



Fiber OSP cable, LightScope ZWP® Blown Single Jacket All-Dielectric, 96 fiber, Stranded Microsheath Tube Construction, Gel-free, Singlemode G.657.A1, Meters jacket marking, Black jacket color

Product Classification

Regional Availability	Europe
Portfolio	CommScope®
Product Type	Fiber OSP cable
Product Series	B-LN

General Specifications

Cable Type	Microcable Stranded microsheath tube
Construction Type	Non-armored
Subunit Type	Gel-free
Jacket Color	Black
Jacket Marking	Meters
Jacket Marking Method	Inkjet
Jacket Marking Text	COMMSCOPE GB F.O. CABLE 810009903/DB 96 X 9 /125 G657A1 HDPE (serial number) (meter mark)
Subunit, quantity	8
Fibers per Subunit, quantity	12
Total Fiber Count	96

Dimensions

Buffer Tube/Subunit Diameter	1.4 mm 0.055 in
Diameter Over Jacket	6.9 mm 0.272 in

Material Specifications

Jacket Material	High density polyethylene (HDPE)
------------------------	----------------------------------

Mechanical Specifications

Minimum Bend Radius, loaded	120 mm 4.724 in
Minimum Bend Radius, storage coils	85 mm 3.346 in
Minimum Bend Radius, unloaded	85 mm 3.346 in
Tensile Load, long term, maximum	400 N 89.924 lbf
Tensile Load, short term, maximum	1000 N 224.809 lbf
Compression	5 N/mm 28.551 lb/in
Compression Test Method	IEC 60794-1-21 E3
Flex	25 cycles
Impact	1 N-m 8.851 in lb
Impact Test Method	IEC 60794-1-21 E4
Strain	See long and short term tensile loads
Strain Test Method	IEC 60794-1-21 E1
Twist	5 cycles
Twist Test Method	IEC 60794-1-21 E7

Optical Specifications

Fiber Type	G.657.A1
-------------------	----------

Environmental Specifications

Installation temperature	-10 °C to +50 °C (+14 °F to +122 °F)
Operating Temperature	-30 °C to +60 °C (-22 °F to +140 °F)
Storage Temperature	-40 °C to +70 °C (-40 °F to +158 °F)
Cable Qualification Standards	IEC 60794-1-2
Environmental Space	Air-blown, microduct
Jacket UV Resistance	UV stabilized
Water Penetration	24 h
Water Penetration Test Method	IEC 60794-1 F4

Environmental Test Specifications

Low High Bend	-15 °C to +23 °C (+5 °F to +73 °F)
Low High Bend Test Method	IEC 60794-1-21 E11
Temperature Cycle	-30 °C to +60 °C (-22 °F to +140 °F)

810009903/DB | B-096-LN-8F-M12BK/14D

Temperature Cycle Test Method IEC 60794-1-22 F1

Packaging and Weights

Cable weight 38.9 kg/km | 26.14 lb/kft

Included Products

CS-8F-LT – Low Macrobending, Zero Water Peak, Dispersion-Unshifted Singlemode Fiber

* Footnotes

Operating Temperature Specification applicable to non-terminated bulk fiber cable

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 Test	689.476 N/mm ² 100000 psi

Dimensions

Fiber Curl, minimum	4 m 13.123 ft
----------------------------	-----------------

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	$\pm 0.4 \mu\text{m}$ @ 1310 nm $\pm 0.5 \mu\text{m}$ @ 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