



EW63, HELIAX® Standard Elliptical Waveguide, 5.925–7.125 GHz, black non-halogenated, fire retardant polyolefin jacket

## Product Classification

<b>Brand</b>	HELIAX®
<b>Product Type</b>	Elliptical waveguide

## Construction Materials

<b>Jacket Material</b>	Non-halogenated, fire retardant polyolefin
<b>Conductor Material</b>	Corrugated copper
<b>Jacket Color</b>	Black

## Dimensions

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

## Electrical Specifications

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

## Environmental Specifications

<b>Installation Temperature</b>	-25 °C to +60 °C (-13 °F to +140 °F)
<b>Operating Temperature</b>	-30 °C to +80 °C (-22 °F to +176 °F)
<b>Storage Temperature</b>	-30 °C to +80 °C (-22 °F to +176 °F)

## Mechanical Specifications

<b>Fire Retardancy Test Method</b>	UL 1666/CATVR/CMR
<b>Maximum Twist</b>	3.00 °/m   1.00 °/ft
<b>Minimum Bend Radius, Multiple Bends (E Plane)</b>	260.00 mm   10.00 in
<b>Minimum Bend Radius, Multiple Bends (H Plane)</b>	740.00 mm   29.00 in
<b>Minimum Bend Radius, Single Bend (E Plane)</b>	180.00 mm   7.00 in
<b>Minimum Bend Radius, Single Bend (H Plane)</b>	510.00 mm   20.00 in
<b>Toxicity Index Test Method</b>	IEC 60754-2

## Note

**Performance Note** Values typical, unless otherwise stated

## Standard Conditions

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

## 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
UL/ETL Certification	CATVR/CMR
RoHS 2011/65/EU	Compliant
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
China RoHS SJ/T 11364-2014	Below Maximum Concentration Value (MCV)

