# 760249608 | N-048-MP-8G1-F12YL/20T/B2



Fiber indoor cable, Low Smoke Zero Halogen Riser MPO Trunk, 48 fiber with 2.0 mm Subunits, Singlemode G.657.A2, Feet jacket marking, Yellow jacket color, B2ca flame rating

#### Product Classification

| Regional Availability        | Asia   Australia/New Zealand   EMEA |
|------------------------------|-------------------------------------|
| Portfolio                    | CommScope®                          |
| Product Type                 | Fiber indoor cable                  |
| Product Series               | N-MP                                |
| General Specifications       |                                     |
| Cable Type                   | MPO trunk cable                     |
| Construction Type            | Non-armored                         |
| Subunit Type                 | Gel-free                            |
| Jacket Color                 | Yellow                              |
| Jacket Marking               | Feet                                |
| Subunit, quantity            | 4                                   |
| Fibers per Subunit, quantity | 12                                  |
| Total Fiber Count            | 48                                  |
| Dimensions                   |                                     |
| Buffer Tube/Subunit Diameter | 2 mm   0.079 in                     |
| Diameter Over Jacket         | 7.8 mm   0.307 in                   |
|                              |                                     |

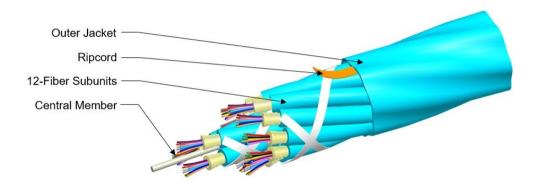
### Representative Image

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#### Mechanical Specifications

| Minimum Bend Radius, loaded       | 116 mm   4.567 in                     |
|-----------------------------------|---------------------------------------|
| Minimum Bend Radius, unloaded     | 78 mm   3.071 in                      |
| Tensile Load, long term, maximum  | 200 N   44.962 lbf                    |
| Tensile Load, short term, maximum | 667 N   149.948 lbf                   |
| Compression                       | 10 N/mm   57.101 lb/in                |
| Compression Test Method           | FOTP-41   IEC 60794-1 E3              |
| Flex                              | 25 cycles                             |
| Flex Test Method                  | FOTP-104   IEC 60794-1 E6             |
| Impact                            | 2.94 N-m   26.021 in lb               |
| 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              |
| Vertical Rise, maximum            | 336 m   1,102.362 ft                  |
| Optical Specifications            |                                       |

Fiber Type

G.657.A2 | G.657.A2/B2 | OS2

#### **Environmental Specifications**

| Installation temperature | 0 °C to +50 °C (+32 °F to +122 °F) |
|--------------------------|------------------------------------|
| Operating Temperature    | 0 °C to +60 °C (+32 °F to +140 °F) |

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**COMMSCOPE**°

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| Storage Temperature                          | -40 °C to +70 °C (-40 °F to +158 °F)    |
|--|---|
| Cable Qualification Standards                | ANSI/ICEA S-83-596   Telcordia GR-409   |
| EN50575 CPR Cable EuroClass Fire Performance | B2ca                                    |
| EN50575 CPR Cable EuroClass Smoke Rating     | s1a                                     |
| EN50575 CPR Cable EuroClass Droplets Rating  | d0                                      |
| EN50575 CPR Cable EuroClass Acidity Rating   | al                                      |
| Environmental Space                          | Low Smoke Zero Halogen (LSZH)           |
| Flame Test Method                            | IEC 60332-3   IEC 60754-2   IEC 61034-2 |

#### **Environmental Test Specifications**

| Low High Bend                 | 0 °C to +50 °C (+32 °F to +122 °F) |
|-------------------------------|------------------------------------|
| Low High Bend Test Method     | FOTP-37   IEC 60794-1 E11          |
| Temperature Cycle             | 0 °C to +60 °C (+32 °F to +140 °F) |
| Temperature Cycle Test Method | FOTP-3   IEC 60794-1 F1            |

### Packaging and Weights

60.8 kg/km | 40.856 lb/kft

#### Regulatory Compliance/Certifications

| Agency     | Classification                    |
|------------|-----------------------------------|
| CHINA-ROHS | Below maximum concentration value |
| ROHS       | Compliant                         |
| UK-ROHS    | Compliant                         |
|            |                                   |



