



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
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# 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 Tensile Stress	100,000 psi (0.69 GPa)

## 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	±0.4 µm @ 1550 nm   ±0.6 µm @ 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