Wireless Antennas

Open Boundary Quad-Ridged Horn Antenna

Model 3164-10

FEATURES:

- 400 MHz - 10 GHz Frequency Range
- Excellent Gain Over Entire Range
- Dual Polarization
- Compact, Lightweight Design

THE MODEL 3164-10 OPEN BOUNDARY QUAD-RIDGED HORN design makes this antenna unique in both appearance and performance. Designed to measure wireless devices for Over-The-Air (OTA) performance, this unit features excellent gain, with low VSWR.

Numerically modeled, the Model 3164’s open boundary design is similar to two double-ridged waveguide antennas, placed orthogonally to each other, providing the ability to measure the two principal components of a radiating electric field.

FEATURES

Frequency Range

With a frequency range of 400 MHz to 10 GHz, the Model 3164-10 covers all wireless frequency bands, including cell phone, Wi-Fi, WiMAX and GPS bands. Additional applications include UWB wireless testing (3 GHz to 10 GHz) and lower frequency testing (400 MHz to 3 GHz) for GSM, PCS, Wi-Fi, WiMAX, etc. applications.

Excellent Gain

The Model 3164-10 has excellent gain characteristics across the frequency range.

Dual Linear Polarization

The two-input design allows for the generation (or sensing) of two orthogonal linear polarized signals. With the incorporation of an optional 90° hybrid*, this antenna can also generate (or sense) circularly polarized signals.

Compact, Lightweight Design

The 3164-10’s compact, lightweight design makes it ideal for use as both a tripod or wall mounted antenna.

STANDARD CONFIGURATION

- Antenna Including Mounting Flange and Tripod Mount
- Individually Calibrated at 3 m per ANSI C63.5. Actual Antenna Factors, Gain Uncertainty Values and a Signed Certificate of Calibration Conformance Included in Manual

OPTIONS

- Wall Mounting Plate and Feed-through Penetrations

* Contact ETS-Lindgren Sales for recommended manufacturers.
Open Boundary Quad-Ridged Horn Antenna
Model 3164-10

Electrical Specifications

<table>
<thead>
<tr>
<th>MODEL</th>
<th>FREQUENCY RANGE</th>
<th>VSWR RATIO (AVG)</th>
<th>MAXIMUM CONTINUOUS POWER</th>
<th>IMPEDANCE (NOMINAL)</th>
<th>CONNECTORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>3164-10</td>
<td>400 MHz - 10 GHz</td>
<td>5:1 maximum 1.75:1 average</td>
<td>100 watts @ 400 MHz 20 watts @ 10 GHz</td>
<td>50 Ω (2) Type SMA Female</td>
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</tbody>
</table>

Physical Specifications

<table>
<thead>
<tr>
<th>MODEL</th>
<th>APERTURE HEIGHT</th>
<th>APERTURE WIDTH</th>
<th>LENGTH</th>
<th>WEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>3164-10</td>
<td>36.07 cm</td>
<td>36.07 cm</td>
<td>36.58 cm</td>
<td>3.4 kg</td>
</tr>
<tr>
<td></td>
<td>14.20 in</td>
<td>14.20 in</td>
<td>14.40 in</td>
<td>7.4 lbs</td>
</tr>
</tbody>
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Gain Typical Performance

VSWR Typical Performance

Cross Port Isolation Typical Performance