Rectangular Near Field Communication (NFC) Antenna
NFC Antenna, with or without Ferrite

Rectangular NFC Antennas maximize effectiveness of quick, two-way read/write operations over a wide range of detection distances from metallic and non-metallic substrate applications.

Features and Benefits

Plated Pads
Provide electrical contact to connecting spring clips or pogo pins mounted on the application PCB.

Selection of antenna sizes:
- (15 by 25)
- (23 by 27)
- (34 by 46)
- (45 by 55)
Offer increased design flexibility to the application developer.

Flexi material
Facilitates easy integration on the application substrate due to its pliability.

Ferrite* layer
Eliminates interference effects from metallic or conductive surfaces when antenna is applied on these (Remark: Non-Ferrite version antennas are used on non-metallic or non-conductive surfaces).

Double-sided adhesive tape with liner (not shown, on underside of antenna)
Enables easy peel-and-stick mounting on the application substrate.

Applications

Automotive
- Infotainment systems
- Smart car functions

Consumer
- Payment processing systems
- Apparel tagging readers

Industrial
- Airline ticketing systems
- Air baggage and cargo
- Logistics, conveyors and roll cages
- Security access control systems
- Electronic keys
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Specifications

**REFERENCE INFORMATION**
Reference Information
Packaging: PE film
Use With: RFID tags
Designed In: Millimeters
RoHS: Yes
Halogen Free: Yes
Glow Wire Compliant: No

**ELECTRICAL**
- Operating Frequency: 13.56 MHz
- RF Power: 2W
- Inductance (µH): Refer to Order Table

**MECHANICAL**
- Mode: Peel-and-stick

**PHYSICAL**
- Flexi Material: Polyimide
- Ferrite: TRF220
- Adhesive (FPC): 3M9077
- Plating Thickness: Copper 28-38µm
  - Nickel: 2-6µm
  - Gold: 0.05µm min.
- Operating Temperature: -30 to +85°C

Ordering Information

<table>
<thead>
<tr>
<th>Series No.</th>
<th>Ferrite Option</th>
<th>Dimensions (mm)</th>
<th>Inductance (µH)</th>
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</thead>
<tbody>
<tr>
<td>146236</td>
<td>With Ferrite</td>
<td>15 by 25 by 0.27</td>
<td>3.32</td>
</tr>
<tr>
<td></td>
<td></td>
<td>23 by 27 by 0.27</td>
<td>3.22</td>
</tr>
<tr>
<td></td>
<td></td>
<td>34 by 46 by 0.27</td>
<td>4.25</td>
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<td></td>
<td></td>
<td>45 by 55 by 0.27</td>
<td>3.92</td>
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<td></td>
<td>Without Ferrite</td>
<td>15 by 25 by 0.17</td>
<td>2.11</td>
</tr>
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<td>23 by 27 by 0.17</td>
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<td>34 by 46 by 0.17</td>
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<td>45 by 55 by 0.17</td>
<td>2.59</td>
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www.molex.com/link/standard_antennas.html

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