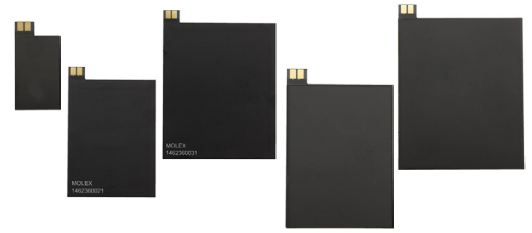


# Rectangular Near Field Communication (NFC) Antenna

NFC Antenna, with or without Ferrite

**molex**<sup>®</sup>

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



Near Field Communication (NFC) Antennas optimize detection performance for both Ferrite and non-Ferrite based applications

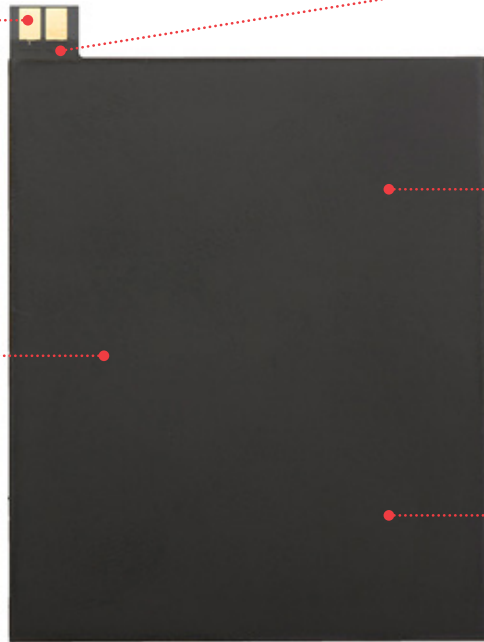
## Features and Benefits

### 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) and (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



Airline Ticketing Systems



Payment Processing Systems



Apparel Tagging Readers

# Rectangular Near Field Communication (NFC) Antenna

NFC Antenna, with or without Ferrite



## 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 ( $\mu$ H): Refer to Order Table

### MECHANICAL

Mode: Peel-and-stick

### PHYSICAL

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

## Ordering Information

Series No.	Ferrite Option	Dimensions (mm)	Inductance ( $\mu$ H)
146236	With Ferrite	15 by 25 by 0.27	3.32
		23 by 27 by 0.27	3.22
		34 by 46 by 0.27	4.25
		45 by 55 by 0.27	3.92
	Without Ferrite	15 by 25 by 0.17	2.11
		23 by 27 by 0.17	2.09
		34 by 46 by 0.17	2.76
		45 by 55 by 0.17	2.59

[www.molex.com/link/standard\\_antennas.html](http://www.molex.com/link/standard_antennas.html)

Molex is a registered trademark of Molex, LLC in the United States of America and may be registered in other countries; all other trademarks listed herein belong to their respective owners.