

EMC Antennas
**Double-ridged
Waveguide Horn
with Pre-amplifier**

Model 3115-PA

FEATURES:

- 1 GHz to 18 GHz Frequency Range
- Designed for MIL-STD-461
- Fitted with a Pre-amplifier for Increased Sensitivity
- Pre-amp and Antenna Calibrated as a Single Unit
- Extremely Low AF
- Flexible Mounting



ETS-Lindgren's Model 3115-PA Double-ridged Waveguide Horn Antenna with Pre-amplifier

ETS-LINDGREN'S MODEL 3115-PA is our popular Model 3115, fitted with a pre-amplifier package and calibrated as a single unit. In this configuration, any possible mismatches between antenna and pre-amplifier are taken into account in the antenna factor (AF) which is provided with this unit. Please note, the 3115-PA is not intended for RSE testing of intentional radiators.

FEATURES

Frequency Range

This antenna covers the 1 GHz to 18 GHz range making it ideal as a receive antenna for any emissions testing above 1 GHz.

Designed for MIL-STD-461

The Model 3115 Horn Antenna (without pre-amp) is identical to the antenna described in MIL-STD-461 RE102, for emissions testing above 1 GHz.

Fitted Amplifier

The pre-amplifier has a frequency range of 1 GHz to 18 GHz and a typical gain of 45 dB. The gain flatness across the range is ± 2.5 dB. The pre-amplifier has a maximum noise figure of 4 dB maximum with the typical noise figure being 3 dB. The power output is +17 dB minimum at the 1 dB point. The input and output characteristics of the preamplifier are an Input and output VSWR of 2:1 maximum.

Calibrated as Single Unit

The 3115-PA is calibrated as a single unit, so uncertainty values are reduced.

Low Antenna Factor

Single-unit calibration also provides an extremely low AF that is less than 0 dB(1/m) for the entire frequency range.

Flexible Mounting

The Model 3115-PA includes both a $\frac{1}{4}$ 20 thread classic mount and a rear "stinger" mount.

STANDARD CONFIGURATION

- Antenna and Pre-amplifier
- Mounting Bracket for $\frac{1}{4}$ 20 Threads
- Rear Stinger Mount
- AC/DC Power Supply for the Pre-amplifier Module
- Individually Calibrated Factors at 1m and 3m per SAE ARP 958
- Manual

OPTIONS

- 4-TR Tripod
- 7-TR Tripod

Electrical Specifications

MODEL	FREQUENCY RANGE	VSWR (AVG)	MAXIMUM CONTINUOUS POWER	IMPEDANCE (NOMINAL)	CONNECTOR TYPE
3115-PA	1 GHz to 18 GHz	N/A (Rx Only)	N/A (Rx Only)	50 Ω	SMA (Female)

Physical Specifications

MODEL	LENGTH*	WIDTH	HEIGHT*	WEIGHT
3115-PA	36.1 cm 14.1 in	24.2 cm 9.5 in	24.8 cm 9.8 in	2.5 kg 5.5 lb

*Includes stinger and pre-amplifier box.

Model 3115-PA Typical Antenna Factor and Gain

