

# EW52

EW52, HELIAX® Standard Elliptical Waveguide, 5.6–6.425 GHz, black PE jacket



## Product Classification

|                       |                               |
|-----------------------|-------------------------------|
| <b>Product Type</b>   | Standard elliptical waveguide |
| <b>Product Brand</b>  | HELIAX®                       |
| <b>Product Series</b> | Standard                      |

## General Specifications

|                         |   |
|-------------------------|---|
| <b>Jacket Color</b>     | Black                                   |
| <b>Performance Note</b> | Values typical, unless otherwise stated |

## Dimensions

|                                       |                            |
|---------------------------------------|----------------------------|
| <b>Diameter Over Jacket (E Plane)</b> | 57.2 mm   2.252 in         |
| <b>Diameter Over Jacket (H Plane)</b> | 33.3 mm   1.311 in         |
| <b>Cable Volume</b>                   | 1045 L/km   11.248 ft³/kft |

## Electrical Specifications

|                                 |  |
|---------------------------------|--|
| <b>eTE11 Mode Cutoff</b>        | 3.65 GHz   |
| <b>Group Delay at Frequency</b> | 126 ns/100 ft @ 6.200 GHz   413 ns/100 m @ 6.200 GHz |
| <b>Operating Frequency Band</b> | 5.6 – 6.425 GHz                                      |

## VSWR/Return Loss

| Frequency Band | VSWR | Return Loss (dB) |
|----------------|------|------------------|
| 5.6–6.425 GHz  | 1.15 | 23.13            |

## Attenuation

| Frequency (GHz) | Attenuation (dB/100 m) | Attenuation (dB/100 ft) | Average Power (kW) | Group Velocity % |
|-----------------|------------------------|-------------------------|--------------------|------------------|
| 5.6             | 4.126                  | 1.258                   | 5.687              | 75.8             |

# EW52

|            |       |       |       |      |
|------------|-------|-------|-------|------|
| <b>5.8</b> | 4.021 | 1.226 | 5.835 | 77.7 |
| <b>6.0</b> | 3.935 | 1.199 | 5.963 | 79.4 |
| <b>6.2</b> | 3.863 | 1.177 | 6.074 | 80.8 |
| <b>6.4</b> | 3.802 | 1.159 | 6.171 | 82.1 |

## Material Specifications

|                           |                   |
|---------------------------|-------------------|
| <b>Conductor Material</b> | Corrugated copper |
| <b>Jacket Material</b>    | PE                |

## Mechanical Specifications

|  |                    |
|--|--------------------|
| <b>Minimum Bend Radius, Multiple Bends (E Plane)</b> | 305 mm   12.008 in |
| <b>Minimum Bend Radius, Multiple Bends (H Plane)</b> | 810 mm   31.89 in  |
| <b>Minimum Bend Radius, Single Bend (E Plane)</b>    | 200 mm   7.874 in  |
| <b>Minimum Bend Radius, Single Bend (H Plane)</b>    | 560 mm   22.047 in |
| <b>Maximum Twist</b>                                 | 3.281 °/m   1 °/ft |

## Environmental Specifications

|   |                                      |
|---|--------------------------------------|
| <b>Installation temperature</b>           | -40 °C to +60 °C (-40 °F to +140 °F) |
| <b>Operating Temperature</b>              | -55 °C to +85 °C (-67 °F to +185 °F) |
| <b>Storage Temperature</b>                | -70 °C to +85 °C (-94 °F to +185 °F) |
| <b>Attenuation, Ambient Temperature</b>   | 75 °F   23.889 °C                    |
| <b>Average Power, Ambient Temperature</b> | 104 °F   40 °C                       |
| <b>Average Power, Temperature Rise</b>    | 42 °C   107.6 °F                     |

## Packaging and Weights

|                     |                         |
|---------------------|-------------------------|
| <b>Cable weight</b> | 0.88 kg/m   0.591 lb/ft |
|---------------------|-------------------------|

## Regulatory Compliance/Certifications

| <b>Agency</b> | <b>Classification</b>  |
|---------------|--|
| 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 <a href="http://www.commscope.com/ProductCompliance">www.commscope.com/ProductCompliance</a> |
| ROHS          | Compliant  |
| UK-ROHS       | Compliant  |

# EW52

---

