

EWP90-107, HELIAX® Premium Elliptical Waveguide, 10.7–11.7 GHz, black non-halogenated, fire retardant polyolefin 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>	33.5 mm   1.319 in
<b>Diameter Over Jacket (H Plane)</b>	20.3 mm   0.799 in
<b>Cable Volume</b>	334 L/km   3.595 ft³/kft

## Electrical Specifications

<b>eTE11 Mode Cutoff</b>	6.5 GHz
<b>Group Delay at Frequency</b>	125 ns/100 ft @ 11.200 GHz   410 ns/100 m @ 11.200 GHz
<b>Operating Frequency Band</b>	10.7 – 11.7 GHz

## VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
10.7–11.7 GHz	1.06	30.72

## Attenuation

Frequency (GHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Average Power (kW)	Group Velocity %
10.7	10.311	3.143	1.559	79.4
10.9	10.198	3.108	1.576	80.3

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11.1	10.096	3.077	1.592	81.1
11.3	10.004	3.049	1.606	81.8
11.5	9.92	3.024	1.62	82.5
11.7	9.843	3	1.633	83.1

## Material Specifications

<b>Conductor Material</b>	Corrugated copper
<b>Jacket Material</b>	Non-halogenated, fire retardant polyolefin

## Mechanical Specifications

<b>Minimum Bend Radius, Multiple Bends (E Plane)</b>	180 mm   7.087 in
<b>Minimum Bend Radius, Multiple Bends (H Plane)</b>	480 mm   18.898 in
<b>Minimum Bend Radius, Single Bend (E Plane)</b>	150 mm   5.906 in
<b>Minimum Bend Radius, Single Bend (H Plane)</b>	330 mm   12.992 in
<b>Maximum Twist</b>	6.562 °/m   2 °/ft

## Environmental Specifications

<b>Installation temperature</b>	-25 °C to +60 °C (-13 °F to +140 °F)
<b>Operating Temperature</b>	-30 °C to +80 °C (-22 °F to +176 °F)
<b>Storage Temperature</b>	-30 °C to +80 °C (-22 °F to +176 °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
<b>Fire Retardancy Test Method</b>	UL 1666/CATVR/CMR
<b>Toxicity Index Test Method</b>	IEC 60754-2

## Packaging and Weights

<b>Cable weight</b>	0.48 kg/m   0.323 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
UL/ETL Certification	CATVR/CMR

