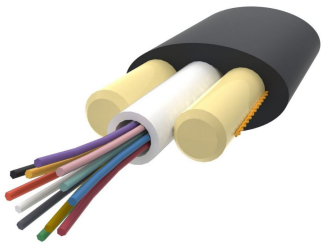
8108246/DB | O-008-DF-8W-M08NS



Fiber outdoor drop cable, LightScope® ZWP Self-Supporting All-Dielectric, Singlemode G.652.D and G.657.A1, 8 fiber Arid Core construction, Gel-filled, central loose tube, Meter jacket marking, Black jacket color

Product Classification

Regional Availability	Asia | Australia/New Zealand | EMEA | Latin America | North America
Portfolio	CommScope®
Product Type	Fiber drop cable
Product Series	O-DF

General Specifications

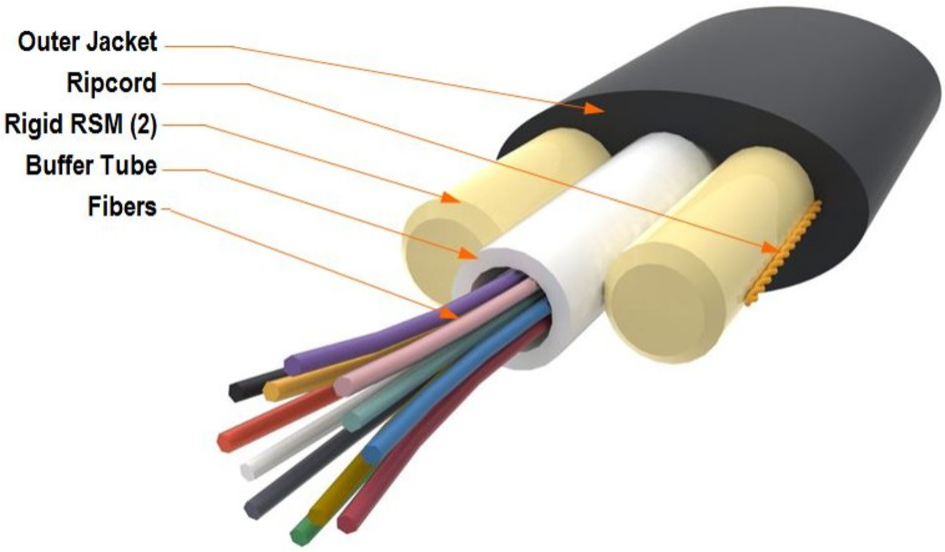
Cable Type	Central loose tube
Construction Type	Non-armored
Subunit Type	Gel-filled
Jacket Color	Black
Jacket Marking	Meters
Jacket Marking Method	Inkjet
Jacket Marking Text	COMMSCOPE OPTICAL CABLE OS2 SM (FIBER COUNT) F (SERIAL NUMBER) MM/YYYY (HANDSET SYMBOL) XXXXXX M
Subunit, quantity	1
Fibers per Subunit, quantity	8
Total Fiber Count	8

Dimensions

Height Over Jacket	4.3 mm | 0.169 in
Buffer Tube/Subunit Diameter	2 mm | 0.079 in
Diameter Over Jacket	8 mm | 0.315 in

Representative Image

8108246/DB | 0-008-DF-8W-M08NS



Material Specifications

Jacket Material	PE

Mechanical Specifications

Minimum Bend Radius, loaded	86 mm | 3.386 in
Minimum Bend Radius, unloaded	81 mm | 3.189 in
Tensile Load, long term, maximum	400 N | 89.924 lbf
Tensile Load, short term, maximum	1334 N | 299.895 lbf
Compression	10 N/mm | 57.101 lb/in
Compression Test Method	FOTP-41 | IEC 60794-1 E3
Flex	35 cycles
Flex Test Method	FOTP-104 | IEC 60794-1 E6
Impact	2.94 N-m | 26.021 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	1047 m | 3,435.039 ft

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-110-717
Environmental Space	Aerial, self-support | 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	39 kg/km | 26.207 lb/kft

Regulatory Compliance/Certifications

Agency	Classification
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on www.commscope.com/ProductCompliance
ROHS	Compliant

UK-ROHS	Compliant

Included Products

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

* 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

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

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