

Fiber outdoor drop cable, LightScope ZWP® Self-Supporting All-Dielectric, Singlemode G.652.D and G.657.A1, 2 fiber Arid Core construction, Gel-filled, central loose tube, no ripcords, Feet jacket marking, Black jacket color

Product Classification

| | |
|------------------------------|---|
| Regional Availability | Asia Australia/New Zealand EMEA Latin America North America |
| Portfolio | CommScope® |
| Product Type | Fiber drop cable |
| Product Series | O-DF |

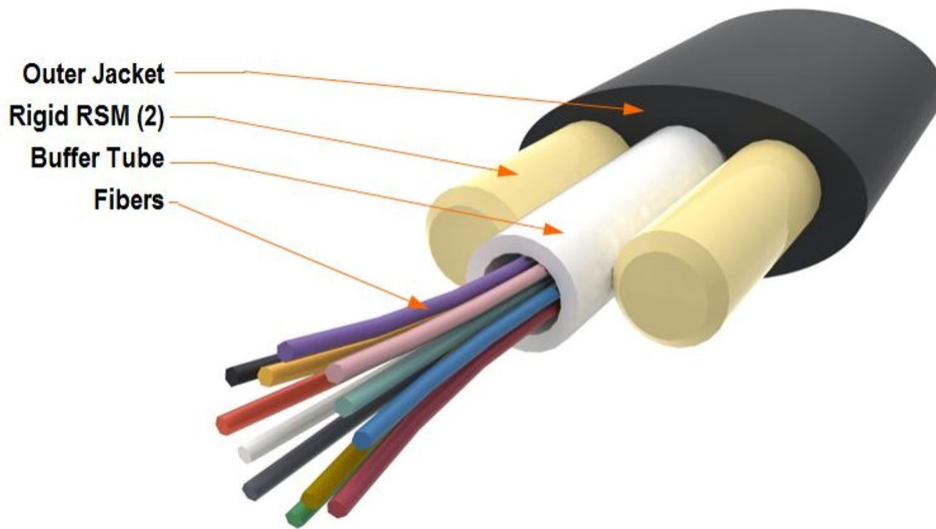
General Specifications

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|-------------------------------------|--------------------|
| Cable Type | Central loose tube |
| Construction Type | Non-armored |
| Subunit Type | Gel-filled |
| Jacket Color | Black |
| Jacket Marking | Feet |
| Subunit, quantity | 1 |
| Fibers per Subunit, quantity | 2 |
| Total Fiber Count | 2 |

Dimensions

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|-------------------------------------|-------------------|
| Height Over Jacket | 4.3 mm 0.169 in |
| Buffer Tube/Subunit Diameter | 2 mm 0.079 in |
| Diameter Over Jacket | 8 mm 0.315 in |

Representative Image



Material Specifications

Jacket Material PE

Mechanical Specifications

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|--|---------------------------------------|
| Minimum Bend Radius, loaded | 86 mm 3.386 in |
| Minimum Bend Radius, unloaded | 81 mm 3.189 in |
| Tensile Load, long term, maximum | 400 N 89.924 lbf |
| Tensile Load, short term, maximum | 1334 N 299.895 lbf |
| Compression | 10 N/mm 57.101 lb/in |
| Compression Test Method | FOTP-41 IEC 60794-1 E3 |
| Flex | 35 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 |
| Vertical Rise, maximum | 1047 m 3,435.039 ft |

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-110-717
Environmental Space Aerial, self-support | Buried
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 70 °C | 158 °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

Cable weight 39 kg/km | 26.207 lb/kft

Regulatory Compliance/Certifications

| Agency | Classification |
|---------------|--|
| CHINA-ROHS | Below maximum concentration value |
| ISO 9001:2015 | Designed, manufactured and/or distributed under this quality management system |
| 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

DB-8W-LT

LightScope ZWP® 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 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 |

DB-8W-LT

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

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 | 0.22 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 | $\pm 0.4 \mu\text{m}$ @ 1310 nm $\pm 0.5 \mu\text{m}$ @ 1550 nm $\pm 0.6 \mu\text{m}$ @ 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 |

DB-8W-LT

* 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