

## FDWLCLC42

### TeraSPEED® LC to LC, Fiber Patch Cord, 1.6 mm Duplex, Plenum

#### Construction Materials

Fiber Type	TeraSPEED®, zero water peak singlemode fiber (G.652.D or G.652.D   OS2)
Total Fibers, quantity	2

#### Dimensions

Cord Length, maximum	999 ft   999 m
Cord Length, minimum	1 ft   1 m
Diameter Over Jacket	1.60 mm   0.06 in
Ordering Note	For lengths greater than 999 ft (304 m), orders must be in meters   Minimum length may vary based on cable configuration

#### Environmental Specifications

Environmental Space	Plenum
Operating Temperature	-10 °C to +60 °C (+14 °F to +140 °F)

#### General Specifications

Color, connector A	Blue
Color, connector B	Blue
Construction Type	Duplex patch cord
Interface, connector A	LC
Interface, connector B	LC
Interface Feature, connector A	Standard
Interface Feature, connector B	Standard

#### Mechanical Specifications

Cable Retention Strength, maximum	4.40 lb @ 90 ° 11.24 lb @ 0 °
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#### 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

P-002-ZC-8W-F16 (Product Component—not orderable) — 1.6mm Plenum Zipcord Cable

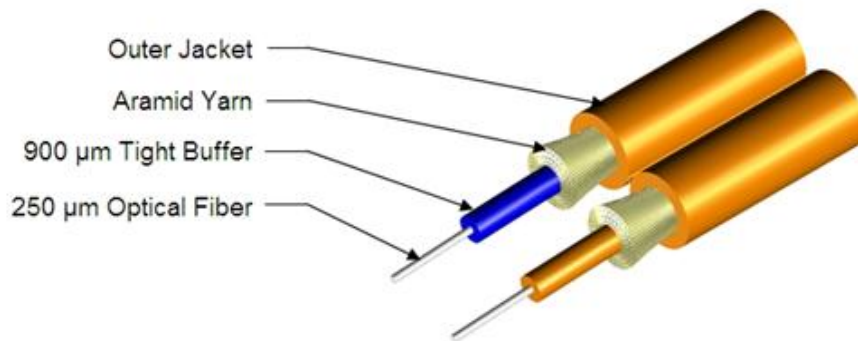
- CS-8W-TB (Product Component—not orderable) — TeraSPEED® Singlemode Fiber

460125206 (Product Component—not orderable) — Pre-Radiused LC Connector duplex for 1.6 mm Fiber, single-mode

P-002-ZC-8W-F16

**1.6mm Plenum Zipcord Cable**

## Representative Image



## General Specifications

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

## Construction Materials

Fiber Type Solution	TeraSPEED®, zero water peak singlemode fiber (G.652.D or G.652.D   OS2)
Total Fiber Count	2
Fiber Type	TeraSPEED®, zero water peak singlemode fiber (G.652.D or G.652.D   OS2)
Fiber Type, quantity	2

## Dimensions

Cable Weight	4.0 lb/kft   6.0 kg/km
Height Over Jacket	1.70 mm   0.07 in
Width Over Jacket	3.50 mm   0.14 in

## Physical Specifications

Minimum Bend Radius, loaded	5.0 cm   2.0 in
Minimum Bend Radius, unloaded	3.0 cm   1.2 in
Tensile Load, long term, maximum	15 lbf   67 N
Tensile Load, short term, maximum	50 lbf   222 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

P-002-ZC-8WF16

## 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 60794-1-2, Section 7
Flex	300 cycles
Flex Test Method	FOTP-104   IEC 60794-1-2, Section 10
Impact	0.55 ft lb   0.74 N-m
Impact Test Method	FOTP-25   IEC 60794-1-2, Section 8
Strain	See long and short term tensile loads
Strain Test Method	FOTP-33   IEC 60794-1-2, Section 5
Twist	10 cycles
Twist Test Method	FOTP-85   IEC 60794-1-2, Section 11

