

# Circus™ Flex

## Overview

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**Frequency Band**

HF 13.56 MHz

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**Chip**

NXP NTAG213

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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**

Apparel  
Electronics and Gaming

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**Applications**

Product Authentication  
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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## Robust and flexible structure for enhanced user experiences

Smartrac's Circus™ Flex tags have been specifically designed with an enhanced environmental resistance for demanding brand and retail applications. The innovative Circus™ Flex product paves the way to whole new customer experience solutions featuring higher customer engagement and loyalty opportunities for brands and retailers.

Circus™ Flex is a small, robust and cost-effective tag. Its flexible structure allows it to be directly embedded into difficult to tag items, like playing balls, jerseys, jackets or footwear. A specialized glob top protects the IC and antenna connection area that makes Circus™ Flex a highly protected flexible tag. It withstands home washing and drying cycles as well as mechanical stress, temperature cycles and impact stress.

The tag comes with the NXP NTAG 213 IC on board, provides superior performance and offering (UID) mirror functionality. Circus™ Flex tag is ideal wherever small size, robustness as well as flexibility with top performance is essential. Item-level product authentication, brand protection and many other application areas benefit from Circus™ Flex.

Smartrac's inlays and tags are 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, where high performance is a critical parameter.

## Technical features

<b>Chip</b>	NXP NTAG213	NXP NTAG213	NXP NTAG213
<b>User Memory</b>	144 bytes		
<b>Product Code</b>	3006453	3006454	3002981
<b>Delivery Format</b>	Dry inlay	Wet inlay	Wet inlay
<b>Die-cut Dimension</b>	-	Ø 22 mm / 0.866 in	Ø 22 mm / 0.866 in
<b>Inlay Substrate</b>	PET		
<b>Face Sheet</b>	Clear PET	Clear PET	-
<b>Total Thickness</b>	-	-	136 µm
<b>Standard Pitch</b>	27 mm / 1.063 in		
<b>Web Width</b>	30 mm / 1.18 in	30 mm / 1.18 in	27 mm / 1.06 in
<b>Core Size</b>	76 mm / 3 in		
<b>Quantity / Reel</b>	4000 pcs/box	2000 pcs/reel 4000 pcs/box	5000 pcs/reel
<b>Operating Temperature</b>	-40 °C to 85 °C -40 °F to 185 °F	-40 °C to 85 °C -40 °F to 185 °F	-25 °C to 70 °C -13 °F to 158 °F

### Contact information

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

