

# R-096-DS-5M-FMU

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Fiber indoor cable, LazrSPEED® Riser Distribution, 96 fiber Multi-Unit with 12-Fiber Subunits, Multimode OM2+, Gel-free, Feet jacket marking

## Product Classification

<b>Regional Availability</b>	Asia   Australia/New Zealand   Latin America   Middle East /Africa   North America
<b>Portfolio</b>	CommScope®
<b>Product Type</b>	Fiber indoor cable
<b>Product Series</b>	R-DS

## General Specifications

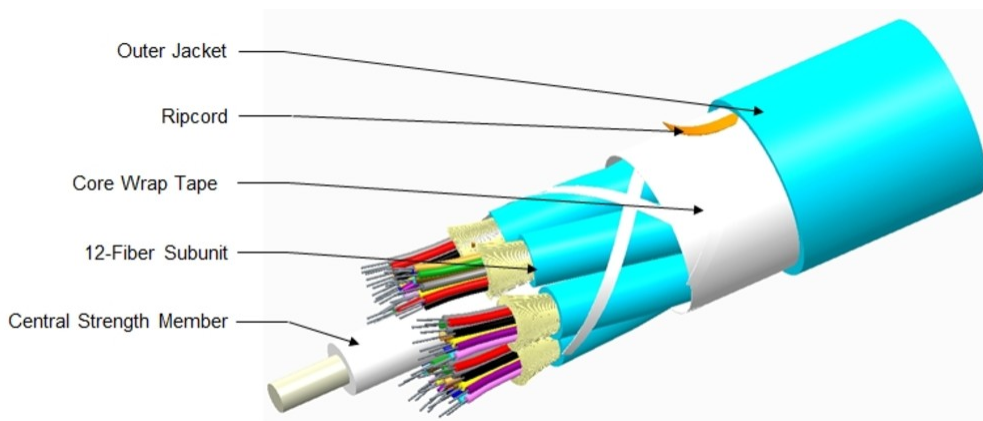
<b>Cable Type</b>	Distribution
<b>Construction Type</b>	Non-armored
<b>Fiber Type, quantity</b>	96
<b>Fibers per Subunit, quantity</b>	12
<b>Jacket Marking</b>	Feet
<b>Subunit Type</b>	Gel-free
<b>Subunit, quantity</b>	8
<b>Total Fiber Count</b>	96

## Dimensions

<b>Buffer Tube/Subunit Diameter</b>	5.95 mm   0.234 in
<b>Diameter Over Jacket</b>	23.58 mm   0.928 in

## Representative Image

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## Mechanical Specifications

<b>Minimum Bend Radius, loaded</b>	354 mm   13.937 in
<b>Minimum Bend Radius, unloaded</b>	236 mm   9.291 in
<b>Tensile Load, long term, maximum</b>	400 N   89.924 lbf
<b>Tensile Load, short term, maximum</b>	1335 N   300.12 lbf
<b>Compression</b>	10 N/mm   57.101 lb/in
<b>Compression Test Method</b>	FOTP-41   IEC 60794-1 E3
<b>Flex</b>	100 cycles
<b>Flex Test Method</b>	FOTP-104   IEC 60794-1 E6
<b>Impact</b>	5.88 N-m   52.042 in lb
<b>Impact Test Method</b>	FOTP-25   IEC 60794-1 E4
<b>Strain</b>	See long and short term tensile loads
<b>Strain Test Method</b>	FOTP-33   IEC 60794-1 E1
<b>Twist</b>	10 cycles
<b>Twist Test Method</b>	FOTP-85   IEC 60794-1 E7
<b>Vertical Rise, maximum</b>	81 m   265.748 ft

## Optical Specifications

<b>Fiber Type</b>	OM2+, LazrSPEED® 150   OM2+, LazrSPEED® 150
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## Environmental Specifications

<b>Installation temperature</b>	-20 °C to +70 °C (-4 °F to +158 °F)
<b>Operating Temperature</b>	-20 °C to +70 °C (-4 °F to +158 °F)

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<b>Storage Temperature</b>	-40 °C to +70 °C (-40 °F to +158 °F)
<b>Cable Qualification Standards</b>	ANSI/ICEA S-83-596   Telcordia GR-409
<b>Environmental Space</b>	Riser
<b>Flame Test Listing</b>	NEC OFNR (ETL) and c(ETL)
<b>Flame Test Method</b>	UL 1666

## Environmental Test Specifications

<b>Heat Age</b>	-20 °C to +85 °C (-4 °F to +185 °F)
<b>Heat Age Test Method</b>	IEC 60794-1 F9
<b>Low High Bend</b>	-20 °C to +70 °C (-4 °F to +158 °F)
<b>Low High Bend Test Method</b>	FOTP-37   IEC 60794-1 E11
<b>Temperature Cycle</b>	-20 °C to +70 °C (-4 °F to +158 °F)
<b>Temperature Cycle Test Method</b>	FOTP-3   IEC 60794-1 F1

## Packaging and Weights

<b>Cable weight</b>	502 kg/km   337.328 lb/kft
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## Regulatory Compliance/Certifications

<b>Agency</b>	<b>Classification</b>
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
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## \* Footnotes

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

# CS-5M-TB

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

### LazrSPEED® 150

#### Product Classification

<b>Portfolio</b>	CommScope®
<b>Product Type</b>	Optical fiber

#### General Specifications

<b>Cladding Diameter</b>	125 µm
<b>Cladding Diameter Tolerance</b>	±0.8 µm
<b>Cladding Non-Circularity, maximum</b>	1 %
<b>Coating Diameter (Colored)</b>	254 µm
<b>Coating Diameter (Uncolored)</b>	245 µm
<b>Coating Diameter Tolerance (Colored)</b>	±7 µm
<b>Coating Diameter Tolerance (Uncolored)</b>	±10 µm
<b>Coating/Cladding Concentricity Error, maximum</b>	12 µm
<b>Core Diameter</b>	50 µm
<b>Core Diameter Tolerance</b>	±2.5 µm
<b>Core/Clad Offset, maximum</b>	1.5 µm
<b>Proof Test</b>	689.476 N/mm <sup>2</sup>   100000 psi
<b>Tight Buffer Diameter</b>	900 µm
<b>Tight Buffer Diameter Tolerance</b>	±40 µm

#### Mechanical Specifications

<b>Macrobending, 15 mm mandrel, 2 turns</b>	0.20 dB @ 850 nm   0.50 dB @ 1,300 nm
<b>Macrobending, 30 mm mandrel, 2 turns</b>	0.10 dB @ 850 nm   0.30 dB @ 1,300 nm
<b>Coating Strip Force, maximum</b>	8.9 N   2.001 lbf
<b>Coating Strip Force, minimum</b>	1.3 N   0.292 lbf

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**Dynamic Fatigue Parameter, minimum** 18

## Optical Specifications

**Numerical Aperture** 0.2  
**Numerical Aperture Tolerance**  $\pm 0.015$   
**Point Defects, maximum** 0.15 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 dB/km @ 85 °C  
**Temperature Dependence, maximum** 0.1 dB/km  
**Temperature Humidity Cycling, maximum** 0.2 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

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**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