



Fiber Indoor/Outdoor cable, LazrSPEED®, Plenum Distribution Cable, 144 fiber multi-unit with 12 fiber subunits, Gel-free, Multimode OM4, Feet jacket marking, Black jacket color

Product Classification

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

General Specifications

|                              |              |
|------------------------------|--------------|
| Cable Type                   | Distribution |
| Construction Type            | Non-armored  |
| Subunit Type                 | Gel-free     |
| Jacket Color                 | Black        |
| Jacket Marking               | Feet         |
| Subunit, quantity            | 12           |
| Fibers per Subunit, quantity | 12           |
| Total Fiber Count            | 144          |

Dimensions

|                              |                    |
|------------------------------|--------------------|
| Buffer Tube/Subunit Diameter | 6.9 mm   0.272 in  |
| Diameter Over Jacket         | 30.3 mm   1.193 in |

Representative Image



Mechanical Specifications

|                                   |                                       |
|-----------------------------------|---------------------------------------|
| Minimum Bend Radius, loaded       | 454 mm   17.874 in                    |
| Minimum Bend Radius, unloaded     | 303 mm   11.929 in                    |
| Tensile Load, long term, maximum  | 1335 N   300.12 lbf                   |
| Tensile Load, short term, maximum | 4450 N   1,000.4 lbf                  |
| Compression                       | 22 N/mm   125.623 lb/in               |
| Compression Test Method           | FOTP-41   IEC 60794-1 E3              |
| Flex                              | 100 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            | 164 m   538.058 ft                    |

Optical Specifications

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

Environmental Specifications

|                          |                                      |
|--------------------------|--------------------------------------|
| Installation temperature | -30 °C to +70 °C (-22 °F to +158 °F) |
| Operating Temperature    | -25 °C to +70 °C (-13 °F to +158 °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 |
| Environmental Space           | Plenum   |
| Flame Test Listing            | NEC OFNP (ETL) and c(ETL)  |
| Flame Test Method             | NFPA 130   NFPA 262  |
| Jacket UV Resistance          | UV stabilized  |
| Water Penetration             | 24 h   |
| Water Penetration Test Method | FOTP-82   IEC 60794-1 F5   |

## Environmental Test Specifications

|                               |                                      |
|-------------------------------|--------------------------------------|
| Cable Freeze Test Method      | IEC 60794-1 F15                      |
| Heat Age                      | -40 °C to +85 °C (-40 °F to +185 °F) |
| Heat Age Test Method          | IEC 60794-1 F9                       |
| Low High Bend                 | -40 °C to +70 °C (-40 °F to +158 °F) |
| Low High Bend Test Method     | FOTP-37   IEC 60794-1 E11            |
| Temperature Cycle             | -40 °C to +70 °C (-40 °F to +158 °F) |
| Temperature Cycle Test Method | FOTP-3   IEC 60794-1 F1              |

## Packaging and Weights

|              |                            |
|--------------|----------------------------|
| Cable weight | 831 kg/km   558.406 lb/kft |
|--------------|----------------------------|

## Regulatory Compliance/Certifications

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

## Included Products

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

## \* Footnotes

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

## LazrSPEED® 550

### 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-5K-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     | 1,110 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  |
| 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 (OM4)   IEC 60793-2-10, A1 (OM4)             |

## 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-5K-TB

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up to 95% relative humidity