EWP90-107, HELIAX® Premium Elliptical Waveguide, 10.7–11.7 GHz, black non-halogenated, fire retardant polyolefin jacket

Product Classification
Brand
HELIAX®
Product Type
Elliptical waveguide

Construction Materials
Jacket Material
Non-halogenated, fire retardant polyolefin
Conductor Material
Corrugated copper
Jacket Color
Black

Dimensions
Cable Volume
334.0 L/km
Cable Weight
0.48 kg/m
Diameter Over Jacket (E Plane)
33.50 mm | 1.32 in
Diameter Over Jacket (H Plane)
20.30 mm | 0.80 in

Electrical Specifications
Operating Frequency Band
10.7 – 11.7 GHz
eTE11 Mode Cutoff
6.500 GHz
Group Delay at Frequency
125 ns/100 ft @ 11.200 GHz | 410 ns/100 m @ 11.200 GHz

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)

Mechanical Specifications
Fire Retardancy Test Method
UL 1666/CATVR/CMR
Maximum Twist
2.00 °/ft
Minimum Bend Radius, Multiple Bends (E Plane)
180.00 mm | 7.09 in
Minimum Bend Radius, Multiple Bends (H Plane)
480.00 mm | 18.90 in
Minimum Bend Radius, Single Bend (E Plane)
150.00 mm | 5.91 in
Minimum Bend Radius, Single Bend (H Plane)
330.00 mm | 12.99 in
Toxicity Index Test Method
IEC 60754-2
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>10.7–11.7 GHz</td>
<td>1.06</td>
<td>30.70</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>10.7</td>
<td>3.143</td>
<td>10.311</td>
<td>1.559</td>
<td>79.4</td>
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<tr>
<td>10.9</td>
<td>3.108</td>
<td>10.198</td>
<td>1.576</td>
<td>80.3</td>
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<tr>
<td>11.1</td>
<td>3.077</td>
<td>10.096</td>
<td>1.592</td>
<td>81.1</td>
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<td>11.3</td>
<td>3.049</td>
<td>10.004</td>
<td>1.606</td>
<td>81.8</td>
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<tr>
<td>11.5</td>
<td>3.024</td>
<td>9.92</td>
<td>1.62</td>
<td>82.5</td>
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<td>11.7</td>
<td>3</td>
<td>9.843</td>
<td>1.633</td>
<td>83.1</td>
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</table>

Regulatory Compliance/Certifications

<table>
<thead>
<tr>
<th>Agency</th>
<th>Classification</th>
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<tbody>
<tr>
<td>UL/ETL Certification</td>
<td>CATVR/CMR</td>
</tr>
<tr>
<td>RoHS 2011/65/EU</td>
<td>Compliant</td>
</tr>
<tr>
<td>ISO 9001:2015</td>
<td>Designed, manufactured and/or distributed under this quality management system</td>
</tr>
<tr>
<td>China RoHS SJ/T 11364-2014</td>
<td>Below Maximum Concentration Value (MCV)</td>
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</tbody>
</table>