EWP64-65, HELIAX® 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

Dimensions

Diameter Over Jacket (E Plane)	48.5 mm | 1.909 in
Diameter Over Jacket (H Plane)	28.4 mm | 1.118 in
Cable Volume	725 L/km | 7.804 ft³/kft

Electrical Specifications

eTE11 Mode Cutoff	4.32 GHz
Group Delay at Frequency	125 ns/100 ft @ 7.400 GHz | 411 ns/100 m @ 7.400 GHz
Operating Frequency Band	6.425 − 7.125 GHz

VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
6.425−7.125 GHz	1.06	30.72

Attenuation

Frequency (GHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Average Power (kW)	Group Velocity %
6.425	5.276	1.608	3.917	74
6.63	5.139	1.566	4.022	75.9
6.83	5.028	1.533	4.111	77.5
7.03	4.934	1.504	4.189	78.9

Material Specifications

Conductor Material	Corrugated copper
Jacket Material	Unjacketed

Mechanical Specifications

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Minimum Bend Radius, Multiple Bends (E Plane)	260 mm | 10.236 in
Minimum Bend Radius, Multiple Bends (H Plane)	685 mm | 26.969 in
Minimum Bend Radius, Single Bend (E Plane)	260 mm | 10.236 in
Minimum Bend Radius, Single Bend (H Plane)	685 mm | 26.969 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	0.73 kg/m | 0.491 lb/ft

Regulatory Compliance/Certifications

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

ISO
9001:2015

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