

3117 Double-Ridged Guide Antenna

ETS-Lindgren's Model 3117 Double-ridged Waveguide Horn is the latest addition to a family of double-ridged waveguide horns for microwave and EMC measurements.



Key Features

- Ultra Broadband, 1 GHz to 18 GHz
- 300 W Continuous Power Input Capacity
- Maintains Single Lobe Radiation Pattern Over Frequency
- Uniform Gain
- Low VSWR
- Flexible Mounting Configuration

ETS-Lindgren's Model 3117 Double-ridged Waveguide 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. In addition, the 3117 exhibits high gain and low VSWR across its operational frequency band, accepting moderate power input of 300 watts.

The electrical characteristics of this antenna were designed and modeled using powerful workstations running electromagnetic simulation software. Equally important, 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.

Specifications

View the 3117 Double-Ridged Guide Antenna technical specifications below

Physical Specifications

- Height: 15.5 cm (6.1 in)
- Width: 17.5 cm (6.9 in)
- Depth: 17.5 cm + 15.5 cm Mount (6.9 in + 6.1 in Mount)

Electrical Specifications

- Frequency Minimum: 1 GHz
- Frequency Maximum: 18 GHz
- Impedance (Nominal): 50
- Maximum Continuous Power: 300 W
- Peak Power: 500 W
- Pattern Type: Directional

Polarization: Linear

VSWR: 3.5:1 Maximum, <2:1 Above 1.5 GHz

Connectors: Type N

Product Options

ETS-Lindgren Offers Several Non-metallic, Non-reflective Tripods

Product Configuration

Antenna Assembly

Mounting Bracket Drilled to Accept ETS-Lindgren or Other Tripod Mounts with 1/4 in x 20 Threads

Rear "Stinger" Mount

Individually calibrated at 1 m per SAE ARP 958 at our A2LA accredited lab. 3 m calibration per ANSI C63.5 available at additional cost.

Actual Antenna Factors and a Signed Certificate of Calibration Conformance Included with Manual

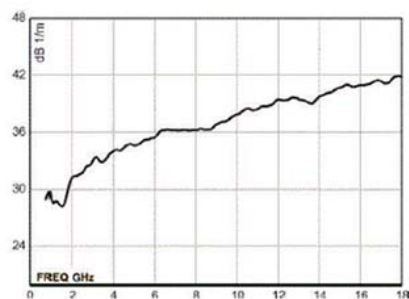
Manual

Carrying case included

Charts

View the 3117 Double-Ridged Guide Antenna charts below

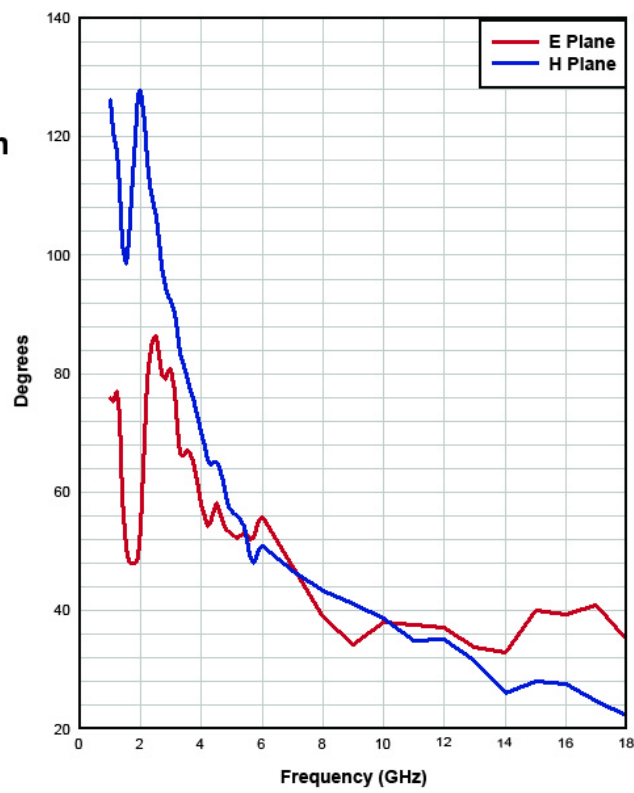
3117 Double-Ridged
Guide Antenna
Typical Antenna Factor



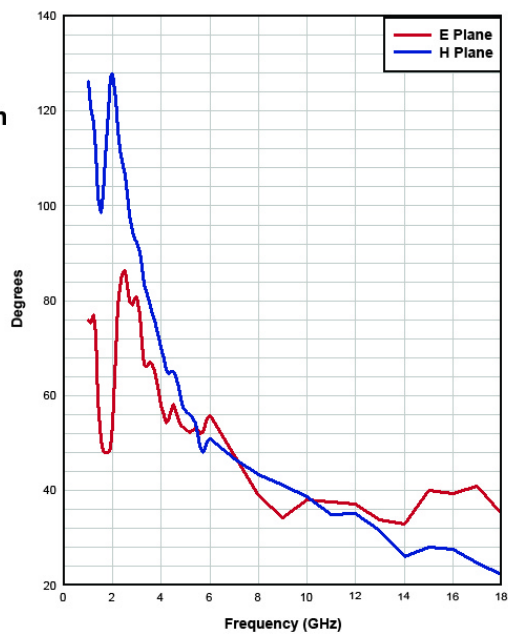
3117 Double-Ridged
Guide Antenna
Typical Gain



