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## FJ-2SM-015-50M

**Ruggedized, Bend Insensitive Singlemode Fiber, DLC to DLC Fiber Distribution Cable, 50 m**

### Construction Materials

Fiber Type	Bend insensitive singlemode fiber (G.657.A1)
Total Fibers, quantity	2
Jacket Color	Black

### Dimensions

Cord Length	50.00 m   164.04 ft
Breakout Length, Fiber, end 2	200 mm   8 in

### Environmental Specifications

Environmental Space	Wireless installation
Operating Temperature	-40 °C to +70 °C (-40 °F to +158 °F)

### General Specifications

Construction Type	Discrete fiber tail
Interface Body Style, connector A	Straight
Interface Body Style, connector B	Straight
Interface Feature, connector A	Standard
Interface Feature, connector B	Standard
Interface, connector A	DLC
Interface, connector B	DLC
Minimum Bend Radius, furcation	30.0 mm   1.2 in
Pulling Grips, quantity	1

### 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

760170993 | Z-004-MP-8G-M60BK (Product Component—not orderable) — Indoor/Outdoor Low Smoke Zero Halogen Riser MPO Trunk Cable, 4 fiber

- CS-8G-MP (Product Component—not orderable) — Enhanced Low Macrobending, Zero Water Peak,

# Product Specifications

COMMSCOPE®

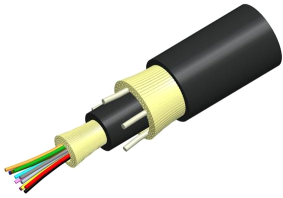
FJ-2SM-015-50M

Dispersion-Unshifted Singlemode Fiber (ITU-T G.657.A2, B2)

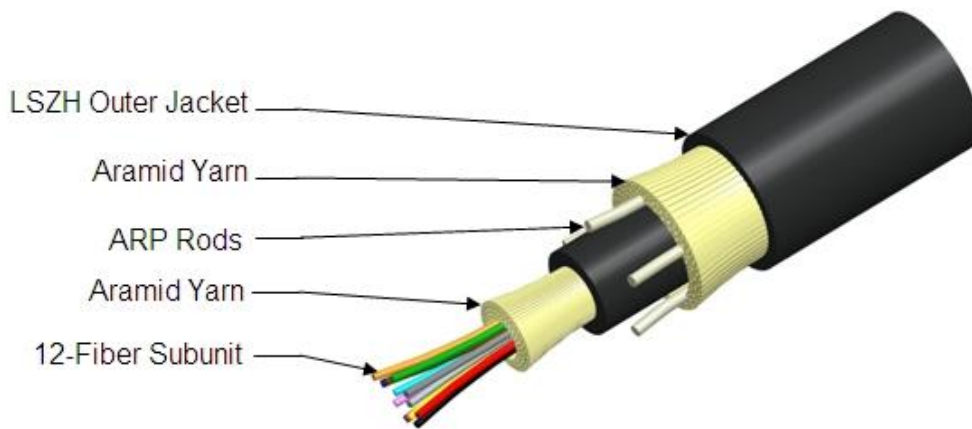


760170993 | Z-004-MP-8G-M60BK

Indoor/Outdoor Low Smoke Zero Halogen Riser MPO Trunk Cable, 4 fiber



## Representative Image



## General Specifications

Cable Type	MPO trunk cable
Construction Type	Non-armored
Subunit Type	Gel-free

## Construction Materials

Fiber Type Solution	Bend insensitive singlemode fiber (G.657.A2)
Total Fiber Count	4
Fiber Type	Bend insensitive singlemode fiber (G.657.A2)
Fiber Type, quantity	4
Fibers per Subunit, quantity	4
Jacket Color	Black
Jacket UV Resistance	UV stabilized

## Dimensions

Buffer Tube/Subunit Diameter	3.00 mm   0.12 in
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Cable Weight	24.9 lb/kft   37.1 kg/km
Diameter Over Jacket	6.00 mm   0.24 in
Subunit, quantity	1

## Physical Specifications

Minimum Bend Radius, loaded	9.0 cm   3.5 in
Minimum Bend Radius, unloaded	6.0 cm   2.4 in
Tensile Load, long term, maximum	334 N   75 lbf
Tensile Load, short term, maximum	1110 N   250 lbf
Vertical Rise, maximum	500.0 m   1640.4 ft

