

# N-012-MZ-5K-F12

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Fiber indoor cable, LazrSPEED® Riser/LSZH rated MPO Trunk, interlocking aluminum armored, Multimode OM4, 12 fiber, Feet jacket marking, B2ca flame rating

## Product Classification

|                              |   |
|------------------------------|---|
| <b>Regional Availability</b> | Asia   Australia/New Zealand   EMEA   Latin America   North America |
| <b>Portfolio</b>             | CommScope®  |
| <b>Product Type</b>          | Fiber indoor cable  |
| <b>Product Series</b>        | N-MZ  |

## General Specifications

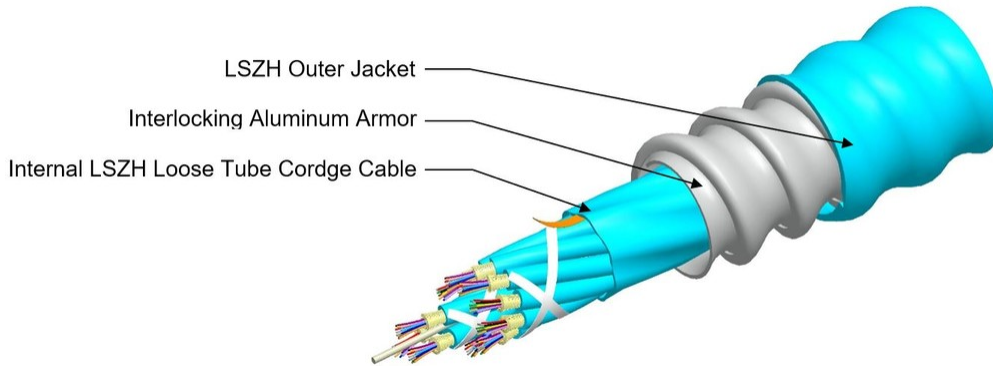
|                                     |                       |
|-------------------------------------|-----------------------|
| <b>Armor Type</b>                   | Interlocking aluminum |
| <b>Cable Type</b>                   | MPO trunk cable       |
| <b>Construction Type</b>            | Armored               |
| <b>Subunit Type</b>                 | Gel-free              |
| <b>Jacket Marking</b>               | Feet                  |
| <b>Subunit, quantity</b>            | 1                     |
| <b>Fibers per Subunit, quantity</b> | 12                    |
| <b>Total Fiber Count</b>            | 12                    |

## Dimensions

|                                     |                     |
|-------------------------------------|---------------------|
| <b>Buffer Tube/Subunit Diameter</b> | 3 mm   0.118 in     |
| <b>Diameter Over Armor</b>          | 15.88 mm   0.625 in |
| <b>Diameter Over Jacket</b>         | 17.9 mm   0.705 in  |

## Representative Image

# N-012-MZ-5K-F12



## Mechanical Specifications

|  |                                       |
|--|---------------------------------------|
| <b>Minimum Bend Radius, loaded</b>       | 358 mm   14.094 in                    |
| <b>Minimum Bend Radius, unloaded</b>     | 251 mm   9.882 in                     |
| <b>Tensile Load, long term, maximum</b>  | 400 N   89.924 lbf                    |
| <b>Tensile Load, short term, maximum</b> | 1335 N   300.12 lbf                   |
| <b>Compression</b>                       | 85 N/mm   485.363 lb/in               |
| <b>Compression Test Method</b>           | FOTP-41   IEC 60794-1 E3              |
| <b>Flex</b>                              | 300 cycles                            |
| <b>Flex Test Method</b>                  | FOTP-104   IEC 60794-1 E6             |
| <b>Impact</b>                            | 35 N-m   309.776 in lb                |
| <b>Impact Test Method</b>                | FOTP-25   IEC 60794-1 E4              |
| <b>Strain</b>                            | See long and short term tensile loads |
| <b>Strain Test Method</b>                | FOTP-33   IEC 60794-1 E1              |
| <b>Twist</b>                             | 10 cycles                             |
| <b>Twist Test Method</b>                 | FOTP-85   IEC 60794-1 E7              |
| <b>Vertical Rise, maximum</b>            | 167 m   547.9 ft                      |

