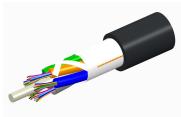
760216325 | D-018-LN-CM-F12NS/8W012/5L006



Fiber OSP cable, TeraSPEED® Single Jacket All-Dielectric, Gel-Free, Stranded Loose Tube, 18 fibers, Composite OM3 and 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

Jacket Color Black

Jacket Marking Feet

Subunit, quantity 2

Fibers per Subunit, quantity 12

Composite Fiber Count 12 + 6

Total Fiber Count 18

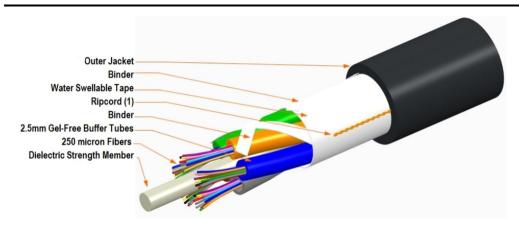
Dimensions

Buffer Tube/Subunit Diameter2.5 mm | 0.098 inDiameter Over Jacket10.2 mm | 0.402 in

Representative Image



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Material Specifications

Jacket Material PE

Mechanical Specifications

Minimum Bend Radius, loaded153 mm | 6.024 inMinimum Bend Radius, unloaded102 mm | 4.016 inTensile Load, long term, maximum800 N | 179.847 lbfTensile Load, short term, maximum2700 N | 606.984 lbfCompression22 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 4.41 N-m | 39.032 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 1307 m | 4,288.058 ft

Optical Specifications

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

LazrSPEED® 300 | OS2

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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 63 kg/km | 42.334 lb/kft

Regulatory Compliance/Certifications

Agency Classification

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

Included Products

CS-5L-LT – LazrSPEED® 300 OM3 Bend-Insensitive Multimode

Fiber

CS-8W-LT - TeraSPEED® G652D/G657A1 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** ±5 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

Proof Tensile Stress 100,000 psi (0.69 GPa)

Mechanical Specifications

Core Diameter Tolerance

Core/Clad Offset, maximum

 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

±2.5 µm

 $1.5 \, \mu m$

Coating Strip Force, maximum8.9 N | 2.001 lbfCoating Strip Force, minimum1.3 N | 0.292 lbf

Dynamic Fatigue Parameter, minimum 18

Optical Specifications

Numerical Aperture 0.2

CS-5L-LT

Numerical Aperture Tolerance±0.015Point Defects, maximum0.15 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

Differential Mode Delay Note Superior to ANSI/TIA TIA-492AAAF and IEC 60793-2-10 at 850 nm

Index of Refraction 1.479 @ 1,300 nm | 1.483 @ 850 nm

Standards Compliance ANSI/TIA-492AAAF (OM3)

Environmental Specifications

Heat Aging, maximum 0.20 dB/km @ 85 °C

Temperature Dependence, maximum0.1 dB/kmTemperature Humidity Cycling, maximum0.2 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

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® G652D/G657A1 Singlemode Fiber

Product Classification

 Portfolio
 CommScope®

 Product Type
 Optical fiber

General Specifications

Cladding Diameter 125 µm **Cladding Diameter Tolerance** $\pm 0.7 \, \mu m$ 0.7 % Cladding Non-Circularity, maximum **Coating Diameter (Colored)** 249 µm **Coating Diameter (Uncolored)** $242 \, \mu m$ **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 $0.5 \, \mu m$

Proof Tensile Stress 100,000 psi (0.69 GPa)

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, maximum8.9 N | 2.001 lbfCoating Strip Force, minimum1.3 N | 0.292 lbf

Dynamic Fatigue Parameter, minimum 20

COMMSC PE°

CS-8W-LT

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

1,385 nm

@ 1385 nm

Polarization Mode Dispersion Link Design Value, maximum 0.04 ps/sqrt(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, maximum0.05 dB/kmTemperature Humidity Cycling, maximum0.05 dB/km

Water Immersion, maximum 0.05 dB/km @ 23 °C

Regulatory Compliance/Certifications

Agency Classification

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

* Footnotes

CS-8W-LT

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

