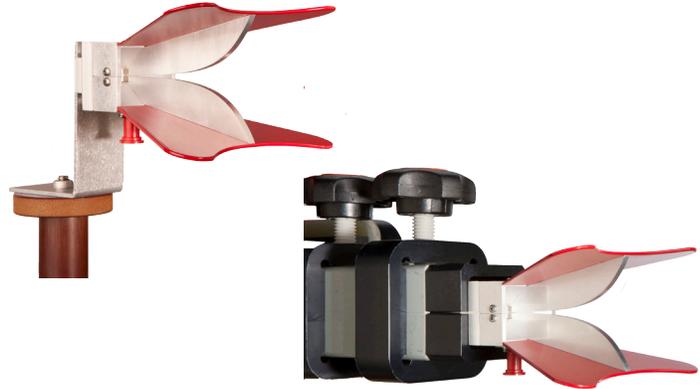


EMC Antennas
**Double-Ridged
Waveguide Horn**

Model 3116C

Features:

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



ETS-Lindgren's Model 3116C Double-Ridged Waveguide Horn with 1/4" 20 Mount (Left) and Stinger Mount (Right)

THE MODEL 3116C DOUBLE-RIDGED WAVEGUIDE HORN is the latest addition to a family of double-ridge guide horns for EMC measurement from ETS-Lindgren. This model corrects the lower gain at the upper end of the frequency range, commonly found in ridged waveguide antennas. Users of this antenna benefit from uniform illumination of target surfaces and accurate gain measurement.

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

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

The Model 3116C accepts up to 20 W 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" 20 thread screw or rear stinger mount.

Individually Calibrated

The 3116C is individually calibrated at 1m per SAE ARP 958.

STANDARD CONFIGURATION

- Antenna Assembly
- Mounting Bracket for ETS-Lindgren or Other Tripod Mounts with 1/4" x 20 Threads
- Stinger Mount
- Individually calibrated at 1m per SAE ARP 958 at our A2LA accredited lab.
- Actual antenna factors and a signed Certificate of Calibration Conformance included with manual.
- Manual

OPTIONS

- ETS-Lindgren offers several non-metallic, non-reflective tripods. For easy horizontal and vertical polarization changes, the 7-TR tripod is recommended.

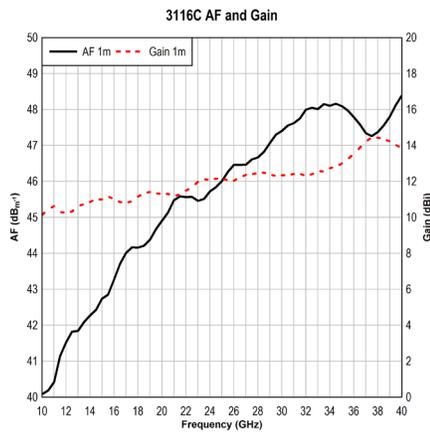
Electrical Specifications

MODEL	FREQUENCY RANGE	VSWR RATIO (AVG)	MAXIMUM CONTINUOUS POWER	PEAK POWER	IMPEDANCE (NOMINAL)	CONNECTORS
3116C	10 GHz - 40 GHz	2.5:1 max	40 W - 20 W	60 W - 30 W	50 Ω	Type K Female (2.92 mm)

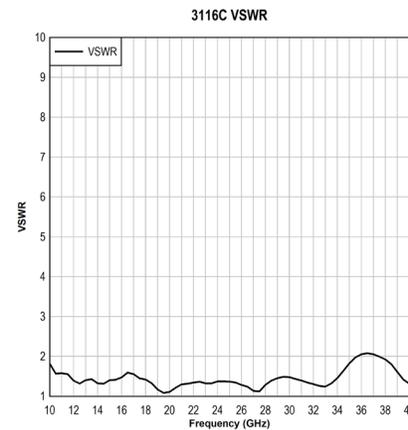
Physical Specifications

MODEL	WIDTH	DEPTH	HEIGHT	WEIGHT
3116C with 1/4" 20 Mounting Bracket	10.8 cm 4.3 in	13.0 cm 5.1 in	8.9 cm 3.5 in	0.20 kg 0.44 lb
3116C with Stinger Mount	10.8 cm 4.3 in	25.7 cm 10.1 in	6.4 cm 2.5 in	0.33 kg 0.74 lb

Model 3116C Typical Antenna Factors and Gain



Model 3116C Typical VSWR



Model 3116C Typical Half Power Beamwidth

