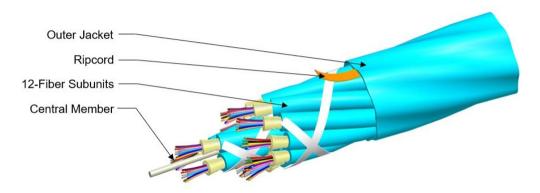
# N-144-MP-5L-F12

Fiber indoor cable, LazrSPEED® Low Smoke Zero Halogen Riser MPO Trunk, 144 fiber multi-unit with 12 fiber subunits, Gel-free, Multimode OM3, Feet jacket marking, Dca flame rating

#### Product Classification

| Regional Availability          | Asia   Australia/New Zealand   EMEA   Latin America   North<br>America |
|--------------------------------|--|
| Portfolio                      | CommScope®   |
| Product Type                   | Fiber indoor cable   |
| Product Series                 | N-MP   |
| General Specifications         |  |
| Cable Type                     | MPO trunk cable  |
| Construction Type Non-armored  |  |
| Subunit Type Gel-free          |  |
| Jacket Marking Feet            |  |
| Subunit, quantity 12           |  |
| Fibers per Subunit, quantity12 |  |
| Total Fiber Count              | 144  |
| Dimensions                     |  |
| Buffer Tube/Subunit Diameter   | 3 mm   0.118 in  |
| Diameter Over Jacket           | 14.22 mm   0.56 in   |

## Representative Image



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# N-144-MP-5L-F12

# Mechanical Specifications

| Minimum Bend Radius, loaded       | 200 mm   7.874 in                         |
|-----------------------------------|---|
| Minimum Bend Radius, unloaded     | 133 mm   5.236 in                         |
| Tensile Load, long term, maximum  | 400 N   89.924 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                              | 300 cycles                                |
| Flex Test Method                  | FOTP-104   IEC 60794-1 E6                 |
| Impact                            | 5.88 N-m   52.042 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            | 280 m   918.635 ft                        |
| Optical Specifications            |   |
| Fiber Type                        | OM3, LazrSPEED® 300   OM3, LazrSPEED® 300 |

## **Environmental Specifications**

| Installation temperature                     | -20 °C to +60 °C (-4 °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                | ANSI/ICEA S-83-596   Telcordia GR-409                       |  |
| 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                          | Low Smoke Zero Halogen (LSZH)   Riser                       |  |
| Flame Test Listing                           | NEC OFNR-ST1 (ETL) and c(ETL)                               |  |
| Flame Test Method                            | IEC 60332-3   IEC 60754-2   IEC 61034-2   UL 1666   UL 1685 |  |

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# N-144-MP-5L-F12

#### **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

## Regulatory Compliance/Certifications

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

#### Included Products

CS-5L-MP – LazrSPEED® 300 OM3 Bend-Insensitive Multimode Fiber

### \* Footnotes

Operating Temperature Specification applicable to non-terminated bulk fiber cable

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#### LazrSPEED® 300 OM3 Bend-Insensitive Multimode Fiber

# LazrSPEED® 300

### Product Classification

| Portfolio                                     | CommScope®                             |
|---|--|
| Fortiono                                      | Commiscope                             |
| Product Type                                  | Optical fiber                          |
| General Specifications                        |  |
|   |  |
| Cladding Diameter                             | 125 µm                                 |
| Cladding Diameter Tolerance                   | ±0.8 μm                                |
| Cladding Non-Circularity, maximum             | 1 %                                    |
| Coating Diameter (Colored)                    | 254 µm                                 |
| Coating Diameter (Uncolored)                  | 245 µm                                 |
| Coating Diameter Tolerance (Colored)          | ±7 μm                                  |
| Coating Diameter Tolerance (Uncolored)        | ±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 <sup>2</sup>   100000 psi |
|   |  |

# 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                                    |

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# CS-5L-MP

# **Optical Specifications**

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

## Optical Specifications, Wavelength Specific

| 1 Gbps Ethernet Distance     | 1,020 m @ 850 nm   600 m @ 1,300 nm                  |
|------------------------------|--|
| 10 Gbps Ethernet Distance    | 300 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    | 2,000 MHz-km @ 850 nm   500 MHz-km @ 1,300 nm        |
| Bandwidth, OFL, minimum      | 1,500 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          | 1.479 @ 1,300 nm   1.483 @ 850 nm                    |
| Standards Compliance         | TIA-492AAAC (OM3)                                    |

# **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 |

#### Regulatory Compliance/Certifications

| ion |
|-----|
| i   |

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) |

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up to 95% relative humidity

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