

Fiber indoor cable, TeraSPEED® Plenum Distribution, 48 fiber multi-unit with 12 fiber subunits, Composite OM5 and G.652.D and G.657.A1, Gel-free, Feet jacket marking, Lime green jacket color

## Product Classification

### Regional Availability

Asia | Australia/New Zealand | Latin America | Middle East /Africa | North America

### Portfolio

CommScope®

### Product Type

Fiber indoor cable

### Product Series

P-DS

## General Specifications

### Cable Type

Distribution

### Construction Type

Non-armored

### Subunit Type

Gel-free

### Jacket Color

Lime green

### Jacket Marking

Feet

### Subunit, quantity

4

### Fibers per Subunit, quantity

12

### Composite Fiber Count

24 + 24

### Total Fiber Count

48

## Dimensions

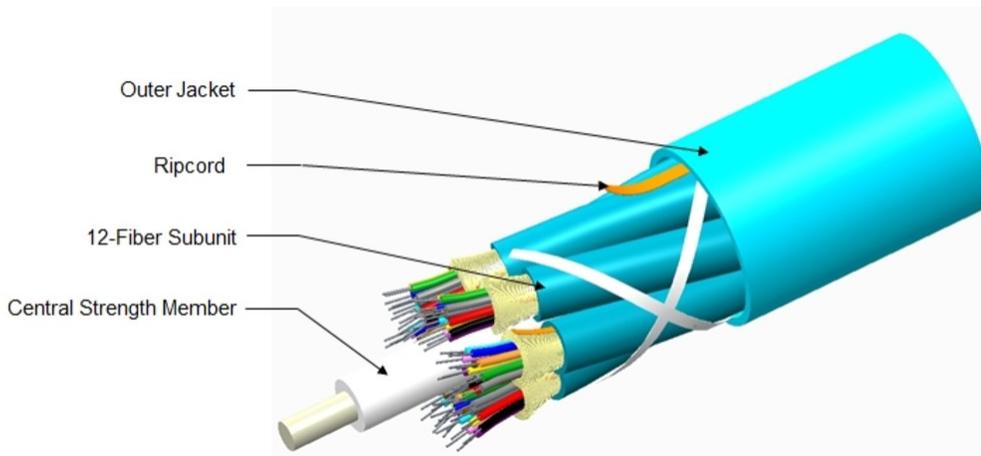
### Buffer Tube/Subunit Diameter

5.77 mm | 0.227 in

### Diameter Over Jacket

14.91 mm | 0.587 in

## Representative Image



## Mechanical Specifications

<b>Minimum Bend Radius, loaded</b>	224 mm   8.819 in
<b>Minimum Bend Radius, unloaded</b>	149 mm   5.866 in
<b>Tensile Load, long term, maximum</b>	400 N   89.924 lbf
<b>Tensile Load, short term, maximum</b>	1335 N   300.12 lbf
<b>Compression</b>	10 N/mm   57.101 lb/in
<b>Compression Test Method</b>	FOTP-41   IEC 60794-1 E3
<b>Flex</b>	100 cycles
<b>Flex Test Method</b>	FOTP-104   IEC 60794-1 E6
<b>Impact</b>	5.88 N-m   52.042 in lb
<b>Impact Test Method</b>	FOTP-25   IEC 60794-1 E4
<b>Strain</b>	See long and short term tensile loads
<b>Strain Test Method</b>	FOTP-33   IEC 60794-1 E1
<b>Twist</b>	10 cycles
<b>Twist Test Method</b>	FOTP-85   IEC 60794-1 E7
<b>Vertical Rise, maximum</b>	199 m   652.887 ft

## Optical Specifications

<b>Fiber Type</b>	Composite MM/SM   G.652.D and G.657.A1, TeraSPEED®   OM5, LazrSPEED® wideband
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## Environmental Specifications

<b>Installation temperature</b>	0 °C to +70 °C (+32 °F to +158 °F)
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<b>Operating Temperature</b>	-20 °C to +70 °C (-4 °F to +158 °F)
<b>Storage Temperature</b>	-40 °C to +70 °C (-40 °F to +158 °F)
<b>Cable Qualification Standards</b>	ANSI/ICEA S-83-596   Telcordia GR-409
<b>Environmental Space</b>	Plenum
<b>Flame Test Listing</b>	NEC OFNP (ETL) and c(ETL)
<b>Flame Test Method</b>	NFPA 130   NFPA 262

