



Fiber OSP Cable, Single Jacket All-Dielectric, Gel-Free, 4 fiber, Stranded Loose Tube, Singlemode G.655.C/E and G.656, 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	1
Fibers per Subunit, quantity	4
Total Fiber Count	4

Dimensions

Buffer Tube/Subunit Diameter	2.5 mm 0.098 in
Diameter Over Jacket	10.2 mm 0.402 in

Representative Image



Material Specifications

Jacket Material PE

Mechanical Specifications

Minimum Bend Radius, loaded 153 mm | 6.024 in
Minimum Bend Radius, unloaded 102 mm | 4.016 in
Tensile Load, long term, maximum 800 N | 179.847 lbf
Tensile Load, short term, maximum 2700 N | 606.984 lbf
Compression 22 N/mm | 125.623 lb/in
Compression Test Method FOTP-41 | IEC 60794-1 E3
Flex 25 cycles
Flex 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 G.655.C/E and G.656 | G.655.C/E and G.656

Environmental Specifications

Installation temperature	-30 °C to +70 °C (-22 °F to +158 °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 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 °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	63 kg/km 42.334 lb/kft
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Regulatory Compliance/Certifications

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

Included Products

CS-8R-LT	-	Type 8R Optical Fiber Non-Zero Dispersion-Shifted Singlemode Fiber for Wideband Optical Transport; ITU-T G655.C,E G656
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* Footnotes

Operating Temperature Specification applicable to non-terminated bulk fiber cable

CS-8R-LT

Type 8R Optical Fiber Non-Zero Dispersion-Shifted Singlemode Fiber for Wideband Optical Transport; ITU-T G655.C,E | G656

Product Classification

Portfolio	CommScope®
Product Type	Optical fiber

General Specifications

Cladding Diameter	125 µm
Cladding Diameter Tolerance	±0.7 µm
Cladding Non-Circularity, maximum	0.7 %
Coating Diameter (Colored)	256 µm
Coating Diameter (Uncolored)	245 µm
Coating Diameter Tolerance (Colored)	±8 µm
Coating Diameter Tolerance (Uncolored)	±5 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, 75 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

Cabled Cutoff Wavelength, maximum	1310 nm
Dispersion Slope	0.045 ps/[km-nm-nm] @ 1,550 nm
Point Defects, maximum	0.1 dB

CS-8R-LT

Optical Specifications, Wavelength Specific

Attenuation, maximum	0.23 dB/km @ 1,550 nm 0.26 dB/km @ 1,625 nm 0.45 dB/km @ 1,310 nm
Attenuation, typical	0.20 dB/m @ 1,550 nm
Dispersion, maximum	5.5 ps(nm-km) to 8.9 ps(nm-km) from 1530 nm to 1565 nm at 1550 nm 6.9 ps(nm-km) to 11.4 ps(nm-km) from 1565 nm to 1625 nm at 1625 nm
Index of Refraction	1.470 @ 1,550 nm 1.470 @ 1,625 nm 1.471 @ 1,310 nm
Mode Field Diameter	8.6 μm @ 1,550 nm 9.1 μm @ 1,625 nm
Mode Field Diameter Tolerance	$\pm 0.4 \mu\text{m}$ @ 1550 nm $\pm 0.6 \mu\text{m}$ @ 1625 nm
Polarization Mode Dispersion Link Design Value, maximum	0.04 ps/sqrt(km)
Standards Compliance	ITU-T G.655 ITU-T G.656

Regulatory Compliance/Certifications

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