Avery Dennison Smartrac Quick Guide

January 2023





Why RFID?

- 99% inventory accuracy.
- 10 times faster stock counts = lower labor costs.
- Increased inventory visibility.
- Long read range (up to 10 meters).
- No line of sight required to read item information.
- Reduced 'out of stock' = increased sales.

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 mm 3.74 x 0.32 in | NXP G2iM | 256-bit EPC and 512-bit UM | 96-bit / 48-bit unique serial number | Dry inlay Wet inlay | Supply Chain Management Inventory Asset Tracking |
| AD-239 | | 70 x 14.5 mm 2.76 x 0.57 in | Impinj M730 Impinj M750 | 128-bit EPC 96-bit EPC and 32-bit UM | 96-bit / 48-bit unique serial number | Dry inlay Wet inlay Label | Apparel Industrial Applications |
| AD-23x | | 70 x 14.5 mm 2.76 x 0.57 in | UCODE 9 | 96-bit EPC | 96-bit / 48-bit unique serial number | Dry inlay Wet inlay Label | Apparel Industrial Applications |
| AD-23x Pure | | 70 x 14.5 mm 2.76 x 0.57 in | UCODE 9 | 96-bit EPC | 96-bit / 48-bit unique serial number | Dry inlay Wet inlay Label | Apparel Industrial Applications |
| AD-23x Slim | Z:::5 | 70 x 10.5 mm 2.75 x 0.413 in | UCODE 9 | 96-bit EPC | 96-bit / 48-bit unique serial number | Dry inlay Wet inlay Label | Apparel Industrial Applications |
| AD-302 | | 30 x 15 mm 1.20 x 0.60 in | Impinj M730 Impinj M750 | 128-bit EPC 96-bit EPC and 32-bit UM | 96-bit / 48-bit unique serial number | Dry inlay Wet inlay Label | Brand Protection Fashion Jewelry and Sunglasses Pharmaceutical and Healthcare |
| AD-324 F | cc III | 41.4 x 16 mm 1.63 x 0.63 in | NXP UCODE 8 | 128-bit EPC | 96-bit / 48-bit unique serial number | Dry inlay Wet inlay Label | Supply Chain Management Home Essentials Inventory and Logistics |
| AD-325 | | 42.5 x 17 mm 1.67 x 0.67 in | Impinj M730 Impinj M750 | 128-bit EPC 96-bit EPC and 32-bit UM | 96-bit / 48-bit unique serial number | Dry inlay Wet inlay Label | Supply Chain Management Home Essentials Inventory and Logistics |
| AD-327 E | TSI ((Ca))) | 41.4 x 16 mm 1.63 x 0.63 in | NXP UCODE 9 | 96-bit EPC | 96-bit / 48-bit unique serial number | Dry inlay Wet inlay Label | Supply Chain Management Home Essentials Inventory and Logistics |
| AD-327 E Pure | TSI [[(C;;)]] | 41.4 x 16 mm 1.63 x 0.63 in | NXP UCODE 9 | 96-bit EPC | 96-bit / 48-bit unique serial number | Dry inlay Wet inlay Label | Supply Chain Management Home Essentials Inventory and Logistics |
| AD-327 F | cc T | 42.5 x 17 mm 1.67 x 0.67 in | NXP UCODE 9 | 96-bit EPC | 96-bit / 48-bit unique serial number | Dry inlay Wet inlay Label | Supply Chain Management Home Essentials Inventory and Logistics |

