

HELIAX® TeraSPEED® Hybrid Cable with steel armor: Specification for reference only. Contact CommScope for information about factory made assemblies

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® TeraSPEED®

General Specifications

Application	Remote radio head
Armor Type	Corrugated steel
Cable Type	Wireless feeder
Conductors, quantity	2
Construction Type	Armored
Fiber Short Description	B-060-LN-XY-FZZNS/16G
Fiber Type, quantity	8
Fibers per Subunit, quantity	4
Filler, quantity	1
Inner Shield (Tape) Material	Corrugated steel
Jacket Color	Black
Outer Shield (Tape) Material	PE
Strength Members	Glass reinforced plastic rod
Subunit, quantity	2
Total Fiber Count	8
Water Blocking Method	Water blocking tape(s) Water blocking threads

760150987 | RFF-4SM4SM-208-SPE

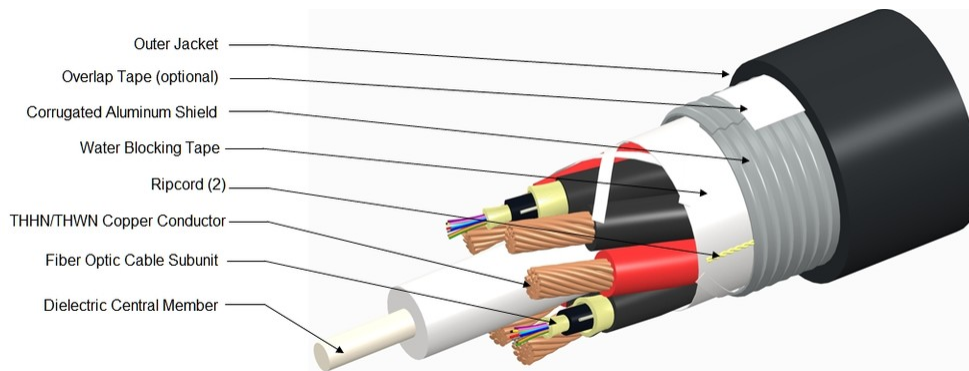
Dimensions

Buffer Tube/Subunit Diameter	5.08 mm 0.2 in
Diameter Over Jacket	18.796 mm 0.74 in
Conductor Gauge	8 AWG

Electrical Specifications

dc Resistance Note	Maximum value based on a standard condition of 20 °C (68 °F)
dc Resistance, maximum	2.146 ohms/km 0.654 ohms/kft

Representative Image



Material Specifications

Ripcord Material	Para-aramid synthetic fiber
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Mechanical Specifications

Minimum Bend Radius, multiple bends, loaded	378.46 mm 14.9 in
Minimum Bend Radius, multiple bends, unloaded	187.96 mm 7.4 in
Minimum Bend Radius, single bend, unloaded	132.08 mm 5.2 in
Tensile Load, long term, maximum	800.68 N 180 lbf
Tensile Load, short term, maximum	2,668.932 N 600 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

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Twist 10 cycles

Twist Test Method FOTP-85

Optical Specifications

Fiber Type G.652.D and G.657.A1 , TeraSPEED® | G.652.D and G.657.A1, TeraSPEED®

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 431.568 kg/km | 290 lb/kft

Regulatory Compliance/Certifications

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



Included Products

CS-8W-TB – TeraSPEED® Singlemode Fiber

* Footnotes

Operating Temperature Specification applicable to non-terminated bulk fiber cable

TeraSPEED®

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 Diameter	8.3 µm
Core/Clad Offset, maximum	0.5 µm
Proof Test	689.476 N/mm ² 100000 psi
Tight Buffer Diameter	900 µm
Tight Buffer Diameter Tolerance	±40 µm

Dimensions

Fiber Curl, minimum	4 m 13.123 ft
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Mechanical Specifications

Macrobending, 20 mm mandrel, 1 turn	0.75 dB @ 1,550 nm 1.50 dB @ 1,625 nm
Macrobending, 30 mm mandrel, 10 turns	0.25 dB @ 1,550 nm 1.00 dB @ 1,625 nm

CS-8W-TB

Macrobending, 60 mm mandrel, 100 turns	0.05 dB @ 1,550 nm 0.05 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
Zero Dispersion Slope, maximum	0.092 ps/[km-nm-nm]
Zero Dispersion Wavelength, maximum	1324 nm
Zero Dispersion Wavelength, minimum	1300 nm

Optical Specifications, Wavelength Specific

Attenuation, maximum	0.50 dB/km @ 1,310 nm 0.50 dB/km @ 1,385 nm 0.50 dB/km @ 1,490 nm 0.50 dB/km @ 1,550 nm 0.50 dB/km @ 1,575 nm 0.70 dB/km @ 1,270 nm
Backscatter Coefficient	-79.6 dB @ 1,310 nm -82.1 dB @ 1,550 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	10.4 μm @ 1,550 nm 9.2 μm @ 1,310 nm 9.6 μm @ 1,385 nm
Mode Field Diameter Tolerance	± 0.4 μm @ 1310 nm ± 0.5 μm @ 1550 nm ± 0.6 μm @ 1385 nm
Polarization Mode Dispersion Link Design Value, maximum	0.04 ps/sqrt(km)
Standards Compliance	ITU-T G.652.D ITU-T G.657.A1

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

CS-8W-TB

Agency

ISO 9001:2015

**Classification**

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