



Fiber indoor cable, Low Smoke Zero Halogen Indoor Distribution, 12 fiber single-unit, Multimode OM4, Meters jacket marking, Aqua jacket color

Product Classification

| | |
|------------------------------|----------------------------|
| Regional Availability | China |
| Portfolio | CommScope® |
| Product Type | Fiber indoor/outdoor cable |
| Product Series | L-DS |
| Country Specific for | China |

General Specifications

| | |
|--------------------------|---------------|
| Cable Type | Tight buffer |
| Jacket Color | Aqua |
| Jacket Marking | Meters |
| Strength Members | E-glass yarns |
| Total Fiber Count | 12 |

Dimensions

| | |
|-------------------------------------|-------------------|
| Buffer Tube/Subunit Diameter | 0.9 mm 0.035 in |
| Diameter Over Jacket | 6.6 mm 0.26 in |

Mechanical Specifications

| | |
|------------------------------------------|-------------------------------------------------------------|
| Minimum Bend Radius, loaded | 132 mm 5.197 in |
| Minimum Bend Radius, unloaded | 66 mm 2.598 in |
| Tensile Load, long and short term | See Sag and Tension tables in Product Documentation section |
| Tensile Load, long term, maximum | 198 N 44.512 lbf |
| Tensile Load, short term, maximum | 660 N 148.374 lbf |
| Compression | 10 N/mm 57.101 lb/in |
| Compression Test Method | IEC 60794-1-2 E3 |
| Strain | See long and short term tensile loads |
| Strain Test Method | IEC 60794-1-2-E1 |

Optical Specifications

Fiber Type OM4

Optical Specifications, Wavelength Specific

Attenuation, maximum 1.00 dB/km @ 1,300 nm | 3.00 dB/km @ 850 nm

Environmental Specifications

Installation temperature -10 °C to +60 °C (+14 °F to +140 °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 Telcordia GR-409

Environmental Space Low Smoke Zero Halogen (LSZH)

Flame Test Listing B1

Flame Test Method GB/T 31247

Environmental Test Specifications

Temperature Cycle -20 °C to +70 °C (-4 °F to +158 °F)

Temperature Cycle Test Method IEC 60794-1-2 F1

Regulatory Compliance/Certifications

| Agency | Classification |
|------------|---------------------------------------------------------------------------------------------------------------------------------|
| CHINA-ROHS | Below maximum concentration value |
| REACH-SVHC | Compliant as per SVHC revision on www.commscope.com/ProductCompliance |
| ROHS | Compliant |
| UK-ROHS | Compliant |



Included Products

CS-5X-TB-3.0/1.0/093 – OM4 Bend-Insensitive Multimode Fiber

* Footnotes

Operating Temperature Specification applicable to non-terminated bulk fiber cable

CS-5X-TB-3.0/1.0/093

OM4 Bend-Insensitive 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) | 245 µm |
| Coating Diameter Tolerance (Colored) | ±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 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 |
| 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 |
| 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 | 0.15 dB |

CS-5X-TB-3.0/1.0/093

Optical Specifications, Wavelength Specific

| | |
|-------------------------------------|-------------------------------------------------------------------------------|
| 1 Gbps Ethernet Distance | 1,110 m @ 850 nm 600 m @ 1,300 nm |
| 10 Gbps Ethernet Distance | 550 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 | 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 | 0.70 ps/m @ 850 nm 0.88 ps/m @ 1,300 nm |
| Differential Mode Delay Note | Superior to TIA-492AAAC and IEC 60793-2-10 at 850 nm |
| Index of Refraction | 1.477 @ 1,300 nm 1.482 @ 850 nm |
| Standards Compliance | IEC 60793-2-10, type A1a.3a IEC 60793-2-10, type A1a.3b TIA-492AAAD (OM4) |

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 |

* 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 |