

## 3164-11 OPEN BOUNDARY QUAD-RIDGED HORN

ETS-Lindgren's Model 3164-11 Open Boundary Quad-ridged Horn is the latest in a series of quad-ridged horns from ETS-Lindgren.



the horn.

ETS-Lindgren's Model 3164-11 Open Boundary Quad-ridged Horn is the latest in a series of quad-ridged horns from ETS-Lindgren. The “open boundary” design with its absence of side plates makes this antenna unique in both appearance and performance. Numerically modeled, the Model 3164-11 is a super open boundary quad-ridged horn where the feed cavity is not enclosed. This gives wider frequency range and reduces the weight of

### Key Features

- 1 GHz to 18 GHz Frequency Range
- Flat Gain For Upper 80% of Range
- Dual Linearly Polarized Compact Design
- Flexible Mounting Schemes
  - Flange for Wall Mounting
  - Bracket for Tripod Mounting

### Features

#### Frequency Range

The 3164-11 antenna has a range that covers 1 GHz to 18 GHz, making it ideal for antenna measurement applications and as an EMC antenna for measuring emissions above 1 GHz.

#### Flat Gain

Like other open boundary quad-ridged horns, the 3164-11 exhibits a very flat gain as it changes less than 2 dB for over 80% of the upper part of the frequency range.

#### Dual Linear Polarization

The 3164-11 is a dual linearly polarized horn. Two orthogonally located input ports feed two set of ridge structures, these allows the horn to measure two orthogonal fields simultaneously without the need for physically rotating the horn. The isolation between the ports is better than 25 dB across the frequency range.

#### Compact Design

This antenna has a smaller, lighter design in relation to other single polarized ridged horns, while exhibiting equivalent performance with the added bonus of dual polarization.

## Specifications

### Electrical Specifications

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**Frequency Minimum:** 1 GHz  
**Frequency Maximum:** 18 GHz  
**VSWR:** 3:25:1 (Maximum) <2:1 (Average)  
**Maximum Continuous Power:** 20W  
**Peak Power:** 40W  
**Impedance (Nominal):** 50Ω  
**Connector:** SMA (Female)  
**Polarization:** Dual Linear  
**Pattern Type:** Directional

### Physical Specifications

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**Length:** 19.0 cm + 8.7 cm Mounting Bracket (7.5 in + 3.4 in Mounting Bracket)  
**Width** 17.6 cm (6.93 in)  
**Height** 17.6 cm (6.93 in)  
**Weight** 1.0 kg (2.20 lb)

