

EWP127A

EWP127A, HELIAX® Premium Elliptical Waveguide, 11.7–13.25 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)	28.2 mm 1.11 in
Diameter Over Jacket (H Plane)	17.1 mm 0.673 in
Cable Volume	251 L/km 2.705 ft ³ /kft

Electrical Specifications

Attenuation, Ambient Temperature	75 °F 23.889 °C
eTE11 Mode Cutoff	7.67 GHz
Group Delay at Frequency	128 ns/100 ft @ 12.700 GHz 419 ns/100 m @ 12.700 GHz
Operating Frequency Band	11.7 – 13.25 GHz

VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
11.7–12.2 GHz	1.08	28.3

Attenuation

Frequency (GHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Average Power (kW)	Group Velocity %
11.7	12.276	3.742	1.196	75.5
11.95	12.086	3.684	1.214	76.7

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12.2	11.918	3.633	1.232	77.8
12.45	11.769	3.587	1.247	78.8
12.7	11.634	3.546	1.262	79.7
12.95	11.514	3.509	1.275	80.6
13.2	11.405	3.476	1.287	81.4

Material Specifications

Conductor Material	Corrugated copper
Jacket Material	PE

Mechanical Specifications

Minimum Bend Radius, Multiple Bends (E Plane)	150 mm 5.906 in
Minimum Bend Radius, Multiple Bends (H Plane)	380 mm 14.961 in
Minimum Bend Radius, Single Bend (E Plane)	130 mm 5.118 in
Minimum Bend Radius, Single Bend (H Plane)	280 mm 11.024 in
Maximum Twist	2 °/ft 6.562 °/m

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)
Average Power, Ambient Temperature	104 °F 40 °C
Average Power, Temperature Rise	42 °C 107.6 °F

Packaging and Weights

Cable weight	0.43 kg/m 3.11 lb/ft
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Regulatory Compliance/Certifications

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

