



Fiber Indoor/Outdoor cable, OptiSPEED® Low Smoke Zero Halogen Riser Distribution, Gel-Free, 4 fiber single-unit, Multimode OM1, Feet jacket marking, Black jacket color, Dca flame rating

## OBSOLETE

This product was discontinued on: April 1, 2017

## Product Classification

### Regional Availability

Asia | Australia/New Zealand | EMEA | Latin America | North America

### Portfolio

CommScope®

### Product Type

Fiber indoor/outdoor cable

### Product Series

Z-DS

## General Specifications

### Cable Type

Distribution

### Construction Type

Non-armored

### Jacket Color

Black

### Jacket Marking

Feet

### Total Fiber Count

4

## Dimensions

### Diameter Over Jacket

5.1 mm | 0.201 in

## Representative Image



## Mechanical Specifications

<b>Minimum Bend Radius, loaded</b>	76 mm   2.992 in
<b>Minimum Bend Radius, unloaded</b>	51 mm   2.008 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>	2.94 N-m   26.021 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>	500 m   1,640.42 ft

## Optical Specifications

<b>Fiber Type</b>	OM1, OptiSPEED®   OM1, OptiSPEED®
-------------------	-----------------------------------

## Environmental Specifications

<b>Installation temperature</b>	-30 °C to +60 °C (-22 °F to +140 °F)
---------------------------------	--------------------------------------

# 760005165 | Z-004-DS-6F-FSUBK/D

<b>Operating Temperature</b>	-40 °C to +70 °C (-40 °F to +158 °F)
<b>Storage Temperature</b>	-40 °C to +75 °C (-40 °F to +167 °F)
<b>Cable Qualification Standards</b>	ANSI/ICEA S-104-696   EN 187105   Telcordia GR-20 (water penetration)   Telcordia GR-409
<b>EN50575 CPR Cable EuroClass Fire Performance</b>	Dca
<b>EN50575 CPR Cable EuroClass Smoke Rating</b>	s1a
<b>EN50575 CPR Cable EuroClass Droplets Rating</b>	d1
<b>EN50575 CPR Cable EuroClass Acidity Rating</b>	a2
<b>Environmental Space</b>	Low Smoke Zero Halogen (LSZH)   Riser
<b>Flame Test Listing</b>	NEC OFNR-LS (ETL) and c(ETL)
<b>Flame Test Method</b>	IEC 60332-3   IEC 60754-2   IEC 61034-2   UL 1666   UL 1685
<b>Jacket UV Resistance</b>	UV stabilized
<b>Water Penetration</b>	24 h
<b>Water Penetration Test Method</b>	FOTP-82   IEC 60794-1 F5

## Environmental Test Specifications

<b>Cable Freeze Test Method</b>	IEC 60794-1 F15
<b>Heat Age</b>	-40 °C to +85 °C (-40 °F to +185 °F)
<b>Heat Age Test Method</b>	IEC 60794-1 F9
<b>Low High Bend</b>	-40 °C to +70 °C (-40 °F to +158 °F)
<b>Low High Bend Test Method</b>	FOTP-37   IEC 60794-1 E11
<b>Temperature Cycle</b>	-40 °C to +70 °C (-40 °F to +158 °F)
<b>Temperature Cycle Test Method</b>	FOTP-3   IEC 60794-1 F1

## Packaging and Weights

<b>Cable weight</b>	20 kg/km   13.439 lb/kft
---------------------	--------------------------

## Regulatory Compliance/Certifications

<b>Agency</b>	<b>Classification</b>
CENELEC	EN 50575 compliant, Declaration of Performance (DoP) available
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on <a href="http://www.commscope.com/ProductCompliance">www.commscope.com/ProductCompliance</a>
ROHS	Compliant
UK-ROHS	Compliant



## Included Products

CS-6F-TB – OptiSPEED® OM1 Multimode  
Fiber

## \* Footnotes

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

# OptiSPEED®

## 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>	±1.0 µm
<b>Cladding Non-Circularity, maximum</b>	1 %
<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>Coating/Cladding Concentricity Error, maximum</b>	12 µm
<b>Core Diameter</b>	62.5 µm
<b>Core Diameter Tolerance</b>	±2.5 µm
<b>Core/Clad Offset, maximum</b>	1 µm
<b>Proof Test</b>	689.476 N/mm <sup>2</sup>   100000 psi
<b>Tight Buffer Diameter</b>	900 µm
<b>Tight Buffer Diameter Tolerance</b>	±40 µm

## Mechanical Specifications

<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>	8.9 N   2.001 lbf
<b>Coating Strip Force, minimum</b>	1.3 N   0.292 lbf
<b>Dynamic Fatigue Parameter, minimum</b>	18

# CS-6F-TB

---

## Optical Specifications

<b>Numerical Aperture</b>	0.275
<b>Numerical Aperture Tolerance</b>	±0.015
<b>Point Defects, maximum</b>	0.15 dB
<b>Zero Dispersion Slope, maximum</b>	0.097 ps/[km-nm-nm]
<b>Zero Dispersion Wavelength, maximum</b>	1365 nm
<b>Zero Dispersion Wavelength, minimum</b>	1320 nm

## Optical Specifications, Wavelength Specific

<b>1 Gbps Ethernet Distance</b>	300 m @ 850 nm   550 m @ 1,300 nm
<b>Attenuation, maximum</b>	1.00 dB/km @ 1,300 nm   3.00 dB/km @ 850 nm
<b>Backscatter Coefficient</b>	-68.0 dB @ 850 nm   -75.7 dB @ 1,300 nm
<b>Bandwidth, OFL, minimum</b>	220 MHz-km @ 850 nm   500 MHz-km @ 1,300 nm
<b>Index of Refraction</b>	1.491 @ 1,300 nm   1.496 @ 850 nm
<b>Standards Compliance</b>	TIA-492AAAA (OM1)

## Environmental Specifications

<b>Heat Aging, maximum</b>	0.20 dB/km @ 85 °C
<b>Temperature Dependence, maximum</b>	0.1 dB/km
<b>Temperature Humidity Cycling, maximum</b>	0.2 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