

Fiber OSP cable, LightScope ZWP® Blown Micro Single Jacket, 72 fiber, All-Dielectric Stranded Loose Tube Arid-Core® Construction, Gel-filled, Singlemode G.657.Al, Meters jacket marking, Black jacket color

### **Product Classification**

Regional Availability

Asia | Australia/New Zealand | EMEA | Latin America | North America

Portfolio CommScope®
Product Type Fiber OSP cable

Product Series B-LN

### General Specifications

Cable TypeStranded loose tube

Construction Type Non-armored

**Subunit Type** Gel-filled

Filler, quantity 0

Jacket Color Black

Jacket Marking Method Laser

Jacket Marking Text COMMSCOPE OPTICAL CABLE G657A1 SM 72F (SERIAL NUMBER) MM/YYYY

XXXXXXX

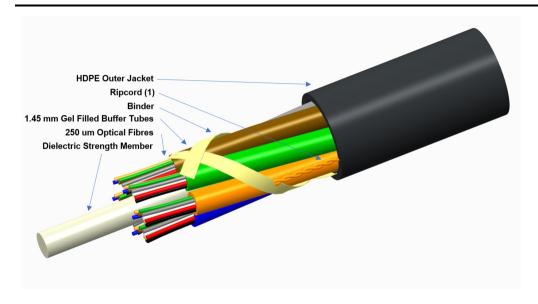
Subunit, quantity 6
Fibers per Subunit, quantity 12
Total Fiber Count 72

**Dimensions** 

Buffer Tube/Subunit Diameter1.45 mm0.057 inDiameter Over Jacket5.3 mm0.209 in

### Representative Image





### Material Specifications

Jacket Material High density polyethylene (HDPE)

### Mechanical Specifications

Minimum Bend Radius, loaded80 mm | 3.15 inMinimum Bend Radius, unloaded53 mm | 2.087 inTensile Load, long term, maximum180 N | 40.466 lbfTensile Load, short term, maximum600 N | 134.885 lbf

**Compression** 10 N/mm | 57.101 lb/in

**Compression Test Method** IEC 60794-1-21 E3

Flex 25 cycles

Flex Test Method IEC 60794-1 E6

**Impact** 0.3 N-m | 2.655 in lb

Impact Test Method IEC 60794-1-21 E4

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

Strain Test Method IEC 60794-1-21 E1

Twist 10 cycles

Twist Test Method IEC 60794-1-21 E7

Vertical Rise, maximum 721 m | 2,365.486 ft

Optical Specifications



**Fiber Type** G.657.A1

### **Environmental Specifications**

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

Operating Temperature  $-30 \,^{\circ}\text{C}$  to  $+70 \,^{\circ}\text{C}$  (-22  $^{\circ}\text{F}$  to  $+158 \,^{\circ}\text{F}$ )

Storage Temperature  $-30 \,^{\circ}\text{C}$  to  $+75 \,^{\circ}\text{C}$  (-22  $^{\circ}\text{F}$  to  $+167 \,^{\circ}\text{F}$ )

Cable Qualification Standards IEC 60794-5-10

**Environmental Space** Air-blown, microduct

Jacket UV Resistance UV stabilized

Water Penentration 24 h

**Water Penentration Test Method** IEC 60794-1 F4

### **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 60794-1-21 E14

Heat Age -30 °C to +85 °C (-22 °F to +185 °F)

**Heat Age Test Method** IEC 60794-1-22 F9

**Low High Bend** -30 °C to +60 °C (-22 °F to +140 °F)

Low High Bend Test Method IEC 60794-1-21 E11

**Temperature Cycle** -30 °C to +70 °C (-22 °F to +158 °F)

**Temperature Cycle Test Method** IEC 60794-1-22 F1

Packaging and Weights

Cable weight 24 kg/km | 16.127 lb/kft

### Regulatory Compliance/Certifications

Agency Classification

CHINA-ROHS Below maximum concentration value

REACH-SVHC Compliant as per SVHC revision on www.commscope.com/ProductCompliance

ROHS Compliant UK-ROHS Compliant





### Included Products

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

\* 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**

 Portfolio
 CommScope®

 Product Type
 Optical fiber

General Specifications

**Cladding Diameter** 125 µm **Cladding Diameter Tolerance**  $\pm 0.7 \, \mu m$ 0.7 % **Cladding Non-Circularity, maximum Coating Diameter (Colored)** 249 um **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

Tight Buffer Diameter900 μmTight 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

 Macrobending, 50 mm Ø mandrel, 100 turns
 0.03 dB @ 1,550 nm
 | 0.05 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, maximum 1260 nm

**COMMSCOPE®** 

## CS-8F-TB

Point Defects, maximum 0.1 dB

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

Zero Dispersion Wavelength, maximum1324 nmZero Dispersion Wavelength, minimum1300 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 @ 1,490 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

 Mode Field Diameter
 8.6 μm @ 1,310 nm | 9.8 μm @ 1,550 nm

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

Polarization Mode Dispersion Link Design Value, maximum0.06 ps/sqrt(km)Standards ComplianceITU-T G.657.A1

### **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

COMMSCOPE®