

Fiber Universal Service Drop Cable, dielectric, with 900um Buffer, 1-fiber, Singlemode G.657.A2/B2, Gel-free

- *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 drop cable |
| Product Series | O-DF |
| Government Funding | Build America Buy America (BABA) compliant* |

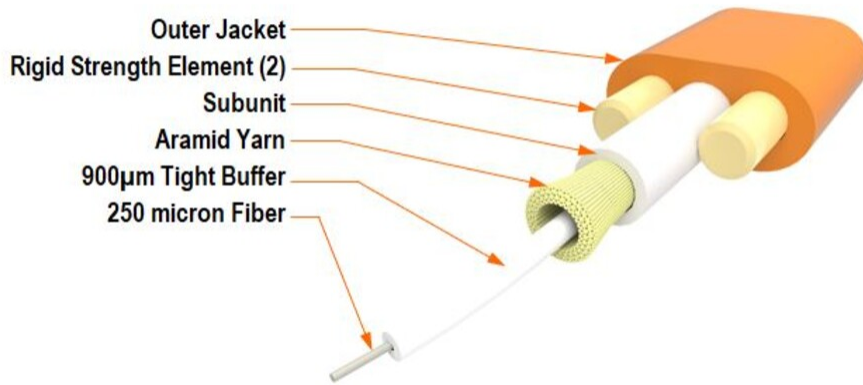
General Specifications

| | |
|-------------------------------------|-------------|
| Cable Type | Drop |
| Construction Type | Non-armored |
| Subunit Type | Gel-free |
| Jacket Color | Orange |
| Jacket Marking | Feet |
| Subunit, quantity | 1 |
| Fibers per Subunit, quantity | 1 |
| Total Fiber Count | 1 |

Dimensions

| | |
|-------------------------------------|-------------------|
| Height Over Jacket | 4.6 mm 0.181 in |
| Buffer Tube/Subunit Diameter | 2.9 mm 0.114 in |
| Diameter Over Jacket | 8 mm 0.315 in |

Representative Image



Material Specifications

Jacket Material PE

Mechanical Specifications

| | |
|------------------------------------------|---------------------------------------|
| Minimum Bend Radius, loaded | 92 mm 3.622 in |
| Minimum Bend Radius, unloaded | 64 mm 2.52 in |
| Tensile Load, long term, maximum | 400 N 89.924 lbf |
| Tensile Load, short term, maximum | 1334 N 299.895 lbf |
| 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 |
| Vertical Rise, maximum | 1187 m 3,894.357 ft |

Optical Specifications

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

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 | 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

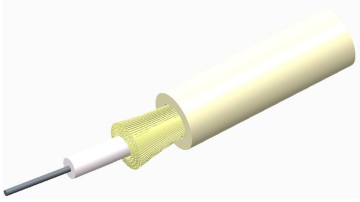
Cable weight 34.4 kg/km | 23.116 lb/kft

Included Products

- 900003131 R-001-SP-8G1-F29IV/WB – Fiber indoor cable, All-Dielectric Indoor/Outdoor Riser Simplex, Singlemode G.657.A2/B2, Meters jacket marking, Ivory jacket color
- CS-8G-TB – 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



Fiber indoor cable, All-Dielectric Indoor/Outdoor Riser Simplex, Singlemode G.657.A2/B2, Meters jacket marking, Ivory jacket color

Product Classification

| | |
|------------------------------|-----------------------------------------------------------------------------------|
| Regional Availability | Asia Australia/New Zealand Latin America Middle East/Africa North America |
| Portfolio | CommScope® |
| Product Type | Fiber indoor cable |
| Product Series | R-SP |

