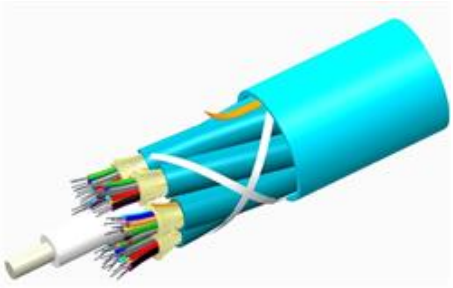
Product Specifications



CommScope® TeraSPEED® Zero Water Peak Premises Cable

CommScope® Fiber Optic Cable

The CommScope® TeraSPEED® Solution was developed to provide a fiber optic solution that is the metro/campus backbone for today's performance requirements. TeraSPEED cables provide the widest possible usable wavelength spectrum by eliminating the high loss caused by water impurities. With this 'water peak' eliminated, the entire spectrum from is available, allowing for future expansion of data rates and additional services by the use of cost effective coarse wavelength division multi-plexing (CWDM).

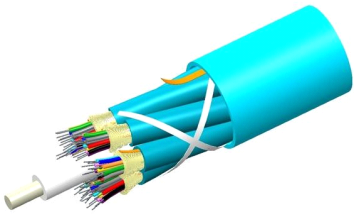
The Cable is designed to cost-effectively future-ready enterprise campus backbones for next generation equipment. The cable uses a standard color tight buffered construction. The higher fiber count cable utilize a sub-unitized design with a color-coded sub units for easy identification.

In addition to LC connectors, TeraSPEED Solution supports the duplex SC connector as well as the ST II+ connector. An extensive line of wall and rack mounted cabinets and telecommunication outlets for building entrance facilities, equipment rooms, telephone closets/floor distributors and work areas are available.

CommScope channels comprised exclusively of TeraSPEED singlemode passive products, end-to-end, are capable of delivering in accordance with application standards.

- Zero water peak singlemode fiber
- Maximizes support for lowest cost CWDM technology and delivers lowest cost path to future singlemode applications
- Supports legacy singlemode equipment and applications
- Supports legacy singlemode equipment and applications

