



Fiber indoor cable, TeraSPEED® Riser Distribution, 72 fiber multi-unit with 12 fiber subunits, Composite OM3 and G.652.D and G.657.A1, Gel-free, Feet jacket marking, Aqua jacket color

## 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-DS

## General Specifications

### Cable Type

Distribution

### Construction Type

Non-armored

### Subunit Type

Gel-free

### Jacket Color

Aqua

### Jacket Marking

Feet

### Subunit, quantity

6

### Fibers per Subunit, quantity

12

### Composite Fiber Count

36 + 36

### Total Fiber Count

72

## Dimensions

### Buffer Tube/Subunit Diameter

5.95 mm | 0.234 in

### Diameter Over Jacket

19.88 mm | 0.783 in

## Representative Image



## Mechanical Specifications

|  |                                       |
|--|---------------------------------------|
| <b>Minimum Bend Radius, loaded</b>       | 298 mm   11.732 in                    |
| <b>Minimum Bend Radius, unloaded</b>     | 199 mm   7.835 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>                       | 10 N/mm   57.101 lb/in                |
| <b>Compression Test Method</b>           | FOTP-41   IEC 60794-1 E3              |
| <b>Flex</b>                              | 100 cycles                            |
| <b>Flex Test Method</b>                  | FOTP-104   IEC 60794-1 E6             |
| <b>Impact</b>                            | 5.88 N-m   52.042 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>            | 118 m   387.139 ft                    |

## Optical Specifications

|                   |  |
|-------------------|--|
| <b>Fiber Type</b> | Composite MM/SM   G.652.D and G.657.A1, TeraSPEED®   OM3, LazrSPEED® 300 |
|-------------------|--|

## Environmental Specifications

|                                 |                                     |
|---------------------------------|-------------------------------------|
| <b>Installation temperature</b> | -20 °C to +70 °C (-4 °F to +158 °F) |
|---------------------------------|-------------------------------------|

# 760008060 | R-072-DS-CM-FMUAQ/8W036 /5L036

---

|                                      |                                       |
|--------------------------------------|---------------------------------------|
| <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)  |
| <b>Cable Qualification Standards</b> | ANSI/ICEA S-83-596   Telcordia GR-409 |
| <b>Environmental Space</b>           | Riser                                 |
| <b>Flame Test Listing</b>            | NEC OFNR (ETL) and c(ETL)             |
| <b>Flame Test Method</b>             | UL 1666                               |

## 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> | 345 kg/km   231.829 lb/kft |
|---------------------|----------------------------|

## Regulatory Compliance/Certifications

| <b>Agency</b> | <b>Classification</b>  |
|---------------|--|
| 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 |
| CS-8W-TB | - TeraSPEED® Singlemode Fiber                         |

## \* Footnotes

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

# CS-5L-TB

---

## LazrSPEED® 300 OM3 Bend-Insensitive Multimode Fiber

### LazrSPEED® 300

#### 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 |
| <b>Tight Buffer Diameter</b>                         | 900 µm                                 |
| <b>Tight Buffer Diameter Tolerance</b>               | ±40 µm                                 |

#### 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                     |

# CS-5L-TB

|   |                   |
|---|-------------------|
| <b>Coating Strip Force, minimum</b>       | 1.3 N   0.292 lbf |
| <b>Dynamic Fatigue Parameter, minimum</b> | 18                |

## 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>     | 1,020 m @ 850 nm   600 m @ 1,300 nm                  |
| <b>10 Gbps Ethernet Distance</b>    | 300 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>    | 2,000 MHz-km @ 850 nm   500 MHz-km @ 1,300 nm        |
| <b>Bandwidth, OFL, minimum</b>      | 1,500 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>         | TIA-492AAAC (OM3)                                    |

## 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

# CS-5L-TB

---

|  |   |
|--|---|
| <b>Temperature Dependence, maximum</b>       | Temperature dependence is conducted at -60 °C to +85 °C (-76 °F to +185 °F)                                   |
| <b>Temperature Humidity Cycling, maximum</b> | Temperature humidity cycling is conducted at -10 °C to +85 °C (+14 °F to +185 °F) up to 95% relative humidity |

