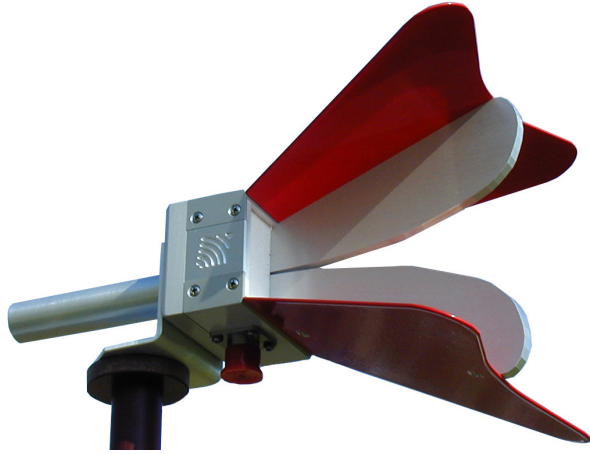


# EMC ANTENNAS DOUBLE-RIDGED WAVEGUIDE HORN



## MODEL 3117

- Ultra Broadband
- 1 GHz to 18 GHz Frequency Range
- 300 W Power Input Capacity
- Optimized High Frequency Gain
- Low VSWR
- Flexible Mounting Configuration

## Applications

- FCC-15 (RE)
- FCC-18 (RE)
- IEC/CISPR/EN (RE, RI)
- SAE J1113 (RE, RI)
- SAE J551 (RE, RI)
- MIL-STD-461E (RE, RI)
- MIL-STD-285 (TX, RX)
- NACSIM (RE)

## Standard Configuration

- Antenna Assembly
- Mounting Bracket for 1/4" 20 Thread
- 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 an additional cost. 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.

ETS-Lindgren's Model 3117 Double-ridged Waveguide Horn is the latest addition to our family of double-ridged waveguides. This patented antenna (Patent # 6,995,728) 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 Model 3117 exhibits high gain and low VSWR across its operational frequency band, accepting moderate power input of 300 W. 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.

## Technical Specifications

### Electrical

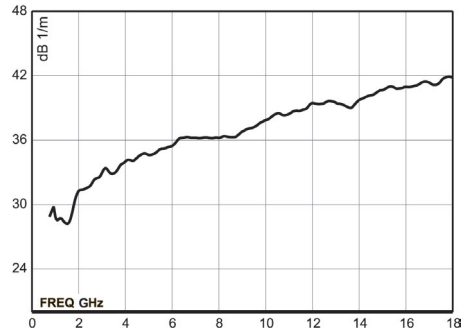
Frequency Range	1 GHz to 18 GHz
VSWR	3.5:1 Maximum, <2:1 Above 1.5 GHz
Maximum Continuous Power	300 W
Peak Power	400 W
Impedance (Nominal)	50 Ω
Connectors	Type N

### Physical

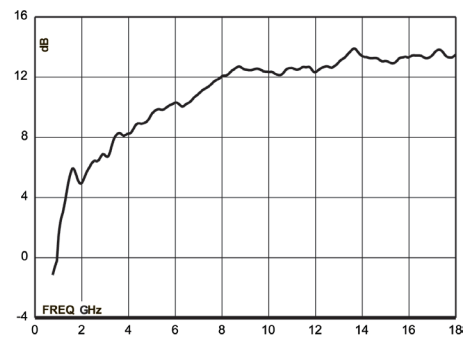
Height	15.5 cm
	6.1 in
Width	17.5 cm
	6.9 in
Depth	17.5 cm + 15.5 cm Mount
	6.9 in + 6.1 in Mount
Weight	1.13 kg
	2.5 lb

