RFID Solutions

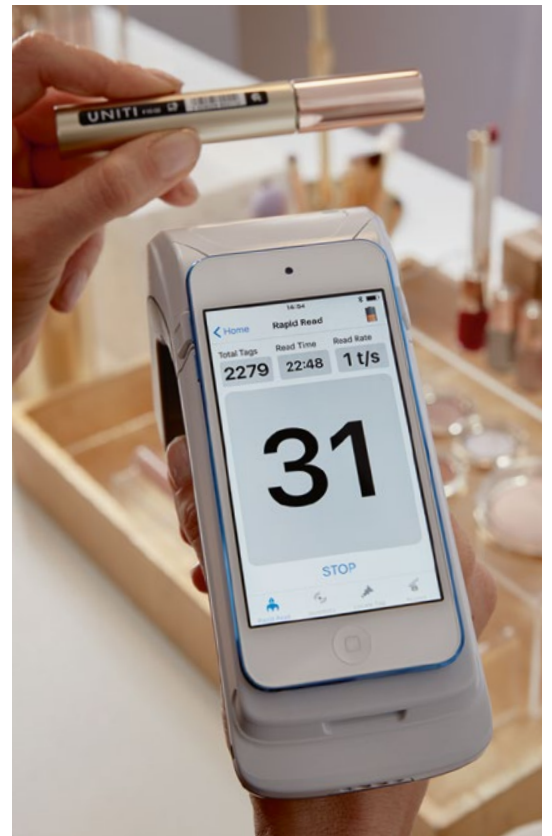**Changing the game
with Intelligent Labels**

September 2018

AVERY
DENNISON

Why choose Avery Dennison RFID?

As the world's largest UHF RFID partner, we provide solutions for multiple industries, from retail apparel and food to healthcare and aviation. Our integrated global RFID approach is proven to increase inventory accuracy, improve supply chain agility and enhance visibility across all channels.

When you choose Avery Dennison RFID, you get field-proven inlay products, advanced research and testing capabilities, experienced engineering and technical resources, and, most importantly, a partner with a deep understanding of what it takes to make your application successful.

Sustainability is at the core of everything we do, from innovation and product design to development and production. The majority of our inlays now feature our patented SmartFace™ Technology, which is one of the most sustainable solutions on the market, reducing your brand's environmental impact.

For additional information, please contact:
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Applications

▶ Item-level retail: Apparel, accessories, cosmetics, jewelry, food and general retail

▶ Healthcare: Medical and pharmaceutical

▶ Transportation: Automotive and aviation

▶ Industrial logistics and manufacturing

▶ Brand protection and product authentication

▶ Supply chain, inventory and logistics

▶ Contactless cards and tickets

▶ Library, media, documents and files

With Avery Dennison RFID, you get the benefit of our relationships with best-in-class chip and reader manufacturers, label and tag converters and systems integrators across the globe. We can support you with the most challenging RFID projects across all channels, offering the total solution to meet your business needs.

UHF RFID Inlays
860-960 MHz, ISO-18000-6C, EPC Class 1 Gen 2

NAME	DESIGN	SIZE	CHIP	COMMON APPLICATIONS
AD-160		2.36 x 0.16 in 60 x 4 mm	U7	▶ Cosmetics and other item-level retail ▶ Personal care products
AD-171		1.06 x 0.55 in 27 x 14mm	M5	▶ Apparel and other item-level retail ▶ Pharmaceutical and healthcare
AD-172		0.87 x 0.49 in 22 x 12.5 mm	U7	▶ Jewelry ▶ Supply chain, inventory and logistics
AD-180		1.02 in Diameter 26 mm Diameter	U7	▶ Cosmetics and item-level retail
AD-226		3.74 x 0.32 in 95 x 8.15 mm	G2iM	
AD-227		3.74 x 0.33 in 95 x 8.3 mm	M5	▶ Apparel and other item-level retail ▶ Supply chain, inventory and logistics ▶ Returnable transport units (RTUs)
AD-229		3.74 x 0.32 in 95 x 8.15 mm	R6/R6-P	
AD-236		2.76 x 0.57 in 70 x 14.5 mm	U7	
AD-237		2.76 x 0.57 in 70 x 14.5 mm	R6/R6-P	▶ Supply chain, inventory and logistics ▶ Apparel and other item-level retail ▶ Home essentials
AD-238		2.76 x 0.57 in 70 x 14.5 mm	U8	
AD-301		1.18 x 0.59 in 30 x 15 mm	R6/R6-P	▶ Children accessories ▶ Fashion jewelry and sunglasses ▶ Pharmaceutical and healthcare

