

Fiber drop cable, Self-Supporting All-Dielectric, 12 fiber Arid Core construction, central loose tube, Gel-filled, Singlemode G.657.A2/B2, Feet jacket marking, Black jacket color, Build America Buy America (BABA)

- \*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

|                                |   |
|--------------------------------|---|
| <b>Regional Availability</b>   | Asia   Australia/New Zealand   EMEA   Latin America   North America |
| <b>Portfolio</b>               | CommScope®  |
| <b>Product Type</b>            | Fiber drop cable  |
| <b>Product Series</b>          | O-DF  |
| <b>Government Requirements</b> | Build America Buy America (BABA) compliant*                         |

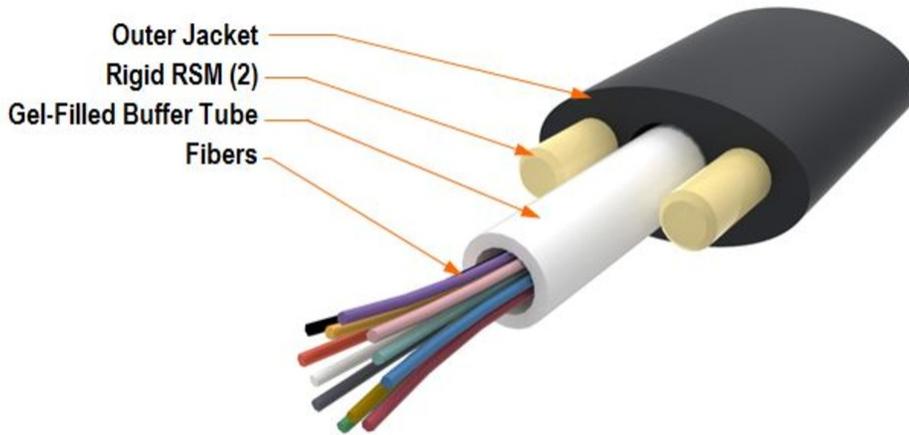
## General Specifications

|                                     |                           |
|-------------------------------------|---------------------------|
| <b>Cable Type</b>                   | Central loose tube        |
| <b>Construction Type</b>            | Non-armored               |
| <b>Subunit Type</b>                 | Gel-filled                |
| <b>Jacket Color</b>                 | Black                     |
| <b>Jacket Marking</b>               | Feet                      |
| <b>Location of Manufacturing</b>    | Claremont, North Carolina |
| <b>Subunit, quantity</b>            | 1                         |
| <b>Fibers per Subunit, quantity</b> | 12                        |
| <b>Total Fiber Count</b>            | 12                        |

## Dimensions

|                                     |                   |
|-------------------------------------|-------------------|
| <b>Height Over Jacket</b>           | 4.5 mm   0.177 in |
| <b>Buffer Tube/Subunit Diameter</b> | 3 mm   0.118 in   |
| <b>Diameter Over Jacket</b>         | 7.9 mm   0.311 in |

## Representative Image



## Material Specifications

**Jacket Material** PE

## Mechanical Specifications

|  |                                       |
|--|---------------------------------------|
| <b>Minimum Bend Radius, loaded</b>       | 86 mm   3.386 in                      |
| <b>Minimum Bend Radius, unloaded</b>     | 81 mm   3.189 in                      |
| <b>Tensile Load, long term, maximum</b>  | 400 N   89.924 lbf                    |
| <b>Tensile Load, short term, maximum</b> | 1334 N   299.895 lbf                  |
| <b>Compression</b>                       | 10 N/mm   57.101 lb/in                |
| <b>Compression Test Method</b>           | FOTP-41   IEC 60794-1 E3              |
| <b>Flex</b>                              | 35 cycles                             |
| <b>Flex Test Method</b>                  | FOTP-104   IEC 60794-1 E6             |
| <b>Impact</b>                            | 2.94 N-m   26.021 in lb               |
| <b>Impact Test Method</b>                | FOTP-25   IEC 60794-1 E4              |
| <b>Strain</b>                            | See long and short term tensile loads |
| <b>Strain Test Method</b>                | FOTP-33   IEC 60794-1 E1              |
| <b>Twist</b>                             | 10 cycles                             |
| <b>Twist Test Method</b>                 | FOTP-85   IEC 60794-1 E7              |
| <b>Vertical Rise, maximum</b>            | 1047 m   3,435.039 ft                 |

# 810009075/DB | O-012-DF-8G-F12NS

## Optical Specifications

**Fiber Type** G.657.A2/B2 | G.657.A2/B2

## 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 | Telcordia GR-20  
**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   |
| REACH-SVHC | Compliant as per SVHC revision on <a href="https://www.commscope.com/ProductCompliance">www.commscope.com/ProductCompliance</a> |
| ROHS       | Compliant   |
| UK-ROHS    | Compliant   |



Included Products

- CS-8G-LT – Enhanced Low Macrobending, Zero Water Peak, Dispersion-Unshifted Singlemode Fiber (ITU-T G.657.A2, B2)

