

TeraSPEED® Riser Distribution Cable, 36 fiber multi-unit with 12 fiber subunits

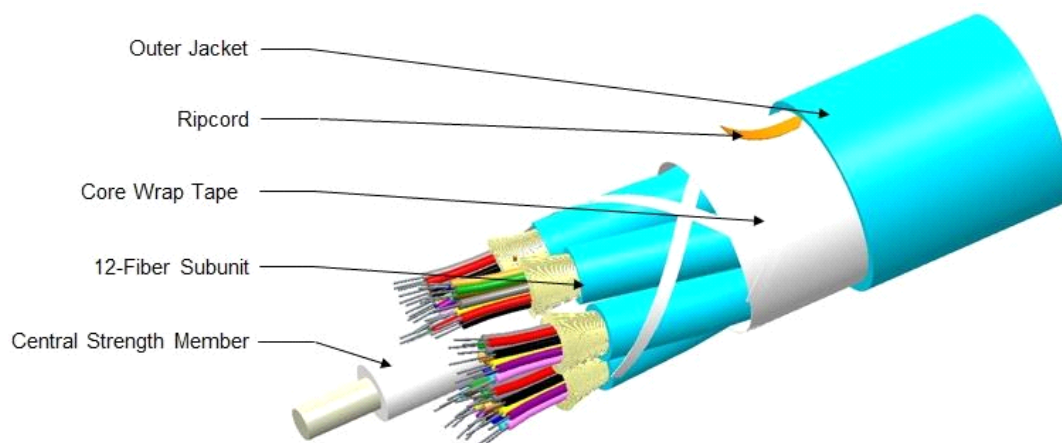
Product Classification

| | |
|------------------------------|---|
| Portfolio | CommScope® |
| Product Type | Fiber indoor cable |
| Regional Availability | Asia Australia/New Zealand EMEA Latin America North America |

Standards And Qualifications

| | |
|--------------------------------------|---------------------------------------|
| Cable Qualification Standards | ANSI/ICEA S-83-596 Telcordia GR-409 |
|--------------------------------------|---------------------------------------|

Representative Image



General Specifications

| | |
|--------------------------|--------------|
| Cable Type | Distribution |
| Construction Type | Non-armored |
| Subunit Type | Gel-free |

Construction Materials

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|-----------------------------|---|
| Fiber Type Solution | Composite MM/SM G.652.D and G.657.A1 , TeraSPEED® OM3, LazrSPEED® 300 |
| Total Fiber Count | 36 |
| Fiber Type | G.652.D and G.657.A1, TeraSPEED® |
| Fiber Type, quantity | 12 |

| | |
|-------------------------------------|---------------------|
| Fibers per Subunit, quantity | 12 |
| Jacket Color | Aqua |
| Second Fiber Type | OM3, LazrSPEED® 300 |
| Second Fiber Type, quantity | 24 |

Dimensions

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|-------------------------------------|----------------------------|
| Buffer Tube/Subunit Diameter | 5.95 mm 0.23 in |
| Cable Weight | 112.0 lb/kft 167.0 kg/km |
| Diameter Over Jacket | 14.45 mm 0.57 in |
| Subunit, quantity | 3 |

Physical Specifications

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|--|--------------------|
| Minimum Bend Radius, loaded | 21.7 cm 8.5 in |
| Minimum Bend Radius, unloaded | 14.5 cm 5.7 in |
| Tensile Load, long term, maximum | 90 lbf 400 N |
| Tensile Load, short term, maximum | 300 lbf 1335 N |
| Vertical Rise, maximum | 244.0 m 800.5 ft |

Flame Test Specifications

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|---------------------------|---------------------------|
| Flame Test Listing | NEC OFNR (ETL) and c(ETL) |
| Flame Test Method | UL 1666 |

Environmental Specifications

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|---------------------------------|--------------------------------------|
| Environmental Space | Riser |
| 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) |

Mechanical Test Specifications

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|--------------------------------|---------------------------------------|
| Compression | 10 N/mm 57 lb/in |
| Compression Test Method | FOTP-41 IEC 60794-1 E3 |
| Flex | 100 cycles |
| Flex Test Method | FOTP-104 IEC 60794-1 E6 |
| Impact | 4.34 ft lb 5.88 N-m |
| 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

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 |

Regulatory Compliance/Certifications

| Agency | Classification |
|-----------------|--|
| RoHS 2011/65/EU | Compliant |
| ISO 9001:2015 | Designed, manufactured and/or distributed under this quality management system |



Included Products

- CS-5L-TB (Product Component—not orderable) — LazrSPEED® 300 OM3 Bend-Insensitive Multimode Fiber
- CS-8W-TB (Product Component—not orderable) — TeraSPEED® Singlemode 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 |

Optical Specifications, Wavelength Specific

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|-------------------------------------|--|
| Standards Compliance | TIA-492AAAC (OM3) |
| Attenuation, maximum | 1.00 dB/km @ 1,300 nm 3.00 dB/km @ 850 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 |
| 1 Gbps Ethernet Distance | 1,020 m @ 850 nm 600 m @ 1,300 nm |
| 10 Gbps Ethernet Distance | 300 m @ 850 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 |
| Backscatter Coefficient | -68.0 dB @ 850 nm -75.7 dB @ 1,300 nm |