#### Included Products

CS-8G1-MP

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

#### \* Footnotes

Operating Temperature Specification applicable to non-terminated bulk fiber cable

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# CS-8G1-MP

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

#### Product Classification

| Portfolio                                     | CommScope®                              |  |
|---|---|--|
| Product Type                                  | Optical fiber                           |  |
| General Specifications                        |   |  |
| Cladding Diameter                             | 125 µm                                  |  |
| Cladding Diameter Tolerance                   | ±0.3 µm                                 |  |
| Cladding Non-Circularity, maximum             | 0.7 %                                   |  |
| Coating Diameter (Colored)                    | 249 μm                                  |  |
| Coating Diameter (Uncolored)                  | 242 µm                                  |  |
| Coating Diameter Tolerance (Colored)          | ±13 μm                                  |  |
| Coating Diameter Tolerance (Uncolored)        | ±5 μm                                   |  |
| Coating/Cladding Concentricity Error, maximum | 12 µm                                   |  |
| Core/Clad Offset, maximum                     | 0.5 µm                                  |  |
| Proof Tensile Stress                          | 100,000 psi (0.69 GPa)                  |  |
| Dimensions                                    |   |  |
| Fiber Curl, minimum                           | 4 m   13.123 ft                         |  |
| Mechanical Specifications                     |   |  |
| Macrobending, 15 mm Ø mandrel, 1 turn         | 0.50 dB @ 1,550 nm   1.00 dB @ 1,625 nm |  |
| Macrobending, 20 mm Ø mandrel, 1 turn         | 0.10 dB @ 1,550 nm   0.20 dB @ 1,625 nm |  |
| Macrobending, 30 mm Ø mandrel, 10 turns       | 0.03 dB @ 1,550 nm   0.10 dB @ 1,625 nm |  |
| Coating Strip Force, maximum                  | 8.9 N   2.001 lbf                       |  |
| Coating Strip Force, minimum                  | 1.3 N   0.292 lbf                       |  |
| Dynamic Fatigue Parameter, minimum            | 20                                      |  |
| Optical Specifications                        |   |  |
| Cabled Cutoff Wavelength, maximum             | 1260 nm                                 |  |
| Point Defects, maximum                        | 0.1 dB                                  |  |

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# CS-8G1-MP

| Zero Dispersion Slope, maximum                          | 0.092 ps/[km-nm-nm]   |  |
|---|---|--|
| Zero Dispersion Wavelength, maximum                     | 1324 nm   |  |
| Zero Dispersion Wavelength, minimum                     | 1302 nm   |  |
| Optical Specifications, Wavelength Specific             |   |  |
| Attenuation, maximum                                    | 0.40 dB/km @ 1,310 nm   0.40 dB/km @ 1,385<br>nm   0.40 dB/km @ 1,550 nm   0.50 dB/km @ 1,625<br>nm |  |
| Dispersion, maximum                                     | 18 ps(nm-km) at 1550 nm ( 3.5 ps(nm-km) from 1285<br>nm to 1330 nm at 1310 nm                       |  |
| Index of Refraction                                     | 1.467 @ 1,310 nm   1.467 @ 1,385 nm   1.468 @ 1,550<br>nm   |  |
| Mode Field Diameter                                     | 8.6 μm @ 1,310 nm 🕴 9.8 μm @ 1,550 nm   |  |
| Mode Field Diameter Tolerance                           | ±0.4 μm @ 1310 nm   ±0.5 μm @ 1550 nm   |  |
| Polarization Mode Dispersion Link Design Value, maximum | 0.06 ps/sqrt(km)  |  |
| Standards Compliance                                    | ITU-T G.657.A2   ITU-T G.657.B2   |  |

## Environmental Specifications

| Heat Aging, maximum                   | 0.05 dB/km @ 85 °C |
|---------------------------------------|--------------------|
| Temperature Dependence, maximum       | 0.05 dB/km         |
| Temperature Humidity Cycling, maximum | 0.05 dB/km         |
| Water Immersion, maximum              | 0.05 dB/km @ 23 °C |

## Regulatory Compliance/Certifications

| Agency        | Classification   |
|---------------|--|
| ISO 9001:2015 | 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 |

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