

TeraSPEED® Indoor/Outdoor, Single Jacket All-Dielectric, Riser Rated, Gel-Free, Stranded Loose Tube Cable

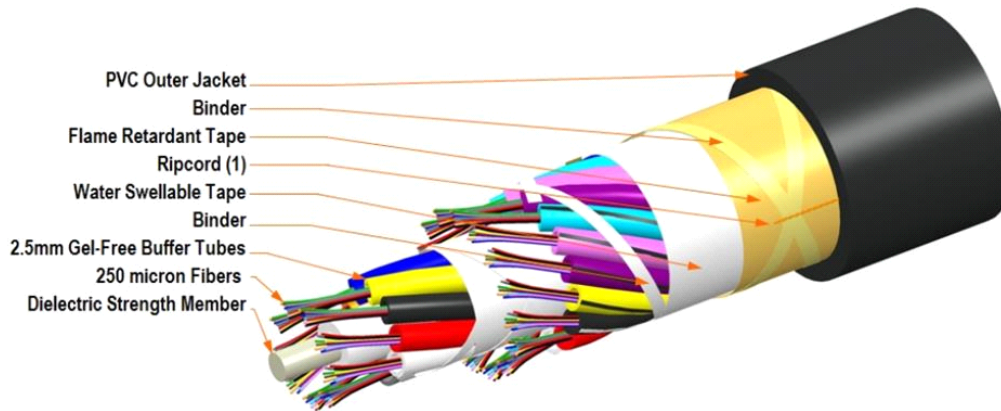
Product Classification

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

Standards And Qualifications

Cable Qualification Standards	ANSI/ICEA S-104-696 EN 187105 Telcordia GR-409
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Representative Image



General Specifications

Construction Type	Non-armored
Cable Type	Stranded loose tube
Subunit Type	Gel-free

Construction Materials

Fiber Type Solution	G.652.D and G.657.A1 , TeraSPEED® OS2
Total Fiber Count	144
Fiber Type	G.652.D and G.657.A1, TeraSPEED® OS2
Fiber Type, quantity	144
Fibers per Subunit, quantity	12
Jacket Color	Black

Jacket UV Resistance UV stabilized

Dimensions

Buffer Tube/Subunit Diameter 2.50 mm | 0.10 in
Cable Weight 264.0 kg/km | 178.0 lb/kft
Diameter Over Jacket 17.10 mm | 0.67 in
Subunit, quantity 12

Physical Specifications

Minimum Bend Radius, loaded 25.7 cm | 10.1 in
Minimum Bend Radius, unloaded 17.1 cm | 6.7 in
Tensile Load, long term, maximum 800 N | 180 lbf
Tensile Load, short term, maximum 2700 N | 607 lbf
Vertical Rise, maximum 309.0 m | 1013.8 ft

Flame Test Specifications

Flame Test Listing NEC OFNR (ETL) and c(ETL)
Flame Test Method UL 1666

Environmental Specifications

Environmental Space Riser
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 22 N/mm | 125 lb/in
Compression Test Method FOTP-41 | IEC 60794-1 E3
Flex 35 cycles
Flex Test Method FOTP-104 | IEC 60794-1 E6
Impact 5.88 N-m | 4.34 ft lb
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
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-IOLT (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 @ 1550 nm 0.23 dB/km @ 1575 nm 0.25 dB/km @ 1490 nm 0.25 dB/km @ 1625 nm 0.31 dB/km @ 1385 nm 0.34 dB/km @ 1310 nm 0.35 dB/km @ 1650 nm 0.45 dB/km @ 1270 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	9.2 μm @ 1310 nm 9.6 μm @ 1385 nm 10.4 μm @ 1550 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 @ 1310 nm 1.468 @ 1385 nm 1.468 @ 1550 nm
Polarization Mode Dispersion Link Design Value, maximum	0.04 ps/sqrt(km)
Backscatter Coefficient	-82.1 dB @ 1550 nm -79.6 dB @ 1310 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 @ 1550 nm 1.50 dB @ 1625 nm
Macrobending, 30 mm mandrel, 10 turns	0.25 dB @ 1550 nm 1.00 dB @ 1625 nm
Macrobending, 50 mm mandrel, 100 turns	0.03 dB @ 1550 nm 0.03 dB @ 1625 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