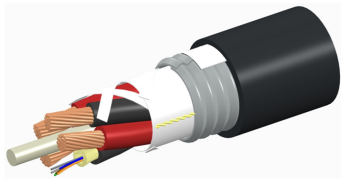


HFC-2SM-212-APE



HELIAX® Hybrid Cable with aluminum armor

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

Armor Type

Corrugated steel

Cable Type

Wireless feeder

Conductors, quantity

2

Construction Type

Armored

Fiber Short Description

RFF – 12AWG

Inner Shield (Tape) Material

Corrugated aluminum

Jacket Color

Black

Outer Shield (Tape) Material

PE

Strength Members

Glass reinforced plastic rod

Subunit, quantity

1

Fibers per Subunit, quantity

2

Total Fiber Count

2

Water Blocking Method

Water blocking tape(s) | Water blocking threads

Dimensions

Buffer Tube/Subunit Diameter

3.048 mm | 0.12 in

Diameter Over Jacket

12.954 mm | 0.51 in

Conductor Gauge

12 AWG

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Electrical Specifications

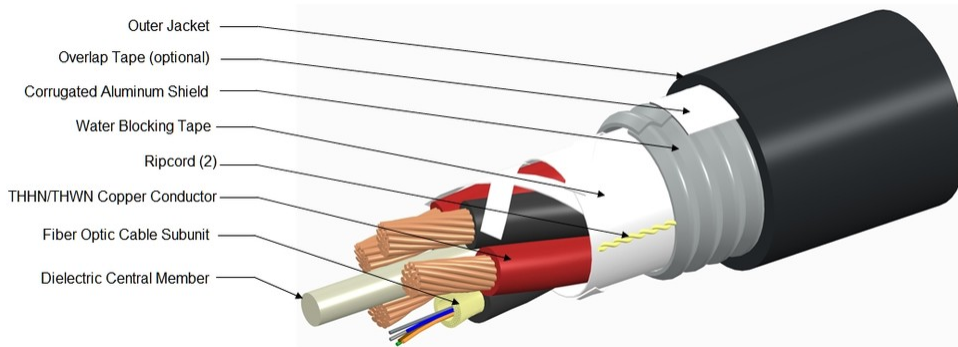
dc Resistance Note

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

259.08 mm | 10.2 in

Minimum Bend Radius, multiple bends, unloaded

129.54 mm | 5.1 in

Minimum Bend Radius, single bend, unloaded

91.44 mm | 3.6 in

Tensile Load, long term, maximum

467.063 N | 105 lbf

Tensile Load, short term, maximum

1,556.877 N | 350 lbf

Compression

2.25 kg/mm | 126 lb/in

Compression Test Method

FOTP-41

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

Optical Specifications

Fiber Type

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

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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	188.997 kg/km 127 lb/kft
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Regulatory Compliance/Certifications

Agency	Classification
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)
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* 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

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

Fiber Curl, minimum	4 m 13.123 ft
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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

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

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