

Fiber OSP cable, Zero Water Peak® Blown Micro Single Jacket All-Dielectric Outdoor Stranded Loose Tube 200um Fiber Arid-Core® Construction, 288 fiber, Singlemode G.657.A1, Gel-filled, 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 OSP cable

Product Series B-LN

Government FundingBuild America Buy America (BABA) compliant*

General Specifications

Cable TypeStranded loose tube

Construction Type Non-armored

Subunit Type Gel-filled

Filler, quantity 0

Jacket ColorBlackJacket MarkingFeetJacket Marking MethodLaser

Jacket Marking Text COMMSCOPE GB (YYYY) 810009731/DB 288 X G657A1 200um (Serial number) (feet) FT

Subunit, quantity 12

Fibers per Subunit, quantity 24

Total Fiber Count 288

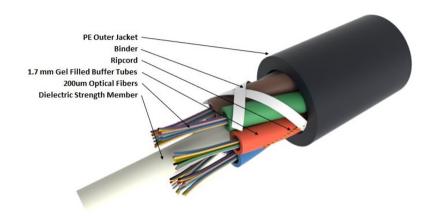
Dimensions

Buffer Tube/Subunit Diameter 1.7 mm | 0.067 in **Diameter Over Jacket** 9.5 mm | 0.374 in

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Representative Image



Material Specifications

Jacket Material High density polyethylene (HDPE)

Mechanical Specifications

Minimum Bend Radius, loaded143 mm | 5.63 inMinimum Bend Radius, unloaded95 mm | 3.74 inTensile Load, long term, maximum335 N | 75.311 lbfTensile Load, short term, maximum1000 N | 224.809 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 0.3 N-m | 2.655 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

COMMSC PE®

Twist Test Method FOTP-85 | IEC 60794-1 E7

Vertical Rise, maximum 769 m | 2,522.966 ft

Optical Specifications

Fiber Type G.657.A1, TeraSPEED®

Environmental Specifications

Installation temperature $-30 \,^{\circ}\text{C}$ to $+70 \,^{\circ}\text{C}$ (-22 °F to $+158 \,^{\circ}\text{F}$)

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

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

Cable Qualification Standards IEC 60794-5-10

Environmental Space Air-blown, microduct

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 $-30 \,^{\circ}\text{C}$ to $+60 \,^{\circ}\text{C}$ (-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 77.5 kg/km | 52.078 lb/kft

Included Products

CS-8W-200UM-LT – 200 Micron Low Macrobending, Zero Water Peak, Dispersion-Unshifted Singlemode

Fiber



* Footnotes

Operating Temperature Specification applicable to non-terminated bulk fiber cable

CS-8W-200UM-LT

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

Product Classification

 Portfolio
 CommScope®

 Product Type
 Optical fiber

General Specifications

Cladding Diameter 125 µm **Cladding Diameter Tolerance** ±0.7 µm 0.7 % **Cladding Non-Circularity, maximum Coating Diameter (Colored)** 200 um **Coating Diameter (Uncolored)** 190 µm **Coating Diameter Tolerance (Colored)** ±10 µm **Coating Diameter Tolerance (Uncolored)** ±10 µm Coating/Cladding Concentricity Error, maximum 12 µm

Proof Test 689.476 N/mm² | 100000 psi

Dimensions

Core/Clad Offset, maximum

Fiber Curl, minimum 4 m | 13.123 ft

Mechanical Specifications

 Macrobending, 20 mm Ø mandrel, 1 turn
 0.75 dB @ 1,550 nm
 1 1.50 dB @ 1,625 nm

 Macrobending, 30 mm Ø mandrel, 10 turns
 0.25 dB @ 1,550 nm
 1 1.00 dB @ 1,625 nm

 Macrobending, 60 mm Ø mandrel, 100 turns
 0.05 dB @ 1,550 nm
 0.05 dB @ 1,625 nm

0.5 µm

Coating Strip Force, maximum8.9 N | 2.001 lbfCoating Strip Force, minimum0.5 N | 0.112 lbf

Dynamic Fatigue Parameter, minimum 20

Optical Specifications

Cabled Cutoff Wavelength, maximum1260 nmPoint Defects, maximum0.05 dB

Zero Dispersion Slope, maximum 0.09 ps/[km-nm-nm]

COMMSCOPE®

CS-8W-200UM-LT

Zero Dispersion Wavelength, maximum1324 nmZero Dispersion Wavelength, minimum1300 nm

Optical Specifications, Wavelength Specific

Attenuation, maximum 0.25 dB/km @ 1,550 nm | 0.29 dB/km @ 1,625

nm | 0.36 dB/km @ 1,310 nm | 0.36 dB/km @ 1,385

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 $10.4 \, \mu \text{m} \ @ \ 1,550 \, \text{nm} \ | \ 9.2 \, \mu \text{m} \ @ \ 1,310 \, \text{nm} \ | \ 9.6 \, \mu \text{m} \ @ \ 1,000 \, \text{m}$

1,385 nm

Mode Field Diameter Tolerance ±0.4 μm @ 1310 nm | ±0.5 μm @ 1550 nm | ±0.6 μm

@ 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 (OS2)

Environmental Specifications

Heat Aging, maximum $0.05 \text{ dB/km} \otimes 85 \text{ }^{\circ}\text{C}$

Temperature Dependence, maximum0.05 dB/kmTemperature Humidity Cycling, maximum0.05 dB/km

Water Immersion, maximum 0.05 dB/km @ 23 °C

* 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

