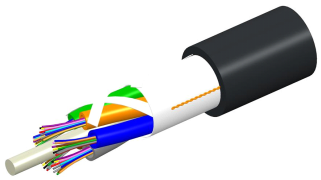
Product Specifications

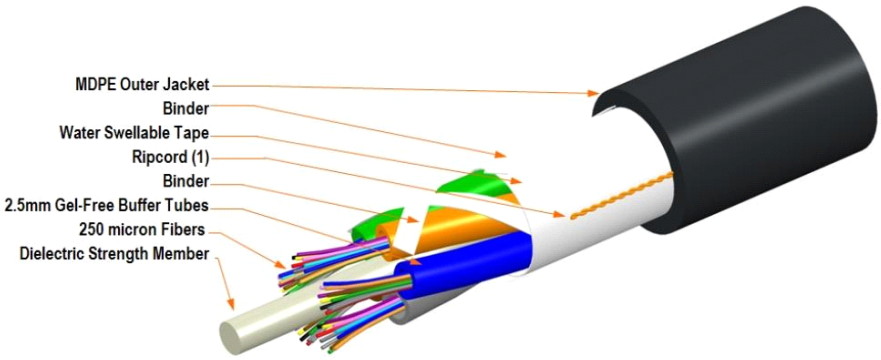
COMMSCOPE®



8108442/DB | D-132-LN-8W-M12NS

Single Jacket All-Dielectric, Gel-Free, Outdoor Stranded Loose Tube Cable

Representative Image



General Specifications

Cable Type	Stranded loose tube
Construction Type	Non-armored
Subunit Type	Gel-free

Construction Materials

Fiber Type Solution	LightScope® ZWP®, zero water peak singlemode fiber (G.652.D, G.657.A1)
Jacket Material	PE
Total Fiber Count	132
Fiber Type	LightScope® ZWP®, zero water peak singlemode fiber (G.652.D, G.657.A1)
Fiber Type, quantity	132
Fibers per Subunit, quantity	12
Jacket Color	Black
Jacket UV Resistance	UV stabilized

Dimensions

Buffer Tube/Subunit Diameter	2.50 mm | 0.10 in
Cable Weight	177.0 kg/km | 119.0 lb/kft
Diameter Over Jacket	15.80 mm | 0.62 in
Filler, quantity	1
Subunit, quantity	11

Physical Specifications

Minimum Bend Radius, loaded	23.7 cm | 9.3 in
Minimum Bend Radius, unloaded	15.8 cm | 6.2 in
Tensile Load, long term, maximum	180 lbf | 800 N
Tensile Load, short term, maximum	2700 N | 607 lbf
Vertical Rise, maximum	462.0 m | 1515.7 ft

Environmental Specifications

Environmental Space	Aerial, lashed | Buried
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)

Mechanical Test Specifications

Compression	125 lb/in | 22 N/mm
Compression Test Method	FOTP-41 | IEC 60794-1 E3
Flex	35 cycles
Flex Test Method	FOTP-104 | IEC 60794-1 E6
Impact	5.15 N-m | 3.80 ft 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
Water Penentration	24 h
Water Penentration Test Method	FOTP-82 | IEC 60794-1 F5

Environmental Test Specifications

Cable Freeze	-2 °C | 28 °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

Qualification Specifications

Cable Qualification Standards	ANSI/ICEA S-87-640 | EN 187105 | Telcordia GR-20

Regulatory Compliance/Certifications

Agency	Classification
RoHS 2011/65/EU	Compliant
ISO 9001:2008	Designed, manufactured and/or distributed under this quality management system

Included Products

DB-8W-LT (Product Component—not orderable) — LightScope ZWP® Singlemode Fiber

LightScope ZWP DB-8W-LT

LightScope ZWP® Singlemode Fiber

Optical Specifications, Wavelength Specific

Standards Compliance	ITU-T G.652.D | ITU-T G.657.A1 | TIA-492CAAB (OS2)
Attenuation, maximum	0.22 dB/km @ 1550 nm 0.23 dB/km @ 1575 nm 0.27 dB/km @ 1490 nm 0.27 dB/km @ 1625 nm 0.31 dB/km @ 1385 nm 0.34 dB/km @ 1310 nm 0.35 dB/km @ 1650 nm 0.45 dB/km @ 1270 nm
Dispersion, maximum	18 ps(nm-km) at 1550 nm | 3.5 ps(nm-km) from 1285 nm to 1330 nm at 1310 nm
Mode Field Diameter	9.2 µm @ 1310 nm 9.6 µm @ 1385 nm 10.4 µm @ 1550 nm
Mode Field Diameter Tolerance	±0.3 µm @ 1310 nm | ±0.5 µm @ 1550 nm | ±0.6 µm @ 1385 nm
Index of Refraction	1.467 @ 1310 nm 1.468 @ 1385 nm 1.468 @ 1550 nm
Polarization Mode Dispersion Link Design Value, maximum	0.04 ps/sqrt(km)
Backscatter Coefficient	-82.1 dB @ 1550 nm -79.6 dB @ 1310 nm

Physical Specifications

Cladding Diameter	125.0 µm
Cladding Diameter Tolerance	±0.7 µm
Cladding Non-Circularity, maximum	0.7 %
Coating Diameter (Colored)	253 µm
Coating Diameter (Uncolored)	240 µm
Coating Diameter Tolerance (Colored)	±7 µm
Coating Diameter Tolerance (Uncolored)	±5 µm
Coating/Cladding Concentricity Error, maximum	12 µm
Core/Clad Offset, maximum	0.5 µm

Optical Specifications, General

Cabled Cutoff Wavelength, maximum	1260 nm
Point Defects, maximum	0.10 dB
Zero Dispersion Slope, maximum	0.090 ps/[km-nm-nm]
Zero Dispersion Wavelength, maximum	1322 nm
Zero Dispersion Wavelength, minimum	1302 nm

Mechanical Specifications

Coating Strip Force, maximum	8.9 N | 2.0 lbf
Coating Strip Force, minimum	1.3 N | 0.3 lbf
Dynamic Fatigue Parameter, minimum	20
Fiber Curl, minimum	4.0 m | 13.1 ft

Macrobending, 20 mm mandrel, 1 turn	0.75 dB @ 1550 nm 1.50 dB @ 1625 nm
Macrobending, 30 mm mandrel, 10 turns	0.25 dB @ 1550 nm 1.00 dB @ 1625 nm
Macrobending, 50 mm mandrel, 100 turns	0.03 dB @ 1550 nm 0.03 dB @ 1625 nm
Proof Test	0.69 N/mm² | 100.00 psi

Environmental Specifications

Heat Aging, maximum	0.05 dB @ 85 °C
Temperature Dependence, maximum	0.05 dB
Temperature Humidity Cycling, maximum	0.05 dB
Water Immersion, maximum	0.05 dB @ 23 °C

Regulatory Compliance/Certifications

Agency	Classification
ISO 9001:2008	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