Sunol Sciences

EMC Test Antennas
30 MHz – 5 GHz

Sunol antennas feature an innovative design philosophy that makes them the practical choice for EMC testing. New manufacturing techniques that simplify assembly and minimize the use of hardware, create an electrically stable measuring instrument that stays in calibration and holds up to the environment.

Sunol log-periodic antenna booms are made from a custom aluminum extrusion that reduces the number of parts at the front of the antenna, resulting in a stronger, more stable feedpoint. The unique shape allows for a larger feed cable to be used, which significantly increases the maximum power rating. Dipole elements are permanently attached to the boom by a construction technique that maintains excellent electrical characteristics for the life of the antenna. A tough powdercoat finish with UV inhibitors seals the aluminum structure and protects it from sunlight and moisture.

Log-Periodic Antennas, 200 MHz – 2, 3, 5 GHz

<table>
<thead>
<tr>
<th>Model</th>
<th>Frequency Range</th>
<th>Gain</th>
<th>Impedance</th>
<th>Connector</th>
<th>VSWR</th>
<th>Polarization</th>
<th>Max. Power</th>
<th>Length</th>
<th>Width</th>
<th>Height (V)</th>
<th>Weight</th>
<th>Mounting Tube</th>
<th>Finish</th>
</tr>
</thead>
<tbody>
<tr>
<td>LP1</td>
<td>2 MHz – 2 GHz</td>
<td>6 dBi typical</td>
<td>50 ohms nominal</td>
<td>Type N female</td>
<td>2:1 max.</td>
<td>Linear</td>
<td>300 watts cw</td>
<td>48 in. (122 cm)</td>
<td>3 in. (8 cm)</td>
<td>29.5 in. (75 cm)</td>
<td>5 lbs. (2 kg)</td>
<td>22 mm dia. stainless steel</td>
<td>Sunol orange powdercoat</td>
</tr>
<tr>
<td>LP3</td>
<td>3 MHz – 3 GHz</td>
<td>6 dBi typical</td>
<td>50 ohms nominal</td>
<td>Type N female</td>
<td>2:1 max.</td>
<td>Linear</td>
<td>300 watts cw</td>
<td>48 in. (122 cm)</td>
<td>3 in. (8 cm)</td>
<td>29.5 in. (75 cm)</td>
<td>5 lbs. (2 kg)</td>
<td>22 mm dia. stainless steel</td>
<td>Sunol orange powdercoat</td>
</tr>
<tr>
<td>LP5</td>
<td>5 MHz – 5 GHz</td>
<td>6 dBi typical</td>
<td>50 ohms nominal</td>
<td>Type N female</td>
<td>2:1 max.</td>
<td>Linear</td>
<td>300 watts cw</td>
<td>48 in. (122 cm)</td>
<td>3 in. (8 cm)</td>
<td>29.5 in. (75 cm)</td>
<td>5 lbs. (2 kg)</td>
<td>22 mm dia. stainless steel</td>
<td>Sunol orange powdercoat</td>
</tr>
</tbody>
</table>

Biconical Antennas, 30 – 300 MHz

<table>
<thead>
<tr>
<th>Model</th>
<th>Frequency Range</th>
<th>Impedance</th>
<th>Connector</th>
<th>Polarization</th>
<th>Power (Model BC1):</th>
<th>Power (Model BC2):</th>
<th>Length</th>
<th>Elements</th>
<th>Height</th>
<th>Weight</th>
<th>Mounting Tube</th>
<th>Finish</th>
</tr>
</thead>
<tbody>
<tr>
<td>BC1</td>
<td>30 MHz – 100 MHz</td>
<td>50 ohms nominal</td>
<td>Type N female</td>
<td>Linear</td>
<td>1 watt cw max.</td>
<td>100 watts cw max.</td>
<td>54 in. (137 cm)</td>
<td>20 in. (51 cm) diameter</td>
<td>32 in. (81 cm)</td>
<td>5 lbs. (2 kg)</td>
<td>22 mm dia. stainless steel</td>
<td>Sunol orange powdercoat</td>
</tr>
<tr>
<td>BC2</td>
<td>30 MHz – 300 MHz</td>
<td>50 ohms nominal</td>
<td>Type N female</td>
<td>Linear</td>
<td>100 watts cw max.</td>
<td>100 watts cw max.</td>
<td>54 in. (137 cm)</td>
<td>20 in. (51 cm) diameter</td>
<td>32 in. (81 cm)</td>
<td>5 lbs. (2 kg)</td>
<td>22 mm dia. stainless steel</td>
<td>Sunol orange powdercoat</td>
</tr>
</tbody>
</table>
Combination Antenna, 30 MHz – 2, 3, 5 GHz

- Impedance: 50 ohms nominal
- Connector: Type N female
- Polarization: Linear
- Max power: 300 watts cw.
- Length: 50 in. (127 cm)
- Height (V): 44 in. (112 cm)
- Width: 19 in. (48 cm)
- Weight: 10 lbs. (5 kg)
- Mounting Tube: 22 mm dia. stainless steel
- Finish: Sunol orange powdercoat

Mounting

All Sunol antennas have a 22 mm diameter stainless steel rear mounting tube. This configuration enables polarization changes without physical displacement of the antenna, and minimizes the effect of the RF cable by keeping it well behind the antenna elements. The Sunol SNAP! mount provides a secure interface to most antenna positioning towers. It locks the antenna in place, prevents unwanted rotation and facilitates rapid antenna changes.

SNAP! MOUNT

- QUICK
- SECURE
- NO TEETERING
- NO UNWANTED ROTATION

Includes individual A2LA accredited calibration

Options
- Tripod
- Tripod mount
- Sunol SNAP! mount
- Carrying case

Applications
- Radiated emissions
- Radiated immunity
- Pre-scan / Full-compliance testing