#### R-006-DS-8W-FSUWH 760162313



Fiber indoor cable, TeraSPEED® Riser Distribution, Singlemode G.652.D and G.657.A1, 6 fiber single-unit, Feet jacket marking, White jacket color

#### Product Classification

| Regional Availability  | Asia   Australia/New Zealand   Latin America   Middle East/Africa   North<br>America |
|------------------------|--|
| Portfolio              | CommScope®   |
| Product Type           | Fiber indoor cable   |
| Product Series         | R-DS   |
| General Specifications |  |
| Cable Type             | Distribution   |
| Construction Type      | Non-armored  |
| Subunit Type           | Gel-free   |
| Jacket Color           | White  |
| Jacket Marking         | Feet   |
| Total Fiber Count      | 6  |
| Dimensions             |  |
| Diameter Over Jacket   | 5.04 mm   0.198 in   |

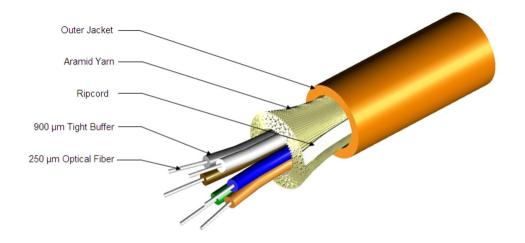
### Representative Image

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#### Mechanical Specifications

| Minimum Bend Radius, loaded       | 76 mm   2.992 in                      |
|-----------------------------------|---------------------------------------|
| Minimum Bend Radius, unloaded     | 50 mm   1.969 in                      |
| Tensile Load, long term, maximum  | 200 N   44.962 lbf                    |
| Tensile Load, short term, maximum | 667 N   149.948 lbf                   |
| Compression                       | 10 N/mm   57.101 lb/in                |
| Compression Test Method           | FOTP-41   IEC 60794-1 E3              |
| Flex                              | 100 cycles                            |
| Flex Test Method                  | FOTP-104   IEC 60794-1 E6             |
| Impact                            | 5.88 N-m   52.042 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            | 500 m   1,640.42 ft                   |
| Optical Specifications            |                                       |

#### Optical Specifications

Fiber Type

G.652.D and G.657.A1, TeraSPEED®

### **Environmental Specifications**

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| Installation temperature      | -20 °C to +70 °C (-4 °F to +158 °F)   |
|-------------------------------|---------------------------------------|
| Operating Temperature         | -20 °C to +70 °C (-4 °F to +158 °F)   |
| Storage Temperature           | -40 °C to +70 °C (-40 °F to +158 °F)  |
| Cable Qualification Standards | ANSI/ICEA S-83-596   Telcordia GR-409 |
| Environmental Space           | Riser                                 |
| Flame Test Listing            | NEC OFNR (ETL) and c(ETL)             |
| Flame Test Method             | UL 1666                               |

#### **Environmental Test Specifications**

| Heat Age                      | -20 °C to +85 °C (-4 °F to +185 °F) |
|-------------------------------|-------------------------------------|
| Heat Age Test Method          | IEC 60794-1 F9                      |
| Low High Bend                 | -20 °C to +70 °C (-4 °F to +158 °F) |
| Low High Bend Test Method     | FOTP-37   IEC 60794-1 E11           |
| Temperature Cycle             | -20 °C to +70 °C (-4 °F to +158 °F) |
| Temperature Cycle Test Method | FOTP-3   IEC 60794-1 F1             |

#### Packaging and Weights

Cable weight

23 kg/km | 15.455 lb/kft

#### Regulatory Compliance/Certifications

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

#### Included Products

CS-8W-TB - TeraSPEED® Singlemode Fiber

#### \* Footnotes

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

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#### TeraSPEED® Singlemode Fiber

# TeraSPEED®

#### 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 Test                                    | 689.476 N/mm²   100000 psi              |
| Tight Buffer Diameter                         | 900 µm                                  |
| Tight Buffer Diameter Tolerance               | ±40 μm                                  |
| 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 |

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## CS-8W-TB

**Temperature Humidity Cycling, maximum** 

Regulatory Compliance/Certifications

Water Immersion, maximum

| 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                                  |  |  |
| 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             |  |  |
| Attenuation, maximum                                    | 0.50 dB/km @ 1,310 nm   0.50 dB/km @ 1,385<br>nm   0.50 dB/km @ 1,490 nm   0.50 dB/km @ 1,550<br>nm   0.50 dB/km @ 1,575 nm   0.70 dB/km @ 1,270<br>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<br>nm to 1330 nm at 1310 nm  |  |
| Index of Refraction                                     | 1.467 @ 1,310 nm   1.467 @ 1,385 nm   1.468 @ 1,550<br>nm  |  |
| Mode Field Diameter                                     | 10.4 μm @ 1,550 nm   9.2 μm @ 1,310 nm   9.6 μm @<br>1,385 nm  |  |
| Mode Field Diameter Tolerance                           | ±0.4 μm @ 1310 nm   ±0.5 μm @ 1550 nm   ±0.6 μm<br>@ 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   TIA-492CAAB (OS1a)  |  |
|   |  |  |
| Environmental Specifications                            |  |  |
| Heat Aging, maximum                                     | 0.05 dB/km @ 85 °C   |  |
| Temperature Dependence, maximum                         | 0.05 dB/km   |  |

0.05 dB/km

0.05 dB/km @ 23 °C

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### CS-8W-TB

#### Agency

ISO 9001:2015

Classification

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 |

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