## Flame Test Specifications

Flame Test Listing	NEC OFNR-LS (ETL) and c(ETL)
Flame Test Method	IEC 60332-3   IEC 60754-2   IEC 61034-2   IEEE 383   UL 1666   UL 1685

## Environmental Specifications

Environmental Space	Low Smoke Zero Halogen (LSZH)   Riser
Installation Temperature	-30 °C to +60 °C (-22 °F to +140 °F)
Operating Temperature	-40 °C to +70 °C (-40 °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 E3
Flex	300 cycles
Flex Test Method	FOTP-104   IEC 60794-1 E6
Impact	4.34 ft lb   5.88 N-m
Impact Test Method	FOTP-25   IEC 60794-1 E4
Strain	See long and short term tensile loads
Strain Test Method	FOTP-33   IEC 60794-1 E1
Twist	10 cycles
Twist Test Method	FOTP-85   IEC 60794-1 E7
Water Penetration	24 h
Water Penetration Test Method	FOTP-82   IEC 60794-1 F5

## Environmental Test Specifications

Cable Freeze Test Method	IEC 60794-1 F15
Heat Age	-40 °C to +85 °C (-40 °F to +185 °F)
Heat Age Test Method	IEC 60794-1 F9
Low High Bend	-30 °C to +60 °C (-22 °F to +140 °F)
Low High Bend Test Method	FOTP-37   IEC 60794-1 E11
Temperature Cycle	-40 °C to +70 °C (-40 °F to +158 °F)
Temperature Cycle Test Method	FOTP-3   IEC 60794-1 F1

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## Qualification Specifications

Cable Qualification Standards    ANSI/ICEA S-104-696 | Telcordia GR-20 (water penetration) | Telcordia GR-409

## Regulatory Compliance/Certifications

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## Included Products

CS-8G-MP (Product Component—not orderable) — Enhanced Low Macrobending, Zero Water Peak, Dispersion-Unshifted Singlemode Fiber (ITU-T G.657.A2, B2)

## CS-8G-MP

**Enhanced Low Macrobending, Zero Water Peak, Dispersion-Unshifted Singlemode Fiber (ITU-T G.657.A2, B2)**

### Optical Specifications, Wavelength Specific

Standards Compliance	ITU-T G.657.A2   ITU-T G.657.B2
Attenuation, maximum	0.50 dB/km @ 1310 nm 0.50 dB/km @ 1385 nm 0.50 dB/km @ 1550 nm
Dispersion, maximum	18 ps(nm-km) at 1550 nm   3.5 ps(nm-km) from 1285 nm to 1330 nm at 1310 nm
Mode Field Diameter	8.8 $\mu\text{m}$ @ 1310 nm
Mode Field Diameter Tolerance	$\pm 0.4 \mu\text{m}$ @ 1310 nm
Index of Refraction	1.467 @ 1310 nm 1.467 @ 1385 nm 1.468 @ 1550 nm
Polarization Mode Dispersion Link Design Value, maximum	0.06 ps/sqrt(km)

### Physical Specifications

Cladding Diameter	125.0 $\mu\text{m}$
Cladding Diameter Tolerance	$\pm 0.7 \mu\text{m}$
Cladding Non-Circularity, maximum	0.7 %
Coating Diameter (Colored)	254 $\mu\text{m}$
Coating Diameter (Uncolored)	240 $\mu\text{m}$
Coating Diameter Tolerance (Colored)	$\pm 7 \mu\text{m}$
Coating Diameter Tolerance (Uncolored)	$\pm 5 \mu\text{m}$
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	0.092 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
Dynamic Fatigue Parameter, minimum	20
Fiber Curl, minimum	4.0 m   13.1 ft
Macrobending, 15 mm mandrel, 1 turn	0.50 dB @ 1550 nm 1.00 dB @ 1625 nm
Macrobending, 20 mm mandrel, 1 turn	0.10 dB @ 1550 nm 0.20 dB @ 1625 nm
Macrobending, 30 mm mandrel, 10 turns	0.03 dB @ 1550 nm 0.10 dB @ 1625 nm
Proof Test	0.69 N/mm <sup>2</sup>   100.00 psi

## Environmental Specifications

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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

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Agency	Classification
ISO 9001:2008	Designed, manufactured and/or distributed under this quality management system

### \* Footnotes

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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