

Fiber OSP cable, Single Jacket All-Dielectric, 8 fiber Gel-Filled, Outdoor Central Tube, Singlemode G.652.D, Meters jacket marking, Black jacket color

Product Classification

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

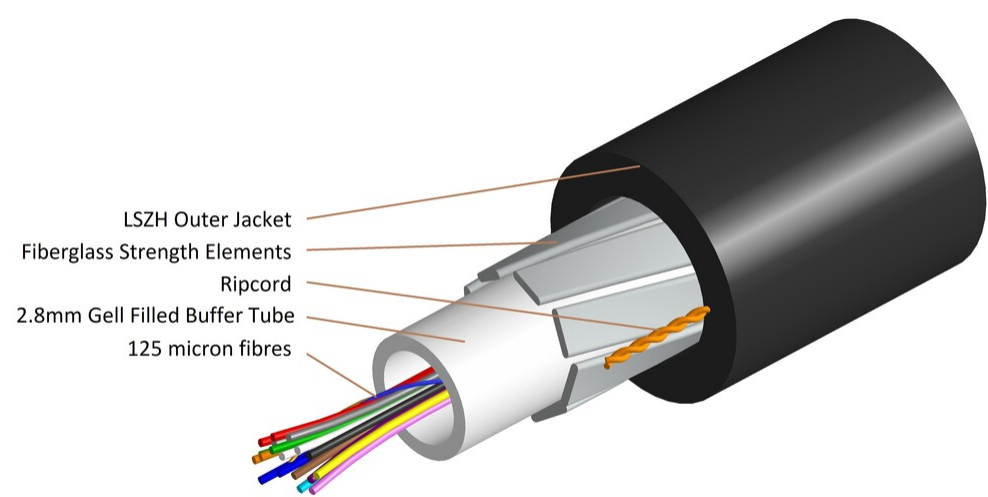
General Specifications

Cable Type	Central loose tube
Construction Type	Non-armored
Subunit Type	Gel-filled
Jacket Color	Black
Jacket Marking	Meters
Jacket Marking Method	Inkjet
Jacket Marking Text	COMMScope GB F.O. CABLE 810009999/DB 8 x 9 /125 G857A1 HDPE (serial number) (metre mark)
Subunit, quantity	1
Fibers per Subunit, quantity	4
Total Fiber Count	4

Dimensions

Buffer Tube/Subunit Diameter	2.8 mm 0.11 in
Diameter Over Jacket	5.3 mm 0.209 in

Representative Image



Material Specifications

Jacket Material

High density polyethylene (HDPE)

Mechanical Specifications

Minimum Bend Radius, loaded	80 mm 3.15 in
Minimum Bend Radius, unloaded	50 mm 1.969 in
Tensile Load, long term, maximum	400 N 89.924 lbf
Tensile Load, short term, maximum	1200 N 269.771 lbf
Compression	15 N/mm 85.652 lb/in
Compression Test Method	IEC 60794-1-2 E3
Flex	25 cycles
Flex Test Method	IEC 60794-1 E6
Impact	5 N-m 44.254 in lb
Impact Test Method	IEC 60794-1 E4
Strain	See long and short term tensile loads
Strain Test Method	IEC 60794-1-2-E1
Twist	5 cycles
Twist Test Method	IEC 60794-1 E7

Optical Specifications

Fiber Type	G.652.D and G.657.A1
Environmental Specifications	
Installation temperature	-30 °C to +70 °C (-22 °F to +158 °F)
Operating Temperature	-30 °C to +70 °C (-22 °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
Environmental Space	Aerial, lashed Buried
Jacket UV Resistance	UV stabilized
Water Penetration	24 h

Environmental Test Specifications	
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	IEC 60794-1 F1

Packaging and Weights	
Cable weight	27 kg/km 18.143 lb/kft

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-8W-250-EMEA	LightScope® ZWP Singlemode Fiber
8W-250um	

* Footnotes

Operating Temperature Specification applicable to non-terminated bulk fiber cable

LightScope® ZWP 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)	±7 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, 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

Optical Specifications

CS-8W-250-EMEA | 8W-250um

Cabled Cutoff Wavelength, maximum	1250 nm
Point Defects, maximum	0.05 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	0.20 dB/km @ 1550 nm 0.23 dB/km @ 1,625 nm 0.344 dB/km @ 1310 nm 0.344 dB/km @ 1380 – 1385 nm
Dispersion, maximum	18 ps(nm-km) at 1550 nm 22 ps(nm-km) at 1625 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
Mode Field Diameter Tolerance	±0.4 µm @ 1310 nm ±0.5 µm @ 1550 nm
Polarization Mode Dispersion Link Design Value, maximum	0.05 ps/sqrt(km)
Standards Compliance	ITU-T G.652.D ITU-T G.657.A1

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

* 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