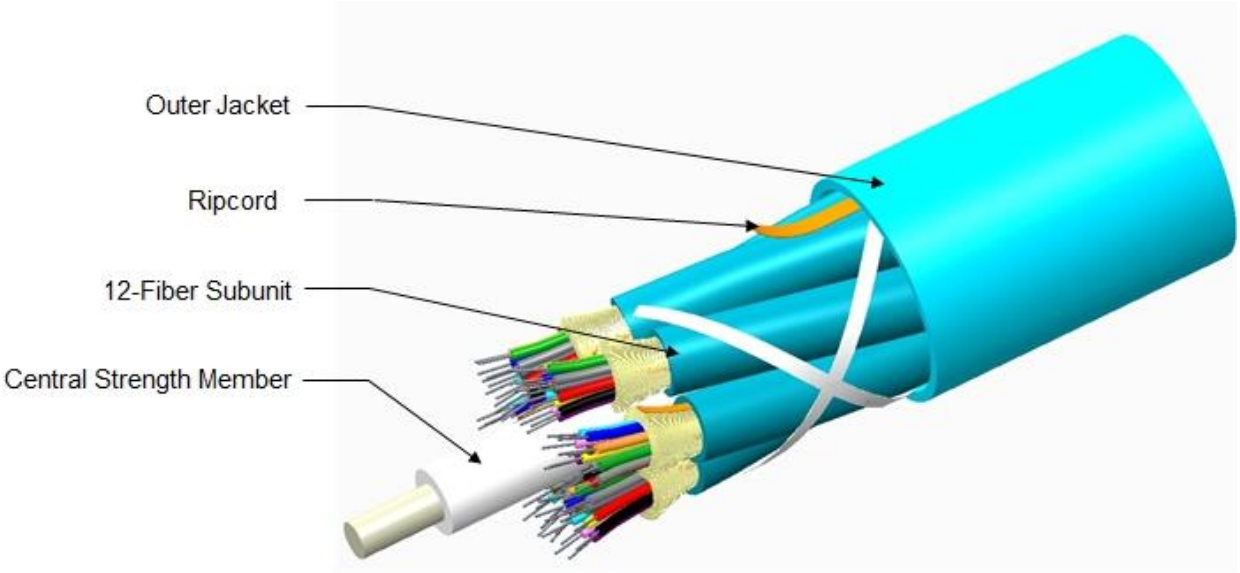
Product Specifications



760004374 | P-036-DS-8W-FMUYL

Plenum Distribution Cable, 36 fiber multi-unit with 12 fiber subunits

Representative Image



General Specifications

Cable Type	Distribution
Construction Type	Non-armored
Subunit Type	Gel-free

Construction Materials

Fiber Type Solution	TeraSPEED®, zero water peak singlemode fiber (G.652.D, G.657.A1)
Total Fiber Count	36
Fiber Type	TeraSPEED®, zero water peak singlemode fiber (G.652.D, G.657.A1)
Fiber Type, quantity	36
Fibers per Subunit, quantity	12
Jacket Color	Yellow

Dimensions

Buffer Tube/Subunit Diameter	5.77 mm | 0.23 in
Cable Weight	128.0 lb/kft | 191.0 kg/km
Diameter Over Jacket	13.53 mm | 0.53 in
Subunit, quantity	3

Product Specifications

760004374 | P-036-DS-8W-FMUYL

Physical Specifications

Minimum Bend Radius, loaded	20.3 cm | 8.0 in
Minimum Bend Radius, unloaded	13.5 cm | 5.3 in
Tensile Load, long term, maximum	90 lbf | 400 N
Tensile Load, short term, maximum	300 lbf | 1335 N
Vertical Rise, maximum	214.0 m | 702.1 ft

Flame Test Specifications

Flame Test Listing	NEC OFNP (ETL) and c(ETL)
Flame Test Method	NFPA 262

Environmental Specifications

Environmental Space	Plenum
Installation Temperature	0 °C to +70 °C (+32 °F to +158 °F)
Operating Temperature	-20 °C to +70 °C (-4 °F to +158 °F)
Storage Temperature	-40 °C to +70 °C (-40 °F to +158 °F)

Mechanical Test Specifications

Compression	10 N/mm | 57 lb/in
Compression Test Method	FOTP-41 | IEC 60794-1 E3
Flex	100 cycles
Flex Test Method	FOTP-104 | IEC 60794-1 E6
Impact	4.34 ft lb | 5.88 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

Environmental Test Specifications

Heat Age	-20 °C to +85 °C (-4 °F to +185 °F)
Heat Age Test Method	IEC 60794-1 F9
Low High Bend	-20 °C to +70 °C (-4 °F to +158 °F)
Low High Bend Test Method	FOTP-37 | IEC 60794-1 E11
Temperature Cycle	-20 °C to +70 °C (-4 °F to +158 °F)
Temperature Cycle Test Method	FOTP-3 | IEC 60794-1 F1

Qualification Specifications

Cable Qualification Standards	ANSI/ICEA S-83-596 | Telcordia GR-409

Regulatory Compliance/Certifications

Agency	Classification
RoHS 2011/65/EU	Compliant
ISO 9001:2008	Designed, manufactured and/or distributed under this quality management system

Included Products

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

TeraSPEED®

CS-8W-TB

TeraSPEED® Singlemode Fiber

Optical Specifications, Wavelength Specific

Standards Compliance	ITU-T G.652.D | ITU-T G.657.A1
Attenuation, maximum	0.50 dB/km @ 1310 nm 0.50 dB/km @ 1385 nm 0.50 dB/km @ 1490 nm 0.50 dB/km @ 1550 nm 0.50 dB/km @ 1575 nm 0.70 dB/km @ 1270 nm 0.70 dB/km @ 1625 nm 1.00 dB/km @ 1650 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
Tight Buffer Diameter	900 µm
Tight Buffer Diameter Tolerance	±40 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	0.69 N/mm² | 100.00 psi

Environmental Specifications

Heat Aging, maximum	0.05 dB @ 85 °C
Temperature Dependence, maximum	0.05 dB
Temperature Humidity Cycling, maximum	0.05 dB
Water Immersion, maximum	0.05 dB @ 23 °C

Regulatory Compliance/Certifications

Agency	Classification
ISO 9001:2008	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