

3115-PB Double-ridged Waveguide Horn with Pre-amplifier



ETS-Lindgren's Model 3115-PB is our popular Model 3115 Double-Ridged Waveguide Horn Antenna, fitted with an updated 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-PB is not intended for RSE testing of intentional radiators.

Key Features

- 1 GHz to 18 GHz Frequency Range
- Designed for MIL-STD 461
- Fitted with Pre-Amplifier for Increased Sensitivity
- Pre-Amplifier and Antenna Calibrated as a Single Unit
- Extremely Low AF Flexible Mounting
- Not intended for RSE Testing of Intentional Radiators

Product 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 3115 Horn Antenna (without pre-amplifier) 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 28 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 pre-amplifier are an input and output VSWR of 2:1 maximum.

Calibrated as Single Unit

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

Specifications

Physical Specifications

Length: 36.1 cm (14.21 in)
Width: 24.2 cm (9.53 in)
Height: 24.8 cm (9.76 in)
Weight: 2.5 kg (5.51 lb)

Electrical Specifications

Frequency Minimum: 1 GHz
Frequency Maximum: 18 GHz
VSWR (Average): N/A (Rx Only)
Impedance (Nominal): 50
Connector (Amplifier Output): SMA (Female)
Pattern Type: Directional
Polarization: Linear

Product Options

- 4-TR Tripod
- 7-TR Tripod

Product Configuration

- Antenna and Pre-Amplifier
- Mounting Bracket for 1/4 in x 20 Threads
- Rear "Stinger" Mount
- AC/DC Power Supply for the Pre-Amplifier Module
- Individually Calibrated at 1 m per the SAE ARP 958
- Manual