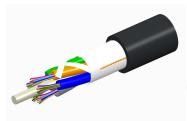
760185231 | D-084-LN-8W-F06NS/HD



Fiber OSP cable, TeraSPEED® Single Jacket All-Dielectric, 84 fiber, Gel-Free, Outdoor Stranded Loose Tube w/HDPE Outer Jacket, Singlemode G.652.D and G.657.Al, Feet jacket marking, Black jacket color

Product Classification

Regional Availability

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

America

 Portfolio
 CommScope®

 Product Type
 Fiber OSP cable

Product Series D-LN

General Specifications

Cable Type Stranded loose tube

Construction Type Non-armored

Subunit Type Gel-free

Filler, quantity 4

Jacket Color Black

Jacket Marking Feet

Subunit, quantity 14

Fibers per Subunit, quantity 6

Total Fiber Count 84

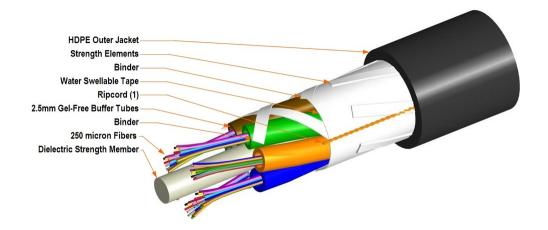
Dimensions

Buffer Tube/Subunit Diameter2.5 mm | 0.098 inDiameter Over Jacket15.8 mm | 0.622 in

Representative Image



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Material Specifications

Jacket Material High density polyethylene (HDPE)

Mechanical Specifications

Minimum Bend Radius, loaded237 mm9.331 inMinimum Bend Radius, unloaded158 mm6.22 in

Tensile Load, long term, maximum800 N | 179.847 lbfTensile Load, short term, maximum2700 N | 606.984 lbf

 Compression
 22 N/mm | 125.623 lb/in

 Compression Test Method
 FOTP-41 | IEC 60794-1 E3

Flex 25 cycles

FIEX Test Method FOTP-104 | IEC 60794-1 E6

Impact 5.15 N-m | 45.581 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 626 m | 2,053.806 ft

Optical Specifications

Fiber Type G.652.D and G.657.A1, TeraSPEED® | OS2



760185231 | D-084-LN-8W-F06NS/HD

Environmental Specifications

Installation temperature $-30 \,^{\circ}\text{C}$ to $+70 \,^{\circ}\text{C}$ (-22 °F to +158 °F)

Operating Temperature $-40 \,^{\circ}\text{C}$ to $+70 \,^{\circ}\text{C}$ (-40 °F to +158 °F)

Storage Temperature $-40 \,^{\circ}\text{C}$ to $+75 \,^{\circ}\text{C}$ (-40 °F to +167 °F)

Cable Qualification Standards ANSI/ICEA S-87-640 | EN 187105 | 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

Cable Freeze -2 °C | 28.4 °F

Cable Freeze Test Method FOTP-98 | IEC 60794-1 F15

Heat Age $-40 \,^{\circ}\text{C} \text{ to } +85 \,^{\circ}\text{C} \, (-40 \,^{\circ}\text{F to } +185 \,^{\circ}\text{F})$

Heat Age Test Method IEC 60794-1 F9

Low High Bend $-30 \,^{\circ}\text{C} \text{ to } +60 \,^{\circ}\text{C} \, (-22 \,^{\circ}\text{F to } +140 \,^{\circ}\text{F})$

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 131 kg/km | 88.028 lb/kft

Regulatory Compliance/Certifications

Agency Classification

ISO 9001:2015 Designed, manufactured and/or distributed under this quality management system

Included Products

CS-8W-LT - TeraSPEED® G652D/G657A1 Singlemode

Fiber

* Footnotes

Operating Temperature Specification applicable to non-terminated bulk fiber cable



TeraSPEED® G652D/G657A1 Singlemode Fiber

TeraSPEED®

Product Classification

Portfolio CommScope®

Product Type Optical fiber

General Specifications

Cladding Diameter 125 µm

 ${\color{red} \textbf{Cladding Diameter Tolerance}} \\ {\color{red} \pm 0.7~\mu m} \\$

 ${\bf Cladding\ Non-Circularity,\ maximum} \\ {\bf 0.7\ \%}$

Coating Diameter (Colored) 249 µm

Coating Diameter (Uncolored) 242 µm

Coating Diameter Tolerance (Colored) ±13 μm

Coating Diameter Tolerance (Uncolored) ±5 µm

 $\textbf{Coating/Cladding Concentricity Error, maximum} \hspace{1.5cm} 12~\mu m$

Core Diameter 8.3 μm

Core/Clad Offset, maximum 0.5 μm

Proof Test 689.476 N/mm² | 100000 psi

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

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

COMMSCOPE®

CS-8W-LT

Coating Strip Force, minimum 1.3 N | 0.292 lbf

Dynamic Fatigue Parameter, minimum 20

Optical Specifications

Cabled Cutoff Wavelength, maximum1260 nmPoint Defects, maximum0.1 dB

Zero Dispersion Slope, maximum 0.092 ps/[km-nm-nm]

Zero Dispersion Wavelength, maximum1324 nmZero Dispersion Wavelength, minimum1300 nm

Optical Specifications, Wavelength Specific

Attenuation, maximum 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

Attenuation, typical 0.19 dB/km @ 1,550 nm | 0.33 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 | 1.467 @ 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 $\pm 0.4 \, \mu \text{m}$ @ 1310 nm | $\pm 0.5 \, \mu \text{m}$ @ 1550 nm | $\pm 0.6 \, \mu \text{m}$

@ 1385 nm

Polarization Mode Dispersion Link Design Value, maximum 0.04 ps/sgrt(km)

Standards Compliance IEC 60793-2-10, edition 6, model A1a.4 | ITU-T G.652.

D | ITU-T G.657.A1 | TIA-492CAAB (OS2)

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

COMMSCOPE®

CS-8W-LT

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

