



Fiber indoor/outdoor cable, TeraSPEED® Plenum Distribution Cable, interlocking aluminum armored with plenum, Multimode/Singlemode jacket, 48 fiber multi-unit with 12 fiber subunits, Black jacket color, Feet cable marking

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-OZ |

General Specifications

| | |
|-------------------------------------|-----------------------|
| Armor Type | Interlocking aluminum |
| Cable Type | Distribution |
| Construction Type | Armored |
| Subunit Type | Gel-free |
| Jacket Color | Black |
| Jacket Marking | Feet |
| Subunit, quantity | 4 |
| Fibers per Subunit, quantity | 12 |
| Composite Fiber Count | 24 + 24 |
| Total Fiber Count | 48 |

Dimensions

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|-------------------------------------|---------------------|
| Buffer Tube/Subunit Diameter | 6.9 mm 0.272 in |
| Diameter Over Armor | 24.77 mm 0.975 in |
| Diameter Over Jacket | 26.8 mm 1.055 in |

Representative Image



Mechanical Specifications

| | |
|--|---------------------------------------|
| Minimum Bend Radius, loaded | 402 mm 15.827 in |
| Minimum Bend Radius, unloaded | 268 mm 10.551 in |
| Tensile Load, long term, maximum | 400 N 89.924 lbf |
| Tensile Load, short term, maximum | 1335 N 300.12 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 | 69 m 226.378 ft |

Optical Specifications

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

Environmental Specifications

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|--------------------------------------|---|
| 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 for internal cable) Telcordia GR-409 |
| Environmental Space | Plenum |
| Flame Test Listing | NEC OFCP (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

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|---------------------|----------------------------|
| Cable weight | 595 kg/km 399.822 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 |
| CS-8W-TB | - 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 |

General Specifications

| | |
|--|--|
| Cladding Diameter | 125 µm |
| Cladding Diameter Tolerance | ±0.8 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 Test | 689.476 N/mm ² 100000 psi |
| 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 |

CS-5L-TB

| | |
|---|-------------------|
| Coating Strip Force, minimum | 1.3 N 0.292 lbf |
| Dynamic Fatigue Parameter, minimum | 18 |

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 0.88 ps/m @ 1,300 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 |
| Standards Compliance | TIA-492AAAC (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

CS-5L-TB

| | |
|--|---|
| 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® Singlemode Fiber

TeraSPEED®

Product Classification

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

General Specifications

| | |
|--|--|
| Cladding Diameter | 125 µm |
| Cladding Diameter Tolerance | ±0.7 µm |
| Cladding Non-Circularity, maximum | 0.7 % |
| Coating Diameter (Colored) | 249 µm |
| Coating Diameter (Uncolored) | 242 µm |
| Coating Diameter Tolerance (Colored) | ±13 µm |
| Coating Diameter Tolerance (Uncolored) | ±5 µm |
| Coating/Cladding Concentricity Error, maximum | 12 µm |
| Core Diameter | 8.3 µm |
| Core/Clad Offset, maximum | 0.5 µm |
| Proof Test | 689.476 N/mm ² 100000 psi |
| Tight Buffer Diameter | 900 µm |
| Tight Buffer Diameter Tolerance | ±40 µm |

Dimensions

| | |
|----------------------------|-----------------|
| Fiber Curl, minimum | 4 m 13.123 ft |
|----------------------------|-----------------|

Mechanical Specifications

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

CS-8W-TB

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

Optical Specifications

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

Optical Specifications, Wavelength Specific

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

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

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