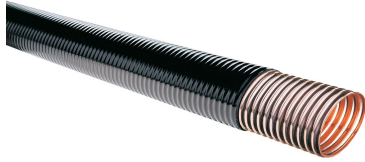


# EW28



EW28, HELIAX® Standard Elliptical Waveguide, 2.9–3.4 GHz, black PE jacket

## Product Classification

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

## General Specifications

<b>Jacket Color</b>	Black
<b>Performance Note</b>	Values typical, unless otherwise stated

## Dimensions

<b>Diameter Over Jacket (E Plane)</b>	92.5 mm   3.642 in
<b>Diameter Over Jacket (H Plane)</b>	59.2 mm   2.331 in
<b>Cable Volume</b>	3345 L/km   36.005 ft³/kft

## Electrical Specifications

<b>eTE11 Mode Cutoff</b>	2.153 GHz
<b>Group Delay at Frequency</b>	137 ns/100 ft @ 3.200 GHz   451 ns/100 m @ 3.200 GHz
<b>Operating Frequency Band</b>	2.9 – 3.4 GHz

## VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
2.9–3.1 GHz	1.2	20.83
3.1–3.4 GHz	1.15	23.13

## Attenuation

Frequency (GHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Average Power (kW)	Group Velocity %
2.9	2.217	0.676	16.506	67
3.0	2.11	0.643	17.349	69.6

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<b>3.1</b>	2.026	0.617	18.067	71.9
<b>3.2</b>	1.959	0.597	18.684	74
<b>3.3</b>	1.904	0.58	19.219	75.8
<b>3.4</b>	1.859	0.567	19.687	77.4

## Material Specifications

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

## Mechanical Specifications

<b>Minimum Bend Radius, Multiple Bends (E Plane)</b>	560 mm   22.047 in
<b>Minimum Bend Radius, Multiple Bends (H Plane)</b>	1320 mm   51.969 in
<b>Minimum Bend Radius, Single Bend (E Plane)</b>	560 mm   22.047 in
<b>Minimum Bend Radius, Single Bend (H Plane)</b>	1320 mm   51.969 in
<b>Maximum Twist</b>	0.82 °/m   0.25 °/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>	2.04 kg/m   1.371 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

