



CIRCUS™

Smallest Round HF Inlay with Best-in-Class Performance

SMARTRAC CIRCUS™ inlays & 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 inlays & tags are available with NXP's NTAG210 Micro and NTAG213 chips. CIRCUS 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. It comes without additional features like UID mirror, password protection or fast read command, but provides programmable originality signature.

If a small form factor with large user memory is needed, then CIRCUS 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 products are based on the ISO 14443 A standard, and conform to NFC Forum standards. SMARTRAC's 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.

Overview

Operating Frequency
13.56 MHz

Integrated Circuit (IC)
NXP NTAG210 Micro
NXP NTAG213

Antenna & Die-cut Size
Ø 20 mm / 0.79"
Ø 22 mm / 0.87"

International Standards

- ▶ ISO 14443 A
- ▶ NFC Forum

Application Areas

- ▶ Electronics & Gaming
- ▶ Media & Document Management
- ▶ Product Authentication
- ▶ Retail

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Technical Features			
IC + Memory NXP NTAG210 Micro 48 bytes	Size Ø 22 mm / 0.87 in	Format* wet	Sales Code 3006535
NXP NTAG213 144 byte	Ø 20 mm / 0.79 in	dry	3003105
	Ø 22 mm / 0.87 in	wet	3002981
Operating Temperature	-25°C to 70°C / -13°F to 158°F		
Bedding Diameter (D)	> 50 mm, tension less than 10 N		
Adhesive	Acrylic, water borne adhesive, usage temperature: min. -20°C to 80°C / min. -4°F to 176°F		
Shelf Life	+20 °C, 50 % RH / 68 °F, 50 % RH - minimum 2 years from the date of manufacturing		

*Additional product configurations are available upon request.

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