

Fiber indoor/outdoor cable, LightScope® ZWP High Tensile Strength, LSZH, Singlemode G.652.D and G.657.A1, 8 fiber, Mini All-Dielectric Single Jacket, Gel-Filled, Stranded Loose Tube, Black jacket color, Dca flame rating, Provides Rodent Resistance

Product Classification

|                       |                                     |
|-----------------------|-------------------------------------|
| Regional Availability | Asia   Australia/New Zealand   EMEA |
| Portfolio             | CommScope®                          |
| Product Type          | Fiber indoor/outdoor cable          |
| Product Series        | C-LN                                |

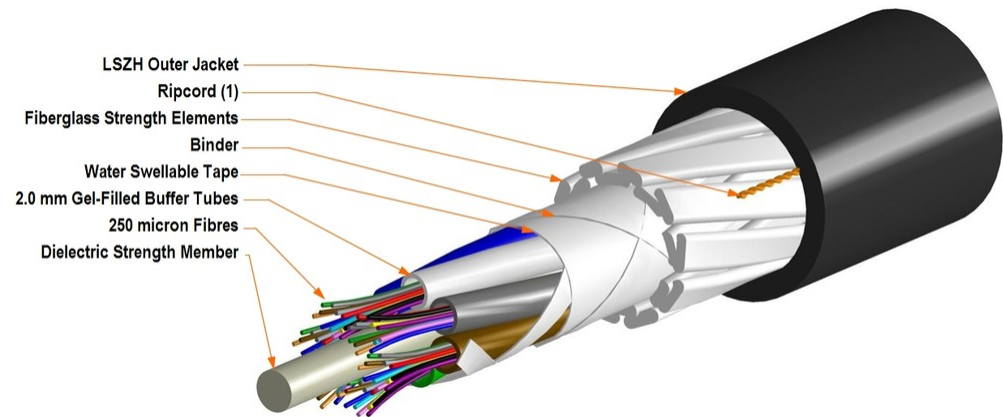
General Specifications

|                              |                                                                                                      |
|------------------------------|------------------------------------------------------------------------------------------------------|
| Cable Type                   | Stranded loose tube                                                                                  |
| Subunit Type                 | Gel-filled                                                                                           |
| Filler, quantity             | 5                                                                                                    |
| Jacket Color                 | Black                                                                                                |
| Jacket Marking               | Meters                                                                                               |
| Jacket Marking Method        | Inkjet                                                                                               |
| Jacket Marking Text          | COMMScope GB OPTICAL CABLE 810009764 /DB 8X OS2 SM LSZH EN50575 CLASS D (SERIAL NUMBER) (METRE MARK) |
| Subunit, quantity            | 1                                                                                                    |
| Fibers per Subunit, quantity | 8                                                                                                    |
| Total Fiber Count            | 8                                                                                                    |

Dimensions

|                              |                    |
|------------------------------|--------------------|
| Buffer Tube/Subunit Diameter | 2 mm   0.079 in    |
| Diameter Over Jacket         | 12.8 mm   0.504 in |

Representative Image



Mechanical Specifications

|                                   |                                       |
|-----------------------------------|---------------------------------------|
| Minimum Bend Radius, loaded       | 193 mm   7.598 in                     |
| Minimum Bend Radius, unloaded     | 128 mm   5.039 in                     |
| Tensile Load, long term, maximum  | 1334 N   299.895 lbf                  |
| Tensile Load, short term, maximum | 4448 N   999.95 lbf                   |
| Compression                       | 22 N/mm   125.623 lb/in               |
| Compression Test Method           | IEC 60794-1 E3                        |
| Flex                              | 25 cycles                             |
| Flex Test Method                  | IEC 60794-1 E6                        |
| Impact Test Method                | IEC 60794-1 E4                        |
| Strain                            | See long and short term tensile loads |
| Strain Test Method                | IEC 60794-1 E1                        |
| Twist                             | 10 cycles                             |
| Twist Test Method                 | IEC 60794-1 E7                        |
| Vertical Rise, maximum            | 816 m   2,677.165 ft                  |

Optical Specifications

|            |                                        |
|------------|----------------------------------------|
| Fiber Type | G.652.D and G.657.A1, TeraSPEED®   OS2 |
|------------|----------------------------------------|

Environmental Specifications

|                          |                                      |
|--------------------------|--------------------------------------|
| Installation temperature | -30 °C to +60 °C (-22 °F to +140 °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                | EN 187105   IEC 60794-1-2                               |
| EN50575 CPR Cable EuroClass Fire Performance | Dca                                                     |
| EN50575 CPR Cable EuroClass Smoke Rating     | s2                                                      |
| EN50575 CPR Cable EuroClass Droplets Rating  | d0                                                      |
| EN50575 CPR Cable EuroClass Acidity Rating   | a1                                                      |
| Environmental Space                          | Aerial, lashed   Buried   Low Smoke Zero Halogen (LSZH) |
| Flame Test Method                            | IEC 60332-1-2   IEC 60754-2   IEC 61034-2               |
| Jacket UV Resistance                         | UV stabilized                                           |
| Water Penetration                            | 24 h                                                    |
| Water Penetration Test Method                | IEC 60794-1 F5                                          |

Environmental Test Specifications

|                               |                                      |
|-------------------------------|--------------------------------------|
| Cable Freeze                  | -2 °C   28.4 °F                      |
| Cable Freeze Test Method      | IEC 60794-1 F15                      |
| 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     | IEC 60794-1 E11                      |
| Temperature Cycle             | -40 °C to +70 °C (-40 °F to +158 °F) |
| Temperature Cycle Test Method | IEC 60794-1 F1                       |

Packaging and Weights

|              |                            |
|--------------|----------------------------|
| Cable weight | 167 kg/km   112.219 lb/kft |
|--------------|----------------------------|

Included Products

CS-8W-250-EMEA – LightScope® ZWP Singlemode Fiber  
8W-250um

\* 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)        | ±7 µm                  |
| Coating/Cladding Concentricity Error, maximum | 12 µm                  |
| Core/Clad Offset, maximum                     | 0.5 µm                 |
| Proof Tensile Stress                          | 100,000 psi (0.69 GPa) |

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

Optical Specifications

# CS-8W-250-EMEA | 8W-250um

|                                     |                     |
|-------------------------------------|---------------------|
| 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                                    | 0.20 dB/km @ 1550 nm   0.23 dB/km @ 1,625 nm   0.344 dB/km @ 1310 nm   0.344 dB/km @ 1380 – 1385 nm  |
| Dispersion, maximum                                     | 18 ps(nm-km) at 1550 nm   22 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   1.467 @ 1,385 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                           | ±0.4 µm @ 1310 nm   ±0.5 µm @ 1550 nm                                                                |
| Polarization Mode Dispersion Link Design Value, maximum | 0.05 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 |