

EWP63S, HELIAX® Super Premium Elliptical Waveguide, 6.425–7.125 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)	51.1 mm 2.012 in
Diameter Over Jacket (H Plane)	29.5 mm 1.161 in
Cable Volume	855 L/km 9.203 ft ³ /kft

Electrical Specifications

eTE11 Mode Cutoff	4.001 GHz
Group Delay at Frequency	126 ns/100 ft @ 6.775 GHz 413 ns/100 m @ 6.775 GHz
Operating Frequency Band	6.425 – 7.125 GHz

VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
6.425–7.125 GHz	1.05	32.3

Attenuation

Frequency (GHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Average Power (kW)	Group Velocity %
6.425	4.58	1.396	4.739	78.2
6.63	4.492	1.369	4.832	79.7
6.83	4.419	1.347	4.912	81
7.03	4.357	1.328	4.982	82.2

Material Specifications

Conductor Material	Corrugated copper
Jacket Material	Unjacketed

Mechanical Specifications

Minimum Bend Radius, Multiple Bends (E Plane)	260 mm 10.236 in
Minimum Bend Radius, Multiple Bends (H Plane)	740 mm 29.134 in
Minimum Bend Radius, Single Bend (E Plane)	180 mm 7.087 in
Minimum Bend Radius, Single Bend (H Plane)	510 mm 20.079 in
Maximum Twist	3.281 °/m 1 °/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	0.76 kg/m 0.511 lb/ft
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Regulatory Compliance/Certifications

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

