

Fiber indoor/outdoor cable, TeraSPEED® Inner LSZH, Mini Stranded Loose Tube, 96 fiber, Riser Rated, Gel-Filled Subunits with Aluminum Interlocking Armor, Singlemode G.652.D and G.657.A1, Feet jacket marking, Black jacket color

### **Product Classification**

Regional Availability

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

America

Portfolio CommScope®

Product Type Fiber indoor/outdoor cable

Product Series Z-LZ

General Specifications

 Armor Type
 Interlocking aluminum

 Cable Type
 Stranded loose tube

Construction TypeArmoredSubunit TypeGel-filledJacket ColorBlackJacket MarkingFeetSubunit, quantity12Fibers per Subunit, quantity12Total Fiber Count96

**Dimensions** 

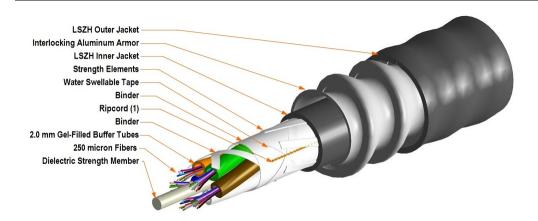
 Buffer Tube/Subunit Diameter
 2 mm | 0.079 in

 Diameter Over Armor
 18.4 mm | 0.724 in

 Diameter Over Jacket
 20.5 mm | 0.807 in

Representative Image





### Mechanical Specifications

Minimum Bend Radius, loaded 409 mm | 16.102 in

Minimum Bend Radius, unloaded 286 mm | 11.26 in

**Tensile Load, long term, maximum** 400 N | 89.924 lbf

Tensile Load, short term, maximum 1335 N | 300.12 lbf

**Compression** 85 N/mm | 485.363 lb/in

**Compression Test Method** FOTP-41 | IEC 60794-1 E3

Flex 25 cycles

Flex Test Method FOTP-104 | IEC 60794-1 E6

**Impact** 35 N-m | 309.776 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** 115 m | 377.297 ft

Optical Specifications

Fiber Type G.652.D and G.657.A1, TeraSPEED® | OS2 | OS2

## **Environmental Specifications**

Installation temperature  $-30 \,^{\circ}\text{C}$  to  $+60 \,^{\circ}\text{C}$  (-22  $^{\circ}\text{F}$  to  $+140 \,^{\circ}\text{F}$ )

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

Page 2 of 7



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

Cable Qualification Standards ANSI/ICEA S-104-696 | EN 187105 | Telcordia GR-20 | Telcordia GR-

109

Environmental Space Buried | Low Smoke Zero Halogen (LSZH) | Riser

Flame Test Listing NEC OFCR-ST1 (ETL) and c(ETL)

Flame Test Method | IEC 60332-3 | IEC 60754-2 | IEC 61034-2 | UL 1666 | UL 1685

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**  $-30 \,^{\circ}\text{C} \text{ to } +60 \,^{\circ}\text{C} \, (-22 \,^{\circ}\text{F to } +140 \,^{\circ}\text{F})$ 

**Low High Bend Test Method** FOTP-37 | IEC 60794-1 E11

**Temperature Cycle**  $-40 \,^{\circ}\text{C to} + 70 \,^{\circ}\text{C} \left(-40 \,^{\circ}\text{F to} + 158 \,^{\circ}\text{F}\right)$ 

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

Packaging and Weights

**Cable weight** 355 kg/km | 238.549 lb/kft

### Regulatory Compliance/Certifications

#### Agency Classification

CENELEC EN 50575 compliant, Declaration of Performance (DoP) available

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

CENELEC

#### Included Products

CS-8W-IOLT - TeraSPEED® OS2 Singlemode Fiber

### \* Footnotes



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

## TeraSPEED® OS2 Singlemode Fiber

# TeraSPEED®

### **Product Classification**

 Portfolio
 CommScope®

 Product Type
 Optical fiber

## General Specifications

**Cladding Diameter** 125 µm **Cladding Diameter Tolerance**  $\pm 0.7 \, \mu m$ 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 Diameter** 8.3 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, 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

Coating Strip Force, maximum 8.9 N | 2.001 lbf

**COMMSCOPE®** 

## CS-8W-IOLT

Coating Strip Force, minimum 1.3 N | 0.292 lbf

Dynamic Fatigue Parameter, minimum 20

**Optical Specifications** 

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

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

Zero Dispersion Wavelength, maximum1324 nmZero Dispersion Wavelength, minimum1300 nm

Optical Specifications, Wavelength Specific

**Attenuation, maximum** 0.22 dB/km @ 1,550 nm | 0.25 dB/km @ 1,490

nm | 0.25 dB/km @ 1,625 nm | 0.36 dB/km @ 1,310

nm | 0.36 dB/km @ 1,385 nm

**Attenuation, typical** 0.19 dB/km @ 1,550 nm | 0.33 dB/km @ 1,310 nm

**Backscatter Coefficient** -79.6 dB @ 1,310 nm | -82.1 dB @ 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** 10.4 μm @ 1,550 nm | 9.2 μm @ 1,310 nm | 9.6 μm @

1,385 nm

Mode Field Diameter Tolerance  $\pm 0.4 \, \mu \text{m}$  @ 1310 nm |  $\pm 0.5 \, \mu \text{m}$  @ 1550 nm |  $\pm 0.6 \, \mu \text{m}$ 

@ 1385 nm

Polarization Mode Dispersion Link Design Value, maximum 0.04 ps/sgrt(km)

Standards Compliance | ITU-T G.652.D | ITU-T G.657.A1 | TIA-492CAAB (OS2)

**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

COMMSCOPE®

# CS-8W-IOLT

## \* 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

