EW20, HELIAX® Standard Elliptical Waveguide, 2.3–2.4 GHz, unjacketed

Product Classification

Brand: HELIAX®
Product Type: Elliptical waveguide

Construction Materials

Jacket Material: Unjacketed
Conductor Material: Corrugated copper

Dimensions

Cable Volume: 5621.0 L/km
Cable Weight: 2.76 kg/m
Diameter Over Jacket (E Plane): 127.50 mm | 5.02 in
Diameter Over Jacket (H Plane): 71.90 mm | 2.83 in

Electrical Specifications

Operating Frequency Band: 2.3 – 2.4 GHz
eTE11 Mode Cutoff: 1.570 GHz
Group Delay at Frequency: 128 ns/100 ft @ 2.600 GHz | 418 ns/100 m @ 2.600 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)

Mechanical Specifications

Maximum Twist: 0.03 °/ft
Minimum Bend Radius, Multiple Bends (E Plane): 660.00 mm | 25.98 in
Minimum Bend Radius, Multiple Bends (H Plane): 1800.00 mm | 70.87 in
Minimum Bend Radius, Single Bend (E Plane): 460.00 mm | 18.11 in
Minimum Bend Radius, Single Bend (H Plane): 1270.00 mm | 50.00 in

Note

Performance Note: Values typical, unless otherwise stated

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

Return Loss/VSWR

<table>
<thead>
<tr>
<th>Frequency Band</th>
<th>VSWR</th>
<th>Return Loss (dB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.3–2.4 GHz</td>
<td>1.15</td>
<td>23.10</td>
</tr>
</tbody>
</table>

* 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

<table>
<thead>
<tr>
<th>Frequency (GHz)</th>
<th>Attenuation (dB/100 ft)</th>
<th>Attenuation (dB/100 m)</th>
<th>Average Power (kW)</th>
<th>Group Velocity %</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.3</td>
<td>0.468</td>
<td>1.534</td>
<td>31.501</td>
<td>73.1</td>
</tr>
<tr>
<td>2.4</td>
<td>0.452</td>
<td>1.484</td>
<td>32.559</td>
<td>75.6</td>
</tr>
</tbody>
</table>

Regulatory Compliance/Certifications

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