

## 3115-PB DOUBLE-RIDGED WAVEGUIDE HORN WITH PRE-AMPLIFIER

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### 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

### 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  $\pm 2.5$  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

### Electrical Specifications

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

### Physical Specifications

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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)

### Other Specifications

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- 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