Outdoor Steel Armored, Arid-Core, Dry Central Tube Ribbon Cable

Product Classification

Regional Availability
Asia | Australia/New Zealand | EMEA | Latin America | North America

Portfolio
CommScope®

Product Type
Fiber OSP cable

General Specifications

Armor Type
Corrugated steel

Cable Type
Ribbon central tube

Construction Type
Armored

Fiber Type, quantity
48

Fibers per Ribbon, quantity
12

Jacket Color
Black

Subunit Type
Gel-free

Total Fiber Count
48

Dimensions

Buffer Tube/Subunit Diameter
6 mm | 0.236 in

Diameter Over Jacket
13 mm | 0.512 in

Representative Image
### Mechanical Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum Bend Radius, loaded</td>
<td>259.1 mm</td>
<td>10.201 in</td>
</tr>
<tr>
<td>Minimum Bend Radius, unloaded</td>
<td>129.5 mm</td>
<td>5.098 in</td>
</tr>
<tr>
<td>Tensile Load, long term, maximum</td>
<td>800 N</td>
<td>179.847 lbf</td>
</tr>
<tr>
<td>Tensile Load, short term, maximum</td>
<td>2700 N</td>
<td>606.984 lbf</td>
</tr>
<tr>
<td>Compression</td>
<td>22 N/mm</td>
<td>125.623 lb/in</td>
</tr>
<tr>
<td>Compression Test Method</td>
<td>FOTP-41</td>
<td>IEC 60794-1 E3</td>
</tr>
<tr>
<td>Flex</td>
<td>25 cycles</td>
<td></td>
</tr>
<tr>
<td>Flex Test Method</td>
<td>FOTP-104</td>
<td>IEC 60794-1 E6</td>
</tr>
<tr>
<td>Impact</td>
<td>4.4 N-m</td>
<td>38.943 in lb</td>
</tr>
<tr>
<td>Impact Test Method</td>
<td>FOTP-25</td>
<td>IEC 60794-1 E4</td>
</tr>
<tr>
<td>Strain</td>
<td>See long and short term tensile loads</td>
<td></td>
</tr>
</tbody>
</table>
Strain Test Method  |  FOTP-33  |  IEC 60794-1 E1
Twist  |  10 cycles
Twist Test Method  |  FOTP-85  |  IEC 60794-1 E7

Optical Specifications

Environmental Specifications
Installation Temperature  |  -30 °C to +60 °C (-22 °F to +140 °F)
Operating Temperature  |  -40 °C to +70 °C (-40 °F to +158 °F)
Storage Temperature  |  -40 °C to +75 °C (-40 °F to +167 °F)
Cable Qualification Standards  |  ANSI/ICEA S-87-640  |  Telcordia GR-20
Environmental Space  |  Aerial, lashed  |  Buried
Jacket UV Resistance  |  UV stabilized
Water Penetration  |  24 h
Water Penetration Test Method  |  FOTP-82  |  IEC 60794-1 F5

Environmental Test Specifications
Heat Age  |  -40 °C to +85 °C (-40 °F to +185 °F)
Heat Age Test Method  |  IEC 60794-1 F9
Low High Bend  |  -30 °C to +60 °C (-22 °F to +140 °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  |  163 kg/km  |  109.531 lb/kft

Regulatory Compliance/Certifications
Agency  |  Classification
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 www.commscope.com/ProductCompliance
ROHS  |  Compliant
Included Products

CS-8W-RB-OUTDOOR — TeraSPEED® Singlemode Fiber Flat Ribbon

* Footnotes

Operating Temperature Specification applicable to non-terminated bulk fiber cable
**TeraSPEED® Singlemode Fiber Flat Ribbon**

### Product Classification

<table>
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<tr>
<th>Portfolio</th>
<th>CommScope®</th>
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<tr>
<td>Product Type</td>
<td>Optical fiber</td>
</tr>
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</table>

### General Specifications

<table>
<thead>
<tr>
<th><strong>Cladding Diameter</strong></th>
<th>125 µm</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cladding Diameter Tolerance</strong></td>
<td>±0.7 µm</td>
</tr>
<tr>
<td><strong>Cladding Non-Circularity, maximum</strong></td>
<td>0.7 %</td>
</tr>
<tr>
<td><strong>Coating Diameter (Colored)</strong></td>
<td>250 µm</td>
</tr>
<tr>
<td><strong>Coating Diameter (Uncolored)</strong></td>
<td>242 µm</td>
</tr>
<tr>
<td><strong>Coating Diameter Tolerance (Colored)</strong></td>
<td>±13 µm</td>
</tr>
<tr>
<td><strong>Coating Diameter Tolerance (Uncolored)</strong></td>
<td>±5 µm</td>
</tr>
<tr>
<td><strong>Coating/Cladding Concentricity Error, maximum</strong></td>
<td>12 µm</td>
</tr>
<tr>
<td><strong>Core Diameter</strong></td>
<td>8.3 µm</td>
</tr>
<tr>
<td><strong>Core/Clad Offset, maximum</strong></td>
<td>0.5 µm</td>
</tr>
<tr>
<td><strong>Proof Test</strong></td>
<td>100000 psi</td>
</tr>
</tbody>
</table>

### Dimensions

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

### Mechanical Specifications

<table>
<thead>
<tr>
<th><strong>Macrobending, 20 mm mandrel, 1 turn</strong></th>
<th>0.75 dB @ 1,550 nm</th>
<th>1.50 dB @ 1,625 nm</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Macrobending, 30 mm mandrel, 10 turns</strong></td>
<td>0.25 dB @ 1,550 nm</td>
<td>1.00 dB @ 1,625 nm</td>
</tr>
<tr>
<td><strong>Macrobending, 60 mm mandrel, 100 turns</strong></td>
<td>0.03 dB @ 1,550 nm</td>
<td>0.03 dB @ 1,625 nm</td>
</tr>
<tr>
<td><strong>Coating Strip Force, maximum</strong></td>
<td>8.9 N</td>
<td>2.001 lbf</td>
</tr>
<tr>
<td><strong>Coating Strip Force, minimum</strong></td>
<td>1.3 N</td>
<td>0.292 lbf</td>
</tr>
</tbody>
</table>
Dynamic Fatigue Parameter, minimum 20

Optical Specifications

Cabled Cutoff Wavelength, maximum 1260 nm
Point Defects, maximum 0.1 dB
Zero Dispersion Slope, maximum 0.09 ps/(km-nm-nm)
Zero Dispersion Wavelength, maximum 1322 nm
Zero Dispersion Wavelength, minimum 1302 nm

Optical Specifications, Wavelength Specific

Attenuation, maximum 0.25 dB/km @ 1,550 nm | 0.35 dB/km @ 1,310 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 | 1.468 @ 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 0.06 ps/sqrt(km)

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

* 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