

# CS-5C-TB-3.0/1.0/093

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## 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>	±1.0 µm
<b>Cladding Non-Circularity, maximum</b>	0.7 %
<b>Coating Diameter (Colored)</b>	250 µm
<b>Coating Diameter (Uncolored)</b>	242 µm
<b>Coating Diameter Tolerance (Colored)</b>	±7 µm
<b>Coating Diameter Tolerance (Uncolored)</b>	±10 µm
<b>Coating/Cladding Concentricity Error, maximum</b>	10 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 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, 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>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

### Optical Specifications

<b>Numerical Aperture</b>	0.2
<b>Numerical Aperture Tolerance</b>	±0.015
<b>Point Defects, maximum</b>	0.15 dB

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**Zero Dispersion Slope, maximum (OM5)**  $-412/(840(1-(\lambda 0/840)^4))$  ps/[km-nm-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   2.30 dB/km @ 953 nm   3.00 dB/km @ 850 nm
<b>Bandwidth, Laser, minimum</b>	2,470 MHz-km @ 953 nm   4,700 MHz-km @ 850 nm
<b>Bandwidth, OFL, minimum</b>	1,850 MHz-km @ 953 nm   3,500 MHz-km @ 850 nm
<b>Index of Refraction</b>	1.477 @ 1,300 nm   1.482 @ 850 nm
<b>Standards Compliance</b>	ANSI/TIA-568.3-D wideband multimode fiber cable   IEC 60793-2-10, edition 6, model A1a.4   ISO 11801-1 cabled optical fiber performance category OM5   TIA-492AAAE (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

## \* 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