Physical Specifications

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|--|----------|
| Cladding Diameter | 125.0 µm |
| Cladding Diameter Tolerance | ±0.8 µm |
| Cladding Non-Circularity, maximum | 1.0 % |
| Coating Diameter (Colored) | 254 µm |
| Coating Diameter (Uncolored) | 245 µm |
| Coating Diameter Tolerance (Colored) | ±7 µm |
| Coating Diameter Tolerance (Uncolored) | ±10 µm |
| Tight Buffer Diameter | 900 µm |
| Tight Buffer Diameter Tolerance | ±40 µm |
| Coating/Cladding Concentricity Error, maximum | 12 µm |
| Core Diameter | 50.0 µm |
| Core Diameter Tolerance | ±2.5 µm |
| Core/Clad Offset, maximum | 1.5 µm |

Optical Specifications, General

| | |
|-------------------------------------|---------|
| Numerical Aperture | 0.200 |
| 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 |

Mechanical Specifications

| | |
|---|--|
| Coating Strip Force, maximum | 8.9 N 2.0 lbf |
| Coating Strip Force, minimum | 1.3 N 0.3 lbf |
| Dynamic Fatigue Parameter, minimum | 18 |
| Macrobanding, 15 mm mandrel, 2 turns | 0.20 dB @ 850 nm 0.50 dB @ 1,300 nm |
| Macrobanding, 30 mm mandrel, 2 turns | 0.10 dB @ 850 nm 0.30 dB @ 1,300 nm |
| Proof Test | 689.48 N/mm ² 100000.00 psi |

Environmental Specifications

| | |
|--|--------------------|
| Heat Aging, maximum | 0.20 dB/km @ 85 °C |
| Temperature Dependence, maximum | 0.10 dB/km |
| Temperature Humidity Cycling, maximum | 0.20 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) up to 95% relative humidity |

TeraSPEED® TeraSPEED® Singlemode Fiber

Product Classification

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

Optical Specifications, Wavelength Specific

| | |
|--|---|
| Standards Compliance | ITU-T G.652.D ITU-T G.657.A1 |
| Attenuation, maximum | 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 |
| Dispersion, maximum | 18 ps/(nm-km) at 1550 nm 3.5 ps/(nm-km) from 1285 nm to 1330 nm at 1310 nm |
| Mode Field Diameter | 10.4 μm @ 1,550 nm 9.2 μm @ 1,310 nm 9.6 μm @ 1,385 nm |
| Mode Field Diameter Tolerance | ±0.3 μm @ 1310 nm ±0.5 μm @ 1550 nm ±0.6 μm @ 1385 nm |
| Index of Refraction | 1.467 @ 1,310 nm 1.468 @ 1,385 nm 1.468 @ 1,550 nm |
| Polarization Mode Dispersion Link Design Value, maximum | 0.04 ps/sqrt(km) |
| Backscatter Coefficient | -79.6 dB @ 1,310 nm -82.1 dB @ 1,550 nm |

Physical Specifications

| | |
|--|----------|
| Cladding Diameter | 125.0 μm |
| Cladding Diameter Tolerance | ±0.7 μm |
| Cladding Non-Circularity, maximum | 0.7 % |
| Coating Diameter (Colored) | 253 μm |
| Coating Diameter (Uncolored) | 240 μm |
| Coating Diameter Tolerance (Colored) | ±7 μm |
| Coating Diameter Tolerance (Uncolored) | ±5 μm |
| Tight Buffer Diameter | 900 μm |
| Tight Buffer Diameter Tolerance | ±40 μm |
| Coating/Cladding Concentricity Error, maximum | 12 μm |
| Core/Clad Offset, maximum | 0.5 μm |

Optical Specifications, General

| | |
|--|---------------------|
| Cabled Cutoff Wavelength, maximum | 1260 nm |
| Point Defects, maximum | 0.10 dB |
| Zero Dispersion Slope, maximum | 0.090 ps/[km-nm-nm] |
| Zero Dispersion Wavelength, maximum | 1322 nm |

Zero Dispersion Wavelength, minimum 1302 nm

Mechanical Specifications

| | |
|---|--|
| Coating Strip Force, maximum | 8.9 N 2.0 lbf |
| Coating Strip Force, minimum | 1.3 N 0.3 lbf |
| Dynamic Fatigue Parameter, minimum | 20 |
| Fiber Curl, minimum | 4.0 m 13.1 ft |
| Macrobending, 20 mm mandrel, 1 turn | 0.75 dB @ 1,550 nm 1.50 dB @ 1,625 nm |
| Macrobending, 30 mm mandrel, 10 turns | 0.25 dB @ 1,550 nm 1.00 dB @ 1,625 nm |
| Macrobending, 50 mm mandrel, 100 turns | 0.03 dB @ 1,550 nm 0.03 dB @ 1,625 nm |
| Proof Test | 689.48 N/mm ² 100000.00 psi |

Environmental Specifications

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

Regulatory Compliance/Certifications

| Agency | Classification |
|---------------|--|
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* Footnotes

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| 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 |