# EMC ANTENNAS DOUBLE-RIDGED WAVEGUIDE HORN

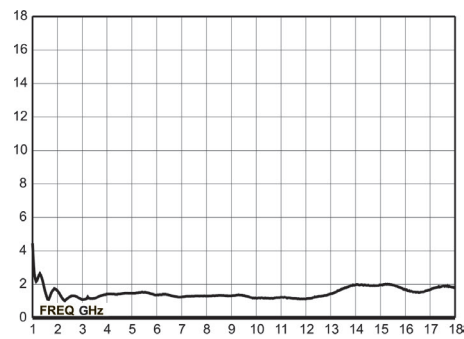
**Typical Antenna Factor**



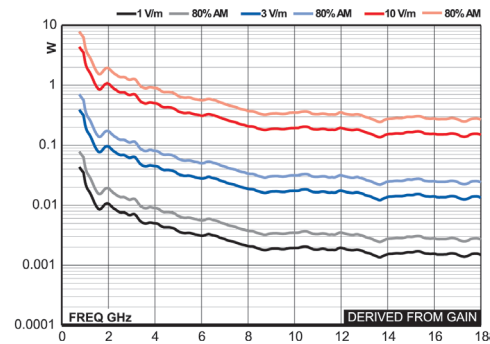
**Typical Gain**



**Typical VSWR**

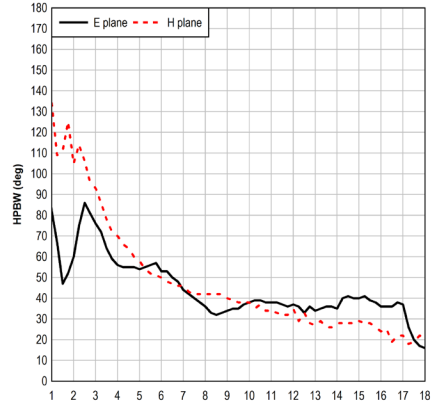


**Typical Forward Power**

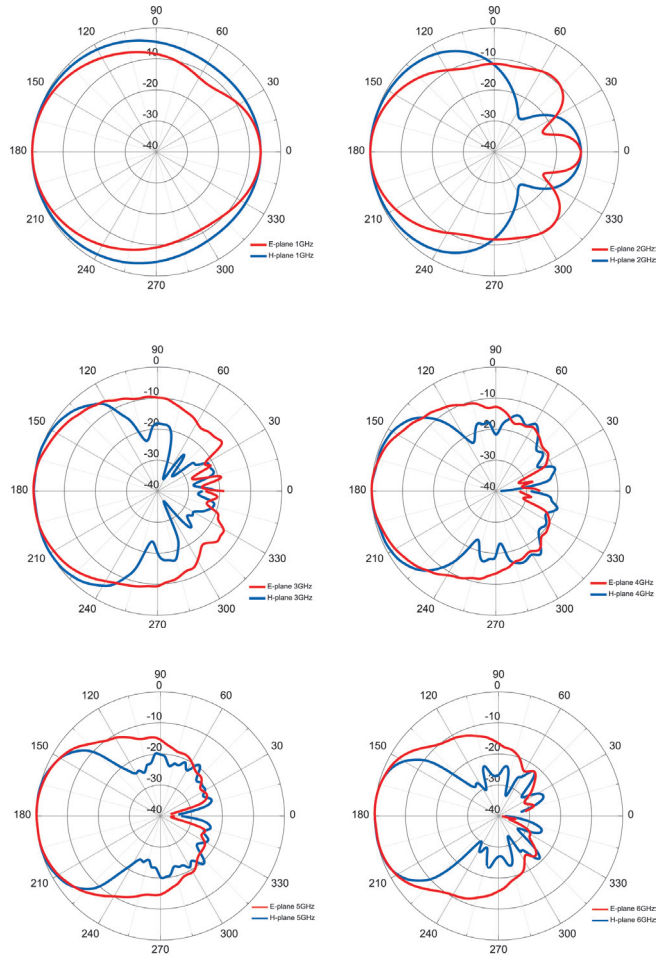


# EMC ANTENNAS DOUBLE-RIDGED WAVEGUIDE HORN

Typical Half Power Beamwidth

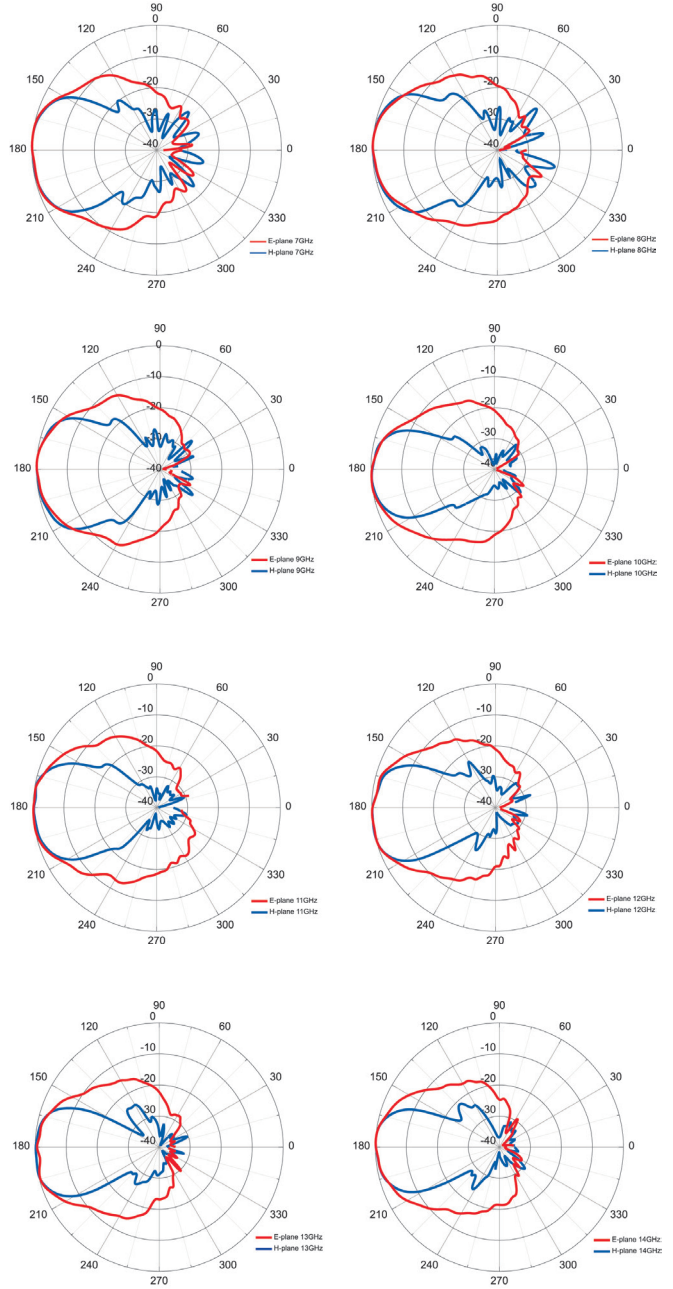


1 GHz to 6 GHz Typical Patterns



# EMC ANTENNAS DOUBLE-RIDGED WAVEGUIDE HORN

7 GHz to 14 GHz  
Typical Patterns



# EMC ANTENNAS DOUBLE-RIDGED WAVEGUIDE HORN

15 GHz to 18 GHz  
Typical Patterns

