



Fiber Indoor/outdoor Cable, Low Smoke Zero Halogen / 6 fiber
Microsheath, Tube Colours as per DIN/VDE 0888, Gel-free, Singlemode
G.657.A1, Meters jacket marking, Black jacket color, Dca flame rating

Product Classification

| | |
|------------------------------|-------------------------------------|
| Regional Availability | Asia Australia/New Zealand EMEA |
| Portfolio | CommScope® |
| Product Type | Fiber indoor/outdoor cable |
| Product Series | C-LN |

General Specifications

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|-------------------------------------|---|
| Cable Type | Stranded microsheath tube |
| Subunit Type | Gel-free |
| Filler, quantity | 5 |
| Jacket Color | Black |
| Jacket Marking | Meters |
| Jacket Marking Method | Inkjet |
| Jacket Marking Text | COMMSCOPE GB F.O. CABLE 810010209/DB 6x9/125 ITU-T G.657A1 EN50575 CLASS D ULSZH (serial number) (metre mark) |
| Subunit, quantity | 1 |
| Fibers per Subunit, quantity | 6 |
| Total Fiber Count | 6 |

Dimensions

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|-----------------------------|---------------------|
| Cable Length | 500 m 1,640.42 ft |
| Diameter Over Jacket | 6.1 mm 0.24 in |

Mechanical Specifications

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| Minimum Bend Radius, loaded | 100 mm 3.937 in |
| Minimum Bend Radius, unloaded | 55 mm 2.165 in |
| Tensile Load, long term, maximum | 200 N 44.962 lbf |
| Tensile Load, short term, maximum | 900 N 202.328 lbf |

810010209/DB | C-006-LN-8F-M06BK/14D/AY /D-0500-DK02

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| Cable Crush Resistance, maximum | 10 N/mm 57.101 lb/in |
| Compression Test Method | IEC 60794-1-21 E3 |
| Impact | 2 N-m 17.701 in lb |
| Impact Test Method | IEC 60794-1-21 E4 |
| Strain Test Method | IEC 60794-1-21 E1 |
| Twist | 5 cycles |
| Twist Test Method | IEC 60794-1 E7 |

Optical Specifications

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|-------------------|----------|
| Fiber Type | G.657.A1 |
|-------------------|----------|

Optical Specifications, Wavelength Specific

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|-----------------------------|---|
| Attenuation, maximum | 0.25 dB/km @ 1,550 nm 0.27 dB/km @ 1,490 nm 0.27 dB/km @ 1,625 nm 0.36 dB/km @ 1,310 nm |
| Standards Compliance | TIA-492CAAB (OS2) |

Environmental Specifications

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|---|--|
| Operating Temperature | -40 °C to +70 °C (-40 °F to +158 °F) |
| EN50575 CPR Cable EuroClass Fire Performance | Dca |
| EN50575 CPR Cable EuroClass Smoke Rating | s1a |
| EN50575 CPR Cable EuroClass Droplets Rating | d1 |
| EN50575 CPR Cable EuroClass Acidity Rating | a1 |
| Environmental Space | Universal Low Smoke Zero Halogen (ULSZH) |
| Water Penetration | 336 h |
| Water Penetration Test Method | IEC 60794-1 F5 |

Environmental Test Specifications

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|--------------------------------------|--------------------------------------|
| Temperature Cycle | -40 °C to +70 °C (-40 °F to +158 °F) |
| Temperature Cycle Test Method | IEC 60794-1-22 F1 |

Packaging and Weights

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|---------------------|--------------------------|
| Cable weight | 38 kg/km 25.535 lb/kft |
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Regulatory Compliance/Certifications

| Agency | Classification |
|---------------|-----------------------|
|---------------|-----------------------|

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| 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

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| CS-8F-LT | - Low Macrobending, Zero Water Peak, Dispersion-Unshifted Singlemode Fiber |
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* Footnotes

Operating Temperature Specification applicable to non-terminated bulk fiber cable

CS-8F-LT

Low Macrobending, Zero Water Peak, Dispersion-Unshifted Singlemode Fiber

Product Classification

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

General Specifications

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| Cladding Diameter | 125 µm |
| Cladding Diameter Tolerance | ±0.7 µm |
| Cladding Non-Circularity, maximum | 0.7 % |
| Coating Diameter (Colored) | 249 µm |
| Coating Diameter (Uncolored) | 242 µm |
| Coating Diameter Tolerance (Colored) | ±13 µm |
| Coating Diameter Tolerance (Uncolored) | ±5 µm |
| Coating/Cladding Concentricity Error, maximum | 12 µm |
| Core/Clad Offset, maximum | 0.5 µm |
| Proof Test | 689.476 N/mm ² 100000 psi |

Dimensions

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|----------------------------|-----------------|
| Fiber Curl, minimum | 4 m 13.123 ft |
|----------------------------|-----------------|

Mechanical Specifications

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|---|---|
| Macrobending, 20 mm Ø mandrel, 1 turn | 0.75 dB @ 1,550 nm 1.50 dB @ 1,625 nm |
| Macrobending, 30 mm Ø mandrel, 10 turns | 0.25 dB @ 1,550 nm 1.00 dB @ 1,625 nm |
| Macrobending, 50 mm Ø mandrel, 100 turns | 0.03 dB @ 1,550 nm 0.05 dB @ 1,625 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 | 20 |

Optical Specifications

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|--|--------------------|
| Cabled Cutoff Wavelength, maximum | 1260 nm |
| Point Defects, maximum | 0.1 dB |
| Zero Dispersion Slope, maximum | 0.09 ps/[km-nm-nm] |

CS-8F-LT

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|--|---------|
| Zero Dispersion Wavelength, maximum | 1324 nm |
| Zero Dispersion Wavelength, minimum | 1300 nm |

Optical Specifications, Wavelength Specific

| | |
|--|---|
| Attenuation, maximum | 0.25 dB/km @ 1,550 nm 0.27 dB/km @ 1,490 nm 0.27 dB/km @ 1,625 nm 0.33 dB/km @ 1,385 nm 0.36 dB/km @ 1,310 nm |
| Dispersion, maximum | 18 ps(nm-km) at 1550 nm 3.5 ps(nm-km) from 1285 nm to 1330 nm at 1310 nm |
| Index of Refraction | 1.467 @ 1,310 nm 1.467 @ 1,385 nm 1.468 @ 1,550 nm |
| Mode Field Diameter | 8.6 μm @ 1,310 nm 9.8 μm @ 1,550 nm |
| Mode Field Diameter Tolerance | $\pm 0.4 \mu\text{m}$ @ 1310 nm $\pm 0.5 \mu\text{m}$ @ 1550 nm |
| Polarization Mode Dispersion Link Design Value, maximum | 0.06 ps/sqrt(km) |
| Standards Compliance | ITU-T G.657.A1 TIA-492CAAB (OS2) |

Environmental Specifications

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|--|--------------------|
| Heat Aging, maximum | 0.05 dB/km @ 85 °C |
| Temperature Dependence, maximum | 0.05 dB/km |
| Temperature Humidity Cycling, maximum | 0.05 dB/km |
| Water Immersion, maximum | 0.05 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 |