

# 222040-4

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EWP127A-117W, HELIAX® Premium Elliptical Waveguide, 11.7–13.25 GHz, unjacketed

## Product Classification

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

## General Specifications

<b>Performance Note</b>	Values typical, unless otherwise stated
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## Dimensions

<b>Diameter Over Jacket (E Plane)</b>	28.2 mm   1.11 in
<b>Diameter Over Jacket (H Plane)</b>	17.1 mm   0.673 in
<b>Cable Volume</b>	251 L/km   2.702 ft <sup>3</sup> /kft

## Electrical Specifications

<b>eTE11 Mode Cutoff</b>	7.67 GHz
<b>Group Delay at Frequency</b>	128 ns/100 ft @ 12.700 GHz   419 ns/100 m @ 12.700 GHz
<b>Operating Frequency Band</b>	11.7 – 13.25 GHz

## VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
11.7–13.25 GHz	1.08	28.3

## Attenuation

Frequency (GHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Average Power (kW)	Group Velocity %
11.7	12.276	3.742	1.196	75.5
11.95	12.086	3.684	1.214	76.7
12.2	11.918	3.633	1.232	77.8
12.45	11.769	3.587	1.247	78.8
12.7	11.634	3.546	1.262	79.7
12.95	11.514	3.509	1.275	80.6
13.2	11.405	3.476	1.287	81.4

## Material Specifications

<b>Conductor Material</b>	Corrugated copper
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**Jacket Material** Unjacketed

## Mechanical Specifications

<b>Minimum Bend Radius, Multiple Bends (E Plane)</b>	150 mm   5.906 in
<b>Minimum Bend Radius, Multiple Bends (H Plane)</b>	380 mm   14.961 in
<b>Minimum Bend Radius, Single Bend (E Plane)</b>	130 mm   5.118 in
<b>Minimum Bend Radius, Single Bend (H Plane)</b>	280 mm   11.024 in
<b>Maximum Twist</b>	6.562 °/m   2 °/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

**Cable weight** 0.43 kg/m | 0.289 lb/ft

## Regulatory Compliance/Certifications

<b>Agency</b>	<b>Classification</b>
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system

