



Fiber Indoor Cable, LSZH Riser, All-Dielectric, Central Tube Ribbon, Multimode, OM4, bend insensitive, 48 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

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|------------------------------------|---------------------|
| 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 | 48 |

Dimensions

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

Representative Image



Mechanical Specifications

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|--|---------------------------------------|
| 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

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|-------------------|---|
| Fiber Type | OM4, bend insensitive OM4, bend insensitive |
|-------------------|---|

Environmental Specifications

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|---------------------------------|-------------------------------------|
| Installation temperature | 0 °C to +70 °C (+32 °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 | 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

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|---------------------|--------------------------|
| Cable weight | 90 kg/km 60.477 lb/kft |
|---------------------|--------------------------|

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 |
|----------|---|

* Footnotes

Operating Temperature Specification applicable to non-terminated bulk fiber cable

CS-5X-RB

50µm OM4 Bend-Insensitive Multimode Fiber

Product Classification

| | |
|---------------------|---------------|
| Portfolio | CommScope® |
| Product Type | Optical fiber |

General Specifications

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|--|--|
| Cladding Diameter | 125 µm |
| Cladding Diameter Tolerance | ±1.0 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 Test | 689.476 N/mm ² 100000 psi |

Mechanical Specifications

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|---|---------------------------------------|
| 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

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|--|---------------------|
| 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

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|-------------------------------------|--|
| 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

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|--|--------------------|
| 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 |