

Fiber OSP cable, LightScope ZWP® Mini Single Jacket/Single Armor, 144 fiber, Gel-Filled, Stranded Loose Tube, Singlemode G.657.A2, Meters jacket marking, Black jacket color

 Corrugated steel tape armor is strong yet flexible, providing additional crush and rodent protection

#### **Product Classification**

Regional Availability EMEA

 Portfolio
 CommScope®

 Product Type
 Fiber OSP cable

Product Series O-LA

# General Specifications

Armor Type Corrugated steel

Cable Type Stranded loose tube

Construction Type Armored
Subunit Type Gel-filled
Jacket Color Black
Jacket Marking Method Inkjet

Jacket Marking Text COMMSCOPE GB OPTICAL CABLE TYPE G657A2 SM 144 FIBER [SERIAL NUMBER] [MM

/YYYY] [METRE MARK]

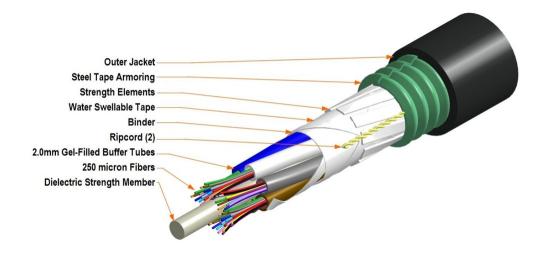
Subunit, quantity12Fibers per Subunit, quantity12Total Fiber Count144

Dimensions

Buffer Tube/Subunit Diameter2 mm | 0.079 inDiameter Over Jacket14.7 mm | 0.579 in

## Representative Image





## Material Specifications

Jacket Material PE

## Mechanical Specifications

Minimum Bend Radius, loaded221 mm | 8.701 inMinimum Bend Radius, unloaded147 mm | 5.787 inTensile Load, long term, maximum800 N | 179.847 lbfTensile Load, short term, maximum2700 N | 606.984 lbfCompression44 N/mm | 251.246 lb/in

**Compression Test Method** IEC 60794-1 E3

Flex 25 cycles

Flex Test Method IEC 60794-1 E6

**Impact** 4.41 N-m | 39.032 in lb

Impact Test Method IEC 60794-1 E4

**Strain** See long and short term tensile loads

Strain Test Method IEC 60794-1 E1

Twist 10 cycles

Twist Test Method IEC 60794-1 E7

**Vertical Rise, maximum** 401 m | 1,315.617 ft

Optical Specifications

**Fiber Type** G.657.A2 | G.657.A2, TeraSPEED®

**COMMSCOPE®** 

### **Environmental Specifications**

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

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

Storage Temperature  $-40 \,^{\circ}\text{C}$  to  $+75 \,^{\circ}\text{C}$  (-40 °F to +167 °F)

Cable Qualification Standards ANSI/ICEA S-87-640 | EN 187105 | IEC 60794-1-2

**Environmental Space** Aerial, lashed | Buried

Jacket UV Resistance UV stabilized

Water Penetration 24 h

**Water Penetration Test Method** IEC 60794-1 F5

### **Environmental Test Specifications**

 Cable Freeze
 -2 °C | 28.4 °F

 Cable Freeze Test Method
 IEC 60794-1 F15

 Drip
 70 °C | 158 °F

 Drip Test Method
 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  $^{\circ}\text{F}$  to  $+140 \,^{\circ}\text{F}$ )

**Low High Bend Test Method** IEC 60794-1 E11

**Temperature Cycle** -40 °C to +70 °C (-40 °F to +158 °F)

**Temperature Cycle Test Method** IEC 60794-1 F1

Packaging and Weights

**Cable weight** 204 kg/km | 137.082 lb/kft

# Regulatory Compliance/Certifications

Agency Classification

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

#### Included Products

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

G.657.A2, B2)

### \* Footnotes

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

# CS-8G-LT

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/mm<sup>2</sup> | 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

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# CS-8G-LT

**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** 0.25 dB/km @ 1,550 nm | 0.33 dB/km @ 1,385

nm | 0.36 dB/km @ 1,310 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

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

**Mode Field Diameter Tolerance**  $\pm 0.4 \, \mu \text{m} \ @ \ 1310 \, \text{nm} \quad | \quad \pm 0.5 \, \mu \text{m} \ @ \ 1550 \, \text{nm}$ 

**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

