

## 3116C DOUBLE-RIDGED WAVEGUIDE HORN

ETS-Lindgren's Model 3116C Double-Ridged Waveguide Horn Antenna has a frequency range of 10 GHz to 40 GHz and exhibits uniform illumination and accurate gain.



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.

ETS-Lindgren's Model 3116C Double-Ridged Waveguide Horn Antenna corrects the lower gain at the upper end of the frequency range that is commonly found in ridged waveguide antennas.

Electrical characteristics of this antenna were designed and modeled using powerful workstations running electromagnetic simulation software. Experienced RF engineers

### Key Features

- Frequency Range 10 GHz to 40 GHz
- 20 W Power Handling Capability
- Low VSWR
- Uniform Gain
- Individually Calibrated

### Features

#### Frequency Range

The model 3116C sweeps from 10 GHz to 40 GHz without stopping for band breaks, making it ideal for automated testing.

#### Power Input

This horn antenna accepts up to 20W of continuous input power. The antenna's high gain and low VSWR over its operating frequency translates into efficient amplifier use and higher field strengths.

#### Uniform Gain, Low VSWR

The model 3116C 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. The gain has less than 4 dB variation over the entire range.

#### Flexible Mounting

The model 3116C comes with a bracket that accepts either a 1/4 in x 20 thread screw or rear stinger mount.

## Specifications

### Electrical Specifications

**Frequency Minimum:** 10 GHz

**Frequency Maximum:** 40 GHz

**VSWR:** 2.5:1 Maximum

**Maximum Continuous Power:** 40 W (10 GHz) to 20 W (40 GHz)

**Peak Power:** 60W (10 GHz) to 30W (40 GHz)

**Nominal Impedance:** 50  $\Omega$

**Connectors:** Type K (F), 2.92 mm

**Pattern Type:** Directional

**Polarization:** Linear

### Physical Specifications

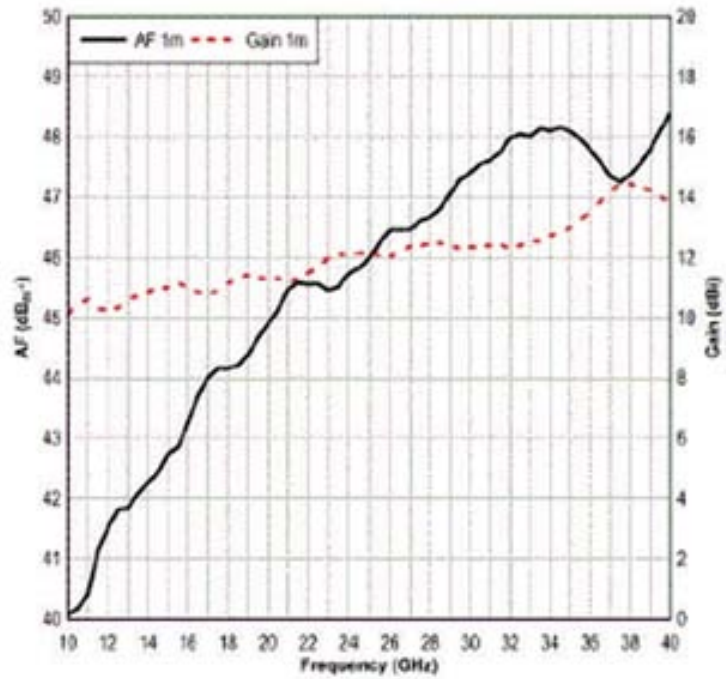
Model	Width	Height	Weight
3116C with 1/4 in x 20 Mounting Bracket	10.8 cm (4.3 in)	8.9 cm (3.5 in)	0.20 kg (0.44 lb)
3116C with Stinger Mount	10.8 cm (4.3 in)	6.4 cm (2.5 in)	0.33 kg (0.74 lb)

### Other Specifications

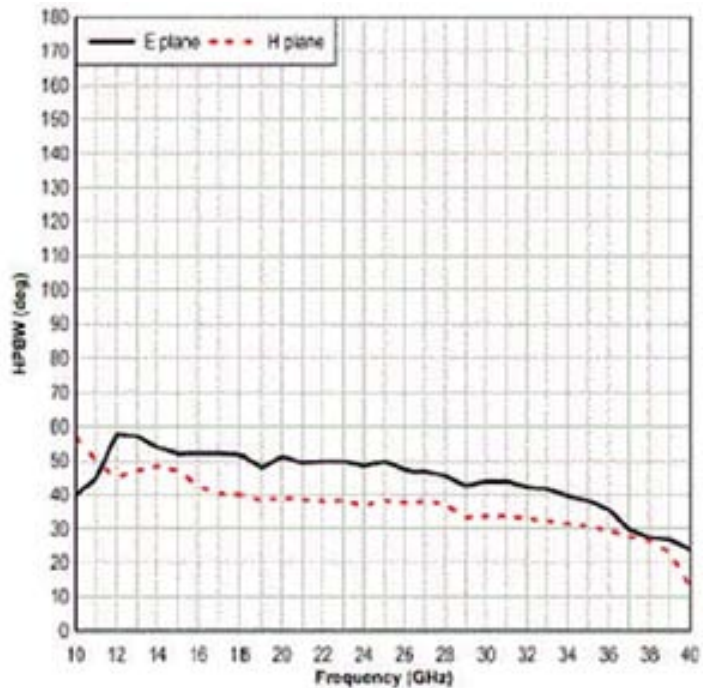
- Antenna
- Stinger Mount
- Mounting Bracket Drilled Accepts an ETS-Lindgren or Other Tripod Mount with Standard 1/4 in x 20 Threads
- Individually Calibrated at 1 m per SAE ARP 958. Actual Factors and a Signed Certificate of Calibration Conformance provided.
- Manual

Product Charts

**3116C Double-Ridged Guide Antenna AF and Gain**



**3116C Double-Ridged Guide Antenna Half Power Beamwidth**



### 3116C Double-Ridged Guide Antenna VSWR

