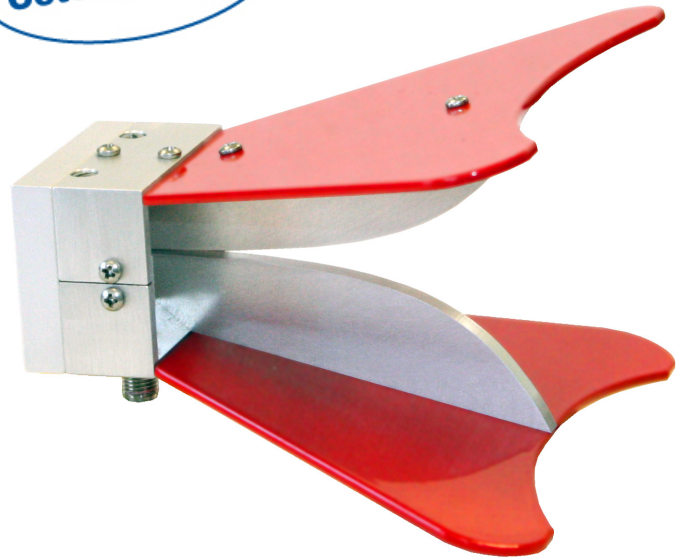


Double-Ridged Waveguide Horn

Model 3116B

Available
October 2010!



ETS-Lindgren's Model 3116B Double-Ridged Waveguide Horn

Features:

- Frequency Range: 18 GHz to 40 GHz
- 20 W Power Handling Capability
- Low VSWR
- Uniform Gain
- Individually Calibrated

The Model 3116B 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. In addition, the Model 3116B exhibits high gain and low VSWR across its operational frequency band, accepting moderate power input of 20 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.

FEATURES

Broadband

The Model 3116B sweeps from 18 GHz to 40 GHz without stopping for band breaks, making it ideal for automated testing.

Power Input

The Model 3116B uses a Type K (2.92 mm) precision connector and

accepts up to 20 watts 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 3116B 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 3 dB variation over the entire range. Similar antennas of this class exhibit large variations of the gain and the AF as the frequency increases.

STANDARD CONFIGURATION

- Antenna Assembly
- Mounting bracket drilled to accept ETS-Lindgren or other tripod mounts with 1/4 in x 20 threads
- Individually calibrated at 1 m per SAE ARP 958 at our A2LA accredited lab. Actual antenna factors and a signed Certificate of Calibration Conformance included with manual

OPTIONS

- Antenna Mast
- Antenna Tripod

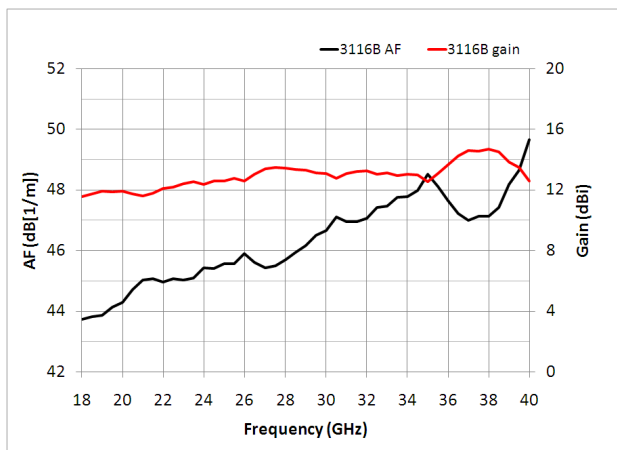
Electrical Specifications

MODEL	FREQUENCY RANGE	VSWR RATIO (AVG)	MAXIMUM CONTINUOUS POWER	PEAK POWER	IMPEDANCE (NOMINAL)	CONNECTORS
3116B	18 GHz - 40 GHz	2.5:1 max	20 W	200 W	50 Ω	Type K (F) (2.92 mm)

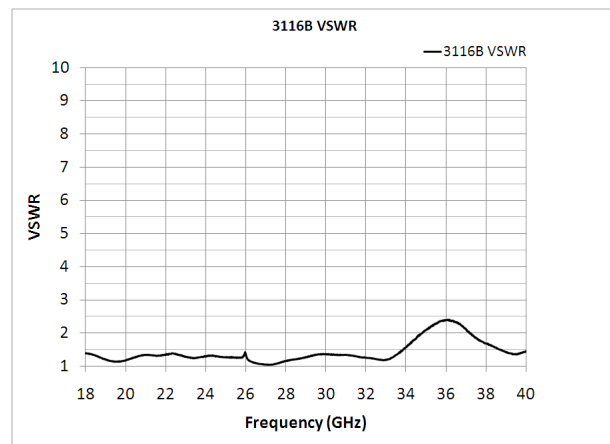
Physical Specifications

MODEL	WIDTH	DEPTH	HEIGHT	WEIGHT
3116B	10.6 cm 4.2 in	9.6 cm + 5.0 cm mount 3.8 in + 2.0 in mount	6.6 cm 2.6 in	0.15 kg 0.34 lb

Model 3116B Typical Antenna Factors and Gain



Model 3116B Typical VSWR



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