

# R-002-DZ-5L-FSU

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Fiber indoor cable, LazrSPEED® Riser Distribution Interlocking Aluminum Armored with Riser Jacket 2-Fiber Single-Unit, Gel-free, Multimode OM3, Feet jacket marking

## Product Classification

|                       |                                                                                   |
|-----------------------|-----------------------------------------------------------------------------------|
| Regional Availability | Asia   Australia/New Zealand   Latin America   Middle East/Africa   North America |
| Portfolio             | CommScope®                                                                        |
| Product Type          | Fiber indoor cable                                                                |
| Product Series        | R-DZ                                                                              |

## General Specifications

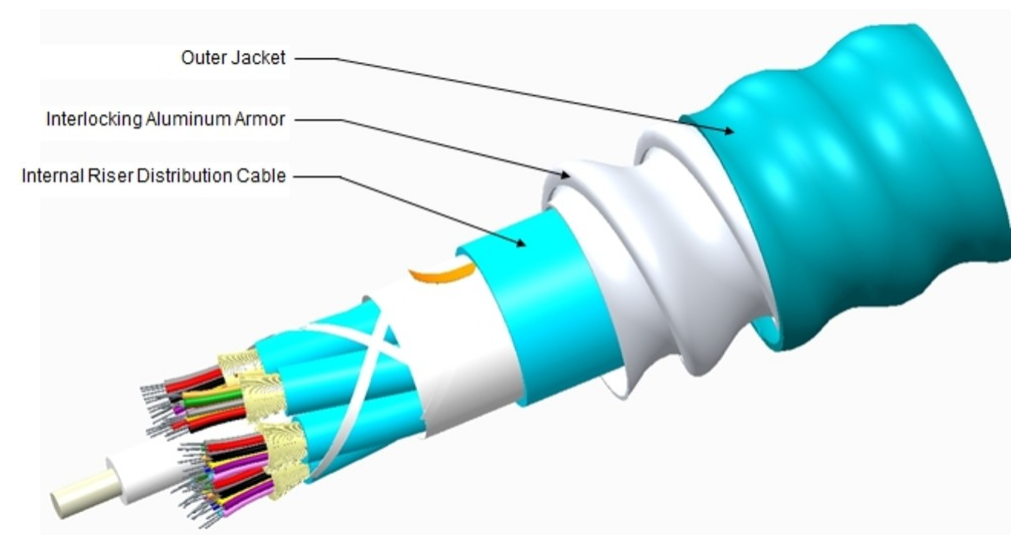
|                   |                       |
|-------------------|-----------------------|
| Armor Type        | Interlocking aluminum |
| Cable Type        | Distribution          |
| Construction Type | Armored               |
| Subunit Type      | Gel-free              |
| Jacket Marking    | Feet                  |
| Total Fiber Count | 2                     |

## Dimensions

|                      |                    |
|----------------------|--------------------|
| Diameter Over Armor  | 10.8 mm   0.425 in |
| Diameter Over Jacket | 12.8 mm   0.504 in |

## Representative Image

# R-002-DZ-5L-FSU



## Mechanical Specifications

|                                   |                                       |
|-----------------------------------|---------------------------------------|
| Minimum Bend Radius, loaded       | 257 mm   10.118 in                    |
| Minimum Bend Radius, unloaded     | 180 mm   7.087 in                     |
| Tensile Load, long term, maximum  | 200 N   44.962 lbf                    |
| Tensile Load, short term, maximum | 667 N   149.948 lbf                   |
| Compression                       | 85 N/mm   485.363 lb/in               |
| Compression Test Method           | FOTP-41   IEC 60794-1 E3              |
| Flex                              | 25 cycles                             |
| Flex Test Method                  | FOTP-104   IEC 60794-1 E6             |
| Impact                            | 35 N-m   309.776 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            | 162 m   531.496 ft                    |

## Optical Specifications

|            |                                           |
|------------|-------------------------------------------|
| Fiber Type | OM3, LazrSPEED® 300   OM3, LazrSPEED® 300 |
|------------|-------------------------------------------|

## Environmental Specifications

# R-002-DZ-5L-FSU

|                               |                                       |
|-------------------------------|---------------------------------------|
| Installation temperature      | -20 °C to +70 °C (-4 °F to +158 °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 |
| Environmental Space           | Riser                                 |
| Flame Test Listing            | NEC OFCR (ETL) and c(ETL)             |
| Flame Test Method             | UL 1666                               |

## 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

|              |                           |
|--------------|---------------------------|
| Cable weight | 126 kg/km   84.668 lb/kft |
|--------------|---------------------------|

## Regulatory Compliance/Certifications

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

## Included Products

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

## \* Footnotes

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

## LazrSPEED® 300 OM3 Bend-Insensitive Multimode Fiber

### LazrSPEED® 300

#### Product Classification

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

#### General Specifications

|                                               |                        |
|-----------------------------------------------|------------------------|
| Cladding Diameter                             | 125 µm                 |
| Cladding Diameter Tolerance                   | ±5 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 Tensile Stress                          | 100,000 psi (0.69 GPa) |
| 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                                    |

# CS-5L-TB

## 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                                            |
| Differential Mode Delay Note | Superior to ANSI/TIA TIA-492AAAF and IEC 60793-2-10 at 850 nm |
| Index of Refraction          | 1.479 @ 1,300 nm   1.483 @ 850 nm                             |
| Standards Compliance         | ANSI/TIA-492AAAF (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

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

# CS-5L-TB

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up to 95% relative humidity