EW77

EW77, HELIAX® Standard Elliptical Waveguide, 7.125–8.5 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)	43.6 mm | 1.717 in
Diameter Over Jacket (H Plane)	25.4 mm | 1 in
Cable Volume	585 L/km | 6.305 ft³/kft

Electrical Specifications

Attenuation, Ambient Temperature	75 °F | 23.889 °C
eTE11 Mode Cutoff	4.72 GHz
Group Delay at Frequency	128 ns/100 ft @ 7.800 GHz | 419 ns/100 m @ 7.800 GHz
Operating Frequency Band	7.125 – 8.5 GHz

VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
7.125–8.5 GHz	1.15	23.13

Attenuation

Frequency (GHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Average Power (kW)	Group Velocity %
7.125	6.258	1.907	3.122	74.9
7.33	6.107	1.861	3.199	76.5

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7.53	5.982	1.823	3.266	77.9
7.73	5.875	1.791	3.326	79.2
7.93	5.782	1.762	3.379	80.4
8.13	5.701	1.738	3.427	81.4
8.33	5.631	1.716	3.47	82.4

Material Specifications

Conductor Material	Corrugated copper
Jacket Material	PE

Mechanical Specifications

Minimum Bend Radius, Multiple Bends (E Plane)	230 mm | 9.055 in
Minimum Bend Radius, Multiple Bends (H Plane)	635 mm | 25 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	1 °/ft | 3.281 °/m

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	0.67 kg/m | 4.846 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

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