**EWP64-65, HELIAX® Premium Elliptical Waveguide, 6.425–7.125 GHz, unjacketed**

### Product Classification

**Product Type**  
Elliptical waveguide

**Product Brand**  
HELIAX®

### General Specifications

**Performance Note**  
Values typical, unless otherwise stated

### Dimensions

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Value (mm)</th>
<th>Value (in)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diameter Over Jacket (E Plane)</td>
<td>48.5</td>
<td>1.909</td>
</tr>
<tr>
<td>Diameter Over Jacket (H Plane)</td>
<td>28.4</td>
<td>1.118</td>
</tr>
<tr>
<td>Cable Volume</td>
<td>725 L/km</td>
<td>7.804 ft³/kft</td>
</tr>
</tbody>
</table>

### Electrical Specifications

**eTE11 Mode Cutoff**  
4.32 GHz

**Group Delay at Frequency**  
125 ns/100 ft @ 7.400 GHz  | 411 ns/100 m @ 7.400 GHz

**Operating Frequency Band**  
6.425 – 7.125 GHz

### VSWR/Return Loss

<table>
<thead>
<tr>
<th>Frequency Band</th>
<th>VSWR</th>
<th>Return Loss (dB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.425–7.125 GHz</td>
<td>1.06</td>
<td>30.72</td>
</tr>
</tbody>
</table>

### Attenuation

<table>
<thead>
<tr>
<th>Frequency (GHz)</th>
<th>Attenuation (dB/100 m)</th>
<th>Attenuation (dB/100 ft)</th>
<th>Average Power (kW)</th>
<th>Group Velocity %</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.425</td>
<td>5.276</td>
<td>1.608</td>
<td>3.917</td>
<td>74</td>
</tr>
<tr>
<td>6.63</td>
<td>5.139</td>
<td>1.566</td>
<td>4.022</td>
<td>75.9</td>
</tr>
<tr>
<td>6.83</td>
<td>5.028</td>
<td>1.533</td>
<td>4.111</td>
<td>77.5</td>
</tr>
<tr>
<td>7.03</td>
<td>4.934</td>
<td>1.504</td>
<td>4.189</td>
<td>78.9</td>
</tr>
</tbody>
</table>

### Material Specifications

**Conductor Material**  
Corrugated copper

**Jacket Material**  
Unjacketed

### Mechanical Specifications
Minimum Bend Radius, Multiple Bends (E Plane) | 260 mm | 10.236 in
Minimum Bend Radius, Multiple Bends (H Plane) | 685 mm | 26.969 in
Minimum Bend Radius, Single Bend (E Plane) | 260 mm | 10.236 in
Minimum Bend Radius, Single Bend (H Plane) | 685 mm | 26.969 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: 0.73 kg/m | 0.491 lb/ft

Regulatory Compliance/Certifications

Classification: Designed, manufactured and/or distributed under this quality management system