EWP77-77

EWP77, HELIAX® Premium Elliptical Waveguide, 7.725–8.5 GHz, black PE jacket

OBSOLETE

This product was discontinued on: January 2, 2024

Product Classification

Product Type	Premium elliptical waveguide
Product Brand	HELIAX®
Product Series	Premium

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 | 6.297 ft³/kft

Electrical Specifications

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	7.725 – 8.5 GHz

VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
7.725–8.5 GHz	1.06	30.72

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Attenuation

Frequency (GHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Average Power (kW)	Group Velocity %
7.725	5.877	1.791	3.324	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	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	0.67 kg/m | 0.45 lb/ft

Regulatory Compliance/Certifications

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

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9001:2015

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