



**Andrew Solutions**  
35409-20

**EWP52-59, HELIAX® Premium Elliptical Waveguide, 5.925–6.425 GHz, black non-halogenated, fire retardant polyolefin jacket**

## Construction Materials

Jacket Material	Non-halogenated, fire retardant polyolefin
Conductor Material	Corrugated copper
Jacket Color	Black

## Dimensions

Cable Volume	1045.0 L/km   11.3 ft <sup>3</sup> /kft
Cable Weight	0.88 kg/m   0.59 lb/ft
Diameter Over Jacket (E Plane)	57.20 mm   2.25 in
Diameter Over Jacket (H Plane)	33.30 mm   1.31 in

## Electrical Specifications

Operating Frequency Band	5.925 – 6.425 GHz
eTE11 Mode Cutoff	3.650 GHz
Group Delay	126 ns/100 ft @ 6.200 GHz 413 ns/100 m @ 6.200 GHz

## Environmental Specifications

Installation Temperature	-25 °C to +60 °C (-13 °F to +140 °F)
Operating Temperature	-30 °C to +80 °C (-22 °F to +176 °F)
Storage Temperature	-30 °C to +80 °C (-22 °F to +176 °F)

## General Specifications

Brand	HELIAX®
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## Mechanical Specifications

Maximum Twist	3.00 °/m   1.00 °/ft
Minimum Bend Radius, Multiple Bends (E Plane)	305.00 mm   12.00 in
Minimum Bend Radius, Multiple Bends (H Plane)	810.00 mm   32.00 in
Minimum Bend Radius, Single Bend (E Plane)	200.00 mm   8.00 in
Minimum Bend Radius, Single Bend (H Plane)	560.00 mm   22.00 in

## Note

Performance Note	Values typical, unless otherwise stated
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## Standard Conditions

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

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## Return Loss/VSWR

Frequency Band	VSWR	Return Loss (dB)
5.925–6.425 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 +1-800-255-1479 (N. America), 1-779-435-6500 (Int'l.), or your local Andrew representative

## Attenuation

Frequency (GHz)	Attenuation (dB/100 ft)	Attenuation (dB/100 m)	Average Power (kW)	Group Velocity %
5.9	1.209	3.965	5.917	78.8
6.1	1.186	3.89	6.032	80.3
6.3	1.166	3.825	6.134	81.6

## Regulatory Compliance/Certifications

### Agency

RoHS 2002/95/EC  
China RoHS SJ/T 11364-2006  
ISO 9001:2008

### Classification

Compliant  
Below Maximum Concentration Value (MCV)  
Designed, manufactured and/or distributed under this quality management system

