

## HELIAX® LazrSPEED® 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® | LazrSPEED®

### General Specifications

**Application**

Remote radio head

**Cable Type**

Wireless feeder

**Conductors, quantity**

2

**Construction Type**

Shielded

**Fiber Short Description**

RFF – 12AWG

**Fiber Type, quantity**

4

**Fibers per Subunit, quantity**

2

**Inner Shield (Tape) Material**

Corrugated aluminum

**Jacket Color**

Black

**Outer Shield (Tape) Material**

PVC

**Strength Members**

Glass reinforced plastic rod

**Subunit, quantity**

2

**Total Fiber Count**

4

**Water Blocking Method**

Water blocking tape(s) | Water blocking threads

### Dimensions

**Buffer Tube/Subunit Diameter**

3.048 mm | 0.12 in

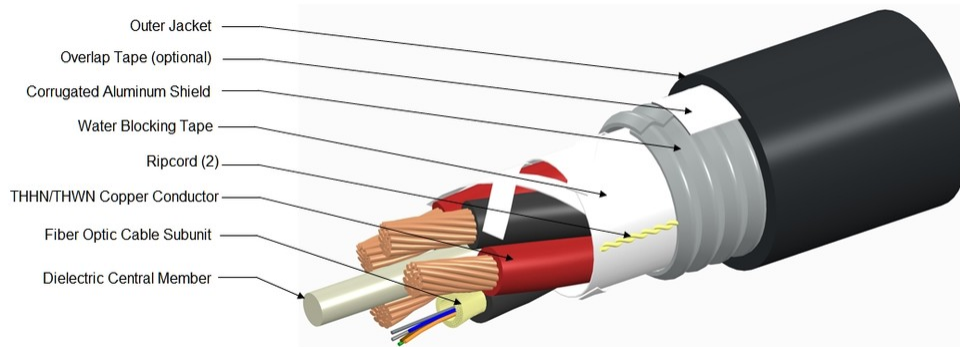
# 760191353 | HTC-4MM-212-APV

<b>Diameter Over Jacket</b>	14.224 mm   0.56 in
<b>Conductor Gauge</b>	12 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>	5.413 ohms/km   1.65 ohms/kft

## Representative Image



## Material Specifications

<b>Ripcord Material</b>	Para-aramid synthetic fiber
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## Mechanical Specifications

<b>Minimum Bend Radius, multiple bends, loaded</b>	284.48 mm   11.2 in
<b>Minimum Bend Radius, multiple bends, unloaded</b>	142.24 mm   5.6 in
<b>Minimum Bend Radius, single bend, unloaded</b>	99.06 mm   3.9 in
<b>Tensile Load, long term, maximum</b>	266.893 N   60 lbf
<b>Tensile Load, short term, maximum</b>	889.644 N   200 lbf
<b>Compression</b>	2.25 kg/mm   126 lb/in
<b>Compression Test Method</b>	FOTP-41
<b>Flex</b>	25 cycles
<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
<b>Twist</b>	10 cycles
<b>Twist Test Method</b>	FOTP-85

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## 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 +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** 239.594 kg/km | 161 lb/kft

## Regulatory Compliance/Certifications

Agency	Classification
CHINA-ROHS	Below maximum concentration value
REACH-SVHC	Compliant as per SVHC revision on <a href="http://www.commscope.com/ProductCompliance">www.commscope.com/ProductCompliance</a>
ROHS	Compliant



## 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

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## LazrSPEED® 150 OM2+ Bend-Insensitive Multimode Fiber

### LazrSPEED® 150

#### 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>	±0.8 µm
<b>Cladding Non-Circularity, maximum</b>	1 %
<b>Coating Diameter (Colored)</b>	254 µm
<b>Coating Diameter (Uncolored)</b>	245 µm
<b>Coating Diameter Tolerance (Colored)</b>	±7 µm
<b>Coating Diameter Tolerance (Uncolored)</b>	±10 µm
<b>Coating/Cladding Concentricity Error, maximum</b>	12 µm
<b>Core Diameter</b>	50 µm
<b>Core Diameter Tolerance</b>	±2.5 µm
<b>Core/Clad Offset, maximum</b>	1.5 µm
<b>Proof Test</b>	689.476 N/mm <sup>2</sup>   100000 psi

#### Mechanical Specifications

<b>Macrobending, 15 mm mandrel, 2 turns</b>	0.20 dB @ 850 nm   0.50 dB @ 1,300 nm
<b>Macrobending, 30 mm mandrel, 2 turns</b>	0.10 dB @ 850 nm   0.30 dB @ 1,300 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>	18

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## Optical Specifications

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

## Optical Specifications, Wavelength Specific

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

## Environmental Specifications

<b>Heat Aging, maximum</b>	0.20 dB/km @ 85 °C
<b>Temperature Dependence, maximum</b>	0.1 dB/km
<b>Temperature Humidity Cycling, maximum</b>	0.2 dB/km
<b>Water Immersion, maximum</b>	0.20 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)
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# CS-5M-MP

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**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