

Fiber drop cable, Self-Supporting All-Dielectric, 1 fiber Tight Buffer construction, riser, all-dielectric, Gel-free, Singlemode G.657.A2/B2, Feet jacket marking, Black jacket color

 *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 indoor/outdoor cable

Product Series R-DN

Government FundingBuild America Buy America (BABA) compliant*

General Specifications

Cable Type Drop

Construction Type Non-armored

Subunit TypeGel-freeJacket ColorBlackJacket MarkingFeet

Subunit, quantity 1

Fibers per Subunit, quantity 1

Total Fiber Count 1

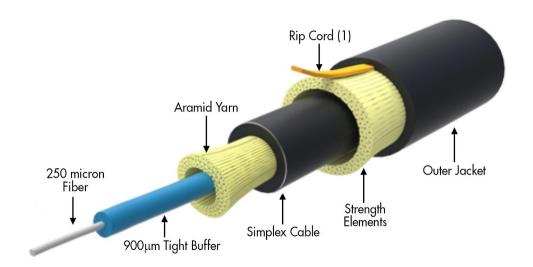
Dimensions

Buffer Tube/Subunit Diameter 1.8 mm | 0.071 in

Diameter Over Jacket 4.25 mm | 0.167 in

Representative Image





Mechanical Specifications

Minimum Bend Radius, loaded 64 mm | 2.52 in

Minimum Bend Radius, unloaded 43 mm | 1.693 in

Tensile Load, long term, maximum 180 N | 40.466 lbf

Tensile Load, short term, maximum 601 N | 135.11 lbf

 Compression
 10 N/mm | 57.101 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 539 m | 1,768.373 ft

Optical Specifications

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

Environmental Specifications



Installation temperature $-10 \,^{\circ}\text{C}$ to $+60 \,^{\circ}\text{C}$ (+14 $^{\circ}\text{F}$ to +140 $^{\circ}\text{F}$)

Operating Temperature $-40 \,^{\circ}\text{C}$ to $+70 \,^{\circ}\text{C}$ (-40 $^{\circ}\text{F}$ to +158 $^{\circ}\text{F}$)

Storage Temperature $-40 \,^{\circ}\text{C}$ to $+70 \,^{\circ}\text{C}$ (-40 $^{\circ}\text{F}$ to +158 $^{\circ}\text{F}$)

Cable Qualification Standards ANSI/ICEA S-110-717

Environmental Space Riser

Flame Test Listing NEC OFNR (ETL) and c(ETL)

Flame Test Method CSA FT4 | IEEE 1202 | 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

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 $-40 \,^{\circ}\text{C} \text{ to } +70 \,^{\circ}\text{C} \, (-40 \,^{\circ}\text{F to } +158 \,^{\circ}\text{F})$

Temperature Cycle Test Method FOTP-3 | IEC 60794-1 F1

Packaging and Weights

Cable weight 34 kg/km | 22.847 lb/kft

Regulatory Compliance/Certifications

Agency Classification

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

Included Products

CS-8G-TB – Enhanced Low Macrobending, Zero Water Peak, Dispersion-Unshifted Singlemode Fiber (ITU-T

G.657.A2, B2)

* Footnotes

COMMSC PE°

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 ±0.7 µm **Cladding Diameter Tolerance** 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 $0.5 \, \mu m$

Proof Test 689.476 N/mm² | 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 1.00 dB @ 1,625 nm

 Macrobending, 20 mm Ø mandrel, 1 turn
 0.10 dB @ 1,550 nm
 1 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, maximum8.9 N | 2.001 lbfCoating Strip Force, minimum1.3 N | 0.292 lbf

Dynamic Fatigue Parameter, minimum 20

Optical Specifications

Cabled Cutoff Wavelength, maximum1260 nmPoint Defects, maximum0.1 dB

COMMSCOPE®

CS-8G-TB

Zero Dispersion Slope, maximum 0.092 ps/[km-nm-nm]

Zero Dispersion Wavelength, maximum1324 nmZero Dispersion Wavelength, minimum1302 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

 $\textbf{Mode Field Diameter} \hspace{1.5cm} 8.6~\mu m \ @ 1,310~nm \hspace{0.2cm} | \hspace{0.2cm} 9.8~\mu m \ @ 1,550~nm$

Mode Field Diameter Tolerance $\pm 0.4 \ \mu m$ @ 1310 nm | $\pm 0.5 \ \mu m$ @ 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

