



Fiber indoor cable, Low Smoke Zero Halogen Riser MPO Trunk Cable, 144 fiber multi-unit with 12 fiber 2.0mm subunits, Gel-free, Singlemode G.657. A2/B2, Feet jacket marking, Yellow jacket color, B2ca flame rating

## Product Classification

|                              |   |
|------------------------------|---|
| <b>Regional Availability</b> | Asia   Australia/New Zealand   EMEA   Latin America   North America |
| <b>Portfolio</b>             | CommScope®  |
| <b>Product Type</b>          | Fiber indoor cable  |
| <b>Product Series</b>        | N-MP  |

## General Specifications

|                                     |                 |
|-------------------------------------|-----------------|
| <b>Cable Type</b>                   | MPO trunk cable |
| <b>Construction Type</b>            | Non-armored     |
| <b>Subunit Type</b>                 | Gel-free        |
| <b>Jacket Color</b>                 | Yellow          |
| <b>Jacket Marking</b>               | Feet            |
| <b>Subunit, quantity</b>            | 12              |
| <b>Fibers per Subunit, quantity</b> | 12              |
| <b>Total Fiber Count</b>            | 144             |

## Dimensions

|                                     |                    |
|-------------------------------------|--------------------|
| <b>Buffer Tube/Subunit Diameter</b> | 2 mm   0.079 in    |
| <b>Diameter Over Jacket</b>         | 12.9 mm   0.508 in |

## Representative Image



## Mechanical Specifications

|  |                                       |
|--|---------------------------------------|
| <b>Minimum Bend Radius, loaded</b>       | 194 mm   7.638 in                     |
| <b>Minimum Bend Radius, unloaded</b>     | 129 mm   5.079 in                     |
| <b>Tensile Load, long term, maximum</b>  | 200 N   44.962 lbf                    |
| <b>Tensile Load, short term, maximum</b> | 667 N   149.948 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>                              | 25 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>            | 114 m   374.016 ft                    |

## Optical Specifications

|                   |                   |
|-------------------|-------------------|
| <b>Fiber Type</b> | G.657.A2/B2   OS2 |
|-------------------|-------------------|

## Environmental Specifications

|                                 |                                      |
|---------------------------------|--------------------------------------|
| <b>Installation temperature</b> | 0 °C to +50 °C (+32 °F to +122 °F)   |
| <b>Operating Temperature</b>    | 0 °C to +60 °C (+32 °F to +140 °F)   |
| <b>Storage Temperature</b>      | -40 °C to +60 °C (-40 °F to +140 °F) |

# 760248531 | N-144-MP-8G1-F12YL/20T/B2

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|   |   |
|---|---|
| <b>Cable Qualification Standards</b>                | ANSI/ICEA S-83-596   Telcordia GR-409                                 |
| <b>EN50575 CPR Cable EuroClass Fire Performance</b> | B2ca  |
| <b>EN50575 CPR Cable EuroClass Smoke Rating</b>     | s1a   |
| <b>EN50575 CPR Cable EuroClass Droplets Rating</b>  | d0  |
| <b>EN50575 CPR Cable EuroClass Acidity Rating</b>   | a1  |
| <b>Environmental Space</b>                          | Low Smoke Zero Halogen (LSZH)   Riser                                 |
| <b>Flame Test Listing</b>                           | NEC OFNR-ST1 (ETL) and c(ETL)   |
| <b>Flame Test Method</b>                            | CSA FT4   IEC 60332-3   IEC 60754-2   IEC 61034-2   UL 1666   UL 1685 |

## Environmental Test Specifications

|                                      |                                    |
|--------------------------------------|------------------------------------|
| <b>Heat Age</b>                      | 0 °C to +85 °C (+32 °F to +185 °F) |
| <b>Heat Age Test Method</b>          | IEC 60794-1 F9                     |
| <b>Low High Bend</b>                 | 0 °C to +50 °C (+32 °F to +122 °F) |
| <b>Low High Bend Test Method</b>     | FOTP-37   IEC 60794-1 E11          |
| <b>Temperature Cycle</b>             | 0 °C to +60 °C (+32 °F to +140 °F) |
| <b>Temperature Cycle Test Method</b> | FOTP-3   IEC 60794-1 F1            |

## Packaging and Weights

|                     |                             |
|---------------------|-----------------------------|
| <b>Cable weight</b> | 179.8 kg/km   120.82 lb/kft |
|---------------------|-----------------------------|

## 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

# CS-8G1-MP

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

## 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>                   | ±0.3 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 |
|----------------------------|-----------------|

## Mechanical Specifications

|  |   |
|--|---|
| <b>Macrobending, 15 mm Ø mandrel, 1 turn</b>   | 0.50 dB @ 1,550 nm   1.00 dB @ 1,625 nm |
| <b>Macrobending, 20 mm Ø mandrel, 1 turn</b>   | 0.10 dB @ 1,550 nm   0.20 dB @ 1,625 nm |
| <b>Macrobending, 30 mm Ø mandrel, 10 turns</b> | 0.03 dB @ 1,550 nm   0.10 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  |

# CS-8G1-MP

|  |                     |
|--|---------------------|
| <b>Zero Dispersion Slope, maximum</b>      | 0.092 ps/[km-nm-nm] |
| <b>Zero Dispersion Wavelength, maximum</b> | 1324 nm             |
| <b>Zero Dispersion Wavelength, minimum</b> | 1302 nm             |

## Optical Specifications, Wavelength Specific

|  |   |
|--|---|
| <b>Attenuation, maximum</b>                                    | 0.40 dB/km @ 1,310 nm   0.40 dB/km @ 1,385 nm   0.40 dB/km @ 1,550 nm   0.50 dB/km @ 1,625 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.A2   ITU-T G.657.B2   |

## 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 |