UHF RFID Inlays

800-960 MHz, ISO-18000-6C, EPC Class1 Gen 2

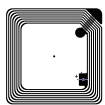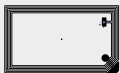| NAME	DESIGN	SIZE	CHIP	COMMON APPLICATIONS
AD-320		1.63 x 0.63 in 41.4 x 16 mm	U7	▸ Supply chain, inventory and logistics ▸ Apparel and other item-level retail ▸ Pharmaceutical and healthcare
AD-321		1.63 x 0.63 in 41.4 x 16 mm	R6/R6-P	
AD-324		1.63 x 0.63 in 41.4 x 16 mm	U8	
AD-370		0.75 x 2.09 in 53 x 19 mm	U7	▸ Apparel and other item-level retail ▸ Also available in narrow-edge leading format
AD-380		1.97 x 1.18 in 50 x 30 mm	G2iM	▸ Apparel and other item-level retail ▸ Supply chain, inventory and logistics ▸ Home essentials ▸ AD-383 is also available in narrow-edge leading format
AD-383			U7	
AD-384		1.97 x 1.18 in 50 x 30 mm	R6/R6-P	
AD-385		1.97 x 1.18 in 50 x 30 mm	U8	
AD-550		1.5 x 2.99 in 38 x 76 mm	M5	▸ Supply chain, inventory and logistics ▸ Aviation
AD-661		3.55 x 0.75 in 90 x 19 mm	R6/R6-P	▸ Automotive ▸ Glass ▸ Personal ID badges ▸ Race timing
AD-662			UCODE DNA	
AD-663			U7XM/U7XM+	
AD-680		1.97 x 1.97 in 50 x 50 mm	R6/R6-P	▸ Supply chain management ▸ Package tracking ▸ Asset tracking
AD-681		1.97 x 1.97 in 50 x 50 mm	M4D/M4QT M4i	
AD-806		0.63 x 0.63 in 16 x 16 mm	U7	▸ Healthcare and item-level ▸ Supply chain, inventory and logistics
AD-810		0.63 in Diameter 16 mm Diameter	R6	▸ Pharmaceutical and healthcare ▸ Cosmetics and other item-level retail
AD-850		0.406 in Diameter 10.3 mm Diameter	M4QT	▸ Pharmaceutical and healthcare ▸ Near-Field applications

UHF IC Memory

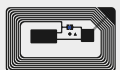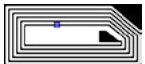|	NAME	EPC MEMORY	USER MEMORY	TID MEMORY
M4D	Impinj® Monza® 4D	128-bit	32-bit	48-bit unique serialized TID number
M4i	Impinj® Monza® 4i	256-bit	480-bit	48-bit unique serialized TID number
M4QT	Impinj® Monza® 4QT	128-bit	512-bit	48-bit unique serialized TID number
M5	Impinj® Monza® 5	128-bit	32-bit	48-bit unique serialized TID number
R6	Impinj® Monza® R6	96-bit	0	48-bit unique serialized TID number
R6-P	Impinj® Monza® R6-P	96/128-bit	64/32-bit	48-bit unique serialized TID number
G2iM	NXP G2iM	256-bit	512-bit	48-bit unique serialized TID number
U7	NXP UCODE 7	128-bit	0	48-bit unique serialized TID number
U7XM	NXP UCODE 7XM	448-bit	2K-bit	48-bit unique serialized TID number
U7XM+	NXP UCODE 7XM+	448-bit	2K-bit	48-bit unique serialized TID number
U8	NXP UCODE 8	128-bit	0	48-bit unique serialized TID number
DNA	NXP UCODE DNA	224-bit	3K-bit	48-bit unique serialized TID number

HF RFID Inlays

13.56 MHz, ISO-15693, 18000-3 Mode 1

NAME	DESIGN	SIZE	CHIP	USER MEMORY	COMMON APPLICATIONS
AD-709x		1.85 x 1.85 in 47 x 47 mm	NXP ICODE SLIX	896 bit EEPROM Read / Write	▶ Library, media, documents and files
AD-714x		1.77 x 3 in 45 x 76 mm	NXP ICODE SLIX	896 bit EEPROM Read / Write	▶ Contactless cards and tickets ▶ Library, media, documents and files
AD-730x		1.22 x .55 in 31 x 14 mm	NXP ICODE SLIX	896 bit EEPROM Read /Write	▶ Pharmaceutical and healthcare

NFC RFID Inlays

13.56 MHz, ISO-14443, Type A

NAME	DESIGN	SIZE	CHIP	USER MEMORY	COMMON APPLICATIONS
AD-721		0.827 in (diameter) 21 mm (diameter)	NXP NTAG213	144 bytes Read / Write	▶ Retail environment ▶ Print media ▶ Miscellaneous applications
AD-740		1.50 x 0.89 in 38 x 22.5 mm	NXP Ultralight EV1	384 bit Read / Write	▶ Retail environment ▶ Print media ▶ Miscellaneous applications
AD-750		0.709 x 0.315 in 18 x 8 mm	NXP NTAG213	144 bytes Read / Write	▶ Retail environment ▶ Print media ▶ Miscellaneous applications

Auburn University ARC Approved Inlay Designs

MODEL #	CAT A DENIM	CAT B POLYBAGGED APPAREL	CAT C BOXED ELECTRONICS	CAT D HANGING APPAREL	CAT I DENIM & POLYBAGGED APPAREL (ETSI)	CAT K SMALL APPAREL (ETSI)	SPEC M	SPEC F	SPEC G	SPEC N	SPEC Q	SPEC U
AD-227m5	X	X	X	X	X	X	X	X	X	X	X	
AD-229r6/r6-P	X	X	X	X	X	X	X	X	X	X	X	
AD-236u7	X	X	X	X	X	X	X	X	X	X	X	
AD-237r6/r6-P	X	X	X	X	X	X	X	X	X	X	X	
AD-238u8	X	X	X	X	X	X	X	X	X	X	X	
AD-301r6/r6-P											X	
AD-320u7	X	X		X			X		X		X	
AD-321r6/r6-P	X	X		X			X		X		X	
AD-324u8					X							
AD-370u7	X	X		X							X	
AD-383u7	X	X	X	X	X	X	X	X	X		X	
AD-384r6/r6-P	X	X	X	X	X	X	X	X	X	X	X	
AD-385u8	X	X	X	X	X	X	X	X	X	X	X	
AD-550m5												X

Avery Dennison RFID

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Drawings not to scale. The chart contained herein is only intended as a suggestive guide for preliminary inlay selection. Please refer to www.rfid.averydennison.com for complete terms and conditions, including warranty terms, relating to this product. You should periodically review the site as terms and conditions are subject to change without notice.