

HELIAX® Hybrid Cable, UL Type TC-OF-ER

Product Classification

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

General Specifications

| | |
|-------------------------------------|---|
| Application | Remote radio head |
| Cable Type | Wireless feeder |
| Conductors, quantity | 4 |
| Construction Type | Shielded |
| Fiber Short Description | RFF – 12AWG |
| Fiber Type, quantity | 6 |
| Fibers per Subunit, quantity | 6 |
| Inner Shield (Tape) Material | Corrugated aluminum |
| Jacket Color | Black |
| Outer Shield (Tape) Material | PVC |
| Strength Members | Glass reinforced plastic rod |
| Subunit, quantity | 1 |
| Total Fiber Count | 6 |
| Water Blocking Method | Water blocking tape(s) Water blocking threads |

Dimensions

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|-------------------------------------|--------------------|
| Buffer Tube/Subunit Diameter | 3.048 mm 0.12 in |
|-------------------------------------|--------------------|

760187260 | HTC-6SM-412-APV

Diameter Over Jacket 14.732 mm | 0.58 in

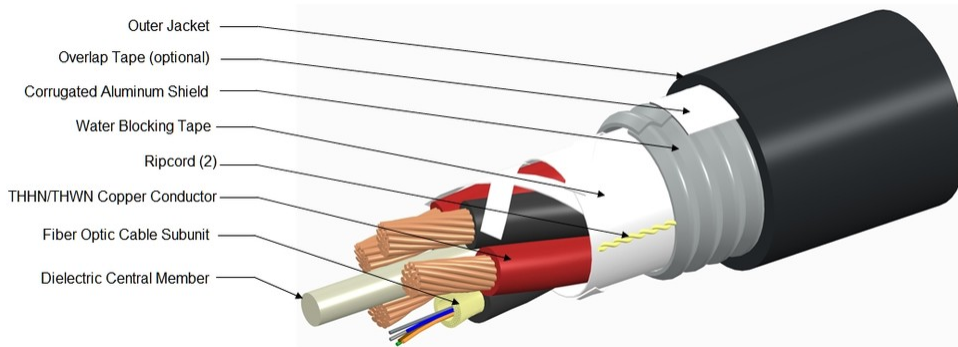
Conductor Gauge 12 AWG

Electrical Specifications

dc Resistance Note Maximum value based on a standard condition of 20 °C (68 °F)

dc Resistance, maximum 5.413 ohms/km | 1.65 ohms/kft

Representative Image



Material Specifications

Ripcord Material Para-aramid synthetic fiber

Mechanical Specifications

Minimum Bend Radius, multiple bends, loaded 292.1 mm | 11.5 in

Minimum Bend Radius, multiple bends, unloaded 147.32 mm | 5.8 in

Minimum Bend Radius, single bend, unloaded 101.6 mm | 4 in

Tensile Load, long term, maximum 266.893 N | 60 lbf

Tensile Load, short term, maximum 889.644 N | 200 lbf

Compression 2.25 kg/mm | 126 lb/in

Compression Test Method FOTP-41

Flex 25 cycles

Flex Test Method FOTP-104

Impact 2.17 ft lb | 2.942 N-m

Impact Test Method FOTP-25

Twist 10 cycles

Twist Test Method FOTP-85

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Optical Specifications

Fiber Type G.657.A2/B2 | G.657.A2/B2

Environmental Specifications

Installation temperature -30 °C to +70 °C (-22 °F to +158 °F)

Operating Temperature -40 °C to +80 °C (-40 °F to +176 °F)

Storage Temperature -40 °C to +80 °C (-40 °F to +176 °F)

Cable Qualification Standards ANSI/ICEA S-87-640 | Telcordia GR-20 | Telcordia GR-409

Environmental Space Wireless installation

Packaging and Weights

Cable weight 305.074 kg/km | 205 lb/kft

Regulatory Compliance/Certifications

| Agency | Classification |
|------------|--|
| CHINA-ROHS | Below maximum concentration value |
| REACH-SVHC | Compliant as per SVHC revision on www.commscope.com/ProductCompliance |
| ROHS | Compliant |



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

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

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|--|--|
| Cladding Diameter | 125 µm |
| Cladding Diameter Tolerance | ±0.7 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 Test | 689.476 N/mm ² 100000 psi |

Dimensions

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|----------------------------|-----------------|
| Fiber Curl, minimum | 4 m 13.123 ft |
|----------------------------|-----------------|

Mechanical Specifications

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|--|---|
| Macrobending, 15 mm mandrel, 1 turn | 0.50 dB @ 1,550 nm 1.00 dB @ 1,625 nm |
| Macrobending, 20 mm mandrel, 1 turn | 0.10 dB @ 1,550 nm 0.20 dB @ 1,625 nm |
| Macrobending, 30 mm 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

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|--|---------|
| Cabled Cutoff Wavelength, maximum | 1260 nm |
| Point Defects, maximum | 0.1 dB |

CS-8G-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 nm 0.40 dB/km @ 1,550 nm 0.50 dB/km @ 1,625 nm |
| Dispersion, maximum | 18 ps(nm-km) at 1550 nm 3.5 ps(nm-km) from 1285 nm to 1330 nm at 1310 nm |
| Index of Refraction | 1.467 @ 1,310 nm 1.467 @ 1,385 nm 1.468 @ 1,550 nm |
| Mode Field Diameter | 8.6 μm @ 1,310 nm 9.8 μm @ 1,550 nm |
| Mode Field Diameter Tolerance | $\pm 0.4 \mu\text{m}$ @ 1310 nm $\pm 0.5 \mu\text{m}$ @ 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

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|--|--------------------|
| 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 |