

222040-7

EWP132-144, HELIAX® Premium Elliptical Waveguide, 14.4–15.35 GHz, unjacketed

Product Classification

Product Type	Elliptical waveguide
Product Brand	HELIAX®

General Specifications

Performance Note	Values typical, unless otherwise stated
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Dimensions

Diameter Over Jacket (E Plane)	24.4 mm 0.961 in
Diameter Over Jacket (H Plane)	15.5 mm 0.61 in
Cable Volume	167 L/km 1.798 ft ³ /kft

Electrical Specifications

eTE11 Mode Cutoff	9.22 GHz
Group Delay at Frequency	131 ns/100 ft @ 14.700 GHz 428 ns/100 m @ 14.700 GHz
Operating Frequency Band	14.4 – 15.35 GHz

VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
14.4–15.35 GHz	1.05	32.26

Attenuation

Frequency (GHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Average Power (kW)	Group Velocity %
14.4	16.018	4.882	0.843	76.8
14.6	15.874	4.838	0.85	77.5
14.8	15.74	4.798	0.858	78.2
15.0	15.616	4.76	0.865	78.9
15.2	15.501	4.725	0.871	79.5

Material Specifications

Conductor Material	Corrugated copper
Jacket Material	Unjacketed

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Mechanical Specifications

Minimum Bend Radius, Multiple Bends (E Plane)	130 mm 5.118 in
Minimum Bend Radius, Multiple Bends (H Plane)	360 mm 14.173 in
Minimum Bend Radius, Single Bend (E Plane)	130 mm 5.118 in
Minimum Bend Radius, Single Bend (H Plane)	360 mm 14.173 in
Maximum Twist	6.562 °/m 2 °/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	0.33 kg/m 0.222 lb/ft
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Regulatory Compliance/Certifications

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

