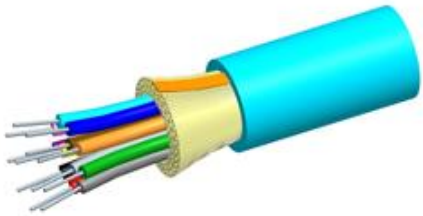


CommScope® LazrSPEED® 550 Building Cable

CommScope® Fiber-Optic Cable

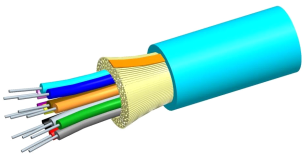
The CommScope LazrSPEED® Solution boosts performance to a blistering 10 Gb/s while reducing total system costs by eliminating expensive opto-electronics previously needed to achieve 10 Gb/s speeds on multimode fiber. The LazrSPEED 550 Building cable is constructed with tight buffer fibers, aramid strength yarn, and is available in PVC, Plenum and Low Smoke Zero Halogen outer jacket. These cables are designed for point-to-point applications as well as mid-span access, and provide a high-level of protection for fiber installed in the building environment.

The LazrSPEED Building Cables consist of laser-optimized 50/125 µm optical fibers. All LazrSPEED fibers are Differential Mode Delay (DMD) tested. The CommScope Labs use a high-resolution DMD test bench that exceeds standards and is independently certified.

- The LazrSPEED 550 Solution supports current and next generation LAN, SAN, and WAN applications
- All LazrSPEED fibers are Differential Mode Delay (DMD) tested.
- Distinctive aqua color-coding for easy identification
- Plenum (OFNP), Riser (OFNR), Low Smoke Zero Halogen (OFNR-LS) cables for use in all applications

Product Specifications

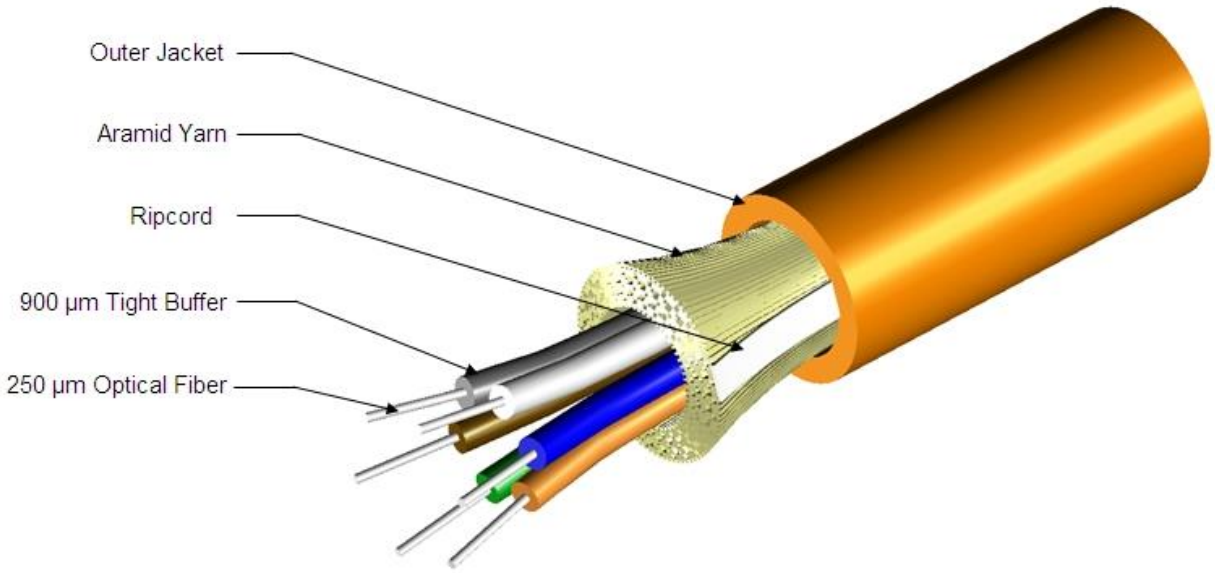
COMMSCOPE®



760057034 | P-002-DS-5K-FSUAQ

Plenum Distribution Cable, 2 fiber single-unit

Representative Image



General Specifications

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

Construction Materials

Fiber Type Solution	LazrSPEED® 550, 50 µm multimode fiber (OM4)
Total Fiber Count	2
Fiber Type	LazrSPEED® 550, 50 µm multimode fiber (OM4)
Fiber Type, quantity	2
Jacket Color	Aqua

