The Model 3119 Double Ridged Waveguide is a the latest addition to a family of double ridge waveguides for wireless and EMC measurement from ETS-Lindgren. Users of this antenna benefit from uniform illumination of target surfaces and accurate gain measurement. In addition, the Model 3119 exhibits high gain and low VSWR across its operational frequency band, accepting power input of 1500 watts.

The electrical characteristics of this antenna were designed and modeled using powerful workstations running electromagnetic simulation software. Equally important, experienced RF engineers worked with our manufacturing team to produce a practical and affordable realization of the modeling process. All production units are individually calibrated at our A2LA accredited lab.

**FEATURES**

**Ultra Broadband**
The Model 3119 sweeps from 400 MHz to 6 GHz without stopping for band breaks, making it ideal for automated testing. It covers all the commercial wireless frequencies.

**Power Input**
This antenna uses a Type N connector, and accepts up to 1500 watts of continuing input power with up to 2500 watts of peak power. The antenna’s high gain and low VSWR over its operating frequency translates into efficient amplifier use and high field strengths.

**Uniform Gain, Low VSWR**
The Model 3119 has a more uniform gain and antenna factor because of the better behavior of its radiation pattern. Since the pattern is stable over frequency, the gain and the AF also remain stable. Similar antennas of this class exhibit large variations of the gain and the AF as the frequency increases.

**Flexible Mounting System**
The 3119 antenna includes both an EMCO tripod mount and rear “stinger” mount. The stinger mount permits on-axis rotation/polarization. The back plate has four (4) 3/8 “ 16 thread mounting holes for custom mounts.
EMC Antennas
Double-Ridged Waveguide Horn
Model 3119

STANDARD CONFIGURATION
- Antenna Assembly
- Mounting bracket drilled to accept ETS-Lindgren or other tripod mounts with 1/4 in x 20 threads
- Rear “stinger” for use with on-axis mount positioners
- Individually calibrated at 1 m per SAE ARP 958 at our A2LA accredited lab and 3 m calibration per ANSI C63.5. Actual antenna factors and a signed Certificate of Calibration Conformance included with manual.

OPTIONS
- Antenna Mast
- Antenna Tripod
- 10m Calibration per ANSI C63.5

Model 3119 Antenna Factor and Gain

Model 3119 VSWR

Electrical Specifications

<table>
<thead>
<tr>
<th>MODEL</th>
<th>FREQUENCY RANGE</th>
<th>VSWR RATIO (AVG)</th>
<th>MAXIMUM CONTINUOUS POWER</th>
<th>PEAK POWER</th>
<th>IMPEDANCE (NOMINAL)</th>
<th>CONNECTORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>3119</td>
<td>400 MHz - 6 GHz</td>
<td>3.5:1 max &lt;2:1 above 500 MHz</td>
<td>1500 W @ 400 MHz 800W @ 6 GHz</td>
<td>2500 W</td>
<td>50 Ω</td>
<td>Type N</td>
</tr>
</tbody>
</table>

Physical Specifications

<table>
<thead>
<tr>
<th>MODEL</th>
<th>WIDTH</th>
<th>DEPTH</th>
<th>HEIGHT</th>
<th>WEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>3119</td>
<td>48.84 cm</td>
<td>40.00 cm</td>
<td>31.37 cm</td>
<td>7.4 kg</td>
</tr>
<tr>
<td></td>
<td>19.23 in</td>
<td>15.74 in</td>
<td>12.35 in</td>
<td>16.3 lb</td>
</tr>
</tbody>
</table>

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