



Fiber indoor/outdoor cable, TeraSPEED®, Single Jacket/Single Armor, Low Smoke Zero Halogen (LSZH), 48 fiber, Singlemode G.652.D and G.657.A1, Gel Filled, Stranded Loose Tube, Black jacket color, Meters jacket marking, Cca flame rating

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

Product Classification

Regional Availability	EMEA
Portfolio	CommScope®
Product Type	Fiber indoor/outdoor cable
Product Series	C-LA

General Specifications

Armor Type	Corrugated steel
Cable Type	Stranded loose tube
Construction Type	Armored
Subunit Type	Gel-filled
Jacket Color	Black
Jacket Marking	Meters
Jacket Marking Method	Inkjet
Jacket Marking Text	COMMSCOPE GB OPTICAL CABLE OS2 SM 48 FIBER EN50575 CLASS C [SERIAL NUMBER] [MM/YY] [METRE MARK]
Subunit, quantity	6
Fibers per Subunit, quantity	12
Total Fiber Count	48

Dimensions

Buffer Tube/Subunit Diameter	2 mm 0.079 in
Diameter Over Jacket	12.3 mm 0.484 in

Representative Image



Mechanical Specifications

Minimum Bend Radius, loaded	200 mm 7.874 in
Minimum Bend Radius, unloaded	133 mm 5.236 in
Tensile Load, long term, maximum	800 N 179.847 lbf
Tensile Load, short term, maximum	2700 N 606.984 lbf
Compression	44 N/mm 251.246 lb/in
Compression Test Method	IEC 60794-1 E3
Flex	25 cycles
Flex Test Method	IEC 60794-1 E6
Impact	10 N-m 88.507 in lb
Impact Test Method	IEC 60794-1 E4
Strain	See long and short term tensile loads
Strain Test Method	FOTP-33 IEC 60794-1 E1
Twist	10 cycles
Twist Test Method	IEC 60794-1 E7
Vertical Rise, maximum	432 m 1,417.323 ft

Optical Specifications

Fiber Type G.652.D and G.657.A1, TeraSPEED® | OS2 | OS2

Optical Specifications, Wavelength Specific

Standards Compliance ANSI/TIA-568.E-3

Environmental Specifications

Installation temperature	-30 °C to +60 °C (-22 °F to +140 °F)
Operating Temperature	-40 °C to +70 °C (-40 °F to +158 °F)
Storage Temperature	-40 °C to +75 °C (-40 °F to +167 °F)
Cable Qualification Standards	EN 187105 IEC 60794-1-2
EN50575 CPR Cable EuroClass Fire Performance	Cca
EN50575 CPR Cable EuroClass Smoke Rating	s2
EN50575 CPR Cable EuroClass Droplets Rating	d2
EN50575 CPR Cable EuroClass Acidity Rating	a1
Environmental Space	Aerial, lashed Buried Low Smoke Zero Halogen (LSZH)
Flame Test Method	IEC 60332-1-2 IEC 60754-2 IEC 61034-2
Jacket UV Resistance	UV stabilized
Water Penetration	24 h
Water Penetration Test Method	IEC 60794-1 F5

Environmental Test Specifications

Cable Freeze	-2 °C 28.4 °F
Cable Freeze Test Method	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	IEC 60794-1 E11
Temperature Cycle	-40 °C to +70 °C (-40 °F to +158 °F)
Temperature Cycle Test Method	IEC 60794-1 F1

Packaging and Weights

Cable weight	199.4 kg/km 133.991 lb/kft
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Regulatory Compliance/Certifications

Agency	Classification
CENELEC	EN 50575 compliant, Declaration of Performance (DoP) available
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on www.commscope.com/ProductCompliance

ROHS Compliant

UK-ROHS Compliant



Included Products

CS-8W-IOLT – TeraSPEED® OS2 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

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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	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
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system

CS-8W-IOLT

* 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