



EW85, HELIAX® Standard Elliptical Waveguide, 8.5–9.8 GHz, black non-halogenated, fire retardant polyolefin jacket

## Product Classification

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

## General Specifications

<b>Jacket Color</b>	Black
<b>Performance Note</b>	Values typical, unless otherwise stated

## Dimensions

<b>Diameter Over Jacket (E Plane)</b>	33.5 mm   1.319 in
<b>Diameter Over Jacket (H Plane)</b>	22.9 mm   0.902 in
<b>Cable Volume</b>	390 L/km   4.198 ft <sup>3</sup> /kft

## Electrical Specifications

<b>eTE11 Mode Cutoff</b>	6.46 GHz
<b>Group Delay at Frequency</b>	143 ns/100 ft @ 9.200 GHz   468 ns/100 m @ 9.200 GHz
<b>Operating Frequency Band</b>	8.5 – 9.8 GHz

## VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
8.5–9.8 GHz	1.17	22.13

## Attenuation

Frequency (GHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Average Power (kW)	Group Velocity %
8.5	11.311	3.448	1.463	65
8.7	10.917	3.328	1.516	67

8.9	10.589	3.227	1.563	68.8
9.1	10.31	3.142	1.606	70.4
9.3	10.07	3.069	1.644	71.9
9.5	9.863	3.006	1.678	73.3
9.7	9.681	2.951	1.71	74.6

## Material Specifications

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

## Mechanical Specifications

<b>Minimum Bend Radius, Multiple Bends (E Plane)</b>	200 mm   7.874 in
<b>Minimum Bend Radius, Multiple Bends (H Plane)</b>	480 mm   18.898 in
<b>Minimum Bend Radius, Single Bend (E Plane)</b>	200 mm   7.874 in
<b>Minimum Bend Radius, Single Bend (H Plane)</b>	480 mm   18.898 in
<b>Maximum Twist</b>	3.281 °/m   1 °/ft

## 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)
<b>Attenuation, Ambient Temperature</b>	75 °F   23.889 °C
<b>Average Power, Ambient Temperature</b>	104 °F   40 °C
<b>Average Power, Temperature Rise</b>	42 °C   107.6 °F
<b>Fire Retardancy Test Method</b>	UL 1666/CATVR/CMR

## Packaging and Weights

<b>Cable weight</b>	0.5 kg/m   0.336 lb/ft
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## Regulatory Compliance/Certifications

Agency	Classification
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on <a href="http://www.commscope.com/ProductCompliance">www.commscope.com/ProductCompliance</a>
ROHS	Compliant
UL/ETL Certification	CATVR/CMR

