

Fiber indoor/outdoor cable, Loose Tube Gel-filled, 48 fiber, Singlemode G.652.D and G.657.A1, Meters jacket marking, Black jacket color

Product Classification

Regional Availability	Asia Australia/New Zealand
Portfolio	CommScope®
Product Type	Fiber indoor/outdoor cable
Product Series	C-LN

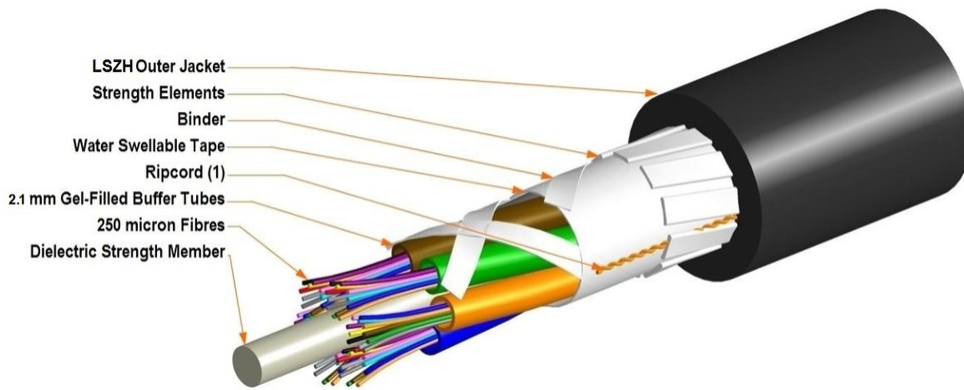
General Specifications

Cable Type	Stranded loose tube
Construction Type	Non-armored
Subunit Type	Gel-filled
Jacket Color	Black
Jacket Marking	Meters
Fibers per Subunit, quantity	12
Total Fiber Count	48

Dimensions

Buffer Tube/Subunit Diameter	2.1 mm 0.083 in
Diameter Over Jacket	10.7 mm 0.421 in

Representative Image



Mechanical Specifications

Minimum Bend Radius, loaded	214 mm 8.425 in
Minimum Bend Radius, unloaded	107 mm 4.213 in
Tensile Load, long term, maximum	890 N 200.08 lbf
Tensile Load, short term, maximum	2700 N 606.984 lbf
Compression	10 N/mm 57.101 lb/in
Compression Test Method	IEC 60794-1-2 E3
Strain	See long and short term tensile loads
Strain Test Method	IEC 60794-1-21 E1

Optical Specifications

Fiber Type	G.652.D and G.657.A1 OS2
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Optical Specifications, Wavelength Specific

Attenuation, maximum	0.3 dB/km @ 1,625 nm 0.30 dB/km @ 1,550 nm 0.4 dB/km @ 1,310 nm
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Environmental Specifications

Installation temperature	-10 °C to +60 °C (+14 °F to +140 °F)
Operating Temperature	-40 °C to +70 °C (-40 °F to +158 °F)
Storage Temperature	-40 °C to +70 °C (-40 °F to +158 °F)
Environmental Space	Buried Ducted Indoor/Outdoor Low Smoke Zero Halogen (LSZH)
Flame Test Method	IEC 60332-1
Water Penetration	24 h
Water Penetration Test Method	IEC 60794-1 F5B

Environmental Test Specifications

Temperature Cycle	-40 °C to +70 °C (-40 °F to +158 °F)
Temperature Cycle Test Method	IEC 60794-1-2 F1

Packaging and Weights

Cable weight	117 kg/km 78.62 lb/kft
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Regulatory Compliance/Certifications

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



Included Products

CS-8Z-LT	- Low Water Peak, Dispersion-Unshifted Singlemode Fiber
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* Footnotes

Operating Temperature Specification applicable to non-terminated bulk fiber cable

CS-8Z-LT

Low Water Peak, Dispersion-Unshifted Singlemode Fiber

Product Classification

Portfolio	CommScope®
Product Type	Optical fiber

General Specifications

Cladding Diameter	125 µm
Cladding Diameter Tolerance	±0.7 µm
Cladding Non-Circularity, maximum	1 %
Coating Diameter (Colored)	250 µm
Coating Diameter (Uncolored)	245 µm
Coating Diameter Tolerance (Colored)	±15 µm
Coating Diameter Tolerance (Uncolored)	±10 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

Fiber Curl, minimum	4 m 13.123 ft
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Mechanical Specifications

Macrobending, 32 mm Ø mandrel, 1 turn	0.50 dB @ 1,550 nm
Macrobending, 50 mm Ø mandrel, 100 turns	0.05 dB @ 1,550 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	18

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

CS-8Z-LT

Zero Dispersion Wavelength, minimum

1300 nm

Optical Specifications, Wavelength Specific

Attenuation, maximum

0.25 dB/km @ 1,550 nm | 0.35 dB/km @ 1,310 nm | 0.35 dB/km @ 1,385 nm

Index of Refraction

1.467 @ 1,310 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

0.08 ps/sqrt(km)

Standards Compliance

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

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