## Optical Specifications

|                   |   |
|-------------------|---|
| <b>Fiber Type</b> | OM4, LazrSPEED® 550   OM4, LazrSPEED® 550 |
|-------------------|---|

## Environmental Specifications

|                                 |                                      |
|---------------------------------|--------------------------------------|
| <b>Installation temperature</b> | -20 °C to +60 °C (-4 °F to +140 °F)  |
| <b>Operating Temperature</b>    | -20 °C to +70 °C (-4 °F to +158 °F)  |
| <b>Storage Temperature</b>      | -40 °C to +70 °C (-40 °F to +158 °F) |

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|   |   |
|---|---|
| <b>Cable Qualification Standards</b>                | ANSI/ICEA S-83-596   Telcordia GR-409                       |
| <b>EN50575 CPR Cable EuroClass Fire Performance</b> | B2ca  |
| <b>EN50575 CPR Cable EuroClass Smoke Rating</b>     | s1a   |
| <b>EN50575 CPR Cable EuroClass Droplets Rating</b>  | d1  |
| <b>EN50575 CPR Cable EuroClass Acidity Rating</b>   | a1  |
| <b>Environmental Space</b>                          | Low Smoke Zero Halogen (LSZH)   Riser                       |
| <b>Flame Test Listing</b>                           | NEC OFCR-ST1 (ETL) and c(ETL)                               |
| <b>Flame Test Method</b>                            | IEC 60332-3   IEC 60754-2   IEC 61034-2   UL 1666   UL 1685 |

## Environmental Test Specifications

|                                      |                                     |
|--------------------------------------|-------------------------------------|
| <b>Heat Age</b>                      | -20 °C to +85 °C (-4 °F to +185 °F) |
| <b>Heat Age Test Method</b>          | IEC 60794-1 F9                      |
| <b>Low High Bend</b>                 | -20 °C to +70 °C (-4 °F to +158 °F) |
| <b>Low High Bend Test Method</b>     | FOTP-37   IEC 60794-1 E11           |
| <b>Temperature Cycle</b>             | -20 °C to +70 °C (-4 °F to +158 °F) |
| <b>Temperature Cycle Test Method</b> | FOTP-3   IEC 60794-1 F1             |

## Packaging and Weights

|                     |                           |
|---------------------|---------------------------|
| <b>Cable weight</b> | 244 kg/km   163.96 lb/kft |
|---------------------|---------------------------|

## Regulatory Compliance/Certifications

| <b>Agency</b> | <b>Classification</b>  |
|---------------|--|
| CENELEC       | EN 50575 compliant, Declaration of Performance (DoP) available                 |
| ISO 9001:2015 | Designed, manufactured and/or distributed under this quality management system |



## Included Products

|          |   |
|----------|---|
| CS-5K-MP | – LazrSPEED® 550 OM4 Bend-Insensitive Multimode Fiber |
|----------|---|

## \* Footnotes

**Operating Temperature** Specification applicable to non-terminated bulk fiber cable

## LazrSPEED® 550 OM4 Bend-Insensitive Multimode Fiber

### LazrSPEED® 550

#### Product Classification

|                     |               |
|---------------------|---------------|
| <b>Portfolio</b>    | CommScope®    |
| <b>Product Type</b> | Optical fiber |

#### General Specifications

|  |  |
|--|--|
| <b>Cladding Diameter</b>                             | 125 µm                                 |
| <b>Cladding Diameter Tolerance</b>                   | ±0.8 µm                                |
| <b>Cladding Non-Circularity, maximum</b>             | 1 %                                    |
| <b>Coating Diameter (Colored)</b>                    | 254 µm                                 |
| <b>Coating Diameter (Uncolored)</b>                  | 245 µm                                 |
| <b>Coating Diameter Tolerance (Colored)</b>          | ±7 µm                                  |
| <b>Coating Diameter Tolerance (Uncolored)</b>        | ±10 µm                                 |
| <b>Coating/Cladding Concentricity Error, maximum</b> | 12 µm                                  |
| <b>Core Diameter</b>                                 | 50 µm                                  |
| <b>Core Diameter Tolerance</b>                       | ±2.5 µm                                |
| <b>Core/Clad Offset, maximum</b>                     | 1.5 µm                                 |
| <b>Proof Test</b>                                    | 689.476 N/mm <sup>2</sup>   100000 psi |