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|------------------------|--------------------------|------------------------------------|----------------------|--|--|--|--|
| AD-681 | | 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 | Dry inlay Wet inlay | Asset Tracking Package Tracking Supply Chain Management |
| AD-681 | | 50 x 50 mm 1.97 x 1.97 in | Impinj Monza 4i | 256-bit and 480-bit | 96-bit / 48-bit unique serial number | Dry inlay Wet inlay | Asset Tracking Package Tracking Supply Chain Management |
| AD-681 | | 50 x 50 mm 1.97 x 1.97 in | Impinj Monza 4QT | 128-bit and 512-bit | 96-bit / 48-bit unique serial number | Dry inlay Wet inlay | Asset Tracking Package Tracking Supply Chain Management |
| AD-806 | | 16 x 16 mm 0.63 x 0.63 in | NXP UCODE 7 | 128-bit and n/a | 96-bit / 48-bit unique serial number | Dry inlay Wet inlay | Jewelry Pharmaceutical and Healthcare |
| AD MedioWeb DF | | 45 x 28.5 mm 1.772 x 1.122 in | EM4425 | 96-bit / up to 480-bit | 96-bit (UHF) / 64-bit (HF) overlapping | Dry+, Label | RTIs, Cardboard box, Medical device |
| AD Midas Flagtag DF | | 48 x 31.4 mm 1.890 x 1.236 in | EM4425 | 96-bit / up to 480-bit | 96-bit (UHF) / 64-bit (HF) overlapping | Label | On-Metal use Cases, Customer Engagement |
| AD Slim DF | PMS 2300 | 74.2 x 10.7 mm 2.921 x 0.421 in | | 96-bit / up to 480-bit | 96-bit (UHF) / 64-bit (HF) overlapping | Dry inlay Wet inlay | RTIs, Medical device |
| AD Belt | | 70 x 14 mm 2.75 x 0.55 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 Belt | +,\\\ | 70 x 10 mm 2.76 x 0.39 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 Belt | | 70 x 10 mm 2.76 x 0.39 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 Belt | | 70 x 10 mm 2.76 x 0.39 in | NXP UCODE 7 | 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 Belt | | 70 x 10 mm 2.76 x 0.39 in | NXP UCODE 7XM | 448-bit and 2048-bit | 96-bit / 48-bit unique serial number | Dry inlay Wet inlay Label / sticker | Brand Protection Supply Chain Management Home Essentials |

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| AD Bullseye™ | | Ø 33 mm 1.30 in | SLIX2 | 2500-bit | N/A | Wet inlay | Traceability Product Provenance |
| AD Bullseye™ NFC | (N) | Ø 33 mm 1.30 in | Ø 20 mm 0.79 in | NXP NTAG216 | 888 bytes | N/A | Traceability Product Provenance |
| AD Block | No.1 | 45 x 45 mm 1.77 x 1.77 in | NXP ICODE SLIX SLIX 2 | 896-bit 2500-bit | N/A | Dry inlay Wet inlay | Traceability Product Provenance |
| AD Circus™ | | Ø 18 mm 0.71 in | NXP ICODE SLIX 2 | 2500-bit | N/A | Wet inlay | Traceability Product Provenance |
| AD Circus ^{TN} NFC | Circo | Ø 20 mm 0.79 in | NXP NTAG213 | 144 bytes | N/A | Dry inlay Wet inlay | Traceability Product Provenance |
| AD Circus ^{TN} NFC | Circo | Ø 20 mm 0.79 in | NXP NTAG216 | 888 bytes | N/A | Wet inlay | Traceability Product Provenance |
| AD Circus™ NFC | Circu | Ø 20 mm 0.79 in | ST25TN512 | 64 bytes user memory | N/A | Wet inlay | Traceability Product Provenance |
| AD Circus™ NFC | Cros | Ø 20 mm 0.79 in | ST25TN01K | 160 bytes user memory | N/A | Wet inlay | Traceability Product Provenance |
| AD Circus ^{TN} NXP ICODE ILT | | Ø 22 mm 0.87 in | NXP ICODE ILT-M | 240 bit EPC and 512 bit | N/A | Wet inlay | Traceability Product Provenance |
| AD Dogbone [®] | | 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 | Asset Tracking Package Tracking Supply Chain Management |
| AD Dogbone [®] | BARRET | 94 x 24 mm 3.70 x 0.94 in | Impinj Monza R6-P | 96-bit and n/a | 96-bit / 48-bit unique serial number | Dry inlay Wet inlay Label / sticker | Asset Tracking Package Tracking Supply Chain Management |
| AD Minitrack | | 31x14 mm 1.22 in x0.55 in | SLIX2 | 2500-bit | NA | Wet Inlay | Traceability Product Provenance |

Contact information

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Warranty: Please refer to Avery Dennison standard terms and conditions: 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.

