810010114/DB | C-001-DN-8G1-M01BK/34D/D-UK00



Indoor/Outdoor Fiber Optic Drop cable, 1 Fiber G657 A2 0.9mm tight buffer. Breaking load Max 2000N. Suitable for installation under overhead power lines ≤11kV, vertical clearance ≥1.8m.

Fire retardant Outside plant LSZH jacket grade, suitable for drop / aerial installations of up to 68m. Can be routed indoor.

Product Classification

Regional Availability

Asia | Australia/New Zealand | EMEA | North America

Portfolio CommScope®

Product Type Fiber indoor/outdoor cable

General Specifications

Cable TypeDrop| Tight buffer

Construction Type All Dielectric | Non-armored

Subunit TypeGel-freeJacket ColorBlackJacket MarkingMetersJacket Marking MethodInkjet

Jacket Marking Text COMMSCOPE GB OPTICAL CABLE 810010114/DB 1x G657A2 SM LSZH

[DOM] [SERIAL NUMBER] [METER MARK]

Subunit, quantity 1

Fibers per Subunit, quantity 1

Total Fiber Count 1

Dimensions

Buffer Tube/Subunit Diameter0.9 mm0.035 inDiameter Over Jacket3.4 mm0.134 in

Representative Image



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Material Specifications

Jacket Material Low Smoke Zero Halogen (LSZH)

Mechanical Specifications

Minimum Bend Radius, loaded34 mm1.339 inTensile Load, long term, maximum300 N67.443 lbfTensile Load, short term, maximum620 N1.39.382 lbf

Compression 20 N/mm | 114.203 lb/in

Compression Test Method IEC 60794-1 E3

Impact 2 N-m | 17.701 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 10 cycles

Twist Test Method IEC 60794-1 E7

Optical Specifications

Fiber Type G.657.A2



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Environmental Specifications

Installation temperature $-10 \,^{\circ}\text{C}$ to $+60 \,^{\circ}\text{C}$ (+14 $^{\circ}\text{F}$ to +140 $^{\circ}\text{F}$)

Operating Temperature $-30 \,^{\circ}\text{C}$ to $+65 \,^{\circ}\text{C}$ (-22 $^{\circ}\text{F}$ to +149 $^{\circ}\text{F}$)

Storage Temperature $-30 \,^{\circ}\text{C}$ to $+60 \,^{\circ}\text{C}$ (-22 $^{\circ}\text{F}$ to +140 $^{\circ}\text{F}$)

Cable Qualification Standards IEC 60794-1-2

EN50575 CPR Cable EuroClass Fire PerformanceDcaEN50575 CPR Cable EuroClass Smoke Rating\$1aEN50575 CPR Cable EuroClass Droplets Ratingd1EN50575 CPR Cable EuroClass Acidity Ratinga2

Environmental Space Aerial | Drop | Ducted | Indoor/Outdoor

Jacket UV Resistance UV stabilized

Water Penetration 24 h

Water Penetration Test Method IEC 60794-1 F5

Environmental Test Specifications

Temperature Cycle $-30 \,^{\circ}\text{C} \text{ to } +60 \,^{\circ}\text{C} \, (-22 \,^{\circ}\text{F to } +140 \,^{\circ}\text{F})$

Temperature Cycle Test Method IEC 60794-1-22 F1

Packaging and Weights

Cable weight 9.2 kg/km | 6.182 lb/kft

Included Products

CS-8G-TB – 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-TB

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 ±0.7 µm **Cladding Diameter Tolerance** 0.7 % Cladding Non-Circularity, maximum **Coating Diameter (Colored)** $249 \, \mu m$ **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 Tensile Stress 100,000 psi (0.69 GPa)

Dimensions

Fiber Curl, minimum 4 m | 13.123 ft

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, maximum8.9 N | 2.001 lbfCoating Strip Force, minimum1.3 N | 0.292 lbf

Dynamic Fatigue Parameter, minimum 20

Optical Specifications

Cabled Cutoff Wavelength, maximum1260 nmPoint Defects, maximum0.1 dB

COMMSCOPE®

CS-8G-TB

Zero Dispersion Slope, maximum 0.092 ps/[km-nm-nm]

Zero Dispersion Wavelength, maximum1324 nmZero Dispersion Wavelength, minimum1302 nm

Optical Specifications, Wavelength Specific

Attenuation, maximum 0.50 dB/km @ 1,310 nm | 0.50 dB/km @ 1,385

nm | 0.50 dB/km @ 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

 $\textbf{Mode Field Diameter} \hspace{1.5cm} 8.6~\mu m \ @ 1,310~nm \hspace{0.2cm} | \hspace{0.2cm} 9.8~\mu m \ @ 1,550~nm$

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

