

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



Product Classification

Product Type	Elliptical waveguide
Product Brand	HELIAX®

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	5.925 – 6.425 GHz

VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
5.925–6.425 GHz	1.06	30.72

Attenuation

Frequency (GHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Average Power (kW)	Group Velocity %
5.925	3.965	1.209	5.917	78.8
6.13	3.887	1.185	6.037	80.3

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6.33 3.822 1.165 6.138 81.7

Material Specifications

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

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	-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)
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
Fire Retardancy Test Method	UL 1666/CATVR/CMR
Toxicity Index Test Method	IEC 60754-2

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
UL/ETL Certification	CATVR/CMR

