## N-002-ZC-5M-F29

Fiber Indoor Cable, LazrSPEED® 2.9 mm Low Smoke Zero Halogen Riser, 2-fiber Zipcord, Multimode OM2+, Feet jacket marking

#### **Product Classification**

Regional Availability

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

Portfolio CommScope®

Product Type Fiber indoor cable

Product Series N-ZC

### General Specifications

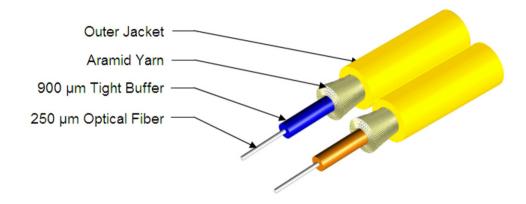
Cable TypeCordageConstruction TypeNon-armoredSubunit TypeGel-freeJacket MarkingFeetTotal Fiber Count2

**Dimensions** 

 Height Over Jacket
 2.9 mm | 0.114 in

 Width Over Jacket
 5.9 mm | 0.232 in

## Representative Image



Mechanical Specifications

COMMSCOPE®

## N-002-ZC-5M-F29

Minimum Bend Radius, loaded44 mm | 1.732 inMinimum Bend Radius, unloaded23 mm | 0.906 inTensile Load, long term, maximum120 N | 26.977 lbfTensile Load, short term, maximum400 N | 89.924 lbf

 Compression
 10 N/mm | 57.101 lb/in

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

Flex 300 cycles

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

**Impact** 0.74 N-m | 6.55 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** 500 m | 1,640.42 ft

Optical Specifications

Fiber Type OM2+, LazrSPEED® 150 | OM2+, LazrSPEED® 150

### **Environmental Specifications**

Installation temperature  $-20 \,^{\circ}\text{C}$  to +60  $^{\circ}\text{C}$  (-4  $^{\circ}\text{F}$  to +140  $^{\circ}\text{F}$ )

Operating Temperature  $-20 \,^{\circ}\text{C}$  to +70  $^{\circ}\text{C}$  (-4  $^{\circ}\text{F}$  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 StandardsANSI/ICEA S-83-596Telcordia GR-409Environmental SpaceLow Smoke Zero Halogen (LSZH)Riser

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

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

## **Environmental Test Specifications**

**Heat Age** -20 °C to +85 °C (-4 °F to +185 °F)

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

**Low High Bend**  $-20 \,^{\circ}\text{C} \text{ to } +70 \,^{\circ}\text{C} \, (-4 \,^{\circ}\text{F to } +158 \,^{\circ}\text{F})$ 

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

**COMMSCOPE®** 

## N-002-ZC-5M-F29

**Temperature Cycle** -20 °C to +70 °C (-4 °F to +158 °F)

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

Packaging and Weights

**Cable weight** 18 kg/km | 12.095 lb/kft

### Regulatory Compliance/Certifications

Agency Classification

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

#### Included Products

CS-5M-TB – LazrSPEED® 150 OM2+ Bend-Insensitive Multimode

Fiber

#### \* Footnotes

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



#### LazrSPEED® 150 OM2+ Bend-Insensitive Multimode Fiber

## LazrSPEED® 150

#### **Product Classification**

Portfolio CommScope®
Product Type Optical fiber

### General Specifications

**Cladding Diameter** 125 µm **Cladding Diameter Tolerance** ±0.8 µm Cladding Non-Circularity, maximum 1 % **Coating Diameter (Colored)**  $254 \, \mu m$ **Coating Diameter (Uncolored)** 245 µm **Coating Diameter Tolerance (Colored)** ±7 µm **Coating Diameter Tolerance (Uncolored)** ±10 μm Coating/Cladding Concentricity Error, maximum 12 µm **Core Diameter** 50 µm **Core Diameter Tolerance** ±2.5 µm Core/Clad Offset, maximum  $1.5 \, \mu m$ 

**Proof Test** 689.476 N/mm² | 100000 psi

 $\begin{tabular}{lll} \textbf{Tight Buffer Diameter} & 900 \ \mu m \\ \begin{tabular}{lll} \textbf{Tight Buffer Diameter Tolerance} & \pm 40 \ \mu m \\ \end{tabular}$ 

## Mechanical Specifications

 Macrobending, 15 mm Ø mandrel, 2 turns
 0.20 dB @ 850 nm
 | 0.50 dB @ 1,300 nm

 Macrobending, 30 mm Ø mandrel, 2 turns
 0.10 dB @ 850 nm
 | 0.30 dB @ 1,300 nm

Coating Strip Force, maximum $8.9 \, \text{N}$  $2.001 \, \text{lbf}$ Coating Strip Force, minimum $1.3 \, \text{N}$  $0.292 \, \text{lbf}$ 

**COMMSCOPE®** 

## CS-5M-TB

Dynamic Fatigue Parameter, minimum 18

Optical Specifications

Numerical Aperture 0.2

Numerical Aperture Tolerance±0.015Point Defects, maximum0.15 dB

**Zero Dispersion Slope, maximum** 0.105 ps/[km-nm-nm]

**Zero Dispersion Wavelength, maximum** 1316 nm **Zero Dispersion Wavelength, minimum** 1297 nm

Optical Specifications, Wavelength Specific

**1 Gbps Ethernet Distance** 600 m @ 1,300 nm | 800 m @ 850 nm

**10 Gbps Ethernet Distance** 150 m @ 850 nm

**Attenuation, maximum** 1.00 dB/km @ 1,300 nm | 3.00 dB/km @ 850 nm

**Backscatter Coefficient** -68.0 dB @ 850 nm | -75.7 dB @ 1,300 nm

 Bandwidth, Laser, minimum
 500 MHz-km @ 1,300 nm | 950 MHz-km @ 850 nm

 Bandwidth, OFL, minimum
 500 MHz-km @ 1,300 nm | 700 MHz-km @ 850 nm

 Differential Mode Delay
 0.70 ps/m @ 850 nm | 0.88 ps/m @ 1,300 nm

**Index of Refraction** 1.479 @ 1,300 nm | 1.483 @ 850 nm

Standards Compliance TIA-492AAAB (OM2+)

Environmental Specifications

**Heat Aging, maximum**  $0.20 \text{ dB/km} \ @ 85 \ ^{\circ}\text{C}$ 

Temperature Dependence, maximum0.1 dB/kmTemperature Humidity Cycling, maximum0.2 dB/km

**Water Immersion, maximum** 0.20 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)

Page 5 of 6



# CS-5M-TB

up to 95% relative humidity

