

# 222040-10

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EW20, HELIAX® Standard Elliptical Waveguide, 2.3–2.4 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>	127.5 mm   5.02 in
<b>Diameter Over Jacket (H Plane)</b>	71.9 mm   2.831 in
<b>Cable Volume</b>	5621 L/km   60.504 ft³/kft

## Electrical Specifications

<b>eTE11 Mode Cutoff</b>	1.57 GHz
<b>Group Delay at Frequency</b>	128 ns/100 ft @ 2.600 GHz   418 ns/100 m @ 2.600 GHz
<b>Operating Frequency Band</b>	2.3 – 2.4 GHz

## VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
2.3–2.4 GHz	1.15	23.13

## Attenuation

Frequency (GHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Average Power (kW)	Group Velocity %
2.3	1.534	0.468	31.501	73.1
2.4	1.484	0.452	32.559	75.6

## Material Specifications

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

## Mechanical Specifications

<b>Minimum Bend Radius, Multiple Bends (E Plane)</b>	660 mm   25.984 in
<b>Minimum Bend Radius, Multiple Bends (H Plane)</b>	1800 mm   70.866 in

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<b>Minimum Bend Radius, Single Bend (E Plane)</b>	460 mm   18.11 in
<b>Minimum Bend Radius, Single Bend (H Plane)</b>	1270 mm   50 in
<b>Maximum Twist</b>	0.098 °/m   0.03 °/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>	2.76 kg/m   1.855 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

