

# 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 ft <sup>3</sup> /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
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

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<b>7.93</b>	5.782	1.762	3.379	80.4
<b>8.13</b>	5.701	1.738	3.427	81.4
<b>8.33</b>	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.andrew.com/ProductCompliance">www.andrew.com/ProductCompliance</a>
ROHS	Compliant
UK-ROHS	Compliant



