EW28

EW28, HELIAX® Standard Elliptical Waveguide, 2.9–3.4 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)	92.5 mm | 3.642 in
Diameter Over Jacket (H Plane)	59.2 mm | 2.331 in
Cable Volume	3345 L/km | 36.005 ft³/kft

Electrical Specifications

eTE11 Mode Cutoff	2.153 GHz
Group Delay at Frequency	137 ns/100 ft @ 3.200 GHz | 451 ns/100 m @ 3.200 GHz
Operating Frequency Band	2.9 – 3.4 GHz

VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
2.9–3.1 GHz	1.2	20.83
3.1–3.4 GHz	1.15	23.13

Attenuation

Frequency (GHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Average Power (kW)	Group Velocity %
2.9	2.217	0.676	16.506	67
3.0	2.11	0.643	17.349	69.6

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3.1	2.026	0.617	18.067	71.9
3.2	1.959	0.597	18.684	74
3.3	1.904	0.58	19.219	75.8
3.4	1.859	0.567	19.687	77.4

Material Specifications

Conductor Material	Corrugated copper
Jacket Material	PE

Mechanical Specifications

Minimum Bend Radius, Multiple Bends (E Plane)	560 mm | 22.047 in
Minimum Bend Radius, Multiple Bends (H Plane)	1320 mm | 51.969 in
Minimum Bend Radius, Single Bend (E Plane)	560 mm | 22.047 in
Minimum Bend Radius, Single Bend (H Plane)	1320 mm | 51.969 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	2.04 kg/m | 1.371 lb/ft

Regulatory Compliance/Certifications

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

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