



EWP17, HELIAX® Premium Elliptical Waveguide, 1.7–2.1 GHz, black PE 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)	143.5 mm 5.65 in
Diameter Over Jacket (H Plane)	75.9 mm 2.988 in
Cable Volume	6596 L/km 70.999 ft ³ /kft

Electrical Specifications

eTE11 Mode Cutoff	1.364 GHz
Group Delay at Frequency	139 ns/100 ft @ 2.000 GHz 456 ns/100 m @ 2.000 GHz
Operating Frequency Band	1.7 – 2.1 GHz

VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
1.7–2.1 GHz	1.19	21.24

Attenuation

Frequency (GHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Average Power (kW)	Group Velocity %
1.7	1.509	0.46	35.354	59.7
1.8	1.352	0.412	39.479	65.3

1.9	1.253	0.382	42.578	69.6
2.0	1.186	0.362	44.99	73.1
2.1	1.137	0.347	46.913	76

Material Specifications

Conductor Material	Corrugated copper
Jacket Material	PE

Mechanical Specifications

Minimum Bend Radius, Multiple Bends (E Plane)	710 mm 27.953 in
Minimum Bend Radius, Multiple Bends (H Plane)	2060 mm 81.102 in
Minimum Bend Radius, Single Bend (E Plane)	510 mm 20.079 in
Minimum Bend Radius, Single Bend (H Plane)	1450 mm 57.087 in
Maximum Twist	0.82 °/m 0.25 °/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	4.06 kg/m 2.728 lb/ft
---------------------	-------------------------

Regulatory Compliance/Certifications

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