Dimensions

Cable Weight	13.0 kg/km | 8.7 lb/kft
Diameter Over Jacket	3.76 mm | 0.15 in

Physical Specifications

Minimum Bend Radius, loaded	5.6 cm | 2.2 in
Minimum Bend Radius, unloaded	3.8 cm | 1.5 in

Tensile Load, long term, maximum	45 lbf | 200 N
Tensile Load, short term, maximum	150 lbf | 667 N
Vertical Rise, maximum	500.0 m | 1640.4 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

RoHS COMPLIANT

Included Products

CS-5K-TB (Product Component—not orderable) — LazrSPEED® 550 OM4 Bend-Insensitive Multimode Fiber

LazrSPEED® 550

CS-5K-TB

LazrSPEED® 550 OM4 Bend-Insensitive Multimode Fiber

Optical Specifications, Wavelength Specific

Standards Compliance	TIA-492AAAD (OM4)
Attenuation, maximum	1.00 dB/km @ 1300 nm 3.00 dB/km @ 850 nm
Differential Mode Delay Note	Superior to TIA-492AAAC and IEC 60793-2-10 at 850 nm
Index of Refraction	1.479 @ 1300 nm 1.483 @ 850 nm
1 Gbps Ethernet Distance	600 m @ 1300 nm 1110 m @ 850 nm
10 Gbps Ethernet Distance	550 m @ 850 nm 1804 ft @ 850 nm
Bandwidth, Laser	500 MHz-km @ 1300 nm 4700 MHz-km @ 850 nm
Bandwidth, OFL	500 MHz-km @ 1300 nm 3500 MHz-km @ 850 nm
Differential Mode Delay	0.70 ps/m @ 850 nm 0.88 ps/m @ 1300 nm
Backscatter Coefficient	-75.7 dB @ 1300 nm -68.0 dB @ 850 nm

Physical Specifications

Cladding Diameter	125.0 µm
Cladding Diameter Tolerance	±1.0 µm
Cladding Non-Circularity, maximum	1.0 %
Coating Diameter (Colored)	254 µm
Coating Diameter (Uncolored)	245 µm
Coating Diameter Tolerance (Colored)	±7 µm
Coating Diameter Tolerance (Uncolored)	±10 µm
Tight Buffer Diameter	900 µm
Tight Buffer Diameter Tolerance	±40 µm
Coating/Cladding Concentricity Error, maximum	6 µm
Core Diameter	50.0 µm
Core Diameter Tolerance	±2.5 µm
Core/Clad Offset, maximum	1.5 µm

Optical Specifications, General

Numberical Aperture Tolerance	±0.015
Numerical Aperture	0.200
Point Defects, maximum	0.15 dB
Zero Dispersion Slope, maximum	0.105 ps/[km-nm-nm]
Zero Dispersion Wavelength, maximum	1316 nm
Zero Dispersion Wavelength, minimum	1297 nm

Product Specifications

CS-5K-TB | CS-5K-TB

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	18
Macrobending, 15 mm mandrel, 2 turns	0.20 dB @ 850 nm 0.50 dB @ 1300 nm
Macrobending, 30 mm mandrel, 2 turns	0.10 dB @ 850 nm 0.30 dB @ 1300 nm
Macrobending, 75 mm mandrel, 100 turns	0.50 dB @ 850 nm 0.50 dB @ 1300 nm
Proof Test	0.69 N/mm² | 100.00 psi

Environmental Specifications

Heat Aging, maximum	0.20 dB @ 85 °C
Temperature Dependence, maximum	0.10 dB
Temperature Humidity Cycling, maximum	0.20 dB
Water Immersion, maximum	0.20 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