Industrial, Scientific and Medical (ISM) Antennas

ISM Standalone Antennas combine high RF performance with ease of integration over 433, 868 and 915 MHz bands for advanced industrial, scientific and medical devices

Features and Advantages

433 MHz ISM Flexible Antenna (Series 204287)

- Topside of the poly-flexible antenna
  Makes for easy peel-and-stick mounting anywhere within the device chassis

- Double-sided adhesive on the antenna reverse
  Enables instant application anywhere on the inner wall of the device chassis by just removing its tape liner

- 6 Micro-coaxial Cable
  Length options (50, 100, 150, 200, 250, 300 mm)
  Extends connectivity for maximum design flexibility

868, 915 MHz ISM Flexible Antenna with MobiliquA* Technology (Series 105262)

- Poly-flexible antenna
  Enables easy peel-and-stick mounting anywhere within the device casing

- U.F.L.-type connector
  Secures to the application’s device radio

868/915 MHz ISM Flexible Antenna (Series 201140)

- Low profile design
  Offers space saving

- U.F.L.-type connector
  Secures to the application’s device radio

868, 915 MHz Balanced, Dipole ISM Flexible Antenna (Series 206764)

- U.F.L.-type connector
  Secures to the application’s device radio

- Low profile design
  Offers space saving

- High efficiency (up to 70%)
  Provides cost savings

868, 915 MHz ISM Flexible Antenna with MobiliquA* Technology (Series 105262)

- Low profile design
  Offers space saving

- High operating temperature (Up to 125°C)
  Enables use in challenging environmental conditions

*The MobiliquA antenna technology incorporates proprietary bandwidth enhancing technologies, which have been used successfully in Molex standard and custom antenna designs. The technology is designed to improve impedance bandwidth in any application with a wireless interface antenna, including mobile phones, smart phones, portable TVs, and standard antennas in industrial applications. Traditional passive antenna structures are based on meandered antenna patterns, with limitations on manufacturing tolerances and mechanical properties. MobiliquA technology enables simple mechanical and robust antenna designs that minimize efforts needed for iterative retuning during each build cycle.
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Applications

Industrial
- Smart homes (security, alarm)
- Smart meters
- Remote keyless entry systems
- Drones

Scientific
- Optical connectivity solutions
- Underwater sensor networks

Medical
- Diathermy therapeutic devices
- Microwave ablation machines

Specifications

REFERENCE INFORMATION
Packaging: Tray (105262)
- PET Film (204287, 206764, 211140); Bag (208142)
Reference Platform: PC/ABS material block of 2mm thickness (211140, 204287, 206764); PC material block of 2.5mm thickness (105262); PCB material block of 0.80mm thickness (208142)
Designed In: mm
RoHS: Yes
Halogen Free: Yes

ELECTRICAL
RF Power (Watt): 2
Return Loss (dB): Refer to Product Specifications
Average Total Radiation Efficiency(%): Refer to Product Specifications
Peak Gain (dBi): Refer to Product Specifications
Input Impedance (ohms): 50

MECHANICAL
Refer to Product Specifications

PHYSICAL
Housing: FPC
Flammability: UL 94V-0
Plating: Refer to Sales Drawings
Operating Temperature:
-30 to 85°C (204287, 206764)
-40 to 85°C (105262, 211140)
-40 to 125°C (208142)

Ordering Information

<table>
<thead>
<tr>
<th>Series No.</th>
<th>Frequency Bands (MHz)</th>
<th>Dimensions (mm)</th>
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</thead>
<tbody>
<tr>
<td>206764</td>
<td>868, 915</td>
<td>87.40 by 12.40</td>
</tr>
<tr>
<td>105262</td>
<td>868, 915</td>
<td>79.00 by 10.00</td>
</tr>
<tr>
<td>204287</td>
<td>433</td>
<td>90.00 by 40.00</td>
</tr>
<tr>
<td>211140</td>
<td>868, 915</td>
<td>38.00 by 10.00</td>
</tr>
<tr>
<td>208142</td>
<td>868, 915</td>
<td>9.00 by 3.00 by 0.63</td>
</tr>
</tbody>
</table>

www.molex.com/link/standard_antennas.html

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