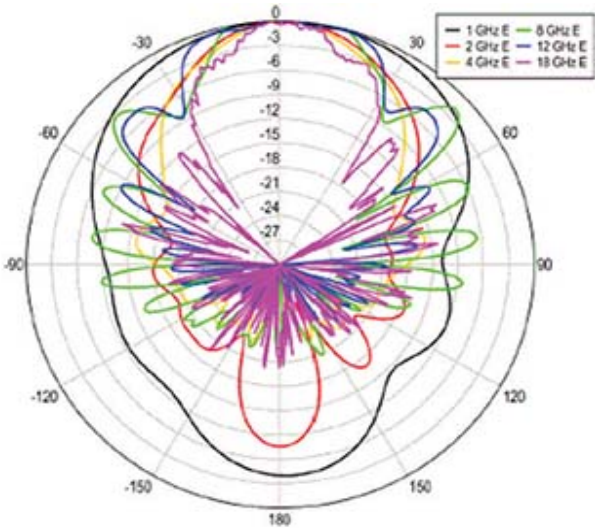
### Other Specifications

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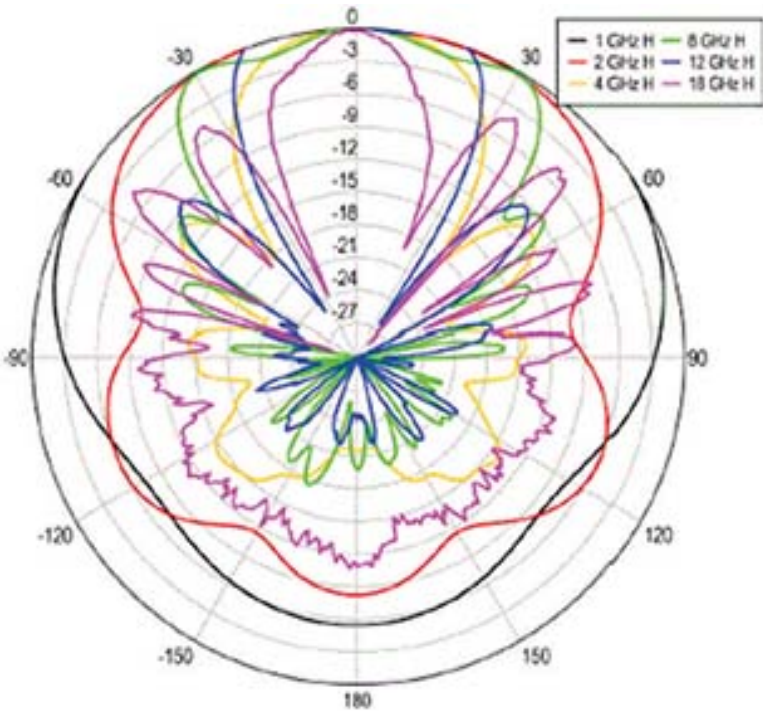
- Antenna Assembly
- Mounting Fixture for ¼ x 20 Thread
- Individually calibrated per ANSI C63.5
- Manual

Product Charts

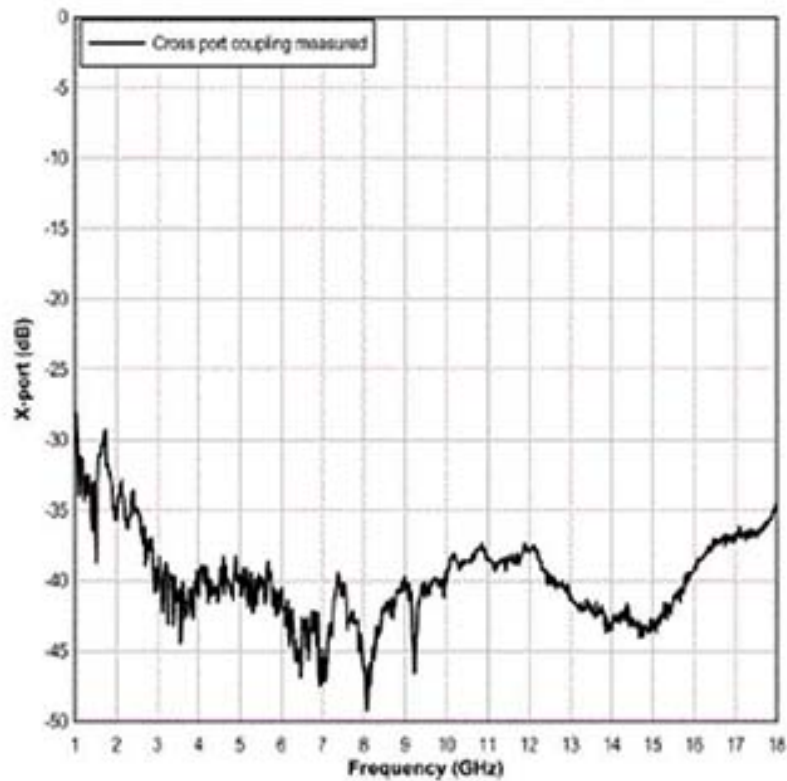
Model 3164-11  
Open Boundary Quad-Ridged Horn  
Typical Radiation Patterns  
E Plane