#### Mechanical Specifications

|   |                                       |
|---|---------------------------------------|
| <b>Macrobending, 15 mm Ø mandrel, 2 turns</b>   | 0.20 dB @ 850 nm   0.50 dB @ 1,300 nm |
| <b>Macrobending, 30 mm Ø mandrel, 2 turns</b>   | 0.10 dB @ 850 nm   0.30 dB @ 1,300 nm |
| <b>Macrobending, 75 mm Ø mandrel, 100 turns</b> | 0.50 dB @ 1,300 nm   0.50 dB @ 850 nm |
| <b>Coating Strip Force, maximum</b>             | 8.9 N   2.001 lbf                     |
| <b>Coating Strip Force, minimum</b>             | 1.3 N   0.292 lbf                     |
| <b>Dynamic Fatigue Parameter, minimum</b>       | 18                                    |

# CS-5K-MP

## Optical Specifications

|  |                     |
|--|---------------------|
| <b>Numerical Aperture</b>                  | 0.2                 |
| <b>Numerical Aperture Tolerance</b>        | ±0.015              |
| <b>Point Defects, maximum</b>              | 0.15 dB             |
| <b>Zero Dispersion Slope, maximum</b>      | 0.105 ps/[km-nm-nm] |
| <b>Zero Dispersion Wavelength, maximum</b> | 1316 nm             |
| <b>Zero Dispersion Wavelength, minimum</b> | 1297 nm             |

## Optical Specifications, Wavelength Specific

|                                     |   |
|-------------------------------------|---|
| <b>1 Gbps Ethernet Distance</b>     | 1,110 m @ 850 nm   600 m @ 1,300 nm   |
| <b>10 Gbps Ethernet Distance</b>    | 550 m @ 850 nm  |
| <b>Attenuation, maximum</b>         | 1.00 dB/km @ 1,300 nm   3.00 dB/km @ 850 nm                                   |
| <b>Backscatter Coefficient</b>      | -68.0 dB @ 850 nm   -75.7 dB @ 1,300 nm                                       |
| <b>Bandwidth, Laser, minimum</b>    | 4,700 MHz-km @ 850 nm   500 MHz-km @ 1,300 nm                                 |
| <b>Bandwidth, OFL, minimum</b>      | 3,500 MHz-km @ 850 nm   500 MHz-km @ 1,300 nm                                 |
| <b>Differential Mode Delay</b>      | 0.70 ps/m @ 850 nm   0.88 ps/m @ 1,300 nm                                     |
| <b>Differential Mode Delay Note</b> | Superior to TIA-492AAAC and IEC 60793-2-10 at 850 nm                          |
| <b>Index of Refraction</b>          | 1.479 @ 1,300 nm   1.483 @ 850 nm   |
| <b>Standards Compliance</b>         | IEC 60793-2-10, type A1a.3a   IEC 60793-2-10, type A1a.3b   TIA-492AAAD (OM4) |

## Environmental Specifications

|  |                    |
|--|--------------------|
| <b>Heat Aging, maximum</b>                   | 0.20 dB/km @ 85 °C |
| <b>Temperature Dependence, maximum</b>       | 0.1 dB/km          |
| <b>Temperature Humidity Cycling, maximum</b> | 0.2 dB/km          |
| <b>Water Immersion, maximum</b>              | 0.20 dB/km @ 23 °C |

## Regulatory Compliance/Certifications

| <b>Agency</b> | <b>Classification</b>  |
|---------------|--|
| ISO 9001:2015 | Designed, manufactured and/or distributed under this quality management system |

## \* Footnotes

|  |   |
|--|---|
| <b>Temperature Dependence, maximum</b> | Temperature dependence is conducted at -60 °C to +85 °C (-76 °F to +185 °F) |
|--|---|

# CS-5K-MP

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**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