# TeraSPEED®

## 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>                   | ±0.7 µm                                |
| <b>Cladding Non-Circularity, maximum</b>             | 0.7 %                                  |
| <b>Coating Diameter (Colored)</b>                    | 249 µm                                 |
| <b>Coating Diameter (Uncolored)</b>                  | 242 µm                                 |
| <b>Coating Diameter Tolerance (Colored)</b>          | ±13 µm                                 |
| <b>Coating Diameter Tolerance (Uncolored)</b>        | ±5 µm                                  |
| <b>Coating/Cladding Concentricity Error, maximum</b> | 12 µm                                  |
| <b>Core Diameter</b>                                 | 8.3 µm                                 |
| <b>Core/Clad Offset, maximum</b>                     | 0.5 µm                                 |
| <b>Proof Test</b>                                    | 689.476 N/mm <sup>2</sup>   100000 psi |
| <b>Tight Buffer Diameter</b>                         | 900 µm                                 |
| <b>Tight Buffer Diameter Tolerance</b>               | ±40 µm                                 |

## Dimensions

|                            |                 |
|----------------------------|-----------------|
| <b>Fiber Curl, minimum</b> | 4 m   13.123 ft |
|----------------------------|-----------------|

## Mechanical Specifications

|  |   |
|--|---|
| <b>Macrobending, 20 mm Ø mandrel, 1 turn</b>   | 0.75 dB @ 1,550 nm   1.50 dB @ 1,625 nm |
| <b>Macrobending, 30 mm Ø mandrel, 10 turns</b> | 0.25 dB @ 1,550 nm   1.00 dB @ 1,625 nm |

# CS-8W-TB

|   |   |
|---|---|
| <b>Macrobending, 60 mm Ø mandrel, 100 turns</b> | 0.05 dB @ 1,550 nm   0.05 dB @ 1,625 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>       | 20                                      |

## Optical Specifications

|  |                     |
|--|---------------------|
| <b>Cabled Cutoff Wavelength, maximum</b>   | 1260 nm             |
| <b>Point Defects, maximum</b>              | 0.1 dB              |
| <b>Zero Dispersion Slope, maximum</b>      | 0.092 ps/[km-nm-nm] |
| <b>Zero Dispersion Wavelength, maximum</b> | 1324 nm             |
| <b>Zero Dispersion Wavelength, minimum</b> | 1300 nm             |

## Optical Specifications, Wavelength Specific

|  |   |
|--|---|
| <b>Attenuation, maximum</b>                                    | 0.50 dB/km @ 1,310 nm   0.50 dB/km @ 1,385 nm   0.50 dB/km @ 1,490 nm   0.50 dB/km @ 1,550 nm   0.50 dB/km @ 1,575 nm   0.70 dB/km @ 1,270 nm |
| <b>Backscatter Coefficient</b>                                 | -79.6 dB @ 1,310 nm   -82.1 dB @ 1,550 nm   |
| <b>Dispersion, maximum</b>                                     | 18 ps(nm-km) at 1550 nm   3.5 ps(nm-km) from 1285 nm to 1330 nm at 1310 nm  |
| <b>Index of Refraction</b>                                     | 1.467 @ 1,310 nm   1.467 @ 1,385 nm   1.468 @ 1,550 nm  |
| <b>Mode Field Diameter</b>                                     | 10.4 µm @ 1,550 nm   9.2 µm @ 1,310 nm   9.6 µm @ 1,385 nm  |
| <b>Mode Field Diameter Tolerance</b>                           | ±0.4 µm @ 1310 nm   ±0.5 µm @ 1550 nm   ±0.6 µm @ 1385 nm   |
| <b>Polarization Mode Dispersion Link Design Value, maximum</b> | 0.04 ps/sqrt(km)  |
| <b>Standards Compliance</b>                                    | ITU-T G.652.D   ITU-T G.657.A1   TIA-492CAAB (OS1a)   |

## Environmental Specifications

|  |                    |
|--|--------------------|
| <b>Heat Aging, maximum</b>                   | 0.05 dB/km @ 85 °C |
| <b>Temperature Dependence, maximum</b>       | 0.05 dB/km         |
| <b>Temperature Humidity Cycling, maximum</b> | 0.05 dB/km         |
| <b>Water Immersion, maximum</b>              | 0.05 dB/km @ 23 °C |

## Regulatory Compliance/Certifications



# CS-8W-TB

---

**Agency**

ISO 9001:2015

**Classification**

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) up to 95% relative humidity