

R-144-DS-5M-FMU

Fiber indoor cable, LazrSPEED® Riser Distribution, 144 fiber Multi-Unit with 12-Fiber Subunits, Multimode OM2+, Gel-free, Feet jacket marking

Product Classification

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

General Specifications

Cable Type	Distribution
Construction Type	Non-armored
Fiber Type, quantity	144
Fibers per Subunit, quantity	12
Jacket Marking	Feet
Subunit Type	Gel-free
Subunit, quantity	12
Total Fiber Count	144

Dimensions

Buffer Tube/Subunit Diameter	5.95 mm 0.234 in
Diameter Over Jacket	25.75 mm 1.014 in

Representative Image

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Mechanical Specifications

Minimum Bend Radius, loaded	386 mm 15.197 in
Minimum Bend Radius, unloaded	257 mm 10.118 in
Tensile Load, long term, maximum	400 N 89.924 lbf
Tensile Load, short term, maximum	1335 N 300.12 lbf
Compression	10 N/mm 57.101 lb/in
Compression Test Method	FOTP-41 IEC 60794-1 E3
Flex	100 cycles
Flex Test Method	FOTP-104 IEC 60794-1 E6
Impact	5.88 N-m 52.042 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	78 m 255.906 ft

Optical Specifications

Fiber Type	OM2+, LazrSPEED® 150 OM2+, LazrSPEED® 150
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Environmental Specifications

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

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

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 °C to +70 °C (-4 °F to +158 °F)
Low High Bend Test Method	FOTP-37 IEC 60794-1 E11
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	522 kg/km 350.768 lb/kft
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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
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* Footnotes

Operating Temperature Specification applicable to non-terminated bulk fiber cable

CS-5M-TB

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 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	50 µm
Core Diameter Tolerance	±2.5 µm
Core/Clad Offset, maximum	1.5 µm
Proof Test	689.476 N/mm ² 100000 psi
Tight Buffer Diameter	900 µm
Tight Buffer Diameter Tolerance	±40 µm

Mechanical Specifications

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

CS-5M-TB

Dynamic Fatigue Parameter, minimum 18

Optical Specifications

Numerical Aperture 0.2
Numerical Aperture Tolerance ± 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

CS-5M-TB

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