



Fiber OSP cable, LightScope® ZWP Single Jacket/Single Armor, Gel-Filled, 4 fibers, Central Tube Cable, Singlemode G.652.D and G.657.A1, Custom jacket marking, Black jacket color

- Corrugated steel tape armor is strong yet flexible, providing additional crush and rodent protection

Product Classification

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

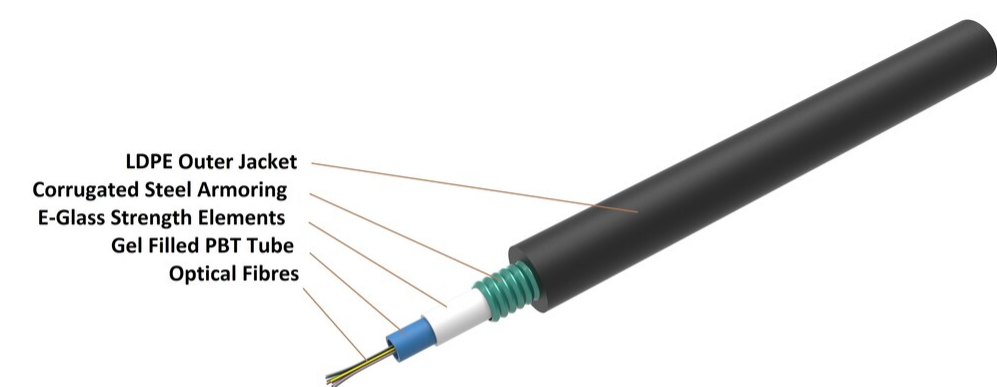
General Specifications

Armor Type	Corrugated steel
Cable Type	Central loose tube
Construction Type	Armored
Subunit Type	Gel-filled
Jacket Color	Black
Jacket Marking	Custom printing
Jacket Marking Method	Inkjet
Jacket Marking Text	COMMScope GB (MM/YY) NETWORK RAIL SM FIBRE CABLE SM 8 (Serial NO) (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	10 mm 0.394 in

Representative Image



Material Specifications

Jacket Material	PE
Inner Jacket Material	Alternative jacket PE

Mechanical Specifications

Minimum Bend Radius, loaded	200 mm 7.874 in
Minimum Bend Radius, unloaded	120 mm 4.724 in
Tensile Load, long term, maximum	800 N 179.847 lbf
Tensile Load, short term, maximum	1200 N 269.771 lbf
Compression	30 N/mm 171.304 lb/in
Compression Test Method	IEC 60794-1 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 E1
Twist	5 cycles
Twist Test Method	IEC 60794-1 E7

Optical Specifications

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

Environmental Specifications

Installation temperature -20 °C to +70 °C (-4 °F to +158 °F)
Operating Temperature -20 °C to +70 °C (-4 °F to +158 °F)
Storage Temperature -20 °C to +70 °C (-4 °F to +158 °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

Temperature Cycle -20 °C to +70 °C (-4 °F to +158 °F)
Temperature Cycle Test Method IEC 60794-1 F1

Packaging and Weights

Cable weight 60 kg/km | 40.318 lb/kft
Packaging Type Reel

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