## Environmental Test Specifications

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

## Packaging and Weights

<b>Cable weight</b>	205 kg/km   137.754 lb/kft
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## Regulatory Compliance/Certifications

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

## Included Products

- CS-5G-TB – LazrSPEED® OM5 WideBand Multimode Fiber
- CS-8W-TB – TeraSPEED® Singlemode Fiber

## \* Footnotes

**Operating Temperature** Specification applicable to non-terminated bulk fiber cable

## LazrSPEED®

### LazrSPEED® OM5 WideBand Multimode Fiber

#### Product Classification

<b>Portfolio</b>	CommScope®
<b>Product Type</b>	Optical fiber

#### General Specifications

<b>Cladding Diameter</b>	125 µm
<b>Cladding Diameter Tolerance</b>	±5 µm
<b>Cladding Non-Circularity, maximum</b>	0.7 %
<b>Coating Diameter (Colored)</b>	254 µm
<b>Coating Diameter (Uncolored)</b>	242 µm
<b>Coating Diameter Tolerance (Colored)</b>	±7 µm
<b>Coating Diameter Tolerance (Uncolored)</b>	±5 µm
<b>Coating/Cladding Concentricity Error, maximum</b>	12 µm
<b>Core Diameter</b>	50 µm
<b>Core Diameter Tolerance</b>	±2.5 µm
<b>Core/Clad Offset, maximum</b>	1 µm
<b>Proof Tensile Stress</b>	100,000 psi (0.69 GPa)
<b>Tight Buffer Diameter</b>	900 µm
<b>Tight Buffer Diameter Tolerance</b>	±40 µm

#### Mechanical Specifications

<b>Macrobending, 15 mm Ø mandrel, 2 turns</b>	0.20 dB @ 850 nm   0.50 dB @ 1,300 nm
<b>Macrobending, 30 mm Ø mandrel, 2 turns</b>	0.10 dB @ 850 nm   0.30 dB @ 1,300 nm
<b>Macrobending, 75 mm Ø mandrel, 100 turns</b>	0.50 dB @ 1,300 nm   0.50 dB @ 850 nm
<b>Coating Strip Force, maximum</b>	4.5 N   1.012 lbf
<b>Coating Strip Force, minimum</b>	0.9 N   0.202 lbf
<b>Dynamic Fatigue Parameter, minimum</b>	18

# CS-5G-TB

## Optical Specifications

<b>Numerical Aperture</b>	0.2
<b>Numerical Aperture Tolerance</b>	±0.010
<b>Point Defects, maximum</b>	0.15 dB
<b>Zero Dispersion Slope, maximum (OM5)</b>	$-412/(\lambda 0/840)^4$ ps/[km-nm-nm]
<b>Zero Dispersion Wavelength, maximum</b>	1328 nm
<b>Zero Dispersion Wavelength, minimum</b>	1297 nm

## Optical Specifications, Wavelength Specific

<b>1 Gbps Ethernet Distance</b>	1,110 m @ 850 nm   600 m @ 1,300 nm
<b>10 Gbps Ethernet Distance</b>	550 m @ 850 nm
<b>Attenuation, maximum</b>	1.00 dB/km @ 1,300 nm   2.20 dB/km @ 953 nm   3.00 dB/km @ 850 nm
<b>Bandwidth, Laser, minimum</b>	2,600 MHz-km @ 953 nm   4,700 MHz-km @ 850 nm   500 MHz-km @ 1,300 nm
<b>Bandwidth, OFL, minimum</b>	1,950 MHz-km @ 953 nm   3,500 MHz-km @ 850 nm   500 MHz-km @ 1,300 nm
<b>Index of Refraction</b>	1.478 @ 1,300 nm   1.483 @ 850 nm
<b>Standards Compliance</b>	ANSI/TIA-492AAAF (OM5)   ANSI/TIA-568.3 (OM5)   IEC 60793-2-10, A1 (OM5)   ISO/IEC 11801-1 cabled optical fiber performance category OM5

## Environmental Specifications

<b>Heat Aging, maximum</b>	0.10 dB/km @ 85 °C
<b>Temperature Dependence, maximum</b>	0.1 dB/km
<b>Temperature Humidity Cycling, maximum</b>	0.1 dB/km
<b>Water Immersion, maximum</b>	0.10 dB/km @ 23 °C

