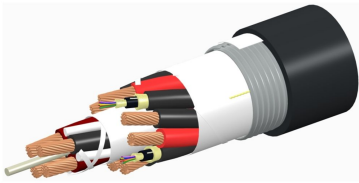


# HFC-16SM-806-618-APE

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## HELIAX® Hybrid Cable with aluminum armor

### Product Classification

|                              |   |
|------------------------------|---|
| <b>Regional Availability</b> | Asia   Australia/New Zealand   EMEA   Latin America   North America |
| <b>Portfolio</b>             | CommScope®  |
| <b>Product Type</b>          | Hybrid cable, copper and fiber                                      |
| <b>Product Brand</b>         | HELIAX®   |

### General Specifications

|                                     |   |
|-------------------------------------|---|
| <b>Application</b>                  | Remote radio head                               |
| <b>Alarm Wire, quantity</b>         | 6   |
| <b>Armor Type</b>                   | Corrugated aluminum                             |
| <b>Cable Type</b>                   | Wireless feeder                                 |
| <b>Conductors, quantity</b>         | 8   |
| <b>Construction Type</b>            | Armored   |
| <b>Fiber Short Description</b>      | RFF – 6AWG                                      |
| <b>Fiber Type, quantity</b>         | 16  |
| <b>Fibers per Subunit, quantity</b> | 8   |
| <b>Inner Shield (Tape) Material</b> | Corrugated aluminum                             |
| <b>Jacket Color</b>                 | Black   |
| <b>Outer Shield (Tape) Material</b> | PE  |
| <b>Strength Members</b>             | Glass reinforced plastic rod                    |
| <b>Subunit, quantity</b>            | 2   |
| <b>Total Fiber Count</b>            | 16  |
| <b>Water Blocking Method</b>        | Water blocking tape(s)   Water blocking threads |

# HFC-16SM-806-618-APE

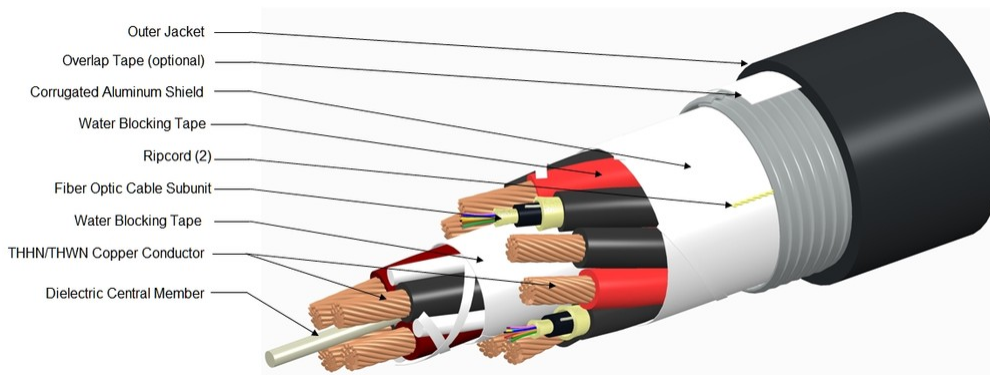
## Dimensions

|                                     |                     |
|-------------------------------------|---------------------|
| <b>Buffer Tube/Subunit Diameter</b> | 6.096 mm   0.24 in  |
| <b>Diameter Over Jacket</b>         | 30.734 mm   1.21 in |
| <b>Alarm Wire Gauge</b>             | 18 AWG              |
| <b>Conductor Gauge</b>              | 6 AWG               |

## Electrical Specifications

|                               |  |
|-------------------------------|--|
| <b>dc Resistance Note</b>     | Maximum value based on a standard condition of 20 °C (68 °F) |
| <b>dc Resistance, maximum</b> | 1.352 ohms/km   0.412 ohms/kft                               |

## Representative Image



## Material Specifications

|                         |                             |
|-------------------------|-----------------------------|
| <b>Ripcord Material</b> | Para-aramid synthetic fiber |
|-------------------------|-----------------------------|

## Mechanical Specifications

|  |                        |
|--|------------------------|
| <b>Minimum Bend Radius, multiple bends, loaded</b>   | 614.68 mm   24.2 in    |
| <b>Minimum Bend Radius, multiple bends, unloaded</b> | 307.34 mm   12.1 in    |
| <b>Minimum Bend Radius, single bend, unloaded</b>    | 215.9 mm   8.5 in      |
| <b>Tensile Load, long term, maximum</b>              | 1,067.573 N   240 lbf  |
| <b>Tensile Load, short term, maximum</b>             | 3,558.576 N   800 lbf  |
| <b>Compression</b>                                   | 2.25 kg/mm   126 lb/in |
| <b>Compression Test Method</b>                       | FOTP-41                |
| <b>Flex Test Method</b>                              | FOTP-104               |
| <b>Impact</b>  | 2.17 ft lb   2.942 N-m |
| <b>Impact Test Method</b>                            | FOTP-25                |

# HFC-16SM-806-618-APE

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|                          |           |
|--------------------------|-----------|
| <b>Twist</b>             | 10 cycles |
| <b>Twist Test Method</b> | FOTP-85   |

## Optical Specifications

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

## Environmental Specifications

|                                      |   |
|--------------------------------------|---|
| <b>Installation temperature</b>      | -30 °C to +70 °C (-22 °F to +158 °F)                    |
| <b>Operating Temperature</b>         | -40 °C to +80 °C (-40 °F to +176 °F)                    |
| <b>Storage Temperature</b>           | -40 °C to +80 °C (-40 °F to +176 °F)                    |
| <b>Cable Qualification Standards</b> | ANSI/ICEA S-87-640   Telcordia GR-20   Telcordia GR-409 |
| <b>Environmental Space</b>           | Wireless installation                                   |

## Packaging and Weights

|                     |                               |
|---------------------|-------------------------------|
| <b>Cable weight</b> | 1,616.146 kg/km   1086 lb/kft |
|---------------------|-------------------------------|

## Regulatory Compliance/Certifications

| <b>Agency</b> | <b>Classification</b>  |
|---------------|--|
| ISO 9001:2015 | Designed, manufactured and/or distributed under this quality management system |



## Included Products

|          |   |  |
|----------|---|--|
| CS-8G-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-8G-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>                   | ±0.7 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 |
|----------------------------|-----------------|

## Mechanical Specifications

|  |   |
|--|---|
| <b>Macrobending, 15 mm mandrel, 1 turn</b>   | 0.50 dB @ 1,550 nm   1.00 dB @ 1,625 nm |
| <b>Macrobending, 20 mm mandrel, 1 turn</b>   | 0.10 dB @ 1,550 nm   0.20 dB @ 1,625 nm |
| <b>Macrobending, 30 mm 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-8G-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 |