



Fiber Indoor/Outdoor cable, LazrSPEED®, Plenum Distribution Cable, 48 fiber multi-unit with 12 fiber subunits, Gel-free, Multimode OM4, Feet jacket marking, Black jacket color

## Product Classification

Regional Availability	Asia   Australia/New Zealand   Latin America   Middle East /Africa   North America
Portfolio	CommScope®
Product Type	Fiber indoor/outdoor cable
Product Series	P-OD

## General Specifications

Cable Type	Distribution
Construction Type	Non-armored
Subunit Type	Gel-free
Jacket Color	Black
Jacket Marking	Feet
Subunit, quantity	4
Fibers per Subunit, quantity	12
Total Fiber Count	48

## Dimensions

Buffer Tube/Subunit Diameter	6.9 mm   0.272 in
Diameter Over Jacket	18.9 mm   0.744 in

## Representative Image



## Mechanical Specifications

Minimum Bend Radius, loaded	283 mm   11.142 in
Minimum Bend Radius, unloaded	189 mm   7.441 in
Tensile Load, long term, maximum	1068 N   240.096 lbf
Tensile Load, short term, maximum	3560 N   800.32 lbf
Compression	22 N/mm   125.623 lb/in
Compression Test Method	FOTP-41   IEC 60794-1 E3
Flex	100 cycles
Flex Test Method	FOTP-104   IEC 60794-1 E6
Impact	5.88 N-m   52.042 in 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
Vertical Rise, maximum	330 m   1,082.677 ft

## Optical Specifications

Fiber Type	OM4, LazrSPEED® 550   OM4, LazrSPEED® 550
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## Environmental Specifications

Installation temperature	-30 °C to +70 °C (-22 °F to +158 °F)
Operating Temperature	-25 °C to +70 °C (-13 °F to +158 °F)
Storage Temperature	-40 °C to +75 °C (-40 °F to +167 °F)

Cable Qualification Standards	ANSI/ICEA S-104-696   Telcordia GR-20 (water penetration)   Telcordia GR-409
Environmental Space	Plenum
Flame Test Listing	NEC OFNP (ETL) and c(ETL)
Flame Test Method	NFPA 130   NFPA 262
Jacket UV Resistance	UV stabilized
Water Penetration	24 h
Water Penetration Test Method	FOTP-82   IEC 60794-1 F5

## Environmental Test Specifications

Cable Freeze Test Method	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	-40 °C to +70 °C (-40 °F to +158 °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

## Packaging and Weights

Cable weight	330 kg/km   221.75 lb/kft
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## Regulatory Compliance/Certifications

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

## Included Products

CS-5K-TB	– LazrSPEED® 550 OM4 Bend-Insensitive Multimode Fiber
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## \* Footnotes

Operating Temperature	Specification applicable to non-terminated bulk fiber cable
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## LazrSPEED® 550 OM4 Bend-Insensitive Multimode Fiber

### LazrSPEED® 550

#### Product Classification

Portfolio	CommScope®
Product Type	Optical fiber

#### General Specifications

Cladding Diameter	125 µm
Cladding Diameter Tolerance	±5 µm
Cladding Non-Circularity, maximum	1 %
Coating Diameter (Colored)	254 µm
Coating Diameter (Uncolored)	245 µm
Coating Diameter Tolerance (Colored)	±7 µm
Coating Diameter Tolerance (Uncolored)	±10 µm
Coating/Cladding Concentricity Error, maximum	12 µm
Core Diameter	50 µm
Core Diameter Tolerance	±2.5 µm
Core/Clad Offset, maximum	1.5 µm
Proof Tensile Stress	100,000 psi (0.69 GPa)
Tight Buffer Diameter	900 µm
Tight Buffer Diameter Tolerance	±40 µm

#### Mechanical Specifications

Macrobending, 15 mm Ø mandrel, 2 turns	0.20 dB @ 850 nm   0.50 dB @ 1,300 nm
Macrobending, 30 mm Ø mandrel, 2 turns	0.10 dB @ 850 nm   0.30 dB @ 1,300 nm
Macrobending, 75 mm Ø mandrel, 100 turns	0.50 dB @ 1,300 nm   0.50 dB @ 850 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	18

# CS-5K-TB

## Optical Specifications

Numerical Aperture	0.2
Numerical Aperture Tolerance	±0.015
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

## Optical Specifications, Wavelength Specific

1 Gbps Ethernet Distance	1,110 m @ 850 nm   600 m @ 1,300 nm
10 Gbps Ethernet Distance	550 m @ 850 nm
Attenuation, maximum	1.00 dB/km @ 1,300 nm   3.00 dB/km @ 850 nm
Backscatter Coefficient	-68.0 dB @ 850 nm   -75.7 dB @ 1,300 nm
Bandwidth, Laser, minimum	4,700 MHz-km @ 850 nm   500 MHz-km @ 1,300 nm
Bandwidth, OFL, minimum	3,500 MHz-km @ 850 nm   500 MHz-km @ 1,300 nm
Differential Mode Delay	0.70 ps/m @ 850 nm
Differential Mode Delay Note	Superior to ANSI/TIA TIA-492AAAF and IEC 60793-2-10 at 850 nm
Index of Refraction	1.479 @ 1,300 nm   1.483 @ 850 nm
Standards Compliance	ANSI/TIA-492AAAF (OM4)   IEC 60793-2-10, A1 (OM4)

## Environmental Specifications

Heat Aging, maximum	0.20 dB/km @ 85 °C
Temperature Dependence, maximum	0.1 dB/km
Temperature Humidity Cycling, maximum	0.2 dB/km
Water Immersion, maximum	0.20 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)

# CS-5K-TB

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up to 95% relative humidity