

TeraSPEED® Riser Distribution Cable, 12 fiber single-unit

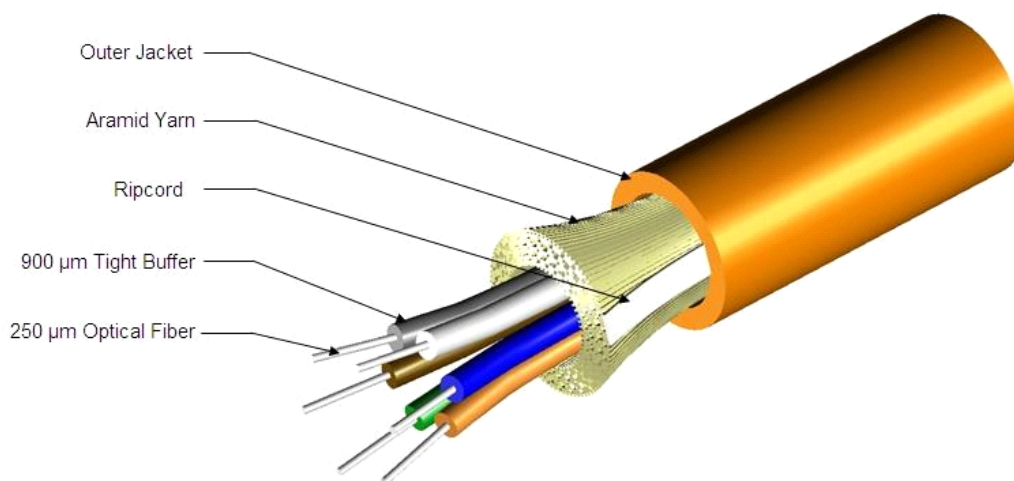
## Product Classification

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

## Standards And Qualifications

<b>Cable Qualification Standards</b>	ANSI/ICEA S-83-596   Telcordia GR-409
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## Representative Image



## General Specifications

<b>Cable Type</b>	Distribution
<b>Construction Type</b>	Non-armored
<b>Subunit Type</b>	Gel-free

## Construction Materials

<b>Fiber Type Solution</b>	Composite MM/SM   G.652.D and G.657.A1 , TeraSPEED®   OM3, LazrSPEED® 300
<b>Total Fiber Count</b>	12

<b>Fiber Type</b>	G.652.D and G.657.A1, TeraSPEED®
<b>Fiber Type, quantity</b>	4
<b>Jacket Color</b>	Aqua
<b>Second Fiber Type</b>	OM3, LazrSPEED® 300
<b>Second Fiber Type, quantity</b>	8

## Dimensions

<b>Cable Weight</b>	22.0 lb/kft   32.0 kg/km
<b>Diameter Over Jacket</b>	5.95 mm   0.23 in

## Physical Specifications

<b>Minimum Bend Radius, loaded</b>	8.9 cm   3.5 in
<b>Minimum Bend Radius, unloaded</b>	5.9 cm   2.3 in
<b>Tensile Load, long term, maximum</b>	45 lbf   200 N
<b>Tensile Load, short term, maximum</b>	150 lbf   667 N
<b>Vertical Rise, maximum</b>	500.0 m   1640.4 ft

## Flame Test Specifications

<b>Flame Test Listing</b>	NEC OFNR (ETL) and c(ETL)
<b>Flame Test Method</b>	UL 1666

## Environmental Specifications

<b>Environmental Space</b>	Riser
<b>Installation Temperature</b>	-20 °C to +70 °C (-4 °F to +158 °F)
<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)

## Mechanical Test Specifications

<b>Compression</b>	10 N/mm   57 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>	4.34 ft lb   5.88 N-m
<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

## 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

## Regulatory Compliance/Certifications

<b>Agency</b>	<b>Classification</b>
RoHS 2011/65/EU	Compliant
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system



## Included Products

CS-5L-TB (Product Component—not orderable) — LazrSPEED® 300 OM3 Bend-Insensitive Multimode Fiber

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

## \* Footnotes

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

## LazrSPEED® 300 OM3 Bend-Insensitive Multimode Fiber

## LazrSPEED® 300

## Product Classification

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

## Optical Specifications, Wavelength Specific

<b>Standards Compliance</b>	TIA-492AAAC (OM3)
<b>Attenuation, maximum</b>	1.00 dB/km @ 1,300 nm   3.00 dB/km @ 850 nm
<b>Differential Mode Delay Note</b>	Superior to TIA-492AAAC and IEC 60793-2-10 at 850 nm
<b>Index of Refraction</b>	1.479 @ 1,300 nm   1.483 @ 850 nm
<b>1 Gbps Ethernet Distance</b>	1,020 m @ 850 nm   600 m @ 1,300 nm
<b>10 Gbps Ethernet Distance</b>	300 m @ 850 nm
<b>Bandwidth, Laser, minimum</b>	2,000 MHz-km @ 850 nm   500 MHz-km @ 1,300 nm
<b>Bandwidth, OFL, minimum</b>	1,500 MHz-km @ 850 nm   500 MHz-km @ 1,300 nm
<b>Differential Mode Delay</b>	0.70 ps/m @ 850 nm   0.88 ps/m @ 1,300 nm
<b>Backscatter Coefficient</b>	-68.0 dB @ 850 nm   -75.7 dB @ 1,300 nm