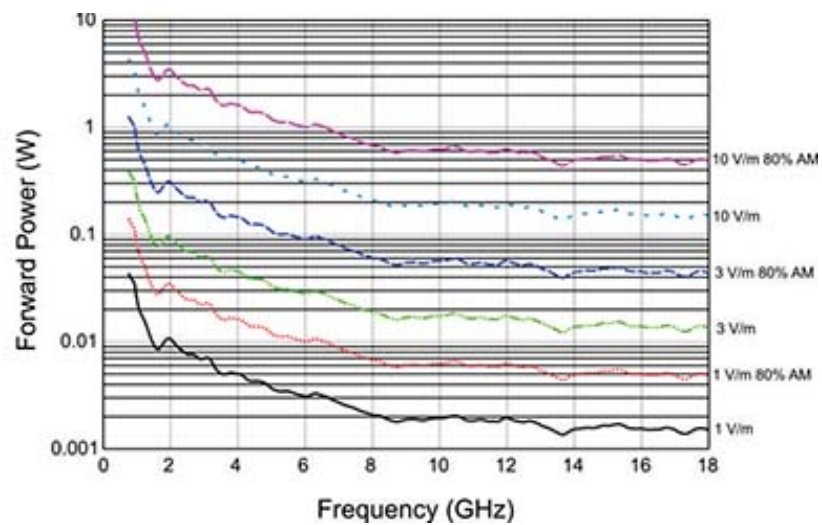
3117 Double-Ridged Guide Antenna Half Power Beamwidth



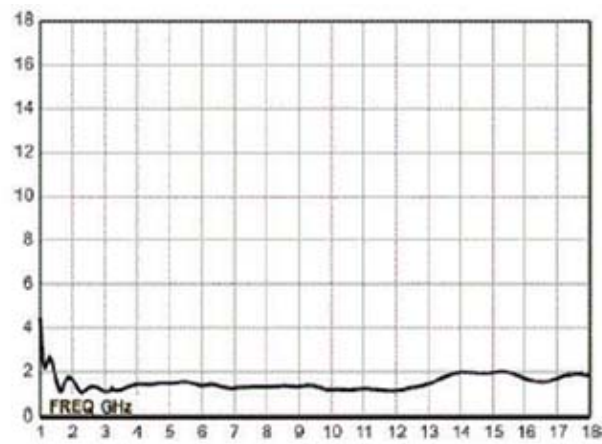
3117 Double-Ridged Guide Antenna Half Power Beamwidth



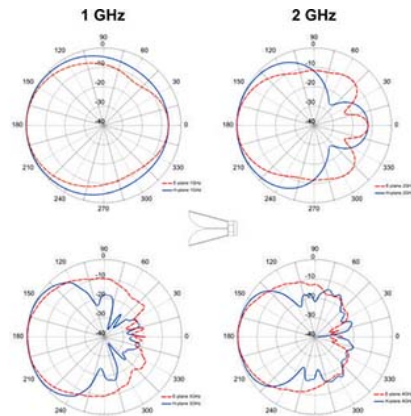
3117 Double-Ridged Guide Antenna Forward Power at 1 m



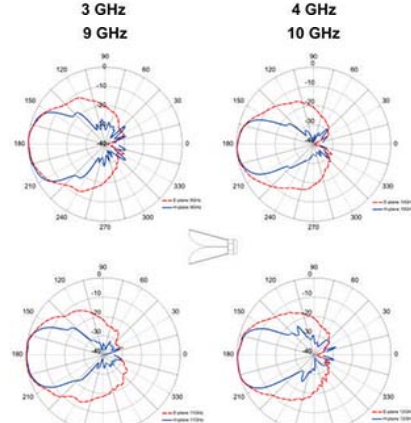
3117 Double-Ridged Guide Antenna Typical VSWR



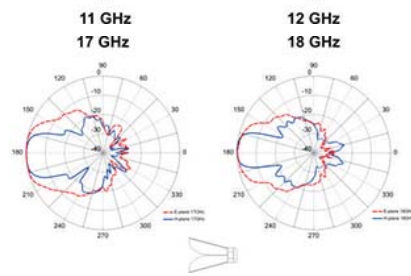
3117 Double-Ridged
Guide Antenna
Measured Radiation Pattern
1 GHz to 4 GHz



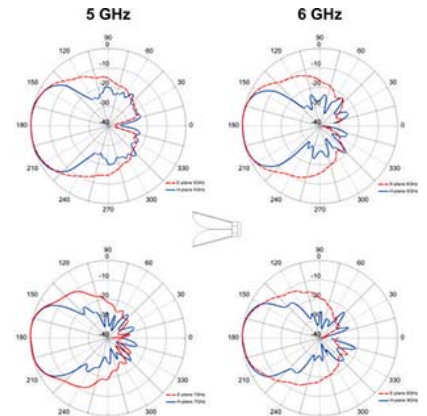
3117 Double-Ridged
Guide Antenna
Measured Radiation Pattern
9 GHz to 12 GHz



3117 Double-Ridged
Guide Antenna
Measured Radiation Pattern
17 GHz to 18 GHz



3117 Double-Ridged
Guide Antenna
Measured Radiation Pattern
5 GHz to 8 GHz



3117 Double-Ridged
Guide Antenna
Measured Radiation Pattern
13 GHz to 16 GHz

