



EW63

EW63, HELIAX® Standard Elliptical Waveguide, 5.925–7.125 GHz, black PE jacket

Construction Materials

Jacket Material	PE
Conductor Material	Corrugated copper
Jacket Color	Black

Dimensions

Cable Volume	855.0 L/km 9.2 ft ³ /kft
Cable Weight	0.76 kg/m 0.51 lb/ft
Diameter Over Jacket (E Plane)	51.10 mm 2.01 in
Diameter Over Jacket (H Plane)	29.50 mm 1.16 in

Electrical Specifications

Operating Frequency Band	5.925 – 7.125 GHz
eTE11 Mode Cutoff	4.001 GHz
Group Delay	126 ns/100 ft @ 6.775 GHz 413 ns/100 m @ 6.775 GHz

Environmental Specifications

Installation Temperature	-40 °C to +60 °C (-40 °F to +140 °F)
Operating Temperature	-55 °C to +85 °C (-67 °F to +185 °F)
Storage Temperature	-70 °C to +85 °C (-94 °F to +185 °F)

General Specifications

Brand	HELIAX®
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Mechanical Specifications

Maximum Twist	3.00 °/m 1.00 °/ft
Minimum Bend Radius, Multiple Bends (E Plane)	260.00 mm 10.00 in
Minimum Bend Radius, Multiple Bends (H Plane)	740.00 mm 29.00 in
Minimum Bend Radius, Single Bend (E Plane)	180.00 mm 7.00 in
Minimum Bend Radius, Single Bend (H Plane)	510.00 mm 20.00 in

Note

Performance Note	Values typical, unless otherwise stated
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Standard Conditions

Attenuation, Ambient Temperature	24 °C 75 °F
Average Power, Ambient Temperature	40 °C 104 °F
Average Power, Temperature Rise	42 °C 76 °F

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Return Loss/VSWR

Frequency Band	VSWR	Return Loss (dB)
5.925–7.125 GHz	1.15	23.10

* VSWR/Return Loss indicated is for lengths up to 300 ft (91.4 m)

* VSWR/Return Loss is guaranteed for factory-fit and typical for field-fit assemblies

* Custom length performance: Call 828-324-2200 or 1-800-982-1708 (toll free), or your local CommScope representative

Attenuation

Frequency (GHz)	Attenuation (dB/100 ft)	Attenuation (dB/100 m)	Average Power (kW)	Group Velocity %
5.9	1.487	4.878	4.45	73.8
6.1	1.446	4.745	4.575	75.7
6.3	1.412	4.632	4.687	77.4
6.5	1.383	4.537	4.784	79
6.7	1.359	4.458	4.869	80.3
6.9	1.338	4.39	4.944	81.6
7.1	1.32	4.332	5.011	82.7

Regulatory Compliance/Certifications

Agency	Classification
RoHS 2011/65/EU	Compliant
China RoHS SJ/T 11364-2006	Below Maximum Concentration Value (MCV)
ISO 9001:2008	Designed, manufactured and/or distributed under this quality management system