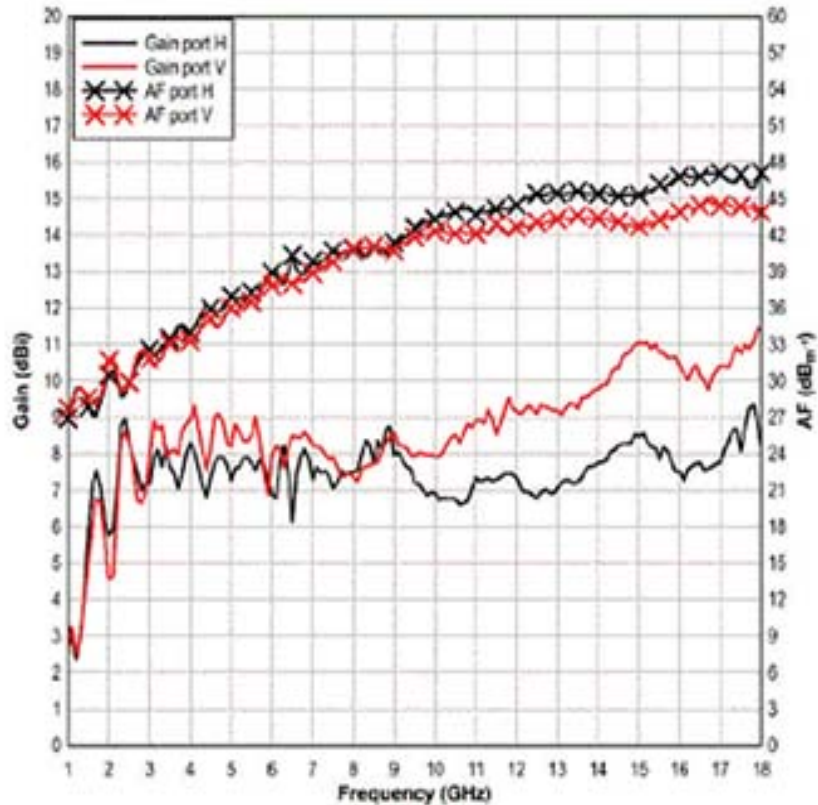
Model 3164-11  
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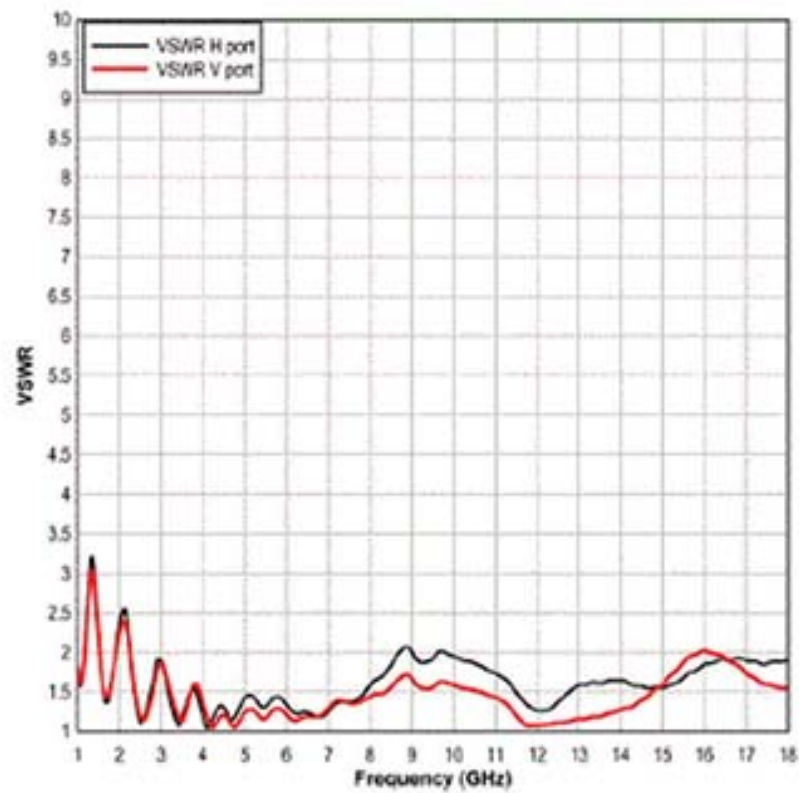
Model 3164-11  
Open Boundary Quad-Ridged Horn  
Typical Radiation Patterns  
Cross Port Coupling



Model 3164-11  
Open Boundary Quad-Ridged Horn  
Antenna Factors and Gain



Model 3164-11  
Open Boundary Quad-Ridged Horn  
VSWR



Model 3164-11  
Open Boundary Quad-Ridged Horn  
Half-Power Beamwidth

