

EW43



EW43, HELIAX® Standard Elliptical Waveguide, 4.4–5.0 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)	71 mm 2.795 in
Diameter Over Jacket (H Plane)	41 mm 1.614 in
Cable Volume	1690 L/km 18.191 ft³/kft

Electrical Specifications

eTE11 Mode Cutoff	2.78 GHz
Group Delay at Frequency	128 ns/100 ft @ 4.600 GHz 419 ns/100 m @ 4.600 GHz
Operating Frequency Band	4.4 – 5.0 GHz

VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
4.4–5.0 GHz	1.15	23.13

Attenuation

Frequency (GHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Average Power (kW)	Group Velocity %
4.4	2.983	0.909	9.52	77.5
4.5	2.948	0.899	9.632	78.6
4.6	2.917	0.889	9.734	79.7

EW43

4.7	2.889	0.881	9.827	80.6
4.8	2.864	0.873	9.912	81.5
4.9	2.842	0.866	9.99	82.3
5.0	2.822	0.86	10.061	83.1

Material Specifications

Conductor Material	Corrugated copper
Jacket Material	PE

Mechanical Specifications

Minimum Bend Radius, Multiple Bends (E Plane)	381 mm 15 in
Minimum Bend Radius, Multiple Bends (H Plane)	1016 mm 40 in
Minimum Bend Radius, Single Bend (E Plane)	280 mm 11.024 in
Minimum Bend Radius, Single Bend (H Plane)	711 mm 27.992 in
Maximum Twist	1.64 °/m 0.5 °/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)
Average Power, Ambient Temperature	104 °F 40 °C
Average Power, Temperature Rise	42 °C 107.6 °F

Packaging and Weights

Cable weight	1.2 kg/m 0.806 lb/ft
---------------------	------------------------

Regulatory Compliance/Certifications

Agency	Classification
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on www.commscope.com/ProductCompliance
ROHS	Compliant

