



## Applications



Smart Phones



Tablets



Handheld Gaming Systems



Payment Systems



Ticketing Systems



Bluetooth Pairing

## Overview

Amphenol RF offers a wide variety of Near Field Communication (NFC) internal antennas that are easy to use and offer high-performance capabilities to support NFC-Forum wireless standards. NFC antennas are available in standard configurations with adhesive mount options. These short range internal antennas operate at 13.56 MHz and are well suited for compact IoT devices such as smart phones, tablets and gaming consoles and within POS terminals and ticketing systems, and are commonly used in devices that require pairing.

## Features and Benefits

- Ideal for compact IoT applications
- Adhesive mount options, with and without cable
- Operates at 13.56 MHz
- Designed to support NFC-Forum wireless protocols
- Short range data transfer capabilities

For more information on Internal RF Antennas, visit:

<https://www.amphenolrf.com/rf-antennas.html>

## Amphenol RF

Four Old Newtown Road  
Danbury, CT 06810

For more information visit [www.amphenolrf.com](http://www.amphenolrf.com)  
or call 800.627.7100

## Ordering Information



| Part Number<br>*With Matching Network<br>**No Matching Network | ST0812-00-N01-A                 | ST0812-11-N01-A | ST0812-11-N02-A<br>NFC FORUM | ST0815-00-N01-A                 | ST0815-11-N01-A | ST0815-11-N02-A<br>NFC FORUM |
|----------------------------------------------------------------|---------------------------------|-----------------|------------------------------|---------------------------------|-----------------|------------------------------|
| Frequency (MHz)*                                               | 13.56                           |                 |                              |                                 |                 |                              |
| Material                                                       | FPC   Ferrite   Adhesive 3M 467 |                 |                              | PCB   Ferrite   Adhesive 3M 467 |                 |                              |
| Impedance (Ω)*                                                 | 20 / 30                         | 20 / 30         | 20 / 30                      | 20 / 30                         | 20 / 30         | 20 / 30                      |
| Inductance (μH)**                                              | 2.37                            | 1.75            | 1.54                         | 1.96                            | 1.74            | 1.54                         |
| Resistance (Ω)**                                               | 1.38                            | 1.49            | 1.64                         | 0.88                            | 1.03            | 1.12                         |
| Self Res. Frequency (MHz)**                                    | 24.35                           | 93.59           | 84.27                        | 71.04                           | 83.67           | 74.05                        |
| Q-Factor**                                                     | 22.10                           | 56.70           | 49.40                        | 76.20                           | 65.20           | 58.30                        |
| Dimensions (mm)                                                | 15 x 19 x 0.35                  | 30 x 34 x 0.35  | 45 x 34 x 0.35               | 15 x 19 x 1                     | 30 x 34 x 0.6   | 45 x 34 x 0.6                |
| Temperature Range (°C)                                         | -40 to 85                       |                 |                              |                                 |                 |                              |
| Humidity                                                       | Non-condensing 65°C 95% RH      |                 |                              |                                 |                 |                              |
| RoHS                                                           | RoHS Compliant                  |                 |                              |                                 |                 |                              |



| Part Number<br>*With Matching Network<br>**No Matching Network | ST0812-00-N01-U                 | ST0812-00-N02-U | ST0815-00-N01-U | ST0815-00-N02-U |
|----------------------------------------------------------------|---------------------------------|-----------------|-----------------|-----------------|
| Frequency (MHz)*                                               | 13 – 15.5                       |                 |                 |                 |
| Material                                                       | FPC   Ferrite   Adhesive 3M 467 |                 |                 |                 |
| Impedance (Ω)*                                                 | 20 / 30                         | 20 / 30         | 20 / 30         | 20 / 30         |
| Inductance (μH)**                                              | 2.53                            | 2.28            | 5.64            | 4.35            |
| Resistance (Ω)**                                               | 2.41                            | 2.22            | 2.13            | 1.83            |
| Self Res. Frequency (MHz)**                                    | 27.41                           | 29.55           | 27.39           | 34.17           |
| Q-Factor**                                                     | 30.40                           | 31.60           | 37.90           | 47.70           |
| Dimensions (mm)                                                | 15 x 19 x 0.2                   | 17 x 14 x 0.2   | 15 x 19 x 0.6   | 17 x 14 x 0.6   |
| Temperature Range (°C)                                         | -40 to 85                       |                 |                 |                 |
| Humidity                                                       | Non-condensing 65°C 95% RH      |                 |                 |                 |
| RoHS                                                           | RoHS Compliant                  |                 |                 |                 |

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