

NFC Antenna Application Note

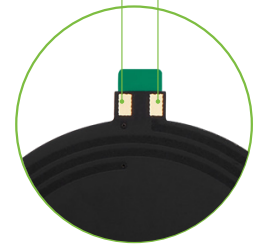


The Taoglas FXR and FXC series of high-performance NFC (Near Field Communications) antennas are ideal for IoT mobile devices and applications such as contactless payment systems, access control or RFID systems. The compact, flexible 13.56MHz NFC antennas are supplied with adhesive backing for quick and easy installation and can be mounted inside a plastic device enclosure or on an internal component. For any NFC antennas that are attached to larger batteries, we offer variants with ferrite flux directors to provide isolation from the battery or components in the device. Using the antenna on a conductive surface without a ferrite layer could result in losses with the antennas communication performance. Each version of each of the FXR and FXC series models comes with and without the ferrite layer and also with the ferrite layer either above or below the adhesive depending on the desired mounting option.

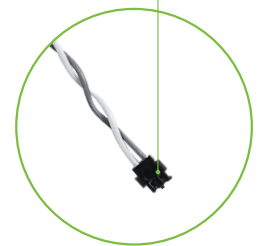
NFC Antenna Layer Stack Explained

The following illustrations are designed to help you choose the correct product version based on the use case and installation orientation. The 'A' version of the FXR and FXC antennas are designed to be mounted onto a device surface, component, shield can or PCB, and read from above, see Fig 1. The 'B' Versions are inverted so that they can be adhered to the inside of a device enclosure and read from above, see Fig 2 below.

Gold Plated Contact Pads



75mm Twisted Pair 28AWG cable with ACH(F) connectors

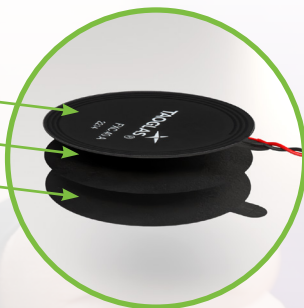


A Version

Figure 1

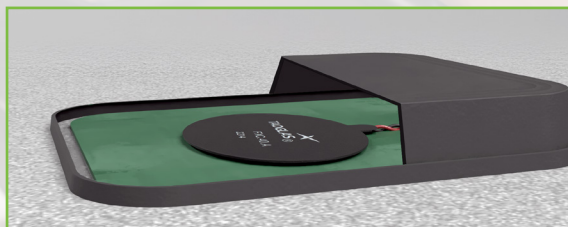
Stack Up

- Flex PCB Antenna
- Ferrite Layer
- Adhesive Layer



Application Orientation:

Designed to be adhesively mounted inside of the device enclosure on the PCB or on larger components.

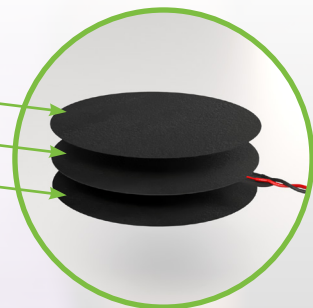


B Version

Figure 2

Stack Up

- Adhesive Layer
- Flex PCB Antenna
- Ferrite Layer



Application Orientation:

Designed to be adhesively mounted to the inside of the device top enclosure and read from above the device.