\* Footnotes

**Operating Temperature** Specification applicable to non-terminated bulk fiber cable

# CS-8G-LT

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Enhanced Low Macrobending, Zero Water Peak, Dispersion-Unshifted Singlemode Fiber (ITU-T G.657.A2, B2)

## Product Classification

|                     |               |
|---------------------|---------------|
| <b>Portfolio</b>    | CommScope®    |
| <b>Product Type</b> | Optical fiber |

## General Specifications

|  |  |
|--|--|
| <b>Cladding Diameter</b>                             | 125 µm                                 |
| <b>Cladding Diameter Tolerance</b>                   | ±0.7 µm                                |
| <b>Cladding Non-Circularity, maximum</b>             | 0.7 %                                  |
| <b>Coating Diameter (Colored)</b>                    | 249 µm                                 |
| <b>Coating Diameter (Uncolored)</b>                  | 242 µm                                 |
| <b>Coating Diameter Tolerance (Colored)</b>          | ±13 µm                                 |
| <b>Coating Diameter Tolerance (Uncolored)</b>        | ±5 µm                                  |
| <b>Coating/Cladding Concentricity Error, maximum</b> | 12 µm                                  |
| <b>Core/Clad Offset, maximum</b>                     | 0.5 µm                                 |
| <b>Proof Test</b>                                    | 689.476 N/mm <sup>2</sup>   100000 psi |

## Dimensions

|                            |                 |
|----------------------------|-----------------|
| <b>Fiber Curl, minimum</b> | 4 m   13.123 ft |
|----------------------------|-----------------|

## Mechanical Specifications

|  |   |
|--|---|
| <b>Macrobending, 15 mm Ø mandrel, 1 turn</b>   | 0.50 dB @ 1,550 nm   1.00 dB @ 1,625 nm |
| <b>Macrobending, 20 mm Ø mandrel, 1 turn</b>   | 0.10 dB @ 1,550 nm   0.20 dB @ 1,625 nm |
| <b>Macrobending, 30 mm Ø mandrel, 10 turns</b> | 0.03 dB @ 1,550 nm   0.10 dB @ 1,625 nm |
| <b>Coating Strip Force, maximum</b>            | 8.9 N   2.001 lbf                       |
| <b>Coating Strip Force, minimum</b>            | 1.3 N   0.292 lbf                       |
| <b>Dynamic Fatigue Parameter, minimum</b>      | 20                                      |

## Optical Specifications

|  |         |
|--|---------|
| <b>Cabled Cutoff Wavelength, maximum</b> | 1260 nm |
| <b>Point Defects, maximum</b>            | 0.1 dB  |

# CS-8G-LT

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|  |                     |
|--|---------------------|
| <b>Zero Dispersion Slope, maximum</b>      | 0.092 ps/[km-nm-nm] |
| <b>Zero Dispersion Wavelength, maximum</b> | 1324 nm             |
| <b>Zero Dispersion Wavelength, minimum</b> | 1302 nm             |

## Optical Specifications, Wavelength Specific

|  |  |
|--|--|
| <b>Attenuation, maximum</b>                                    | 0.25 dB/km @ 1,550 nm   0.33 dB/km @ 1,385 nm   0.36 dB/km @ 1,310 nm      |
| <b>Dispersion, maximum</b>                                     | 18 ps(nm-km) at 1550 nm   3.5 ps(nm-km) from 1285 nm to 1330 nm at 1310 nm |
| <b>Index of Refraction</b>                                     | 1.467 @ 1,310 nm   1.467 @ 1,385 nm   1.468 @ 1,550 nm                     |
| <b>Mode Field Diameter</b>                                     | 8.6 $\mu\text{m}$ @ 1,310 nm   9.8 $\mu\text{m}$ @ 1,550 nm                |
| <b>Mode Field Diameter Tolerance</b>                           | $\pm 0.4 \mu\text{m}$ @ 1310 nm   $\pm 0.5 \mu\text{m}$ @ 1550 nm          |
| <b>Polarization Mode Dispersion Link Design Value, maximum</b> | 0.06 ps/sqrt(km)   |
| <b>Standards Compliance</b>                                    | ITU-T G.657.A2   ITU-T G.657.B2  |

## Environmental Specifications

|  |                    |
|--|--------------------|
| <b>Heat Aging, maximum</b>                   | 0.05 dB/km @ 85 °C |
| <b>Temperature Dependence, maximum</b>       | 0.05 dB/km         |
| <b>Temperature Humidity Cycling, maximum</b> | 0.05 dB/km         |
| <b>Water Immersion, maximum</b>              | 0.05 dB/km @ 23 °C |

## Regulatory Compliance/Certifications

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

## \* Footnotes

|  |   |
|--|---|
| <b>Temperature Dependence, maximum</b>       | Temperature dependence is conducted at -60 °C to +85 °C (-76 °F to +185 °F)                                   |
| <b>Temperature Humidity Cycling, maximum</b> | Temperature humidity cycling is conducted at -10 °C to +85 °C (+14 °F to +185 °F) up to 95% relative humidity |