



Fiber Indoor/Outdoor cable, TeraSPEED®, 120 min Fire Survival, Low Smoke Zero Halogen (LSZH), 4 fiber, Gel-Filled, Central Loose Tube, Singlemode G.652.D and G.657.A1, Meters jacket marking, Black jacket color. Provides Rodent Resistance.

Product Classification

| | |
|------------------------------|---|
| Regional Availability | Asia Australia/New Zealand Middle East/Africa |
| Portfolio | CommScope® |
| Product Type | Fiber indoor/outdoor cable |
| Product Series | C-L2 |

General Specifications

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|-------------------------------------|------------------|
| Armor Type | Corrugated steel |
| Cable Type | Loose tube |
| Subunit Type | Gel-filled |
| Jacket Color | Black |
| Jacket Marking | Meters |
| Jacket Marking Method | Inkjet |
| Fibers per Subunit, quantity | 4 |
| Total Fiber Count | 4 |

Dimensions

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|-------------------------------------|------------------|
| Buffer Tube/Subunit Diameter | 4 mm 0.157 in |
| Diameter Over Jacket | 12.7 mm 0.5 in |

Mechanical Specifications

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| Minimum Bend Radius, loaded | 330 mm 12.992 in |
| Minimum Bend Radius, unloaded | 255 mm 10.039 in |
| Tensile Load, long term, maximum | 400 N 89.924 lbf |
| Tensile Load, short term, maximum | 1400 N 314.733 lbf |
| Compression | 30 N/mm 171.304 lb/in |
| Compression Test Method | IEC 60794-1 E3 |

760259911 | C-004-L2-8W-M04BK/40G/GY/FS

| | |
|---------------------------|---------------------------------------|
| Impact | 10 N-m 88.507 in lb |
| Impact Test Method | IEC 60794-1 E4 |
| Strain | See long and short term tensile loads |
| Strain Test Method | IEC 60794-1 E1 |
| Twist | 5 cycles |
| Twist Test Method | IEC 60794-1 E7 |

Optical Specifications

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|-------------------|--|
| Fiber Type | G.652.D and G.657.A1, TeraSPEED® OS2 |
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Optical Specifications, Wavelength Specific

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|-----------------------------|-------------------|
| Standards Compliance | TIA-492CAAB (OS2) |
|-----------------------------|-------------------|

Environmental Specifications

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|--------------------------------------|---|
| Operating Temperature | -20 °C to +70 °C (-4 °F to +158 °F) |
| Storage Temperature | -33 °C to +40 °C (-27.4 °F to +104 °F) |
| Cable Qualification Standards | EN 187105 IEC 60794-1-2 |
| Environmental Space | Aerial, lashed Buried Low Smoke Zero Halogen (LSZH) |
| Flame Test Method | IEC 60331-25 |
| Jacket UV Resistance | UV stabilized |
| Water Penetration | 24 h |
| Water Penetration Test Method | IEC 60794-1 F5 |

Environmental Test Specifications

| | |
|--------------------------------------|-------------------------------------|
| Low High Bend Test Method | IEC 60794-1 E11 |
| Temperature Cycle | -20 °C to +70 °C (-4 °F to +158 °F) |
| Temperature Cycle Test Method | IEC 60794-1 F1 |

Packaging and Weights

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|---------------------|----------------------------|
| Cable weight | 216 kg/km 145.145 lb/kft |
|---------------------|----------------------------|

Regulatory Compliance/Certifications

| Agency | Classification |
|---------------|--|
| CHINA-ROHS | Below maximum concentration value |
| REACH-SVHC | Compliant as per SVHC revision on www.commscope.com/ProductCompliance |

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ROHS Compliant

UK-ROHS Compliant



Included Products

CS-8W-250-EMEA - LightScope® ZWP Singlemode Fiber
8W-250um

* Footnotes

Operating Temperature Specification applicable to non-terminated bulk fiber cable



LightScope® ZWP Singlemode Fiber

Product Classification

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

General Specifications

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| 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) | ±7 µm |
| Coating/Cladding Concentricity Error, maximum | 12 µm |
| Core/Clad Offset, maximum | 0.5 µm |
| Proof Test | 689.476 N/mm ² 100000 psi |

Dimensions

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

Mechanical Specifications

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| 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 |
| 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

CS-8W-250-EMEA | 8W-250um

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|--|---------------------|
| Cabled Cutoff Wavelength, maximum | 1250 nm |
| Point Defects, maximum | 0.05 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

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| Attenuation, maximum | 0.20 dB/km @ 1550 nm 0.23 dB/km @ 1,625 nm 0.344 dB/km @ 1310 nm 0.344 dB/km @ 1380 – 1385 nm |
| Dispersion, maximum | 18 ps(nm-km) at 1550 nm 22 ps(nm-km) at 1625 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 |
| Mode Field Diameter Tolerance | $\pm 0.4 \mu\text{m}$ @ 1310 nm $\pm 0.5 \mu\text{m}$ @ 1550 nm |
| Polarization Mode Dispersion Link Design Value, maximum | 0.05 ps/sqrt(km) |
| Standards Compliance | ITU-T G.652.D ITU-T G.657.A1 |

Environmental Specifications

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|--|--------------------|
| 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 |

* 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 |