

# EW77

EW77, HELIAX® Standard Elliptical Waveguide, 7.125–8.5 GHz, black PE jacket



## 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>	43.6 mm   1.717 in
<b>Diameter Over Jacket (H Plane)</b>	25.4 mm   1 in
<b>Cable Volume</b>	585 L/km   6.297 ft³/kft

## Electrical Specifications

<b>eTE11 Mode Cutoff</b>	4.72 GHz
<b>Group Delay at Frequency</b>	128 ns/100 ft @ 7.800 GHz   419 ns/100 m @ 7.800 GHz
<b>Operating Frequency Band</b>	7.125 – 8.5 GHz

## VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
7.125–8.5 GHz	1.15	23.13

## Attenuation

Frequency (GHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Average Power (kW)	Group Velocity %
7.125	6.258	1.907	3.122	74.9

# EW77

7.33	6.107	1.861	3.199	76.5
7.53	5.982	1.823	3.266	77.9
7.73	5.875	1.791	3.326	79.2
7.93	5.782	1.762	3.379	80.4
8.13	5.701	1.738	3.427	81.4
8.33	5.631	1.716	3.47	82.4

## Material Specifications

<b>Conductor Material</b>	Corrugated copper
<b>Jacket Material</b>	PE

## Mechanical Specifications

<b>Minimum Bend Radius, Multiple Bends (E Plane)</b>	230 mm   9.055 in
<b>Minimum Bend Radius, Multiple Bends (H Plane)</b>	635 mm   25 in
<b>Minimum Bend Radius, Single Bend (E Plane)</b>	180 mm   7.087 in
<b>Minimum Bend Radius, Single Bend (H Plane)</b>	510 mm   20.079 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>	0.67 kg/m   0.45 lb/ft
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## Regulatory Compliance/Certifications

<b>Agency</b>	<b>Classification</b>
CHINA-ROHS	Below maximum concentration value
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

# EW77

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UK-ROHS

Compliant

