

# EWP52-50



EWP52, HELIAX® Premium Elliptical Waveguide, 5.0–5.85 GHz, black PE jacket

**OBSOLETE**  
This product was discontinued on: January 2, 2024

## Product Classification

Product Type	Premium elliptical waveguide
Product Brand	HELIAX®
Product Series	Premium

## General Specifications

Jacket Color	Black
Performance Note	Values typical, unless otherwise stated

## Dimensions

Diameter Over Jacket (E Plane)	57.2 mm   2.252 in
Diameter Over Jacket (H Plane)	33.3 mm   1.311 in
Cable Volume	1045 L/km   11.248 ft³/kft

## Electrical Specifications

eTE11 Mode Cutoff	3.65 GHz
Group Delay at Frequency	126 ns/100 ft @ 6.200 GHz   413 ns/100 m @ 6.200 GHz
Operating Frequency Band	5.0 – 5.85 GHz

## Attenuation

Frequency (GHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Average Power (kW)	Group Velocity %
5.0	4.634	1.413	5.063	68.3

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5.2	4.42	1.347	5.308	71.2
5.4	4.256	1.297	5.513	73.7
5.6	4.126	1.258	5.687	75.8
5.8	4.021	1.226	5.835	77.7

## VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
5.0–5.85 GHz	1.1	26.45

## Material Specifications

Conductor Material	Corrugated copper
Jacket Material	PE

## Mechanical Specifications

Minimum Bend Radius, Multiple Bends (E Plane)	305 mm   12.008 in
Minimum Bend Radius, Multiple Bends (H Plane)	810 mm   31.89 in
Minimum Bend Radius, Single Bend (E Plane)	200 mm   7.874 in
Minimum Bend Radius, Single Bend (H Plane)	560 mm   22.047 in
Maximum Twist	3.281 °/m   1 °/ft

## Environmental Specifications

Installation temperature	-40 °C to +60 °C (-40 °F to +140 °F)
Operating Temperature	-55 °C to +85 °C (-67 °F to +185 °F)
Storage Temperature	-70 °C to +85 °C (-94 °F to +185 °F)
Attenuation, Ambient Temperature	75 °F   23.889 °C
Average Power, Ambient Temperature	104 °F   40 °C
Average Power, Temperature Rise	42 °C   107.6 °F

## Packaging and Weights

Cable weight	0.88 kg/m   0.591 lb/ft
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## Regulatory Compliance/Certifications

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

