

Avery Dennison  
Smartrac  
Quick Guide

September 2021

# RFID Labels for Supply Chain



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## Why RFID?

- Reduced packing errors.
- Highlights and reduces errors upon delivery.
- More accurate and advanced shipping notifications.
- No line of sight required to read item information.
- Long read range (up to 10 meters).

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## Why Avery Dennison?

### **Broadest product range for any RFID challenge**

- Global manufacturing footprint with one of the largest product ranges.
- Customized inlay and label products.
- Sustainable paper-based SmartFace®.

### **Most reliable and durable products ensuring consistent quality and performance**

- Proprietary chip strap attach for most durable RFID tags (chip protection through life cycle).
- 100% quality control ensures 99%+ functioning tags on roll to achieve maximum ROI.
- Minimal number of malfunctioning tags even after conversion.
- Less machine down time and wastage (label converting and application).

### **Valued services that help grow your business**















- Low MOQs (from 1 roll).
- Free sampling service.
- Shipping of stock items within 24 hours.
- Fast response from local RFID technology and sales team.
- Quick product qualification and POC support.

### **Global network to expand your knowledge and capability**















- New business opportunities from dedicated Business Development Managers and SMEs.
- RFID training academies and workshops at our I.Lab centers.
- Connect with local and/or global commercial partners.



## Our RFID product recommendations

Product Name	Design (not to scale)	Antenna Dimensions	Chip	EPC and User Memory	TID Memory	Delivery Format	Applications
AD-226		95 x 8.15 mm 3.74 x 0.32 in	NXP G2iM	256-bit and 512-bit	96-bit / 48-bit unique serial number	Dry inlay Wet inlay	Supply Chain Management Inventory Asset Tracking
AD-229		95 x 8.15 mm 3.74 x 0.32 in	Impinj Monza R6	96-bit and n/a	96-bit / 48-bit unique serial number	Dry inlay Wet inlay	Returnable Transport Units (RTUs) Supply Chain Management Brand Protection
AD-229		95 x 8.15 mm 3.74 x 0.32 in	Impinj Monza R6-P	128-bit / 96-bit and 32-bit / 64-bit	96-bit / 48-bit unique serial number	Dry inlay Wet inlay	Returnable Transport Units (RTUs) Supply Chain Management Brand Protection
AD-237		70 x 15 mm 2.76 x 0.57 in	Impinj Monza R6	96-bit and n/a	96-bit / 48-bit unique serial number	Dry inlay Wet inlay Label / sticker	Brand Protection Supply Chain Management Home Essentials
AD-237		70 x 15 mm 2.76 x 0.57 in	Impinj Monza R6-P	128-bit / 96-bit and 32-bit / 64-bit	96-bit / 48-bit unique serial number	Dry inlay Wet inlay Label / sticker	Brand Protection Supply Chain Management Home Essentials
AD-238		70 x 15 mm 2.76 x 0.57 in	NXP UCODE 8	128-bit and n/a	96-bit / 48-bit unique serial number	Dry inlay Wet inlay Label / sticker	Brand Protection Supply Chain Management Home Essentials
AD-362		65.2 x 38 mm 2.567 x 1.496 in	Impinj Monza R6-P	128-bit / 96-bit and 32-bit / 64-bit	96-bit / 48-bit unique serial number	Label / sticker	Inventory Management Loss Prevention
AD-665		90 x 19 mm 3.54 x 0.75 in	NXP UCODE 8	128-bit and n/a	96-bit / 48-bit unique serial number	Dry inlay Wet inlay	Sports Timing Asset Tracking Inventory
Belt		70 x 14 mm 2.75 x 0.55 in	NXP UCODE 9	96-bit and n/a	96-bit / 48-bit unique serial number	Dry inlay Wet inlay Label / sticker	Brand Protection Supply Chain Management Home Essentials
Belt		70 x 14 mm 2.75 x 0.55 in	Impinj M730	96-bit and 32-bit	96-bit / 48-bit unique serial number	Dry inlay Wet inlay Label / sticker	Supply Chain Management Home Essentials Inventory and Logistics
Belt		70 x 14 mm 2.75 x 0.55 in	Impinj M750	96-bit and 32-bit	96-bit / 48-bit unique serial number	Dry inlay Wet inlay Label / sticker	Supply Chain Management Home Essentials Inventory and Logistics
Bullseye™ NFC		Ø 35 mm 1.378 in	NXP NTAG213	144 bytes	N/A	Wet inlay	Traceability Product Provenance
Circus™ Dura		Ø 20 mm 0.79 in	NXP NTAG213	144 bytes	N/A	Dry inlay Wet inlay	Traceability Product Provenance
Circus™ Flex		Ø 20 mm 0.79 in	NXP NTAG213	144 bytes	N/A	Dry inlay Wet inlay	Traceability Product Provenance

