

# EW85

EW85, HELIAX® Standard Elliptical Waveguide, 8.5–9.8 GHz, black PE jacket



**OBSOLETE**

This product was discontinued on: January 2, 2024

## Product Classification

<b>Product Type</b>	Standard elliptical waveguide
<b>Product Brand</b>	HELIAX®
<b>Product Series</b>	Standard

## 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 ft³/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

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## 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>	PE

## 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>	-40 °C to +60 °C (-40 °F to +140 °F)
<b>Operating Temperature</b>	-55 °C to +85 °C (-67 °F to +185 °F)
<b>Storage Temperature</b>	-70 °C to +85 °C (-94 °F to +185 °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

## Packaging and Weights

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

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**Agency**

ISO 9001:2015

REACH-SVHC

ROHS

UK-ROHS

**Classification**

Designed, manufactured and/or distributed under this quality management system

Compliant as per SVHC revision on [www.commscope.com/ProductCompliance](http://www.commscope.com/ProductCompliance)

Compliant

Compliant