## Physical Specifications

<b>Cladding Diameter</b>	125.0 µm
<b>Cladding Diameter Tolerance</b>	±0.8 µm
<b>Cladding Non-Circularity, maximum</b>	1.0 %
<b>Coating Diameter (Colored)</b>	254 µm
<b>Coating Diameter (Uncolored)</b>	245 µm
<b>Coating Diameter Tolerance (Colored)</b>	±7 µm
<b>Coating Diameter Tolerance (Uncolored)</b>	±10 µm
<b>Tight Buffer Diameter</b>	900 µm
<b>Tight Buffer Diameter Tolerance</b>	±40 µm
<b>Coating/Cladding Concentricity Error, maximum</b>	12 µm
<b>Core Diameter</b>	50.0 µm
<b>Core Diameter Tolerance</b>	±2.5 µm
<b>Core/Clad Offset, maximum</b>	1.5 µm

## Optical Specifications, General

<b>Numerical Aperture</b>	0.200
<b>Numerical Aperture Tolerance</b>	±0.015
<b>Point Defects, maximum</b>	0.15 dB

<b>Zero Dispersion Slope, maximum</b>	0.105 ps/[km-nm-nm]
<b>Zero Dispersion Wavelength, maximum</b>	1316 nm
<b>Zero Dispersion Wavelength, minimum</b>	1297 nm

## Mechanical Specifications

<b>Coating Strip Force, maximum</b>	8.9 N   2.0 lbf
<b>Coating Strip Force, minimum</b>	1.3 N   0.3 lbf
<b>Dynamic Fatigue Parameter, minimum</b>	18
<b>Macrobanding, 15 mm mandrel, 2 turns</b>	0.20 dB @ 850 nm   0.50 dB @ 1,300 nm
<b>Macrobanding, 30 mm mandrel, 2 turns</b>	0.10 dB @ 850 nm   0.30 dB @ 1,300 nm
<b>Proof Test</b>	689.48 N/mm <sup>2</sup>   100000.00 psi

## Environmental Specifications

<b>Heat Aging, maximum</b>	0.20 dB/km @ 85 °C
<b>Temperature Dependence, maximum</b>	0.10 dB/km
<b>Temperature Humidity Cycling, maximum</b>	0.20 dB/km
<b>Water Immersion, maximum</b>	0.20 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) up to 95% relative humidity

# TeraSPEED® TeraSPEED® Singlemode Fiber

## Product Classification

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

## Optical Specifications, Wavelength Specific

<b>Standards Compliance</b>	ITU-T G.652.D   ITU-T G.657.A1
<b>Attenuation, maximum</b>	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
<b>Dispersion, maximum</b>	18 ps/(nm-km) at 1550 nm   3.5 ps/(nm-km) from 1285 nm to 1330 nm at 1310 nm
<b>Mode Field Diameter</b>	10.4 μm @ 1,550 nm   9.2 μm @ 1,310 nm   9.6 μm @ 1,385 nm
<b>Mode Field Diameter Tolerance</b>	±0.3 μm @ 1310 nm   ±0.5 μm @ 1550 nm   ±0.6 μm @ 1385 nm
<b>Index of Refraction</b>	1.467 @ 1,310 nm   1.468 @ 1,385 nm   1.468 @ 1,550 nm
<b>Polarization Mode Dispersion Link Design Value, maximum</b>	0.04 ps/sqrt(km)
<b>Backscatter Coefficient</b>	-79.6 dB @ 1,310 nm   -82.1 dB @ 1,550 nm

## Physical Specifications

<b>Cladding Diameter</b>	125.0 μm
<b>Cladding Diameter Tolerance</b>	±0.7 μm
<b>Cladding Non-Circularity, maximum</b>	0.7 %
<b>Coating Diameter (Colored)</b>	253 μm
<b>Coating Diameter (Uncolored)</b>	240 μm
<b>Coating Diameter Tolerance (Colored)</b>	±7 μm
<b>Coating Diameter Tolerance (Uncolored)</b>	±5 μm
<b>Tight Buffer Diameter</b>	900 μm
<b>Tight Buffer Diameter Tolerance</b>	±40 μm
<b>Coating/Cladding Concentricity Error, maximum</b>	12 μm
<b>Core/Clad Offset, maximum</b>	0.5 μm

## Optical Specifications, General

<b>Cabled Cutoff Wavelength, maximum</b>	1260 nm
<b>Point Defects, maximum</b>	0.10 dB
<b>Zero Dispersion Slope, maximum</b>	0.090 ps/[km-nm-nm]
<b>Zero Dispersion Wavelength, maximum</b>	1322 nm

**Zero Dispersion Wavelength, minimum** 1302 nm

## Mechanical Specifications

<b>Coating Strip Force, maximum</b>	8.9 N   2.0 lbf
<b>Coating Strip Force, minimum</b>	1.3 N   0.3 lbf
<b>Dynamic Fatigue Parameter, minimum</b>	20
<b>Fiber Curl, minimum</b>	4.0 m   13.1 ft
<b>Macrobending, 20 mm mandrel, 1 turn</b>	0.75 dB @ 1,550 nm   1.50 dB @ 1,625 nm
<b>Macrobending, 30 mm mandrel, 10 turns</b>	0.25 dB @ 1,550 nm   1.00 dB @ 1,625 nm
<b>Macrobending, 50 mm mandrel, 100 turns</b>	0.03 dB @ 1,550 nm   0.03 dB @ 1,625 nm
<b>Proof Test</b>	689.48 N/mm <sup>2</sup>   100000.00 psi

## Environmental Specifications

<b>Heat Aging, maximum</b>	0.05 dB/km @ 85 °C
<b>Temperature Dependence, maximum</b>	0.05 dB/km
<b>Temperature Humidity Cycling, maximum</b>	0.05 dB/km
<b>Water Immersion, maximum</b>	0.05 dB/km @ 23 °C

## Regulatory Compliance/Certifications

Agency	Classification
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## \* Footnotes

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