



Single Jacket All-Dielectric, 12F Gel-Filled, Outdoor Central Tube cable. Provides Rodent Resistance.

Product Classification

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

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 GB OPTICAL CABLE 1593149-5 12X9/125 OS2 LLDPE (Serial NUMBER) (METRE MARK)
Subunit, quantity	1
Fibers per Subunit, quantity	12
Total Fiber Count	12

Dimensions

Buffer Tube/Subunit Diameter	2.8 mm 0.11 in
Diameter Over Jacket	8.4 mm 0.331 in

Material Specifications

Jacket Material	PE
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Mechanical Specifications

Minimum Bend Radius, loaded	170 mm 6.693 in
Minimum Bend Radius, unloaded	150 mm 5.906 in

1593149-5 | 0-012-CN-8W-M12BK/28G/GY/LD

Tensile Load, long term, maximum	800 N 179.847 lbf
Tensile Load, short term, maximum	2200 N 494.58 lbf
Compression	20 N/mm 114.203 lb/in
Compression Test Method	IEC 60794-1-2 E3
Flex	25 cycles
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 60794-1-2-E1
Twist	5 cycles
Twist Test Method	IEC 60794-1 E7

Optical Specifications

Fiber Type	G.652.D and G.657.A1, TeraSPEED®
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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

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
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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

Operating Temperature Specification applicable to non-terminated bulk fiber cable

TeraSPEED®

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 Diameter	8.3 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, 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

CS-8W-LT

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
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	0.22 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 nm $\pm 0.5 \mu\text{m}$ @ 1550 nm $\pm 0.6 \mu\text{m}$ @ 1385 nm
Polarization Mode Dispersion Link Design Value, maximum	0.04 ps/sqrt(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
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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