



EW28, HELIAX® Standard Elliptical Waveguide, 2.9–3.4 GHz, black PE jacket

Product Classification

| | |
|----------------------|----------------------|
| Product Type | Elliptical waveguide |
| Product Brand | HELIAX® |

General Specifications

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|-------------------------|---|
| Jacket Color | Black |
| Performance Note | Values typical, unless otherwise stated |

Dimensions

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|---------------------------------------|---|
| 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 ft ³ /kft |

Electrical Specifications

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|---------------------------------|--|
| 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 |
| 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

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|---------------------------|-------------------|
| Conductor Material | Corrugated copper |
| Jacket Material | PE |

Mechanical Specifications

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|--|----------------------|
| 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

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|---|--------------------------------------|
| 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

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|---------------------|-------------------------|
| 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 |

