Part No. 9000046-XLPDNB
External ISM Antenna
868-915 MHz
Supports: IoT, SigFox, LoRa, Cellular LPWA, RPMA, Tracking, Smart Metering, Smart Home, Healthcare, Digital Signage

Ethertronics family of external antennas are designed to offer the best performances for a wide range of applications. This sleek external antenna covers ISM bands 868 and 915 MHz and specifically provides compelling advantages for ISM enabled handheld devices, media players and other mobile devices.

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

**Electrical Specifications**
Typical Characteristics on circular 120 mm diameter ground plane

<table>
<thead>
<tr>
<th>Frequency</th>
<th>868-915 MHz</th>
</tr>
</thead>
<tbody>
<tr>
<td>VSWR</td>
<td>&lt; 2.3:1</td>
</tr>
<tr>
<td>Efficiency</td>
<td>70%</td>
</tr>
<tr>
<td>Peak Gain</td>
<td>0.9 dBi</td>
</tr>
<tr>
<td>Impedance</td>
<td>50 Ω</td>
</tr>
<tr>
<td>Polarization</td>
<td>Vertical</td>
</tr>
</tbody>
</table>

**Mechanical Specifications & Ordering Part Number**

<table>
<thead>
<tr>
<th>Ordering Part Number</th>
<th>9000046-XLPDNB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size (mm)</td>
<td>101.0 ± 3.0 height 11.16 ± 1.0 diameter</td>
</tr>
<tr>
<td>Connector Type</td>
<td>SMA Male</td>
</tr>
<tr>
<td>Weight (grams)</td>
<td>6</td>
</tr>
<tr>
<td>Color</td>
<td>Black</td>
</tr>
<tr>
<td>Operating Temperature (°C)</td>
<td>-40 to +120</td>
</tr>
</tbody>
</table>

**KEY BENEFITS**
- **Reduced Costs and Time-to-Market**
  Standard antenna eliminates design fees and cycle time associated with a custom solution; getting products to market faster.
- **Greater Flexibility with Unique Form Factors**
  Ethertronics' technology helps you deliver more advanced ergonomic designs without adverse impact on product performance.
- **RoHS Compliant**
  Products are the latest RoHS version compliant.

**APPLICATIONS**
- Medical applications
- Home automation
- Smart metering
- M2M, Industrial devices
- Point of Sale
- Tracking
- Commercial/Communication
- Radar
- Wireless
- Monitoring
- Industrial
- Automotive
- Healthcare
- IoT
External ISM Antenna Specifications
Ethertronics produces a wide variety of standard and custom antennas to meet user needs.

VSWR, Efficiency, and Peak Gain Plots
Typical Characteristics on circular 120 mm diameter ground plane

**VSWR**

**Efficiency**

**Peak Gain**
External ISM Antenna Specifications
Ethertronics produces a wide variety of standard and custom antennas to meet user needs.

Antenna Radiation Patterns
Typical Characteristics on circular 120 mm diameter ground plane

Measured at 868 MHz

Measured at 915 MHz
External ISM Antenna Specifications
Ethertronics produces a wide variety of standard and custom antennas to meet user needs.

### Mechanical Dimensions

Typical antenna dimensions (mm)

<table>
<thead>
<tr>
<th>Part Number</th>
<th>A (mm)</th>
<th>B (mm)</th>
<th>C (mm)</th>
<th>Connector</th>
</tr>
</thead>
<tbody>
<tr>
<td>9000046-XLPDNB</td>
<td>101.± 3.0</td>
<td>11.16 ± 0.1</td>
<td>8.08 ± 0.1</td>
<td>SMA (Male)</td>
</tr>
</tbody>
</table>

![Antenna Diagram](image-url)