## Environmental Test Specifications

Heat Age	-20 °C to +85 °C (-4 °F to +185 °F)
Heat Age Test Method	Not applicable
Low High Bend	-20 °C to +70 °C (-4 °F to +158 °F)
Low High Bend Test Method	FOTP-28   IEC 60794-1-2, Section 28
Temperature Cycle	-20 °C to +70 °C (-4 °F to +158 °F)
Temperature Cycle Test Method	FOTP-3   IEC 60794-1-2, Section 22

## Qualification Specifications

Cable Qualification Standards	ANSI/ICEA S-83-596-2001   Telcordia GR-409-CORE Issue 2
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## Regulatory Compliance/Certifications

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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
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   3.2 ps(nm-km) from 1285 nm to 1330 nm at 1310 nm
Mode Field Diameter	9.2 $\mu\text{m}$ @ 1310 nm 9.6 $\mu\text{m}$ @ 1385 nm 10.4 $\mu\text{m}$ @ 1550 nm
Mode Field Diameter Tolerance	$\pm 0.3 \mu\text{m}$ @ 1310 nm   $\pm 0.5 \mu\text{m}$ @ 1550 nm   $\pm 0.6 \mu\text{m}$ @ 1385 nm
Index of Refraction	1.467 @ 1310 nm 1.468 @ 1385 nm 1.468 @ 1550 nm
Polarization Mode Dispersion Link Design Value, maximum	0.06 ps/sqrt(km)
Backscatter Coefficient	-82.1 dB @ 1550 nm -79.6 dB @ 1310 nm

### Physical Specifications

Cladding Diameter	125.0 $\mu\text{m}$
Cladding Diameter Tolerance	$\pm 0.7 \mu\text{m}$
Cladding Non-Circularity, maximum	1 %
Coating Diameter (Colored)	254 $\mu\text{m}$
Coating Diameter (Uncolored)	245 $\mu\text{m}$
Coating Diameter Tolerance (Colored)	$\pm 7 \mu\text{m}$
Coating Diameter Tolerance (Uncolored)	$\pm 10 \mu\text{m}$
Coating/Cladding Concentricity Error, maximum	12 $\mu\text{m}$
Core/Clad Offset, maximum	0.5 $\mu\text{m}$

### 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

CS-8W-TB | CS-8W-TB

Dynamic Fatigue Parameter, minimum	20 nd
Fiber Curl, minimum	4.0 m   13.1 ft
Macrobending, 32 mm mandrel, 1 turn	0.05 dB @ 1550 nm
Macrobending, 50 mm mandrel, 100 turns	0.05 dB @ 1550 nm
Proof Test	0.69 N/mm <sup>2</sup>   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

460125206

**Pre-Radiused LC Connector duplex for 1.6 mm Fiber, single-mode**

## Construction Materials

Fiber Type	TeraSPEED®, zero water peak singlemode fiber (G.652.D or G.652.D   OS2)
Ferrule Geometry	Pre-radiused
Ferrule Material	Zirconia

## Dimensions

Compatible Cable Diameter	1.6 mm   0.1 in
Length	50.30 mm   1.98 in

## General Specifications

Interface	LC
Body Style	Duplex
Interface Feature	Standard
Color	Blue
Package Quantity	2

## Mechanical Specifications

Cable Retention Strength, maximum	5.10 kg @ 0 ° 11.24 lb @ 0 °
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## Optical Performance

Insertion Loss, typical	0.20 dB
Return Loss, minimum	55.0 dB
Insertion Loss Change, mating	0.30 dB
Insertion Loss Change, temperature	0.30 dB

## Optical Specifications

Optical Components Standard	ANSI/TIA-568-C.3
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## \* Footnotes

Insertion Loss Change, mating	Maximum insertion loss change after 500 matings
Insertion Loss Change, temperature	Maximum insertion loss change from -10 °C to +60 °C (+14 °F to +140 °F)