



TeraSPEED® Single Jacket/Single GRP Armor, Gel, Indoor/Outdoor Stranded Loose Tube cable. Provides Rodent Resistance. Tube Colours Red, Blue, 10 x Green

- GRP armor is strong yet flexible, providing additional crush and rodent protection

Product Classification

Regional Availability	Asia Australia/New Zealand EMEA Latin America North America
Portfolio	CommScope®
Product Type	Fiber indoor/outdoor cable
Product Series	C-LA

General Specifications

Armor Type	Non-metallic rods
Cable Type	Stranded loose tube
Construction Type	Armored
Subunit Type	Gel-filled
Jacket Color	Yellow
Jacket Marking	Meters
Jacket Marking Method	Laser
Jacket Marking Text	COMMSCOPE GB OPTICAL CABLE [MID] 144 X G652D EN50575 CLASS D ULSZH [MM/YY] [Serial number] [metre mark]
Subunit, quantity	12
Fibers per Subunit, quantity	12
Total Fiber Count	144

Dimensions

Buffer Tube/Subunit Diameter	2.5 mm 0.098 in
Diameter Over Jacket	21.7 mm 0.854 in

Material Specifications

Inner Jacket Material	Low Smoke Zero Halogen (LSZH)
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Mechanical Specifications

Minimum Bend Radius, loaded	432 mm 17.008 in
Minimum Bend Radius, unloaded	324 mm 12.756 in
Tensile Load, long term, maximum	2000 N 449.618 lbf
Tensile Load, short term, maximum	6000 N 1,348.854 lbf
Compression	40 N/mm 228.406 lb/in
Compression Test Method	IEC 60794-1 E3
Impact	15 N-m 132.761 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	5 cycles
Twist Test Method	IEC 60794-1 E7

Optical Specifications

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

Installation temperature	-40 °C to +70 °C (-40 °F to +158 °F)
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
EN50575 CPR Cable EuroClass Fire Performance	Dca
EN50575 CPR Cable EuroClass Smoke Rating	s1
EN50575 CPR Cable EuroClass Droplets Rating	d2
EN50575 CPR Cable EuroClass Acidity Rating	a1
Environmental Space	Aerial, lashed Buried
Flame Test Method	IEC 60332-1-2
Jacket UV Resistance	UV stabilized
Water Penetration	24 h
Water Penetration Test Method	IEC 60794-1 F5

Environmental Test Specifications

760256744 | C-144-LA-8W-M12YL/25G/GRP/D

Heat Age	0 °C to +85 °C (+32 °F to +185 °F)
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	452 kg/km 303.73 lb/kft
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Included Products

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

* Footnotes

Operating Temperature Specification applicable to non-terminated bulk fiber cable

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 Tensile Stress	100,000 psi (0.69 GPa)

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
Coating Strip Force, minimum	1.3 N 0.292 lbf
Dynamic Fatigue Parameter, minimum	20

CS-8W-LT

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

* Footnotes

CS-8W-LT

- 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