

## 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**



ETS-Lindgren's Model 3164-10 Open Boundary Quad-Ridged Horn

**THE MODEL 3164-10 OPEN BOUND- ARY 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

<sup>\*</sup> Contact ETS-Lindgren Sales for recommended manufacturers.

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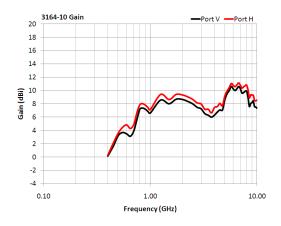
### **Electrical Specifications**

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

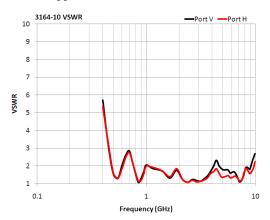
## **Physical Specifications**

| MODEL   | APERTURE<br>HEIGHT | APERTURE<br>WIDTH | LENGTH   | WEIGHT  |
|---------|--------------------|-------------------|----------|---------|
| 3164-10 | 36.07 cm           | 36.07 cm          | 36.58 cm | 3.4 kg  |
|         | 14.20 in           | 14.20 in          | 14.40 in | 7.4 lbs |

#### **Gain Typical Performance**



#### **VSWR Typical Performance**



#### **Cross Port Isolation Typical Performance**

