

Fiber OSP cable, LightScope® ZWP Single Jacket/Single Armor, High Fiber Count, 384 fiber, Gel-Filled, Stranded Loose Tube, Singlemode G.652.D and G.657.A1, Feet jacket marking, Black jacket color

- Corrugated steel tape armor is strong yet flexible, providing additional crush and rodent protection
- *Product complies with the Build America, Buy America Act (BABAA) requirements of the Infrastructure Investment and Jobs Act of 2021 (Pub. L. 117- 58, §§ 70901-70953), or is the subject of a waiver approved by the Secretary of Commerce or designee. Compliance requirements and waiver applicability vary based on government funding program. Check the laws and regulations for your specific program.

Product Classification

Regional Availability	Asia Australia/New Zealand EMEA Latin America North America
Portfolio	CommScope®
Product Type	Fiber OSP cable
Product Series	O-LA
Government Requirements	Build America Buy America (BABA) compliant*

General Specifications

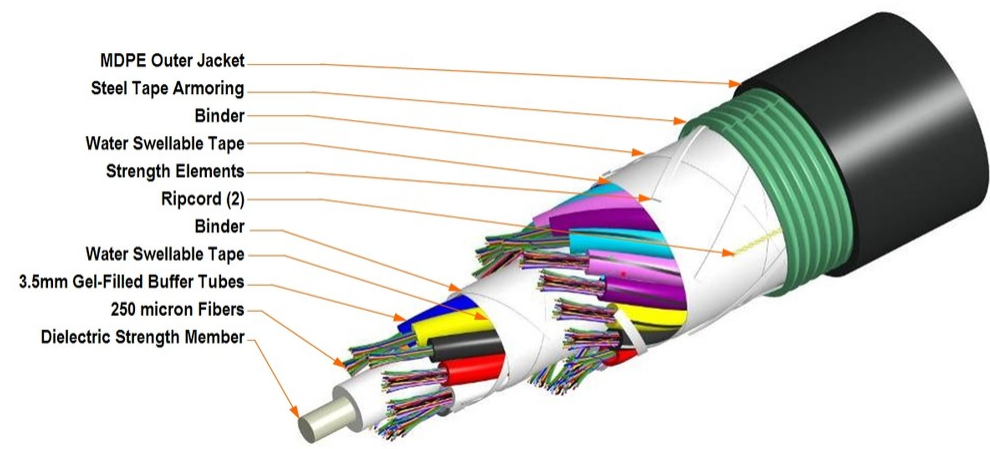
Armor Type	Corrugated steel
Cable Type	Stranded loose tube
Construction Type	Armored
Subunit Type	Gel-filled
Filler, quantity	2
Jacket Color	Black
Jacket Marking	Feet
Location of Manufacturing	Claremont, North Carolina
Subunit, quantity	16
Fibers per Subunit, quantity	24
Total Fiber Count	384

Dimensions

Buffer Tube/Subunit Diameter	3.5 mm 0.138 in
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Diameter Over Jacket22.9 mm | 0.902 in

Representative Image



Material Specifications

Jacket MaterialPE

Mechanical Specifications

Minimum Bend Radius, loaded	344 mm 13.543 in
Minimum Bend Radius, unloaded	229 mm 9.016 in
Tensile Load, long term, maximum	800 N 179.847 lbf
Tensile Load, short term, maximum	2700 N 606.984 lbf
Compression	44 N/mm 251.246 lb/in
Compression Test Method	FOTP-41 IEC 60794-1 E3
Flex	25 cycles
Flex Test Method	FOTP-104 IEC 60794-1 E6
Impact	7.35 N-m 65.053 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	228 m 748.032 ft

8106680/DB | O-384-LA-8W-F24NS

Optical Specifications

Fiber Type G.652.D and G.657.A1 | G.652.D and G.657.A1

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
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
Drip 70 °C | 158 °F
Drip Test Method FOTP-81 | IEC 60794-1 E14
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 358 kg/km | 240.565 lb/kft

Regulatory Compliance/Certifications

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

Included Products

8106680/DB | O-384-LA-8W-F24NS

DB-8W-LT – LightScope® ZWP Singlemode
Fiber

* Footnotes

Operating Temperature Specification applicable to non-terminated bulk fiber cable



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

DB-8W-LT

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	0.22 dB/km @ 1,550 nm 0.25 dB/km @ 1,490 nm 0.25 dB/km @ 1,625 nm 0.36 dB/km @ 1,310 nm 0.36 dB/km @ 1,385 nm
Attenuation, typical	0.19 dB/km @ 1,550 nm 0.33 dB/km @ 1,310 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

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

DB-8W-LT

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