## Our RFID product recommendations

Product Name	Design (not to scale)	Antenna Dimensions	Chip	EPC and User Memory	TID Memory	Delivery Format	Applications
<b>Circus™ NFC</b>		Ø 20 mm 0.79 in	NXP NTAG210 Micro	48 bytes	N/A	Wet inlay	Traceability Product Provenance
<b>Circus™ Pro</b>		Ø 20 mm 0.79 in	NXP NTAG424 DNA	416 bytes	N/A	Wet inlay	Traceability Product Provenance
<b>Circus™ Pro</b>		Ø 20 mm 0.79 in	Ø 20 mm 0.79 in	208 bytes	N/A	Wet inlay	Traceability Product Provenance
<b>Dogbone</b>		94 x 24 mm 3.70 x 0.90 in	NXP UCODE 7XM	448-bit and 2048-bit 448-bit and 1024-bit	96-bit / 48-bit unique serial number	Dry inlay Wet inlay Label / sticker	Sports Timing Glass and Automobile Tracking Inventory
<b>Dogbone</b>		94 x 24 mm 3.70 x 0.90 in	NXP UCODE 8	128-bit and n/a	96-bit / 48-bit unique serial number	Dry inlay Wet inlay Label / sticker	Sports Timing Glass and Automobile Tracking Inventory
<b>Dogbone</b>		94 x 24 mm 3.70 x 0.90 in	Impinj M730	96-bit and 32-bit	96-bit / 48-bit unique serial number	Dry inlay Wet inlay Label / sticker	Inventory and Logistics Sports Timing Supply Chain Management
<b>Dogbone</b>		94 x 24 mm 3.70 x 0.90 in	Impinj M750	96-bit and 32-bit	96-bit / 48-bit unique serial number	Dry inlay Wet inlay Label / sticker	Inventory and Logistics Sports Timing Supply Chain Management
<b>Dogbone Dura</b>		94 x 24 mm 3.70 x 0.90 in	Impinj Monza R6-P	128-bit / 96-bit and 32-bit / 64-bit	96-bit / 48-bit unique serial number	Dry inlay Wet inlay	Inventory and Logistics Returnable Transport Units (RTUs)
<b>Frog 3D</b>		50 x 50 mm 1.97 x 1.97 in	Impinj Monza 4D	128-bit and 32-bit	96-bit / 48-bit unique serial number	Wet inlay	Asset Tracking Package tracking
<b>Frog 3D</b>		68 x 68 mm 2.68 x 2.68 in	Impinj Monza 4D	128-bit and 32-bit	96-bit / 48-bit unique serial number	Wet inlay Label / sticker	Asset Tracking Package tracking
<b>Midas Flagtag</b>		31.41 x 18 mm 1.24 x 0.71 in	Impinj Monza R6	96-bit and n/a	96-bit / 48-bit unique serial number	Dry inlay Wet inlay	On-Metal Asset Tracking Metal / Liquids Supply Chain Management
<b>Midas Flagtag</b>		31.41 x 18 mm 1.24 x 0.71 in	Impinj Monza R6-P	128-bit / 96-bit and 32-bit / 64-bit	96-bit / 48-bit unique serial number	Wet inlay	On-Metal Asset Tracking Metal / Liquids Supply Chain Management
<b>Shortdipole</b>		92.75 x 11 mm 3.65 x 0.43 in	Impinj Monza R6	96-bit and n/a	96-bit / 48-bit unique serial number	Dry inlay Wet inlay	Returnable Transport Units (RTUs) Supply Chain Management Brand Protection
<b>Shortdipole</b>		92.75 x 11 mm 3.65 x 0.43 in	Impinj Monza R6-P	128-bit / 96-bit and 32-bit / 64-bit	96-bit / 48-bit unique serial number	Dry inlay Wet inlay	Returnable Transport Units (RTUs) Supply Chain Management Brand Protection

## Contact information

[rfid.averydennison.com/contact](https://rfid.averydennison.com/contact)

North America: +1-866-903-7343 (toll free US)

International: +1-678-617-2359

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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.

