

Fiber OSP cable, PE, Gel-filled Central Tube, 12 fiber, Singlemode G657.A1 /G652.D, Meters jacket marking, Black jacket color

## Product Classification

Regional Availability	Asia   Australia/New Zealand
Portfolio	CommScope®
Product Type	Fiber OSP cable
Product Series	O-CN

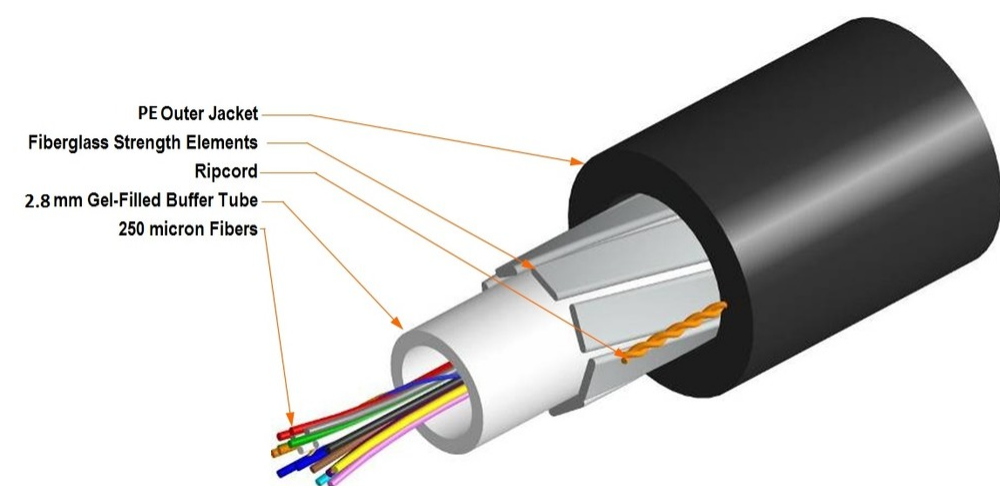
## General Specifications

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

## Dimensions

Buffer Tube/Subunit Diameter	2.8 mm   0.11 in
Diameter Over Jacket	6 mm   0.236 in

## Representative Image



Material Specifications

Jacket MaterialPE

Mechanical Specifications

Minimum Bend Radius, loaded120 mm | 4.724 in

Minimum Bend Radius, unloaded60 mm | 2.362 in

Tensile Load, long term, maximum300 N | 67.443 lbf

Tensile Load, short term, maximum1000 N | 224.809 lbf

Compression15 N/mm | 85.652 lb/in

Compression Test MethodIEC 60794-1-2 E3

Flex25 cycles

StrainSee long and short term tensile loads

Strain Test MethodIEC 60794-1-2-E1

Optical Specifications

Fiber TypeG.652.D and G.657.A1

Optical Specifications, Wavelength Specific

Attenuation, maximum0.22 dB/km @ 1,550 nm | 0.38 dB/km @ 1,310 nm

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   Outdoor
Water Penetration	24 h
Water Penetration Test Method	IEC 60794-1 F5C

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	35 kg/km   23.519 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 <a href="http://www.commscope.com/ProductCompliance">www.commscope.com/ProductCompliance</a>
ROHS	Compliant
UK-ROHS	Compliant



Included Products

CS-8F-LT	– Low Macrobending, Zero Water Peak, Dispersion-Unshifted Singlemode Fiber
CS-8W-MP	– TeraSPEED® OS2 Singlemode Fiber

\* Footnotes

Operating Temperature	Specification applicable to non-terminated bulk fiber cable
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# CS-8F-LT

Low Macrobending, Zero 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	0.7 %
Coating Diameter (Colored)	249 µm
Coating Diameter (Uncolored)	242 µm
Coating Diameter Tolerance (Colored)	±13 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, 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, 50 mm Ø mandrel, 100 turns	0.03 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	1260 nm
Point Defects, maximum	0.1 dB
Zero Dispersion Slope, maximum	0.09 ps/[km-nm-nm]

# CS-8F-LT

Zero Dispersion Wavelength, maximum	1324 nm
Zero Dispersion Wavelength, minimum	1300 nm
Optical Specifications, Wavelength Specific	
Attenuation, maximum	0.25 dB/km @ 1,550 nm   0.27 dB/km @ 1,490 nm   0.27 dB/km @ 1,625 nm   0.33 dB/km @ 1,385 nm   0.36 dB/km @ 1,310 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	8.6 µm @ 1,310 nm   9.8 µm @ 1,550 nm
Mode Field Diameter Tolerance	±0.4 µm @ 1310 nm   ±0.5 µm @ 1550 nm
Polarization Mode Dispersion Link Design Value, maximum	0.06 ps/sqrt(km)
Standards Compliance	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

TeraSPEED®

TeraSPEED® OS2 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	0.7 %
Coating Diameter (Colored)	249 µm
Coating Diameter (Uncolored)	242 µm
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 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, 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
Coating Strip Force, minimum	1.3 N   0.292 lbf
Dynamic Fatigue Parameter, minimum	20

# CS-8W-MP

## 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
Zero Dispersion Wavelength, minimum	1300 nm

## Optical Specifications, Wavelength Specific

Attenuation, maximum	0.40 dB/km @ 1,310 nm   0.40 dB/km @ 1,385 nm   0.40 dB/km @ 1,490 nm   0.40 dB/km @ 1,550 nm   0.50 dB/km @ 1,270 nm   0.50 dB/km @ 1,575 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	±0.4 μm @ 1310 nm   ±0.5 μm @ 1550 nm   ±0.6 μm @ 1385 nm
Polarization Mode Dispersion Link Design Value, maximum	0.04 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)
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# CS-8W-MP

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**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