV stabilized |
| Water Penetration | 24 h |
| Water Penetration Test Method | FOTP-82 IEC 60794-1 F5 |

Environmental Test Specifications

| | |
|-------------------------------|--------------------------------------|
| Cable Freeze | -2 °C 28.4 °F |
| Cable Freeze Test Method | FOTP-98 IEC 60794-1 F15 |
| Drip | 80 °C 176 °F |
| Drip Test Method | FOTP-81 IEC 60794-1 E14 |
| Heat Age | -40 °C to +85 °C (-40 °F to +185 °F) |
| Heat Age Test Method | IEC 60794-1 F9 |
| Low High Bend | -30 °C to +60 °C (-22 °F to +140 °F) |
| Low High Bend Test Method | FOTP-37 IEC 60794-1 E11 |
| Temperature Cycle | -40 °C to +70 °C (-40 °F to +158 °F) |
| Temperature Cycle Test Method | FOTP-3 IEC 60794-1 F1 |

Packaging and Weights

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|--------------|----------------------------|
| Cable weight | 181 kg/km 121.626 lb/kft |
|--------------|----------------------------|

Regulatory Compliance/Certifications

| Agency | Classification |
|------------|---|
| CHINA-ROHS | Below maximum concentration value |
| REACH-SVHC | Compliant as per SVHC revision on www.commscope.com/ProductCompliance |
| ROHS | Compliant |
| UK-ROHS | Compliant |



Included Products

DB-8W-LT – LightScope® ZWP Singlemode
Fiber

* Footnotes

Operating Temperature Specification applicable to non-terminated bulk fiber cable



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 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 |

DB-8W-LT

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

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|---|---|
| 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/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 | ITU-T G.652.D ITU-T G.657.A1 |

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 |

Regulatory Compliance/Certifications

| Agency | Classification |
|---------------|--|
| ISO 9001:2015 | Designed, manufactured and/or distributed under this quality management system |

* Footnotes

DB-8W-LT

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