EW127A, HELIAX® Standard Elliptical Waveguide, 11.7–13.25 GHz, black non-halogenated, fire retardant polyolefin jacket

Product Classification

Product Type: Elliptical waveguide
Product Brand: HELIAX®

General Specifications

Jacket Color: Black
Performance Note: Values typical, unless otherwise stated

Dimensions

Diameter Over Jacket (E Plane): 28.2 mm | 1.11 in
Diameter Over Jacket (H Plane): 17.1 mm | 0.673 in
Cable Volume: 251 L/km | 2.702 ft³/kft

Electrical Specifications

eTE11 Mode Cutoff: 7.67 GHz
Group Delay at Frequency: 128 ns/100 ft @ 12.700 GHz | 419 ns/100 m @ 12.700 GHz
Operating Frequency Band: 11.7 – 13.25 GHz

VSWR/Return Loss

<table>
<thead>
<tr>
<th>Frequency Band</th>
<th>VSWR</th>
<th>Return Loss (dB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.7–13.25 GHz</td>
<td>1.15</td>
<td>23.13</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>11.7</td>
<td>12.276</td>
<td>3.742</td>
<td>1.196</td>
<td>75.5</td>
</tr>
<tr>
<td>11.95</td>
<td>12.086</td>
<td>3.684</td>
<td>1.214</td>
<td>76.7</td>
</tr>
<tr>
<td>12.2</td>
<td>11.918</td>
<td>3.633</td>
<td>1.232</td>
<td>77.8</td>
</tr>
</tbody>
</table>
Material Specifications

Conductor Material: Corrugated copper

Jacket Material: Non-halogenated, fire retardant polyolefin

Mechanical Specifications

Minimum Bend Radius, Multiple Bends (E Plane): 150 mm | 5.906 in
Minimum Bend Radius, Multiple Bends (H Plane): 380 mm | 14.961 in
Minimum Bend Radius, Single Bend (E Plane): 130 mm | 5.118 in
Minimum Bend Radius, Single Bend (H Plane): 280 mm | 11.024 in
Maximum Twist: 6.562 °/m | 2 °/ft

Environmental Specifications

Installation temperature: -25 °C to +60 °C (-13 °F to +140 °F)
Operating Temperature: -30 °C to +80 °C (-22 °F to +176 °F)
Storage Temperature: -30 °C to +80 °C (-22 °F to +176 °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
Fire Retardancy Test Method: UL 1666/CATVR/CMR
Toxicity Index Test Method: IEC 60754-2

Packaging and Weights

Cable weight: 0.43 kg/m | 0.289 lb/ft

Regulatory Compliance/Certifications

Agency | Classification
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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 www.commscope.com/ProductCompliance
35409-15

ROHS Compliant
UL/ETL Certification CATVR/CMR

ISO 9001:2015