

# EW43

EW43, HELIAX® Standard Elliptical Waveguide, 4.4–5.0 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>	71 mm   2.795 in
<b>Diameter Over Jacket (H Plane)</b>	41 mm   1.614 in
<b>Cable Volume</b>	1690 L/km   18.191 ft <sup>3</sup> /kft

## Electrical Specifications

<b>eTE11 Mode Cutoff</b>	2.78 GHz
<b>Group Delay at Frequency</b>	128 ns/100 ft @ 4.600 GHz   419 ns/100 m @ 4.600 GHz
<b>Operating Frequency Band</b>	4.4 – 5.0 GHz

## VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
4.4–5.0 GHz	1.15	23.13

## Attenuation

Frequency (GHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Average Power (kW)	Group Velocity %
4.4	2.983	0.909	9.52	77.5
4.5	2.948	0.899	9.632	78.6

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4.6	2.917	0.889	9.734	79.7
4.7	2.889	0.881	9.827	80.6
4.8	2.864	0.873	9.912	81.5
4.9	2.842	0.866	9.99	82.3
5.0	2.822	0.86	10.061	83.1

## Material Specifications

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

## Mechanical Specifications

<b>Minimum Bend Radius, Multiple Bends (E Plane)</b>	381 mm   15 in
<b>Minimum Bend Radius, Multiple Bends (H Plane)</b>	1016 mm   40 in
<b>Minimum Bend Radius, Single Bend (E Plane)</b>	280 mm   11.024 in
<b>Minimum Bend Radius, Single Bend (H Plane)</b>	711 mm   27.992 in
<b>Maximum Twist</b>	1.64 °/m   0.5 °/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>	1.2 kg/m   0.806 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

