



Fiber OSP cable, TeraSPEED® Single Jacket/Single Armor, 192 fiber, Gel-Free, Stranded Loose Tube, Composite OM4 and G.652.D and G.657.A1, Feet jacket marking, Black jacket color

- Corrugated steel tape armor is strong yet flexible, providing additional crush and rodent protection

## Product Classification

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

## General Specifications

|                                     |                     |
|-------------------------------------|---------------------|
| <b>Armor Type</b>                   | Corrugated steel    |
| <b>Cable Type</b>                   | Stranded loose tube |
| <b>Construction Type</b>            | Armored             |
| <b>Subunit Type</b>                 | Gel-free            |
| <b>Filler, quantity</b>             | 2                   |
| <b>Jacket Color</b>                 | Black               |
| <b>Jacket Marking</b>               | Feet                |
| <b>Subunit, quantity</b>            | 16                  |
| <b>Fibers per Subunit, quantity</b> | 12                  |
| <b>Composite Fiber Count</b>        | 96 + 96             |
| <b>Total Fiber Count</b>            | 192                 |

## Dimensions

|                                     |                    |
|-------------------------------------|--------------------|
| <b>Buffer Tube/Subunit Diameter</b> | 2.5 mm   0.098 in  |
| <b>Diameter Over Jacket</b>         | 17.2 mm   0.677 in |

## Representative Image



## Material Specifications

**Jacket Material** PE

## Mechanical Specifications

**Minimum Bend Radius, loaded** 258 mm | 10.157 in  
**Minimum Bend Radius, unloaded** 172 mm | 6.772 in  
**Tensile Load, long term, maximum** 800 N | 179.847 lbf  
**Tensile Load, short term, maximum** 2700 N | 606.984 lbf  
**Compression** 44 N/mm | 251.246 lb/in  
**Compression Test Method** FOTP-41 | IEC 60794-1 E3  
**Flex** 25 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** 388 m | 1,272.966 ft

## Optical Specifications

**Fiber Type** Composite MM/SM | G.652.D and G.657.A1, TeraSPEED® | OM4, LazrSPEED® 550 | OS2

## Environmental Specifications

|                                      |                                      |
|--------------------------------------|--------------------------------------|
| <b>Installation temperature</b>      | -30 °C to +70 °C (-22 °F to +158 °F) |
| <b>Operating Temperature</b>         | -40 °C to +70 °C (-40 °F to +158 °F) |
| <b>Storage Temperature</b>           | -40 °C to +75 °C (-40 °F to +167 °F) |
| <b>Cable Qualification Standards</b> | ANSI/ICEA S-87-640   EN 187105       |
| <b>Environmental Space</b>           | Aerial, lashed   Buried              |
| <b>Jacket UV Resistance</b>          | UV stabilized                        |
| <b>Water Penetration</b>             | 24 h                                 |
| <b>Water Penetration Test Method</b> | FOTP-82   IEC 60794-1 F5             |

## Environmental Test Specifications

|                                      |                                      |
|--------------------------------------|--------------------------------------|
| <b>Cable Freeze</b>                  | -2 °C   28.4 °F                      |
| <b>Cable Freeze Test Method</b>      | FOTP-98   IEC 60794-1 F15            |
| <b>Heat Age</b>                      | -40 °C to +85 °C (-40 °F to +185 °F) |
| <b>Heat Age Test Method</b>          | IEC 60794-1 F9                       |
| <b>Low High Bend</b>                 | -30 °C to +60 °C (-22 °F to +140 °F) |
| <b>Low High Bend Test Method</b>     | FOTP-37   IEC 60794-1 E11            |
| <b>Temperature Cycle</b>             | -40 °C to +70 °C (-40 °F to +158 °F) |
| <b>Temperature Cycle Test Method</b> | FOTP-3   IEC 60794-1 F1              |

## Packaging and Weights

|                     |                            |
|---------------------|----------------------------|
| <b>Cable weight</b> | 211 kg/km   141.785 lb/kft |
|---------------------|----------------------------|

## Regulatory Compliance/Certifications

| <b>Agency</b> | <b>Classification</b>  |
|---------------|--|
| CHINA-ROHS    | Below maximum concentration value  |
| ISO 9001:2015 | Designed, manufactured and/or distributed under this quality management system   |
| REACH-SVHC    | Compliant as per SVHC revision on <a href="http://www.commscope.com/ProductCompliance">www.commscope.com/ProductCompliance</a> |
| ROHS          | Compliant  |
| UK-ROHS       | Compliant  |



## Included Products

- CS-5K-LT – LazrSPEED® 550 OM4 Bend-Insensitive Multimode Fiber
- CS-8W-LT – TeraSPEED® G652D/G657A1 Singlemode 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-LT

## 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 |



# CS-5K-LT

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## \* 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

# 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 |

## 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 |
| <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                       |



# CS-8W-LT

|   |                   |
|---|-------------------|
| <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>                                    | 0.22 dB/km @ 1,550 nm   0.25 dB/km @ 1,490 nm   0.25 dB/km @ 1,625 nm   0.36 dB/km @ 1,310 nm   0.36 dB/km @ 1,385 nm |
| <b>Attenuation, typical</b>                                    | 0.19 dB/km @ 1,550 nm   0.33 dB/km @ 1,310 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 $\mu\text{m}$ @ 1,550 nm   9.2 $\mu\text{m}$ @ 1,310 nm   9.6 $\mu\text{m}$ @ 1,385 nm                           |
| <b>Mode Field Diameter Tolerance</b>                           | $\pm 0.4 \mu\text{m}$ @ 1310 nm   $\pm 0.5 \mu\text{m}$ @ 1550 nm   $\pm 0.6 \mu\text{m}$ @ 1385 nm                   |
| <b>Polarization Mode Dispersion Link Design Value, maximum</b> | 0.04 ps/sqrt(km)  |
| <b>Standards Compliance</b>                                    | IEC 60793-2-10, edition 6, model A1a.4   ITU-T G.652.D   ITU-T G.657.A1   TIA-492CAAB (OS2)                           |

## 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

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

# CS-8W-LT

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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) up to 95% relative humidity