

Fiber Indoor/Outdoor cable, Low Smoke Zero Halogen Micro Distribution, 12-Fiber, Multimode OM4, Feet jacket marking, Black jacket color, Dca flame rating

Product Classification

| | |
|------------------------------|----------------------------|
| Regional Availability | Europe |
| Portfolio | CommScope® |
| Product Type | Fiber indoor/outdoor cable |
| Product Series | Z-MD |

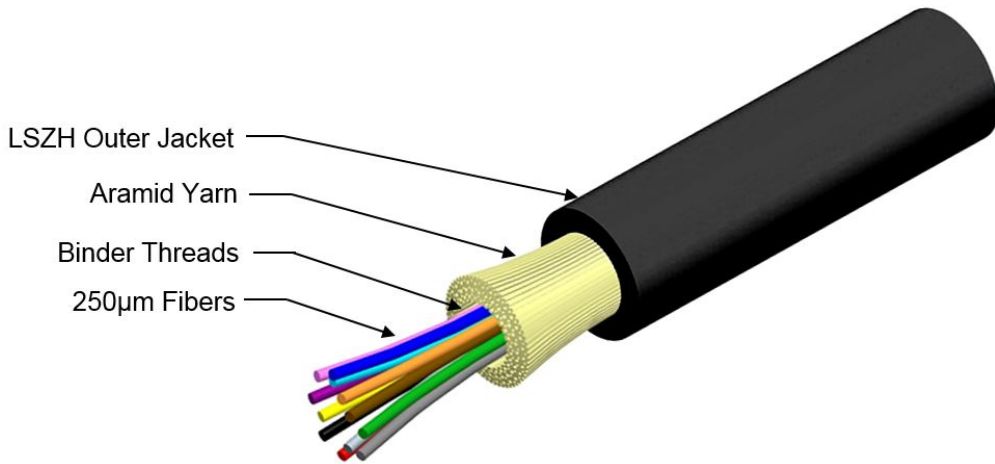
General Specifications

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|--------------------------|--------------|
| Cable Type | Distribution |
| Construction Type | Non-armored |
| Subunit Type | Gel-free |
| Jacket Color | Black |
| Jacket Marking | Feet |
| Subunit, quantity | 1 |
| Total Fiber Count | 12 |

Dimensions

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|-----------------------------|--------------------|
| Diameter Over Jacket | 3.65 mm 0.144 in |
|-----------------------------|--------------------|

Representative Image



Mechanical Specifications

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|--|---------------------------------------|
| Minimum Bend Radius, loaded | 54 mm 2.126 in |
| Minimum Bend Radius, unloaded | 29 mm 1.142 in |
| Tensile Load, long term, maximum | 54 N 12.14 lbf |
| Tensile Load, short term, maximum | 178 N 40.016 lbf |
| Compression | 4 N/mm 22.841 lb/in |
| Compression Test Method | FOTP-41 IEC 60794-1 E3 |
| Flex | 300 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 |
| Vertical Rise, maximum | 400 m 1,312.336 ft |

Optical Specifications

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|-------------------|---------------------|
| Fiber Type | OM4, LazrSPEED® 550 |
|-------------------|---------------------|

Environmental Specifications

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|---------------------------------|--------------------------------------|
| Installation temperature | -10 °C to +60 °C (+14 °F to +140 °F) |
|---------------------------------|--------------------------------------|

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| | |
|---|--|
| Operating Temperature | -40 °C to +75 °C (-40 °F to +167 °F) |
| Storage Temperature | -40 °C to +75 °C (-40 °F to +167 °F) |
| Cable Qualification Standards | ANSI/ICEA S-104-696 Telcordia GR-20 (water penetration) Telcordia GR-409 |
| EN50575 CPR Cable EuroClass Fire Performance | Dca |
| EN50575 CPR Cable EuroClass Smoke Rating | s1a |
| EN50575 CPR Cable EuroClass Droplets Rating | d0 |
| EN50575 CPR Cable EuroClass Acidity Rating | a1 |
| Environmental Space | Low Smoke Zero Halogen (LSZH) |
| Flame Test Listing | NEC OFNR-ST1 (ETL) and c(ETL) |
| Flame Test Method | IEC 60754-2 IEC 61034-2 UL 1666 UL 1685 |
| Jacket UV Resistance | UV stabilized |
| Water Penetration | 24 h |
| Water Penetration Test Method | FOTP-82 IEC 60794-1 F5 |

Environmental Test Specifications

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|--------------------------------------|--------------------------------------|
| Heat Age | -40 °C to +85 °C (-40 °F to +185 °F) |
| Heat Age Test Method | IEC 60794-1 F9 |
| Low High Bend | -10 °C to +60 °C (+14 °F to +140 °F) |
| Low High Bend Test Method | FOTP-37 IEC 60794-1 E11 |
| Temperature Cycle | -40 °C to +75 °C (-40 °F to +167 °F) |
| Temperature Cycle Test Method | FOTP-3 IEC 60794-1 F1 |

Packaging and Weights

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|---------------------|---------------------------|
| Cable weight | 12.7 kg/km 8.534 lb/kft |
|---------------------|---------------------------|

Included Products

| | | |
|-----------|---|---|
| CS-5D1-MP | – | LazrSPEED® 550 OM4 Bend-Insensitive Multimode Fiber |
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* Footnotes

Operating Temperature Specification applicable to non-terminated bulk fiber cable

CS-5D1-MP

LazrSPEED® 550

LazrSPEED® 550 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 | ±0.5 µm |
| Cladding Non-Circularity, maximum | 1 % |
| Coating Diameter (Colored) | 254 µm |
| Coating Diameter (Uncolored) | 242 µm |
| Coating Diameter Tolerance (Colored) | ±5 µm |
| Coating Diameter Tolerance (Uncolored) | ±7 µm |
| Coating/Cladding Concentricity Error, maximum | 8 µm |
| Core Diameter | 50 µm |
| Core Diameter Tolerance | ±0.5 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 |
| 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

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|-------------------------------------|---------|
| Numerical Aperture | 0.2 |
| Numerical Aperture Tolerance | ±0.015 |
| Point Defects, maximum | 0.15 dB |

CS-5D1-MP

| | |
|--|---------------------|
| Zero Dispersion Slope, maximum | 0.105 ps/[km-nm-nm] |
| Zero Dispersion Wavelength, maximum | 1340 nm |
| Zero Dispersion Wavelength, minimum | 1295 nm |

Optical Specifications, Wavelength Specific

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|-------------------------------------|--|
| 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 | 1.478 @ 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 |

* 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 |