1-599683-4 | 0-012-CA-8W-M08BK/28G/GY/HD



Fiber OSP cable, 12-fiber, OS2, HDPE, loose tube, 12 fiber, gel-filled, Singlemode G.652.D and G.657.A1, 1000 m, Meters jacket marking, Black jacket color. Provides Rodent Resistance.

Product Classification

Regional Availability

Australia/New Zealand | EMEA

PortfolioCommScope®Product TypeFiber OSP cable

Product Series O-CA

General Specifications

Armor Type Corrugated steel

Cable TypeLoose tubeSubunit TypeGel-filled

Filler, quantity 1

Jacket ColorBlackJacket MarkingMetersJacket Marking MethodInkjet

Jacket Marking Text COMMSCOPE GB SYSTEM F.O. CABLE X-599683-4 CSA GEL LOOSE TUBE 12X9/125 OS2

HDPE (Serial NUMBER) (METRE MARK)

Fibers per Subunit, quantity 12

Total Fiber Count 12

Dimensions

 Cable Length
 1000 m | 3,280.84 ft

 Diameter Over Jacket
 10 mm | 0.394 in

Material Specifications

Jacket Material High density polyethylene (HDPE)



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Mechanical Specifications

Minimum Bend Radius, loaded200.7 mm7.902 inMinimum Bend Radius, unloaded160 mm6.299 inTensile Load, long term, maximum1250 N281.011 lbf

Flex 25 cycles

Optical Specifications

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

Optical Specifications, Wavelength Specific

Attenuation, maximum 0.35 dB/km @ 1,300 nm | 0.35 dB/km @ 1,550 nm | 0.45 dB/km @ 1,310 nm

Standards Compliance IEC 60794-1 | TIA-492CAAB (OS2)

Environmental Specifications

Installation temperature $-5 \,^{\circ}\text{C}$ to $+50 \,^{\circ}\text{C}$ (+23 $^{\circ}\text{F}$ to +122 $^{\circ}\text{F}$)

Operating Temperature $-20 \,^{\circ}\text{C}$ to $+70 \,^{\circ}\text{C}$ (-4 $^{\circ}\text{F}$ to +158 $^{\circ}\text{F}$)

Storage Temperature $-20 \,^{\circ}\text{C}$ to $+70 \,^{\circ}\text{C}$ (-4 $^{\circ}\text{F}$ to +158 $^{\circ}\text{F}$)

Packaging and Weights

Cable weight 104 kg/km | 69.885 lb/kft

Regulatory Compliance/Certifications

Agency Classification

CHINA-ROHS Below maximum concentration value

REACH-SVHC Compliant as per SVHC revision on www.commscope.com/ProductCompliance

ROHS Compliant UK-ROHS Compliant



Included Products

CS-8W-LT - TeraSPEED® G652D/G657A1 Singlemode

Fiber

* Footnotes

COMMSCOPE®

1-599683-4 | 0-012-CA-8W-M08BK/28G/GY/HD

Operating Temperature Specification applicable to non-terminated bulk fiber cable

TeraSPEED® G652D/G657A1 Singlemode Fiber

8.3 µm

 $0.5 \, \mu m$

TeraSPEED®

Product Classification

Portfolio CommScope®

Product Type Optical fiber

General Specifications

Cladding Diameter 125 µm

Cladding Diameter Tolerance $\pm 0.7 \, \mu m$

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

Proof Test 689.476 N/mm² | 100000 psi

Dimensions

Core Diameter

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

COMMSCOPE®

CS-8W-LT

Coating Strip Force, minimum 1.3 N | 0.292 lbf

Dynamic Fatigue Parameter, minimum 20

Optical Specifications

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

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

Zero Dispersion Wavelength, maximum1324 nmZero Dispersion Wavelength, minimum1300 nm

Optical Specifications, Wavelength Specific

Attenuation, maximum 0.22 dB/km @ 1,550 nm | 0.25 dB/km @ 1,490

nm | 0.25 dB/km @ 1,625 nm | 0.36 dB/km @ 1,310

nm | 0.36 dB/km @ 1,385 nm

Attenuation, typical 0.19 dB/km @ 1,550 nm | 0.33 dB/km @ 1,310 nm

Backscatter Coefficient -79.6 dB @ 1,310 nm | -82.1 dB @ 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

Mode Field Diameter 10.4 μm @ 1,550 nm | 9.2 μm @ 1,310 nm | 9.6 μm @

1,385 nm

Mode Field Diameter Tolerance $\pm 0.4 \, \mu \text{m} \ @ \ 1310 \, \text{nm} \ | \ \pm 0.5 \, \mu \text{m} \ @ \ 1550 \, \text{nm} \ | \ \pm 0.6 \, \mu \text{m}$

@ 1385 nm

Polarization Mode Dispersion Link Design Value, maximum 0.04 ps/sgrt(km)

Standards Compliance IEC 60793-2-10, edition 6, model A1a.4 | ITU-T G.652.

D | ITU-T G.657.A1 | TIA-492CAAB (OS2)

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

COMMSCOPE®

CS-8W-LT

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

