Ethertronics’ Prestta series of Isolated Magnetic Dipole™ (IMD) stamped metal antennas address the challenges facing today’s product designers. IMD’s high performance and isolation characteristics offer better connectivity and minimal interference. IMD antennas can be used in a variety of devices:

- Notebook Computers
- Access Points
- Industrial Handhelds
- WiFi enabled Televisions & Monitors

Prestta™ WLAN Embedded Antenna
2.4/4.9/5.2/5.8 GHz (802.11 a/b/g/n + Japan)

## DESIGN ADVANTAGES

### Quicker Time-to-Market
- By optimizing antenna size, performance and emissions, customer and regulatory specifications are more easily met.

### Greater Flexibility
- Ethertronics’ first-in-class IMD technology enables you to develop concept designs that are more advanced and that deliver superior performance in reception-critical applications.
- Connector located on the PCB allows for custom cable lengths to fit a variety of devices

### RoHS Compliant
- Ethertronics’ antennas are fully compliant with the European RoHS Directive 2002/95/EC.

## END USER ADVANTAGES

### Unique Form Factors Support Advanced Industrial Designs
- Smaller, more efficient IMD embedded antennas break through restrictive design rules and provide new freedom in component placement.

### Superior Range & Signal Strength
- Better antenna function means longer range and greater sensitivity to critically precise signals—delivering greater customer satisfaction while building brand loyalty.

## SERVICE AND SUPPORT

### Extensive RF Experience
- Our WLAN antennas are supported by documentation, and when needed, by the expertise of RF engineers who have integrated hundreds of antenna designs into wireless devices.

### Global Operations & Design Support
- Ethertronics’ global operations supports an integrated network of design centers that can take projects from concept to production.

Etchtronics’ Prestta series of isolated magnetic dipole stamped metal antennas address the challenges facing today’s product designers. IMD’s high performance and isolation characteristics offer better connectivity and minimal interference. IMD antennas can be used in a variety of devices: notebook computers, access points, industrial handhelds, and WiFi enabled televisions & monitors.

**Product:** WLAN

**Part No.:** 1000418

**Technology Advantages:**

- Stays in Tune
  - IMD antenna technology provides superior RF field containment, resulting in less interaction with surrounding components. Ethertronics IMD antennas resist de-tuning; providing a robust radio link regardless of the usage position.

Prestta WLAN antennas use patented IMD technology in a stamped metal configuration to provide high performance. IMD antennas require a smaller design keep-out area, carry lower program development risk which yields a quicker time-to-market, without sacrificing RF performance.

**Design Advantages:**

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**PRODUCT: WLAN a/b/g/n + Japan**

**Ethertronics’ Internal (Embedded) Antenna Specifications.**

Below are the typical specs for a WLAN application.

### Electrical Specifications

**Typical Characteristics**

<table>
<thead>
<tr>
<th>WLAN a/b/g/n + Japan Antenna (GHz)</th>
<th>2.390-2.490 GHz b, g</th>
<th>4.900-5.100 GHz Japan</th>
<th>5.150-5.350 GHz a</th>
<th>5.70-5.900 GHz a</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Peak Gain</strong></td>
<td>1.5-2.5 dBi</td>
<td>1.5-3.5 dBi</td>
<td>2.3-3.5 dBi</td>
<td>2.3-3.5 dBi</td>
</tr>
<tr>
<td><strong>Efficiency</strong></td>
<td>65%</td>
<td>65%</td>
<td>65%</td>
<td>70%</td>
</tr>
<tr>
<td><strong>VSWR Match</strong></td>
<td>&lt;2.0:1</td>
<td>&lt;1.5:1</td>
<td>&lt;2.0:1</td>
<td>&lt;2.0:1</td>
</tr>
<tr>
<td><strong>Feed Point Impedance</strong></td>
<td>50 Ω unbalanced (other if required)</td>
<td>50 Ω unbalanced (other if required)</td>
<td>50 Ω unbalanced (other if required)</td>
<td>50 Ω unbalanced (other if required)</td>
</tr>
</tbody>
</table>

### Mechanical Specifications

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>17.9 x 6.9 x 4.3 mm (Antenna); 45.0 x 11.3 x 0.8 mm (PCB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight</td>
<td>1.6 g</td>
</tr>
<tr>
<td>Cable / Connector</td>
<td>Contact Ethertronics for details.</td>
</tr>
<tr>
<td>Cable Length</td>
<td>150 mm, 300mm 450mm, 600mm available</td>
</tr>
</tbody>
</table>

### VSWR

- **WLAN b/g**
- **WLAN a**

### Efficiencies

- **WLAN a/g**

### Antenna Radiation Patterns

**Typical Performance**

- **Phi = 0° Plane**
- **Phi = 90° Plane**
- **Theta = 90° Plane**

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