

# Circus™ NFC

## Overview

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**Frequency Band**  
NFC 13.56 MHz

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**Chip**  
NXP NTAG210 Micro  
NXP NTAG213  
NXP NTAG216

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**Antenna Dimensions**  
Ø 20 mm / 0.79 in

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**International Standard**  
ISO 14443A

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**Industry Segments**  
Electronics and Gaming  
Apparel

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**Applications**  
NFC  
Gaming and Toys  
Electronics

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**RoHs**  
EU Directive 2011/65/EU and  
2015/863 Compliant

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**REACH**  
Regulation (EC) No 1907/2006

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## Smallest round HF inlay with best-in-class performance

Our Circus™ NFC inlays and tags are designed to suit applications where small size and high performance are critical. These round-form products are ideal for use in small stickers, key fobs and item-level tagging.

Circus™ NFC inlays and tags are available with NXP's NTAG210 Micro, NTAG213 and NTAG216 chips. Circus™ NFC with the NTAG210 Micro chip is a cost-efficient alternative where small size with 48 bytes of user memory is required, meeting the applications such as media advertising or collectable playing cards.

If a small form factor with large user memory is needed, then Circus™ NFC with NXP's NTAG213 chip is a proven product of choice. It offers 144 bytes of user memory, and comes with unique ID (UID) mirror functionality, which enables the chip serial number to be mirrored as part of its encoded URL address. This feature allows every tag to be seen and read as unique from the application perspective, without requiring users to encode inlays with different numbers.

Circus™ NFC products are based on the ISO 14443 a standard, and conform to NFC Forum standards. Our inlays and tags are also compliant with ISO 9001:2015 Quality Management and ISO 14001:2015 Environmental Management. This ensures a reliable and state-of-the-art product that meets a variety of application needs.

## Technical features

|                              |                                    |                  |             |
|------------------------------|------------------------------------|------------------|-------------|
| <b>Chip</b>                  | NXP NTAG210 Micro                  | NXP NTAG213      | NXP NTAG216 |
| <b>User Memory</b>           | 48 bytes                           | 144 bytes        | 888 bytes   |
| <b>Product Code</b>          | 3006535                            | 3002981, 3007321 | 3004473     |
| <b>Delivery Format</b>       | Wet inlay                          |                  |             |
| <b>Die-cut Dimension</b>     | Ø 22 mm / 0.866 in                 |                  |             |
| <b>Inlay Substrate</b>       | PET                                |                  |             |
| <b>Face Sheet</b>            | Clear PET                          |                  |             |
| <b>Total Thickness</b>       | 136 µm                             |                  |             |
| <b>Standard Pitch</b>        | 27 mm / 1.063 in                   |                  |             |
| <b>Web Width</b>             | 27 mm / 1 in                       |                  |             |
| <b>Core Size</b>             | 76 mm / 3 in                       |                  |             |
| <b>Quantity / Reel</b>       | 5000 pcs/reel<br>20000 pcs/box     |                  |             |
| <b>Operating Temperature</b> | -25 °C to 70 °C / -13 °F to 158 °F |                  |             |

### Contact information

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**Warranty:** Please refer to Avery Dennison standard terms and conditions: [rfid.averydennison.com/termsandconditions](https://rfid.averydennison.com/termsandconditions)

**Care and handling:** RFID inlays are sensitive to ESD. Observe standard industry practices relating to electronics / RFID to keep environmental impact and static charge to a minimum.

**Applications:** This product should be tested by the customer / user thoroughly under end use conditions to ensure the product meets the particular requirements. Avery Dennison does not represent that this product is fit for any particular purpose or use. Avery Dennison reserves the right to modify, change, supplement or discontinue product offerings at any time without notice. The information contained herein is believed to be reliable but Avery Dennison makes no representation concerning the accuracy or correctness of the data.