



EW127A

EW127A, HELIAX® Standard Elliptical Waveguide, 11.7–13.25 GHz, black PE jacket

Construction Materials

Jacket Material	PE
Conductor Material	Corrugated copper
Jacket Color	Black

Dimensions

Cable Volume	251.0 L/km 2.7 ft ³ /kft
Cable Weight	0.43 kg/m 0.29 lb/ft
Diameter Over Jacket (E Plane)	28.20 mm 1.11 in
Diameter Over Jacket (H Plane)	17.10 mm 0.67 in

Electrical Specifications

Operating Frequency Band	11.7 – 13.25 GHz
eTE11 Mode Cutoff	7.670 GHz
Group Delay	128 ns/100 ft @ 12.700 GHz 419 ns/100 m @ 12.700 GHz

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)

General Specifications

Brand	HELIAX®
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Mechanical Specifications

Maximum Twist	6.00 °/m 2.00 °/ft
Minimum Bend Radius, Multiple Bends (E Plane)	150.00 mm 6.00 in
Minimum Bend Radius, Multiple Bends (H Plane)	380.00 mm 15.00 in
Minimum Bend Radius, Single Bend (E Plane)	130.00 mm 5.00 in
Minimum Bend Radius, Single Bend (H Plane)	280.00 mm 11.00 in

Note

Performance Note	Values typical, unless otherwise stated
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Standard Conditions

Attenuation, Ambient Temperature	24 °C 75 °F
Average Power, Ambient Temperature	40 °C 104 °F
Average Power, Temperature Rise	42 °C 76 °F

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Return Loss/VSWR

Frequency Band	VSWR	Return Loss (dB)
11.7–13.25 GHz	1.15	23.10

* VSWR/Return Loss indicated is for lengths up to 300 ft (91.4 m)

* VSWR/Return Loss is guaranteed for factory-fit and typical for field-fit assemblies

* Custom length performance: Call 828-324-2200 or 1-800-982-1708 (toll free), or your local CommScope representative

Attenuation

Frequency (GHz)	Attenuation (dB/100 ft)	Attenuation (dB/100 m)	Average Power (kW)	Group Velocity %
11.7	3.742	12.276	1.196	75.5
12	3.684	12.086	1.214	76.7
12.2	3.633	11.918	1.232	77.8
12.4	3.587	11.769	1.247	78.8
12.7	3.546	11.634	1.262	79.7
13	3.509	11.514	1.275	80.6
13.2	3.476	11.405	1.287	81.4

Regulatory Compliance/Certifications

Agency	Classification
RoHS 2011/65/EU	Compliant
China RoHS SJ/T 11364-2006	Below Maximum Concentration Value (MCV)
ISO 9001:2008	Designed, manufactured and/or distributed under this quality management system

