

# R-002-DS-8F-FSU

---

Fiber indoor cable, Riser Distribution, 2 fiber single-unit, Singlemode G.657.A1, Feet jacket marking

## Product Classification

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

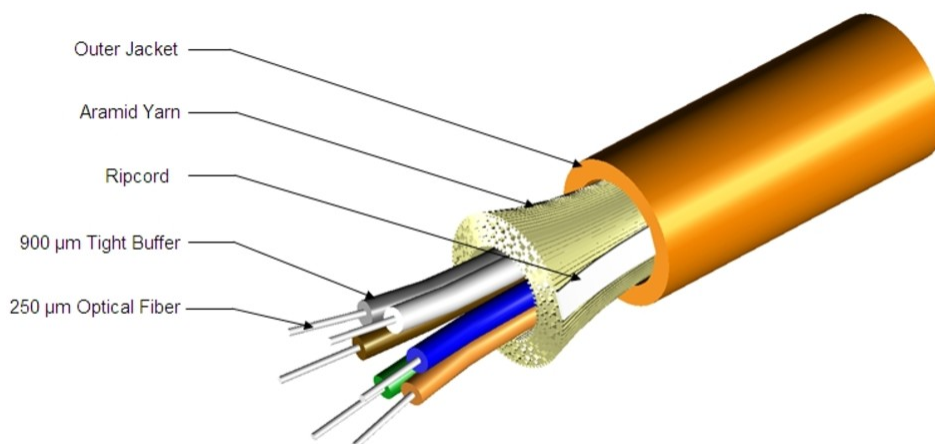
## General Specifications

<b>Cable Type</b>	Distribution
<b>Construction Type</b>	Non-armored
<b>Fiber Type, quantity</b>	2
<b>Jacket Marking</b>	Feet
<b>Subunit Type</b>	Gel-free
<b>Total Fiber Count</b>	2

## Dimensions

<b>Diameter Over Jacket</b>	3.91 mm   0.154 in
-----------------------------	--------------------

## Representative Image



## Mechanical Specifications

# R-002-DS-8F-FSU

---

<b>Minimum Bend Radius, loaded</b>	59 mm   2.323 in
<b>Minimum Bend Radius, unloaded</b>	39 mm   1.535 in
<b>Tensile Load, long term, maximum</b>	200 N   44.962 lbf
<b>Tensile Load, short term, maximum</b>	667 N   149.948 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>	100 cycles
<b>Flex Test Method</b>	FOTP-104   IEC 60794-1 E6
<b>Impact</b>	5.88 N-m   52.042 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>	500 m   1,640.42 ft

## Environmental Specifications

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

## Environmental Test Specifications

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

# R-002-DS-8F-FSU

---

## Packaging and Weights

**Cable weight** 13 kg/km | 8.736 lb/kft

## Regulatory Compliance/Certifications

### Agency

ISO 9001:2015

### Classification

Designed, manufactured and/or distributed under this quality management system



## Included Products

CS-8F-TB – Low Macrobending, Zero Water Peak, Dispersion-Unshifted Singlemode Fiber

## \* Footnotes

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

# CS-8F-TB

---

Low Macrobending, Zero Water Peak, Dispersion-Unshifted Singlemode Fiber

## 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
<b>Tight Buffer Diameter</b>	900 µm
<b>Tight Buffer Diameter Tolerance</b>	±40 µm

## Dimensions

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

## Mechanical Specifications

<b>Macrobending, 20 mm mandrel, 1 turn</b>	0.75 dB @ 1,550 nm   1.50 dB @ 1,625 nm
<b>Macrobending, 30 mm mandrel, 10 turns</b>	0.25 dB @ 1,550 nm   1.00 dB @ 1,625 nm
<b>Macrobending, 50 mm mandrel, 100 turns</b>	0.03 dB @ 1,550 nm   0.05 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
--	---------

# CS-8F-TB

<b>Point Defects, maximum</b>	0.1 dB
<b>Zero Dispersion Slope, maximum</b>	0.09 ps/[km-nm-nm]
<b>Zero Dispersion Wavelength, maximum</b>	1324 nm
<b>Zero Dispersion Wavelength, minimum</b>	1300 nm

## Optical Specifications, Wavelength Specific

<b>Attenuation, maximum</b>	0.50 dB/km @ 1,310 nm   0.50 dB/km @ 1,385 nm   0.50 dB/km @ 1,490 nm   0.50 dB/km @ 1,550 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.A1

## 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