

Fiber OSP cable, A2 Dual-sheathed HDPE Drop, LSZH Subunit, Loose buffer, Singlemode, G.657.A2, 1 fiber (Red), Gel-free, Meters jacket marking, Black jacket color 500M Reel

Product Classification

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

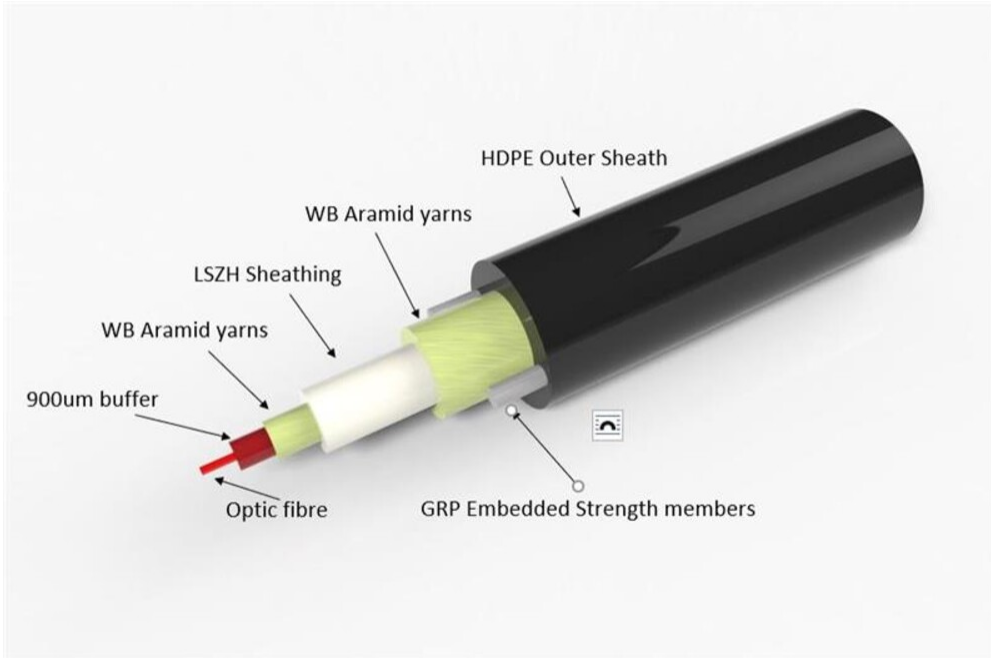
General Specifications

Cable Type	Outdoor drop with indoor subunit
Construction Type	Non-armored
Subunit Type	Gel-free
Inner Jacket Color	White
Jacket Color	Black
Jacket Marking	Meters
Jacket Marking Text	COMMSCOPE OPTICAL CABLE 810010312/DB G657A2 SM 1 FIBER EN50575 CLASS Dca [SERIAL NUMBER] [MM/YYYY] [Meter marking] m
Subunit, quantity	1
Fibers per Subunit, quantity	1
Total Fiber Count	1

Dimensions

Cable Length	500 m 1,640.42 ft
Buffer Tube/Subunit Diameter	2 mm 0.079 in
Diameter Over Jacket	5 mm 0.197 in

Representative Image



Material Specifications

Jacket Material	High density polyethylene (HDPE)
Inner Jacket Material	Low Smoke Zero Halogen (LSZH)

Mechanical Specifications

Minimum Bend Radius, loaded	50 mm 1.969 in
Minimum Bend Radius, unloaded	30 mm 1.181 in
Tensile Load, long term, maximum	400 N 89.924 lbf
Tensile Load, short term, maximum	880 N 197.832 lbf
Compression	20 N/mm 114.203 lb/in
Compression Test Method	FOTP-41 IEC 60794-1 E3
Flex	35 cycles
Flex Test Method	FOTP-104 IEC 60794-1 E6
Impact	5 N-m 44.254 in lb
Impact Test Method	FOTP-25 IEC 60794-1 E4
Strain Test Method	FOTP-33 IEC 60794-1 E1
Twist	10 cycles
Twist Test Method	FOTP-85 IEC 60794-1 E7

Optical Specifications

Fiber Type G.657.A2 | G.657.A2, TeraSPEED®

Environmental Specifications

Operating Temperature -40 °C to +70 °C (-40 °F to +158 °F)
Storage Temperature -40 °C to +70 °C (-40 °F to +158 °F)
Cable Qualification Standards IEC 60794-1-2 | Telcordia GR-20
EN50575 CPR Cable EuroClass Fire Performance Cca
EN50575 CPR Cable EuroClass Smoke Rating s1a
EN50575 CPR Cable EuroClass Droplets Rating d0
EN50575 CPR Cable EuroClass Acidity Rating a1
Environmental Space Aerial, lashed | Buried | Drop | Façade | Underground (duct)
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
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 23.5 kg/km | 15.791 lb/kft

Included Products

CS-8G-MP – Enhanced Low Macrobending, Zero Water Peak, Dispersion-Unshifted Singlemode Fiber (ITU-T G.657.A2, B2)

* Footnotes

Operating Temperature Specification applicable to non-terminated bulk fiber cable

CS-8G-MP

Enhanced Low Macrobending, Zero Water Peak, Dispersion-Unshifted Singlemode Fiber (ITU-T G.657.A2, B2)

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
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Mechanical Specifications

Macrobending, 15 mm Ø mandrel, 1 turn	0.50 dB @ 1,550 nm 1.00 dB @ 1,625 nm
Macrobending, 20 mm Ø mandrel, 1 turn	0.10 dB @ 1,550 nm 0.20 dB @ 1,625 nm
Macrobending, 30 mm Ø mandrel, 10 turns	0.03 dB @ 1,550 nm 0.10 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

CS-8G-MP

Zero Dispersion Slope, maximum	0.092 ps/[km-nm-nm]
Zero Dispersion Wavelength, maximum	1324 nm
Zero Dispersion Wavelength, minimum	1302 nm

Optical Specifications, Wavelength Specific

Attenuation, maximum	0.40 dB/km @ 1,310 nm 0.40 dB/km @ 1,385 nm 0.40 dB/km @ 1,550 nm 0.50 dB/km @ 1,625 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.A2 ITU-T G.657.B2

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