



Fiber Indoor Cable, LSZH Riser, All-Dielectric, Central Tube Ribbon, Multimode, OM4, bend insensitive, 72 Fibers, Gel-free, Feet jacket marking, Aqua 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-CN

General Specifications

Cable Type	Ribbon central tube
Construction Type	Non-armored
Subunit Type	Gel-free
Fibers per Ribbon, quantity	12
Jacket Color	Aqua
Jacket Marking	Feet
Total Fiber Count	72

Dimensions

Buffer Tube/Subunit Diameter	6 mm   0.236 in
Diameter Over Jacket	9.4 mm   0.37 in

Representative Image



## Mechanical Specifications

Minimum Bend Radius, loaded	188 mm   7.402 in
Minimum Bend Radius, unloaded	94 mm   3.701 in
Tensile Load, long term, maximum	334 N   75.086 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	25 cycles
Flex Test Method	FOTP-104   IEC 60794-1 E6
Impact	2.94 N-m   26.021 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

## Optical Specifications

Fiber Type	OM4, bend insensitive   OM4, bend insensitive
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## Environmental Specifications

Installation temperature	0 °C to +70 °C (+32 °F to +158 °F)
Operating Temperature	-20 °C to +70 °C (-4 °F to +158 °F)

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	Low Smoke Zero Halogen (LSZH)   Riser
Flame Test Listing	NEC OFNR-ST1 (UL) and c(UL)
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 °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	90 kg/km   60.477 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-5X-RB	— 50µm OM4 Bend-Insensitive Multimode Fiber
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\* Footnotes

Operating Temperature	Specification applicable to non-terminated bulk fiber cable
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# CS-5X-RB

## 50µm OM4 Bend-Insensitive Multimode Fiber

### Product Classification

Portfolio	CommScope®
Product Type	Optical fiber

### General Specifications

Cladding Diameter	125 µm
Cladding Diameter Tolerance	±5 µm
Cladding Non-Circularity, maximum	1 %
Coating Diameter (Colored)	250 µm
Coating Diameter (Uncolored)	245 µm
Coating Diameter Tolerance (Colored)	±15 µm
Coating Diameter Tolerance (Uncolored)	±10 µm
Coating/Cladding Concentricity Error, maximum	12 µm
Core Diameter	50 µm
Core Diameter Tolerance	±3 µm
Core/Clad Offset, maximum	1 µm
Proof Tensile Stress	100,000 psi (0.69 GPa)

### 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 N   2.001 lbf
Coating Strip Force, minimum	1.3 N   0.292 lbf
Dynamic Fatigue Parameter, minimum	18

### Optical Specifications

Numerical Aperture	0.2
Numerical Aperture Tolerance	±0.015
Point Defects, maximum	0.2 dB
Zero Dispersion Slope, maximum	0.105 ps/[km-nm-nm]
Zero Dispersion Wavelength, maximum	1340 nm

# CS-5X-RB

Zero Dispersion Wavelength, minimum	1295 nm
Optical Specifications, Wavelength Specific	
1 Gbps Ethernet Distance	1,000 m @ 850 nm   550 m @ 1,300 nm
10 Gbps Ethernet Distance	550 m @ 850 nm
Attenuation, maximum	1.50 dB/km @ 1,300 nm   3.50 dB/km @ 850 nm
Backscatter Coefficient	-68.0 dB @ 850 nm   -75.7 dB @ 1,300 nm
Bandwidth, Laser, minimum	4,700 MHz-km @ 850 nm   500 MHz-km @ 1,300 nm
Bandwidth, OFL, minimum	3,500 MHz-km @ 850 nm   500 MHz-km @ 1,300 nm
Differential Mode Delay Note	Superior to TIA-492AAAC and IEC 60793-2-10 at 850 nm
Index of Refraction	1.478 @ 1,300 nm   1.482 @ 850 nm
Standards Compliance	TIA-492AAAD (OM4)

## Environmental Specifications

Heat Aging, maximum	0.10 dB/km @ 85 °C
Temperature Dependence, maximum	0.1 dB/km
Temperature Humidity Cycling, maximum	0.1 dB/km
Water Immersion, maximum	0.10 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