## Regulatory Compliance/Certifications

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

## \* Footnotes

<b>Temperature Dependence, maximum</b>	Temperature dependence is conducted at -60 °C to +85 °C (-76 °F to +185 °F)
<b>Temperature Humidity Cycling, maximum</b>	Temperature humidity cycling is conducted at -10 °C to +85 °C (+14 °F to +185 °F)

# CS-5G-TB

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up to 95% relative humidity

## TeraSPEED®

## TeraSPEED® Singlemode Fiber

### Product Classification

<b>Portfolio</b>	CommScope®
<b>Product Type</b>	Optical fiber

### General Specifications

<b>Cladding Diameter</b>	125 µm
<b>Cladding Diameter Tolerance</b>	±0.7 µm
<b>Cladding Non-Circularity, maximum</b>	0.7 %
<b>Coating Diameter (Colored)</b>	249 µm
<b>Coating Diameter (Uncolored)</b>	242 µm
<b>Coating Diameter Tolerance (Colored)</b>	±13 µm
<b>Coating Diameter Tolerance (Uncolored)</b>	±5 µm
<b>Coating/Cladding Concentricity Error, maximum</b>	12 µm
<b>Core Diameter</b>	8.3 µm
<b>Core/Clad Offset, maximum</b>	0.5 µm
<b>Proof Tensile Stress</b>	100,000 psi (0.69 GPa)
<b>Tight Buffer Diameter</b>	900 µm
<b>Tight Buffer Diameter Tolerance</b>	±40 µm

### Dimensions

<b>Fiber Curl, minimum</b>	4 m   13.123 ft
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### Mechanical Specifications

<b>Macrobending, 20 mm Ø mandrel, 1 turn</b>	0.75 dB @ 1,550 nm   1.50 dB @ 1,625 nm
<b>Macrobending, 30 mm Ø mandrel, 10 turns</b>	0.25 dB @ 1,550 nm   1.00 dB @ 1,625 nm
<b>Macrobending, 60 mm Ø mandrel, 100 turns</b>	0.05 dB @ 1,550 nm   0.05 dB @ 1,625 nm
<b>Coating Strip Force, maximum</b>	8.9 N   2.001 lbf
<b>Coating Strip Force, minimum</b>	1.3 N   0.292 lbf

# CS-8W-TB

**Dynamic Fatigue Parameter, minimum** 20

## Optical Specifications

**Cabled Cutoff Wavelength, maximum** 1260 nm

**Point Defects, maximum** 0.1 dB

**Zero Dispersion Slope, maximum** 0.092 ps/[km-nm-nm]

**Zero Dispersion Wavelength, maximum** 1324 nm

**Zero Dispersion Wavelength, minimum** 1300 nm

## Optical Specifications, Wavelength Specific

**Attenuation, maximum** 0.50 dB/km @ 1,310 nm | 0.50 dB/km @ 1,385 nm | 0.50 dB/km @ 1,490 nm | 0.50 dB/km @ 1,550 nm | 0.50 dB/km @ 1,575 nm | 0.70 dB/km @ 1,270 nm

**Backscatter Coefficient** -79.6 dB @ 1,310 nm | -82.1 dB @ 1,550 nm

**Dispersion, maximum** 18 ps(nm-km) at 1550 nm | 3.5 ps(nm-km) from 1285 nm to 1330 nm at 1310 nm

**Index of Refraction** 1.467 @ 1,310 nm | 1.467 @ 1,385 nm | 1.468 @ 1,550 nm

**Mode Field Diameter** 10.4  $\mu\text{m}$  @ 1,550 nm | 9.2  $\mu\text{m}$  @ 1,310 nm | 9.6  $\mu\text{m}$  @ 1,385 nm

**Mode Field Diameter Tolerance**  $\pm 0.4 \mu\text{m}$  @ 1310 nm |  $\pm 0.5 \mu\text{m}$  @ 1550 nm |  $\pm 0.6 \mu\text{m}$  @ 1385 nm

**Polarization Mode Dispersion Link Design Value, maximum** 0.04 ps/sqrt(km)

**Standards Compliance** ITU-T G.652.D | ITU-T G.657.A1 | TIA-492CAAB (OS1a)

## 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

# CS-8W-TB

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**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