

TeraSPEED® Single Jacket/Single Armor, Gel-Filled, Outdoor Central Tube Cable

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

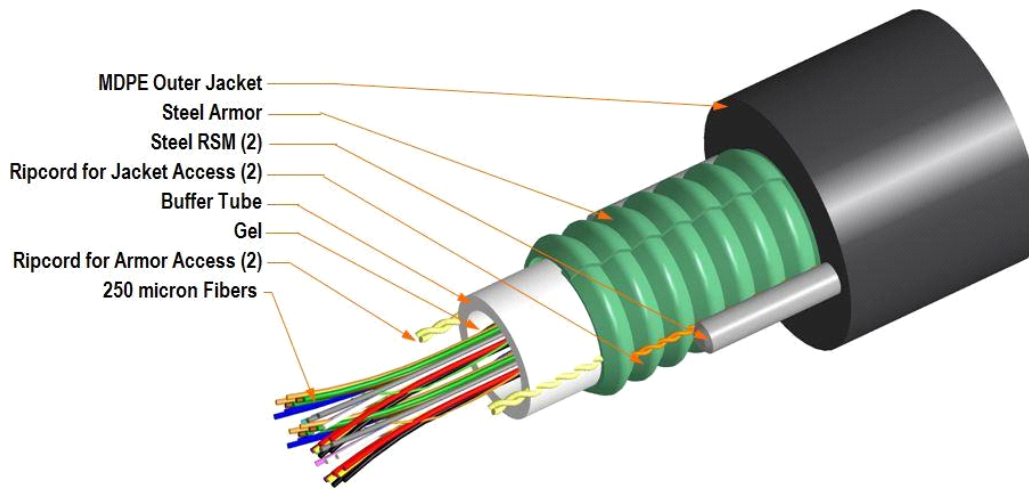
Product Classification

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

Standards And Qualifications

Cable Qualification Standards	ANSI/ICEA S-87-640 EN 187105 Telcordia GR-20
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Representative Image



General Specifications

Cable Type	Central loose tube
Construction Type	Armored
Subunit Type	Gel-filled

Construction Materials

Fiber Type Solution	G.652.D and G.657.A1 , TeraSPEED® OS2
Jacket Material	PE
Total Fiber Count	4
Armor Type	Corrugated steel

Fiber Type	G.652.D and G.657.A1, TeraSPEED® OS2
Fiber Type, quantity	4
Fibers per Subunit, quantity	4
Jacket Color	Black
Jacket UV Resistance	UV stabilized

Dimensions

Buffer Tube/Subunit Diameter	4.00 mm 0.16 in
Cable Weight	135.0 kg/km 91.0 lb/kft
Diameter Over Jacket	11.00 mm 0.43 in
Subunit, quantity	1

Physical Specifications

Minimum Bend Radius, loaded	16.5 cm 6.5 in
Minimum Bend Radius, unloaded	11.0 cm 4.3 in
Tensile Load, long term, maximum	180 lbf 800 N
Tensile Load, short term, maximum	2700 N 607 lbf
Vertical Rise, maximum	607.0 m 1991.5 ft

Environmental Specifications

Environmental Space	Aerial, lashed Buried
Installation Temperature	-30 °C to +70 °C (-22 °F to +158 °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)

Mechanical Test Specifications

Compression	250 lb/in 44 N/mm
Compression Test Method	FOTP-41 IEC 60794-1 E3
Flex	35 cycles
Flex Test Method	FOTP-104 IEC 60794-1 E6
Impact	2.17 ft lb 2.94 N-m
Impact Test Method	FOTP-25 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	FOTP-85 IEC 60794-1 E7
Water Penetration	24 h
Water Penetration Test Method	FOTP-82 IEC 60794-1 F5

Environmental Test Specifications

Cable Freeze	-2 °C 28 °F
Cable Freeze Test Method	FOTP-98 IEC 60794-1 F15
Drip	70 °C 158 °F
Drip Test Method	FOTP-81 IEC 60794-1 E14
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	FOTP-37 IEC 60794-1 E11
Temperature Cycle	-40 °C to +70 °C (-40 °F to +158 °F)
Temperature Cycle Test Method	FOTP-3 IEC 60794-1 F1

Regulatory Compliance/Certifications

Agency	Classification
RoHS 2011/65/EU	Compliant
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system



Included Products

CS-8W-LT (Product Component—not orderable) — TeraSPEED® OS2 Singlemode Fiber

* Footnotes

Operating Temperature Specification applicable to non-terminated bulk fiber cable

TeraSPEED®

TeraSPEED® OS2 Singlemode Fiber

Product Classification

Portfolio	CommScope®
Product Type	Optical fiber
Regional Availability	Asia Australia/New Zealand EMEA Latin America North America

Optical Specifications, Wavelength Specific

Standards Compliance	ITU-T G.652.D ITU-T G.657.A1 TIA-492CAAB (OS2)
Attenuation, maximum	0.22 dB/km @ 1,550 nm 0.23 dB/km @ 1,575 nm 0.25 dB/km @ 1,490 nm 0.25 dB/km @ 1,625 nm 0.31 dB/km @ 1,385 nm 0.34 dB/km @ 1,310 nm 0.35 dB/km @ 1,650 nm
Dispersion, maximum	18 ps/(nm-km) at 1550 nm 3.5 ps/(nm-km) from 1285 nm to 1330 nm at 1310 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	±0.3 μm @ 1310 nm ±0.5 μm @ 1550 nm ±0.6 μm @ 1385 nm
Index of Refraction	1.467 @ 1,310 nm 1.468 @ 1,385 nm 1.468 @ 1,550 nm
Polarization Mode Dispersion Link Design Value, maximum	0.04 ps/sqrt(km)
Backscatter Coefficient	-79.6 dB @ 1,310 nm -82.1 dB @ 1,550 nm

Physical Specifications

Cladding Diameter	125.0 μm
Cladding Diameter Tolerance	±0.7 μm
Cladding Non-Circularity, maximum	0.7 %
Coating Diameter (Colored)	253 μm
Coating Diameter (Uncolored)	240 μm
Coating Diameter Tolerance (Colored)	±7 μm
Coating Diameter Tolerance (Uncolored)	±5 μm
Coating/Cladding Concentricity Error, maximum	12 μm
Core/Clad Offset, maximum	0.5 μm

Optical Specifications, General

Cabled Cutoff Wavelength, maximum	1260 nm
Point Defects, maximum	0.10 dB
Zero Dispersion Slope, maximum	0.090 ps/[km-nm-nm]
Zero Dispersion Wavelength, maximum	1322 nm
Zero Dispersion Wavelength, minimum	1302 nm

Mechanical Specifications

Coating Strip Force, maximum	8.9 N 2.0 lbf
Coating Strip Force, minimum	1.3 N 0.3 lbf
Dynamic Fatigue Parameter, minimum	20
Fiber Curl, minimum	4.0 m 13.1 ft
Macrobending, 20 mm mandrel, 1 turn	0.75 dB @ 1,550 nm 1.50 dB @ 1,625 nm
Macrobending, 30 mm mandrel, 10 turns	0.25 dB @ 1,550 nm 1.00 dB @ 1,625 nm
Macrobending, 50 mm mandrel, 100 turns	0.03 dB @ 1,550 nm 0.03 dB @ 1,625 nm
Proof Test	689.48 N/mm ² 100000.00 psi

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