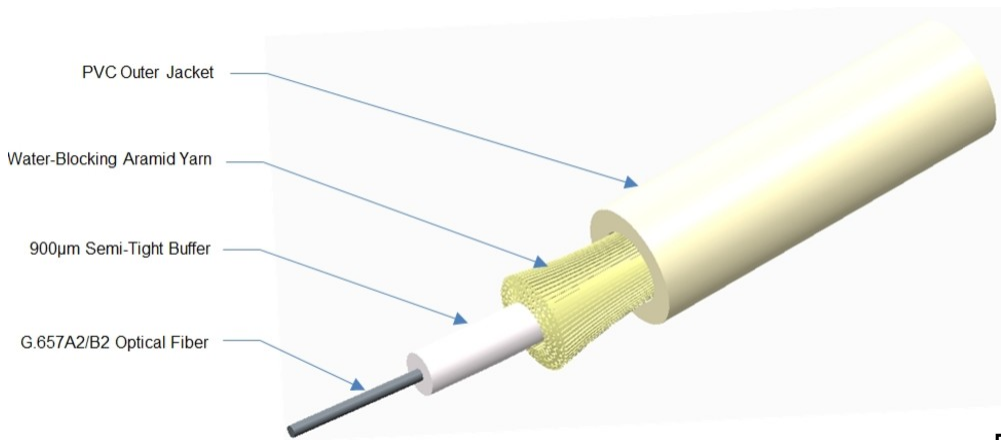
General Specifications

| | |
|--------------------------|-------------|
| Cable Type | Cordage |
| Construction Type | Non-armored |
| Subunit Type | Gel-free |
| Jacket Color | Ivory |
| Jacket Marking | Feet |
| Total Fiber Count | 1 |

Dimensions

| | |
|-----------------------------|-------------------|
| Diameter Over Jacket | 2.9 mm 0.114 in |
|-----------------------------|-------------------|

Representative Image



Mechanical Specifications

| | |
|------------------------------------------|---------------------------------------|
| Minimum Bend Radius, loaded | 50 mm 1.969 in |
| Minimum Bend Radius, unloaded | 30 mm 1.181 in |
| Tensile Load, long term, maximum | 30 N 6.744 lbf |
| Tensile Load, short term, maximum | 100 N 22.481 lbf |
| Compression | 22 N/mm 125.623 lb/in |
| Compression Test Method | FOTP-41 IEC 60794-1 E3 |
| Flex | 300 cycles |
| Flex Test Method | FOTP-104 IEC 60794-1 E6 |
| Impact | 0.74 N-m 6.55 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 | 334 m 1,095.801 ft |

Optical Specifications

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

Environmental Specifications

| | |
|---------------------------------|--------------------------------------|
| Installation temperature | -20 °C to +60 °C (-4 °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 | ANSI/ICEA S-104-696 Telcordia GR-409 |
| Environmental Space | Riser |
| Flame Test Listing | NEC OFNR (ETL) and c(ETL) |
| Flame Test Method | CSA FT4 UL 1666 |
| 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 |
| 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 | 7.9 kg/km 5.309 lb/kft |
|---------------------|--------------------------|

Regulatory Compliance/Certifications

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



* Footnotes

Operating Temperature Specification applicable to non-terminated bulk fiber cable

CS-8G-TB

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

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

| | |
|----------------------------|-----------------|
| Fiber Curl, minimum | 4 m 13.123 ft |
|----------------------------|-----------------|

Mechanical Specifications

| | |
|------------------------------------------------|-----------------------------------------|
| Macrobending, 15 mm Ø mandrel, 1 turn | 0.50 dB @ 1,550 nm 1.00 dB @ 1,625 nm |
| Macrobending, 20 mm Ø mandrel, 1 turn | 0.10 dB @ 1,550 nm 0.20 dB @ 1,625 nm |
| Macrobending, 30 mm Ø mandrel, 10 turns | 0.03 dB @ 1,550 nm 0.10 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

| | |
|------------------------------------------|---------|
| Cabled Cutoff Wavelength, maximum | 1260 nm |
| Point Defects, maximum | 0.1 dB |

CS-8G-TB

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

Optical Specifications, Wavelength Specific

| | |
|----------------------------------------------------------------|----------------------------------------------------------------------------|
| Attenuation, maximum | 0.50 dB/km @ 1,310 nm 0.50 dB/km @ 1,385 nm 0.50 dB/km @ 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 | 8.6 μm @ 1,310 nm 9.8 μm @ 1,550 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.657.A2 ITU-T G.657.B2 |

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 |

Regulatory Compliance/Certifications

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



* 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 |