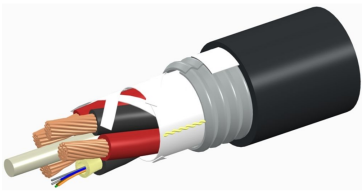
HFC-8MM-412-APE



HELIAX® LazrSPEED® 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® | LazrSPEED®

General Specifications

Application	Remote radio head
Armor Type	Corrugated aluminum
Cable Type	Wireless feeder
Conductors, quantity	4
Construction Type	Armored
Fiber Short Description	RFF – 12AWG
Fiber Type, quantity	8
Fibers per Subunit, quantity	8
Inner Shield (Tape) Material	Corrugated aluminum
Jacket Color	Black
Outer Shield (Tape) Material	PE
Strength Members	Glass reinforced plastic rod
Subunit, quantity	1
Total Fiber Count	8
Water Blocking Method	Water blocking tape(s) | Water blocking threads

Dimensions

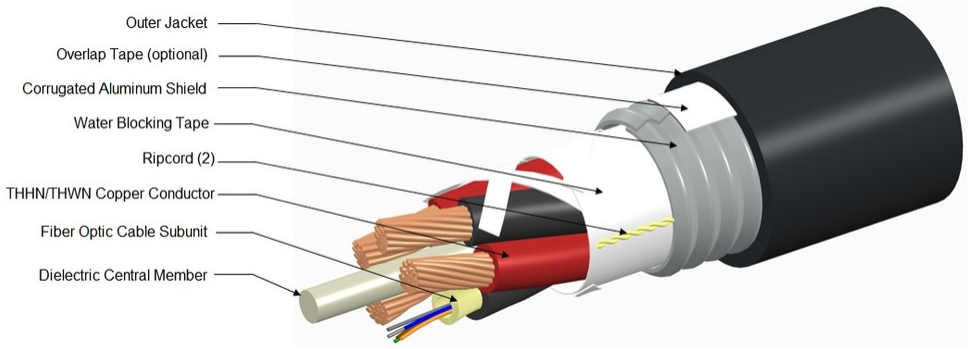
HFC-8MM-412-APE

Buffer Tube/Subunit Diameter	3.048 mm | 0.12 in
Diameter Over Jacket	13.97 mm | 0.55 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	279.4 mm | 11 in
Minimum Bend Radius, multiple bends, unloaded	139.7 mm | 5.5 in
Minimum Bend Radius, single bend, unloaded	96.52 mm | 3.8 in
Tensile Load, long term, maximum	333.616 N | 75 lbf
Tensile Load, short term, maximum	1,112.055 N | 250 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

HFC-8MM-412-APE

Optical Specifications

Fiber Type	OM2+, LazrSPEED® 150 | OM2+, LazrSPEED® 150

Environmental Specifications

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

Packaging and Weights

Cable weight	263.405 kg/km | 177 lb/kft

Regulatory Compliance/Certifications

Agency	**Classification**
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system

Included Products

CS-5M-MP	–	LazrSPEED® 150 OM2+ Bend-Insensitive Multimode Fiber

* Footnotes

Operating Temperature	Specification applicable to non-terminated bulk fiber cable

CS-5M-MP

LazrSPEED® 150 OM2+ Bend-Insensitive Multimode Fiber

LazrSPEED® 150

Product Classification

Portfolio	CommScope®
Product Type	Optical fiber

General Specifications

Cladding Diameter	125 µm
Cladding Diameter Tolerance	±0.8 µm
Cladding Non-Circularity, maximum	1 %
Coating Diameter (Colored)	254 µm
Coating Diameter (Uncolored)	245 µm
Coating Diameter Tolerance (Colored)	±7 µm
Coating Diameter Tolerance (Uncolored)	±10 µm
Coating/Cladding Concentricity Error, maximum	12 µm
Core Diameter	50 µm
Core Diameter Tolerance	±2.5 µm
Core/Clad Offset, maximum	1.5 µm
Proof Test	689.476 N/mm² | 100000 psi

Mechanical Specifications

Macrobending, 15 mm mandrel, 2 turns	0.20 dB @ 850 nm | 0.50 dB @ 1,300 nm
Macrobending, 30 mm mandrel, 2 turns	0.10 dB @ 850 nm | 0.30 dB @ 1,300 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	18

CS-5M-MP

Optical Specifications

Numerical Aperture	0.2
Numerical Aperture Tolerance	±0.015
Point Defects, maximum	0.15 dB
Zero Dispersion Slope, maximum	0.105 ps/[km-nm-nm]
Zero Dispersion Wavelength, maximum	1316 nm
Zero Dispersion Wavelength, minimum	1297 nm

Optical Specifications, Wavelength Specific

1 Gbps Ethernet Distance	600 m @ 1,300 nm | 800 m @ 850 nm
10 Gbps Ethernet Distance	150 m @ 850 nm
Attenuation, maximum	1.00 dB/km @ 1,300 nm | 3.00 dB/km @ 850 nm
Backscatter Coefficient	-68.0 dB @ 850 nm | -75.7 dB @ 1,300 nm
Bandwidth, Laser, minimum	500 MHz-km @ 1,300 nm | 950 MHz-km @ 850 nm
Bandwidth, OFL, minimum	500 MHz-km @ 1,300 nm | 700 MHz-km @ 850 nm
Differential Mode Delay	0.70 ps/m @ 850 nm | 0.88 ps/m @ 1,300 nm
Index of Refraction	1.479 @ 1,300 nm | 1.483 @ 850 nm
Standards Compliance	TIA-492AAAB (OM2+)

Environmental Specifications

Heat Aging, maximum	0.20 dB/km @ 85 °C
Temperature Dependence, maximum	0.1 dB/km
Temperature Humidity Cycling, maximum	0.2 dB/km
Water Immersion, maximum	0.20 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