



EWP90-107, HELIAX® Premium Elliptical Waveguide, 10.7–11.7 GHz, black non-halogenated, fire retardant polyolefin jacket

## Product Classification

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

## Construction Materials

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

## Dimensions

<b>Cable Volume</b>	334.0 L/km   3.6 ft <sup>3</sup> /kft
<b>Cable Weight</b>	0.48 kg/m   0.32 lb/ft
<b>Diameter Over Jacket (E Plane)</b>	33.50 mm   1.32 in
<b>Diameter Over Jacket (H Plane)</b>	20.30 mm   0.80 in

## Electrical Specifications

<b>Operating Frequency Band</b>	10.7 – 11.7 GHz
<b>eTE11 Mode Cutoff</b>	6.500 GHz
<b>Group Delay</b>	125 ns/100 ft @ 11.200 GHz 410 ns/100 m @ 11.200 GHz

## 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)

## Mechanical Specifications

<b>Fire Retardancy Test Method</b>	UL 1666/CATVR/CMR
<b>Maximum Twist</b>	6.00 °/m   2.00 °/ft
<b>Minimum Bend Radius, Multiple Bends (E Plane)</b>	180.00 mm   7.00 in
<b>Minimum Bend Radius, Multiple Bends (H Plane)</b>	480.00 mm   19.00 in
<b>Minimum Bend Radius, Single Bend (E Plane)</b>	150.00 mm   6.00 in
<b>Minimum Bend Radius, Single Bend (H Plane)</b>	330.00 mm   13.00 in
<b>Toxicity Index Test Method</b>	IEC 60754-2

## Note

**Performance Note** Values typical, unless otherwise stated

## Standard Conditions

<b>Attenuation, Ambient Temperature</b>	24 °C   75 °F
<b>Average Power, Ambient Temperature</b>	40 °C   104 °F
<b>Average Power, Temperature Rise</b>	42 °C   76 °F

## Return Loss/VSWR

Frequency Band	VSWR	Return Loss (dB)
10.7–11.7 GHz	1.06	30.70

\* VSWR/Return Loss indicated is for lengths up to 300 ft (91.4 m)

\* VSWR/Return Loss is guaranteed for factory-fit and typical for field-fit assemblies

\* Custom length performance: Call 828-324-2200 or 1-800-982-1708 (toll free), or your local CommScope representative

## Attenuation

Frequency (GHz)	Attenuation (dB/100 ft)	Attenuation (dB/100 m)	Average Power (kW)	Group Velocity %
10.7	3.143	10.311	1.559	79.4
10.9	3.108	10.198	1.576	80.3
11.1	3.077	10.096	1.592	81.1
11.3	3.049	10.004	1.606	81.8
11.5	3.024	9.92	1.62	82.5
11.7	3	9.843	1.633	83.1

## Regulatory Compliance/Certifications

Agency	Classification
UL/ETL Certification	CATVR/CMR
RoHS 2011/65/EU	Compliant
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
China RoHS SJ/T 11364-2014	Below Maximum Concentration Value (MCV)

