ETS-LINDGREN’s Model 3117-PA is a special version of our popular Model 3117 Double-Ridged Waveguide Horn Antenna, fitted with a pre-amplifier package and calibrated as a single unit. By doing this, any possible mismatches between antenna and pre-amplifier are taken into account in the antenna factor (AF), which is provided with this unit. The antenna is ideal as a receive antenna for emissions testing above 1 GHz.

FEATURES

- 1 GHz to 18 GHz Frequency Range
- Maintains Single Lobe Radiation
- Fitted with Pre-Amplifier for Increased Sensitivity
- Extremely Low Antenna Factor
- Flexible Mounting

ETS-LINDGREN’S MODEL 3117-PA

Fitted Amplifier
The pre-amplifier attached to the antenna has a frequency range of 1 GHz to 18 GHz and a typical gain of 48 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.

Low Antenna Factor
The result of matching the Model 3117 with the pre-amplifier is an antenna that is calibrated as a system and it provides an extremely low AF that is less than -2 dB (1/m) for the entire frequency range.

Flexible Mounting
The Model 3117-PA includes both a 1/4 20 thread classic mount and a rear “stinger” mount.

STANDARD CONFIGURATION
- Antenna and Pre-amplifier
- Mounting Bracket for 1/4 20 Threads
- 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

www.ets-lindgren.com
Electrical Specifications

<table>
<thead>
<tr>
<th>MODEL</th>
<th>FREQUENCY RANGE</th>
<th>VSWR (AVG)</th>
<th>MAXIMUM CONTINUOUS POWER</th>
<th>IMPEDANCE (NOMINAL)</th>
<th>CONNECTOR TYPE</th>
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</thead>
<tbody>
<tr>
<td>3117-PA</td>
<td>1 GHz to 18 GHz</td>
<td>N/A (Rx Only)</td>
<td>N/A (Rx Only)</td>
<td>50 Ω</td>
<td>SMA (Female)</td>
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</tbody>
</table>

Physical Specifications

<table>
<thead>
<tr>
<th>MODEL</th>
<th>LENGTH*</th>
<th>WIDTH</th>
<th>HEIGHT*</th>
<th>WEIGHT</th>
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</thead>
<tbody>
<tr>
<td>3117-PA</td>
<td>33.0 cm</td>
<td>17.5 cm</td>
<td>19.7 cm</td>
<td>1.4 kg</td>
</tr>
<tr>
<td></td>
<td>13.0 in</td>
<td>6.9 in</td>
<td>7.8 in</td>
<td>3.0 lb</td>
</tr>
</tbody>
</table>

*Includes stinger and pre-amplifier box.

Model 3117-PA Typical Antenna Factor and Gain

![Graph showing AF and Gain vs Frequency]