

# 810009794/DB | C-144-LN-8F-M12BK/14D/AY/D



Fiber Indoor/Outdoor Cable, Low Smoke Zero Halogen, 144 fiber, Microsheath, Singlemode, G.657.A1, Gel-free, Meters jacket marking, Black jacket color, Dca flame rating

## Product Classification

<b>Regional Availability</b>	Asia   Australia/New Zealand   EMEA
<b>Portfolio</b>	CommScope®
<b>Product Type</b>	Fiber indoor/outdoor cable
<b>Product Series</b>	C-LN

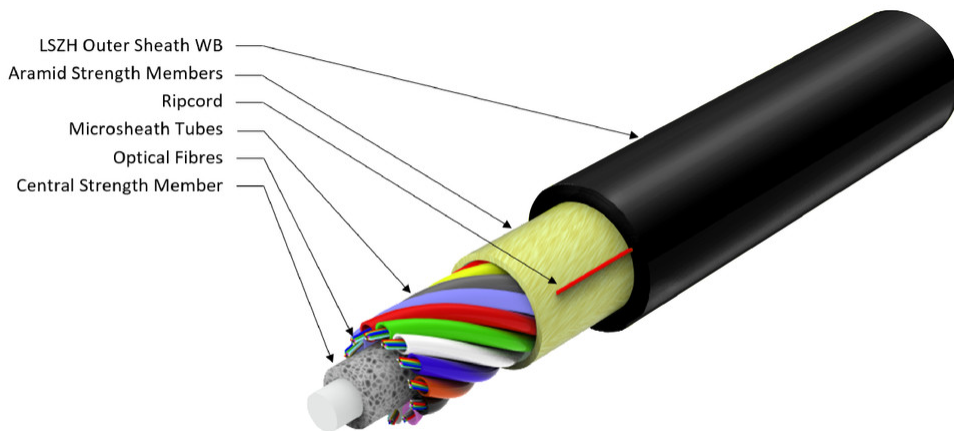
## General Specifications

<b>Cable Type</b>	Stranded microsheath tube
<b>Subunit Type</b>	Gel-free
<b>Jacket Color</b>	Black
<b>Jacket Marking</b>	Meters
<b>Jacket Marking Method</b>	Inkjet
<b>Jacket Marking Text</b>	COMMSCOPE GB F.O. CABLE 810009794/DB 144x9/125 ITU-T G.657A1 EN50575 CLASS D ULSZH (serial number) (metre mark)
<b>Fibers per Subunit, quantity</b>	12
<b>Total Fiber Count</b>	144

## Dimensions

<b>Cable Length</b>	2000 m   6,561.68 ft
<b>Diameter Over Jacket</b>	8.6 mm   0.339 in

## Representative Image



## Mechanical Specifications

<b>Minimum Bend Radius, loaded</b>	100 mm   3.937 in
<b>Minimum Bend Radius, unloaded</b>	55 mm   2.165 in
<b>Tensile Load, long term, maximum</b>	200 N   44.962 lbf
<b>Tensile Load, short term, maximum</b>	700 N   157.366 lbf
<b>Cable Crush Resistance, maximum</b>	10 N/mm   57.101 lb/in
<b>Compression Test Method</b>	IEC 60794-1-21 E3
<b>Impact</b>	2 N-m   17.701 in lb
<b>Impact Test Method</b>	IEC 60794-1-21 E4
<b>Strain Test Method</b>	IEC 60794-1-21 E1

## Optical Specifications

<b>Fiber Type</b>	G.657.A1
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## Optical Specifications, Wavelength Specific

<b>Attenuation, maximum</b>	0.25 dB/km @ 1,550 nm   0.27 dB/km @ 1,490 nm   0.27 dB/km @ 1,625 nm   0.36 dB/km @ 1,310 nm
<b>Standards Compliance</b>	TIA-492CAAB (OS2)

## Environmental Specifications

<b>Operating Temperature</b>	-40 °C to +70 °C (-40 °F to +158 °F)
<b>EN50575 CPR Cable EuroClass Fire Performance</b>	Dca
<b>EN50575 CPR Cable EuroClass Smoke Rating</b>	s1a

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<b>EN50575 CPR Cable EuroClass Droplets Rating</b>	d2
<b>EN50575 CPR Cable EuroClass Acidity Rating</b>	a1
<b>Environmental Space</b>	Universal Low Smoke Zero Halogen (ULSZH)
<b>Water Penetration Test Method</b>	IEC 60794-1 F4

## Environmental Test Specifications

<b>Temperature Cycle</b>	-40 °C to +70 °C (-40 °F to +158 °F)
<b>Temperature Cycle Test Method</b>	IEC 60794-1-22 F1

## Packaging and Weights

<b>Cable weight</b>	68 kg/km   45.694 lb/kft
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## Included Products

CS-8F-LT	–	Low Macrobending, Zero Water Peak, Dispersion-Unshifted Singlemode Fiber
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## \* Footnotes

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

# CS-8F-LT

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Low Macrobending, Zero Water Peak, Dispersion-Unshifted 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/Clad Offset, maximum</b>	0.5 µm
<b>Proof Test</b>	689.476 N/mm <sup>2</sup>   100000 psi

## 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, 50 mm Ø mandrel, 100 turns</b>	0.03 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
<b>Dynamic Fatigue Parameter, minimum</b>	20

## Optical Specifications

<b>Cabled Cutoff Wavelength, maximum</b>	1260 nm
<b>Point Defects, maximum</b>	0.1 dB
<b>Zero Dispersion Slope, maximum</b>	0.09 ps/[km-nm-nm]

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<b>Zero Dispersion Wavelength, maximum</b>	1324 nm
<b>Zero Dispersion Wavelength, minimum</b>	1300 nm

## Optical Specifications, Wavelength Specific

<b>Attenuation, maximum</b>	0.25 dB/km @ 1,550 nm   0.27 dB/km @ 1,490 nm   0.27 dB/km @ 1,625 nm   0.33 dB/km @ 1,385 nm   0.36 dB/km @ 1,310 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>Index of Refraction</b>	1.467 @ 1,310 nm   1.467 @ 1,385 nm   1.468 @ 1,550 nm
<b>Mode Field Diameter</b>	8.6 $\mu\text{m}$ @ 1,310 nm   9.8 $\mu\text{m}$ @ 1,550 nm
<b>Mode Field Diameter Tolerance</b>	$\pm 0.4 \mu\text{m}$ @ 1310 nm   $\pm 0.5 \mu\text{m}$ @ 1550 nm
<b>Polarization Mode Dispersion Link Design Value, maximum</b>	0.06 ps/sqrt(km)
<b>Standards Compliance</b>	ITU-T G.657.A1   TIA-492CAAB (OS2)

## 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

<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