

760241705 | HEC-4KM-212-APV

HELIAX® LazrSPEED® Hybrid Cable

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
Inner Shield (Tape) Material	Corrugated aluminum
Jacket Color	Black
Outer Shield (Tape) Material	PVC
Strength Members	Glass reinforced plastic rod
Subunit, quantity	2
Fibers per Subunit, quantity	2
Total Fiber Count	4
Water Blocking Method	Water blocking tape(s) Water blocking threads

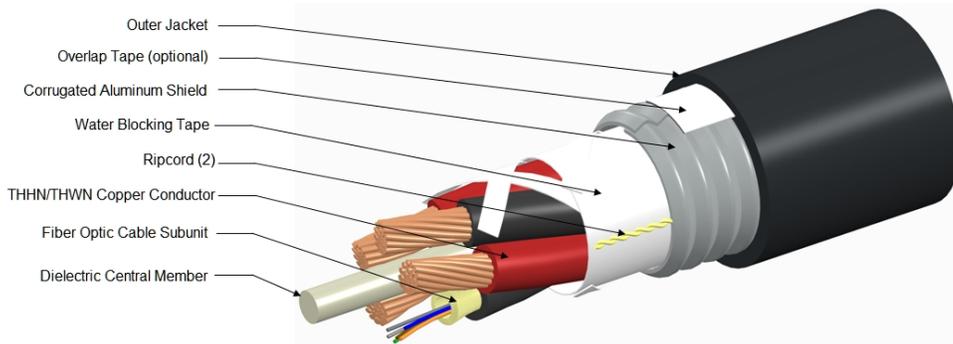
Dimensions

Buffer Tube/Subunit Diameter	3.048 mm 0.12 in
Diameter Over Jacket	13.462 mm 0.53 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	269.24 mm 10.6 in
Minimum Bend Radius, multiple bends, unloaded	134.62 mm 5.3 in
Minimum Bend Radius, single bend, unloaded	93.98 mm 3.7 in
Tensile Load, long term, maximum	200.17 N 45 lbf
Tensile Load, short term, maximum	667.233 N 150 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

Optical Specifications

Fiber Type OM4, LazrSPEED® 550 | OM4, LazrSPEED® 550

Environmental Specifications

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

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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	217.272 kg/km 146 lb/kft
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Regulatory Compliance/Certifications

Agency	Classification
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on www.commscope.com/ProductCompliance
ROHS	Compliant
UK-ROHS	Compliant



Included Products

CS-5K-MP	- LazrSPEED® 550 OM4 Bend-Insensitive Multimode Fiber
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* Footnotes

Operating Temperature Specification applicable to non-terminated bulk fiber cable

CS-5K-MP

LazrSPEED® 550

LazrSPEED® 550 OM4 Bend-Insensitive Multimode Fiber

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/mm ² 100000 psi

Mechanical Specifications

Macrobending, 15 mm Ø mandrel, 2 turns	0.20 dB @ 850 nm 0.50 dB @ 1,300 nm
Macrobending, 30 mm Ø mandrel, 2 turns	0.10 dB @ 850 nm 0.30 dB @ 1,300 nm
Macrobending, 75 mm Ø mandrel, 100 turns	0.50 dB @ 1,300 nm 0.50 dB @ 850 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

Optical Specifications

Numerical Aperture	0.2
Numerical Aperture Tolerance	±0.015
Point Defects, maximum	0.15 dB

CS-5K-MP

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	1,110 m @ 850 nm 600 m @ 1,300 nm
10 Gbps Ethernet Distance	550 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	4,700 MHz-km @ 850 nm 500 MHz-km @ 1,300 nm
Bandwidth, OFL, minimum	3,500 MHz-km @ 850 nm 500 MHz-km @ 1,300 nm
Differential Mode Delay	0.70 ps/m @ 850 nm 0.88 ps/m @ 1,300 nm
Differential Mode Delay Note	Superior to TIA-492AAAC and IEC 60793-2-10 at 850 nm
Index of Refraction	1.479 @ 1,300 nm 1.483 @ 850 nm
Standards Compliance	IEC 60793-2-10, type A1a.3a IEC 60793-2-10, type A1a.3b TIA-492AAAD (OM4)

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