

# EW85

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



## Product Classification

Product Type	Elliptical waveguide
Product Brand	HELIAX®

## General Specifications

Jacket Color	Black
Performance Note	Values typical, unless otherwise stated

## Dimensions

Diameter Over Jacket (E Plane)	33.5 mm   1.319 in
Diameter Over Jacket (H Plane)	22.9 mm   0.902 in
Cable Volume	390 L/km   4.198 ft³/kft

## Electrical Specifications

eTE11 Mode Cutoff	6.46 GHz
Group Delay at Frequency	143 ns/100 ft @ 9.200 GHz   468 ns/100 m @ 9.200 GHz
Operating Frequency Band	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

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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>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

<b>Agency</b>	<b>Classification</b>
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

