# 700010036 | N-001-SP-6F-F290R



Fiber indoor cable, OptiSPEED® 2.9 mm Low Smoke Zero Halogen Riser Simplex, 1 fiber, Multimode OM1, Feet jacket marking, Orange jacket color

#### **Product Classification**

Regional Availability

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

Portfolio CommScope®

**Product Type** Fiber indoor cable

**Product Series** N-SP

### General Specifications

Cable Type Cordage

Construction Type Non-armored

Subunit TypeGel-freeJacket ColorOrange

**Jacket Marking** Feet

Total Fiber Count

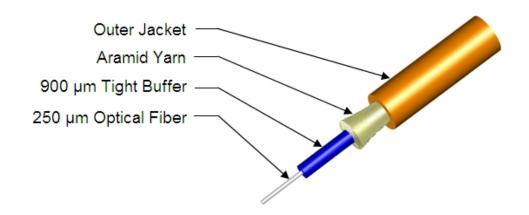
Dimensions

**Diameter Over Jacket** 2.9 mm | 0.114 in

# Representative Image



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## Mechanical Specifications

Minimum Bend Radius, loaded44 mm1.732 inMinimum Bend Radius, unloaded23 mm0.906 inTensile Load, long term, maximum80 N17.985 lbfTensile Load, short term, maximum267 N60.024 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 OM1, OptiSPEED® | OM1, OptiSPEED®

**Environmental Specifications** 

Installation temperature -20 °C to +60 °C (-4 °F to +140 °F)

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

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

Cable Qualification StandardsANSI/ICEA S-83-596Telcordia GR-409

Environmental Space Low 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**  $-20 \,^{\circ}\text{C}$  to  $+85 \,^{\circ}\text{C}$  (-4  $^{\circ}\text{F}$  to  $+185 \,^{\circ}\text{F}$ )

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

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

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

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

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

Packaging and Weights

Cable weight 9 kg/km | 6.048 lb/kft

#### Regulatory Compliance/Certifications

#### Agency Classification

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



#### Included Products

CS-6F-TB - OptiSPEED® OM1 Multimode Fiber

#### \* Footnotes

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



# CS-6F-TB OptiSPEED®

#### OptiSPEED® OM1 Multimode Fiber

#### **Product Classification**

**Portfolio** CommScope® **Product Type** Optical fiber

## General Specifications

**Cladding Diameter** 125 µm **Cladding Diameter Tolerance** ±1.0 µm **Cladding Non-Circularity, maximum** 1 % **Coating Diameter (Colored)** 254 µm **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** 62.5 µm **Core Diameter Tolerance** ±2.5 µm Core/Clad Offset, maximum 1 µm

**Proof Test** 689.476 N/mm<sup>2</sup> | 100000 psi

**Tight Buffer Diameter** 900 µm **Tight Buffer Diameter Tolerance** ±40 µm

# Mechanical Specifications

Macrobending, 75 mm Ø mandrel, 100 turns 0.50 dB @ 1,300 nm | 0.50 dB @ 850 nm

**Coating Strip Force, maximum** 8.9 N | 2.001 lbf 1.3 N | 0.292 lbf **Coating Strip Force, minimum** 

Dynamic Fatigue Parameter, minimum 18

## **Optical Specifications**

**Numerical Aperture** 0.275 ±0.015 **Numerical Aperture Tolerance** Point Defects, maximum 0.15 dB

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# CS-6F-TB

**Zero Dispersion Slope, maximum** 0.097 ps/[km-nm-nm]

**Zero Dispersion Wavelength, maximum** 1365 nm **Zero Dispersion Wavelength, minimum** 1320 nm

#### Optical Specifications, Wavelength Specific

**1 Gbps Ethernet Distance** 300 m @ 850 nm | 550 m @ 1,300 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, OFL, minimum** 220 MHz-km @ 850 nm | 500 MHz-km @ 1,300 nm

**Index of Refraction** 1.491 @ 1,300 nm | 1.496 @ 850 nm

Standards Compliance TIA-492AAAA (OM1)

### **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)

up to 95% relative humidity

