Digital Labeling Technologies that Optimize Retail Performance

Made Possible
by Avery Dennison

AVERY DENNISON

SMARTCARD AMERICA
The Secure Solution

SmartCard America is a Partner Company of Avery Dennison.
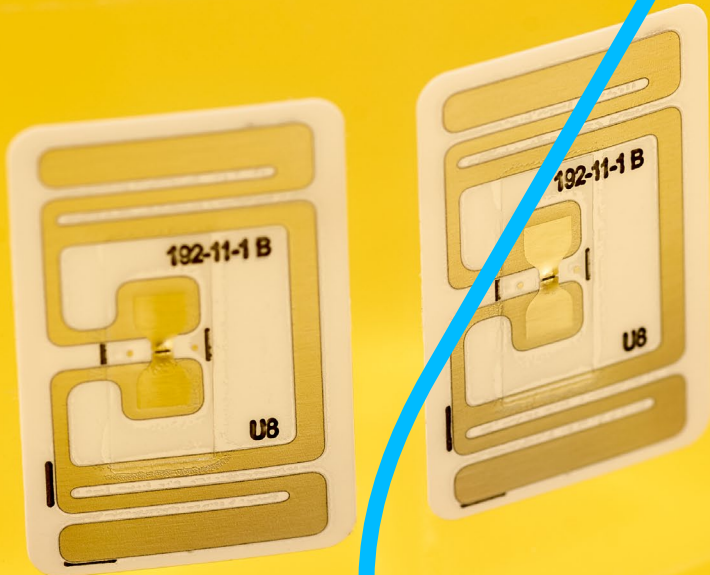
Why choose Avery Dennison?

As the world's largest UHF RFID partner, we provide solutions for multiple industries, from retail 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.

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, 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.

SMARTCARD AMERICA
The Secure Solution

For additional information, please contact us via
Email: info@smartcardamerica.com
or Call Toll Free: 1-800-537-1708
Website: www.SmartCardAmerica.com
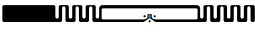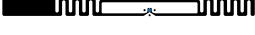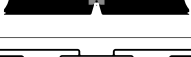
UHF RFID Inlays

860-960 MHz
ISO / IEC 18000-63
Type C

SMARTCARD AMERICA
The Secure Solution

Name	Design (not to scale)	Antenna Size	Chip	Common Markets and Applications
AD-160		2.36 x 0.16 in 60 x 4 mm	U7	Cosmetics and other item-level retail Personal care products
AD-163		2.36 x 0.16 in 60 x 4 mm	U8	
AD-172		0.87 x 0.49 in 22 x 12.5 mm	U7	Jewelry Supply chain, inventory and logistics
AD-173		1.06 x 0.55 in 27 x 14 mm	U8	Apparel and other item-level retail Pharmaceutical and healthcare
AD-180		1.02 in diameter 26 mm diameter	U7	Cosmetics and item-level retail
AD-190		0.86 x 0.49 in 22 x 12.5 mm	U8	Fashion jewelry and sunglasses Beauty and personal care Pharmaceutical and healthcare
AD-226		3.74 x 0.32 in 95 x 8.15 mm	G2iM	Apparel and other item-level retail Supply chain, inventory and logistics
AD-229		3.74 x 0.32 in 95 x 8.15 mm	R6 / R6-P	Returnable Transport Units (RTUs)
AD-236		2.76 x 0.57 in 70 x 14.5 mm	U7	Supply chain, inventory and logistics Apparel and other item-level retail
AD-237		2.76 x 0.57 in 70 x 14.5 mm	R6 / R6-P	Home essentials
AD-238		2.76 x 0.57 in 70 x 14.5 mm	U8	
AD-251 ETSI		3.74 x 0.571 in 95 x 14.5 mm	R6-P	Food item-level retail Microwave-safe
AD-251 FCC		3.74 x 0.517 in 95 x 13.14 mm	R6-P	
AD-301		1.18 x 0.59 in 30 x 15 mm	R6 / R6-P	Children accessories Fashion jewelry and sunglasses Pharmaceutical and healthcare
AD-310		1.63 x 1.14 in 41.4 x 29 mm	U8	Apparel and other item-level retail Supply chain, inventory and logistics Home essentials
AD-320 ETSI		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-320 FCC		1.63 x 0.63 in 41.4 x 16 mm	U7	
AD-321 ETSI		1.63 x 0.63 in 41.4 x 16 mm	R6-P	
AD-321 FCC		1.63 x 0.63 in 41.4 x 16 mm	R6 / R6-P	
AD-324 ETSI		1.63 x 0.63 in 41.4 x 16 mm	U8	
AD-324 FCC		1.63 x 0.63 in 41.4 x 16 mm	U8	
AD-332		2.76 x 0.57 in 70 x 14.5 mm	U8	Supply chain, inventory and logistics Apparel and other item-level retail
AD-350		2.99 x 0.236 in 76 x 6 mm	U8	Apparel and other item-level retail

UHF RFID Inlays

860–960 MHz
ISO / IEC 18000–63
Type C

Name	Design (not to scale)	Antenna Size	Chip	Common Markets and Applications
AD–370 NEL		0.75 x 2.09 in 19 x 53 mm	U7	Apparel and other item-level retail
AD–370		2.09 x 0.75 in 53 x 19 mm	U7	
AD–372		2.09 x 0.75 in 53 x 19 mm	U8	
AD–373		2.09 x 0.75 in 53 x 19 mm	U7XM	Aviation asset tracking Automotive
AD–380		1.97 x 1.18 in 50 x 30 mm	G2iM	Supply chain, inventory and logistics Industrial and automotive
AD–383		1.97 x 1.18 in 50 x 30 mm	U7	Apparel and other item-level retail Home essentials
AD–384		1.97 x 1.18 in 50 x 30 mm	R6 / R6-P	AD-383 and AD-385 are also available in narrow-edge leading format
AD–385		1.97 x 1.18 in 50 x 30 mm	U8	
AD–454		2.75 x 0.75 in label 70 x 19 mm label	R6-P	Metal and liquids Industrial and electronics Available in label format only
AD–456		2.52 x 0.236 in label 64 x 6 mm label	U8	Metal and liquids Food and beauty Available in label format only
AD–550		1.5 x 2.99 in 38 x 76 mm	M5	Aviation baggage tracking Supply chain, inventory and logistics
AD–553		1.5 x 2.99 in 38 x 76 mm	U8	
AD–554		1.5 x 2.99 in 38 x 76 mm	R6-B	
AD–560		1.5 x 2.76 in 38 x 70 mm	M4QT	
AD–661		3.55 x 0.75 in 90 x 19 mm	R6 / R6-P	Automotive and glass Personal ID badges and race timing
AD–662		3.55 x 0.75 in 90 x 19 mm	UDNA	
AD–663		3.55 x 0.75 in 90 x 19 mm	U7XM	
AD–665		3.55 x 0.75 in 90 x 19 mm	U8	
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	96 bits of serialized TID with 48-bit serial number
M4i	Impinj® Monza® 4i	256-bit	480-bit	96 bits of serialized TID with 48-bit serial number
M4QT	Impinj® Monza® 4QT	128-bit	512-bit	96 bits of serialized TID with 48-bit serial number
M5	Impinj® Monza® 5	128-bit	32-bit	96 bits of serialized TID with 48-bit serial number
R6	Impinj® Monza® R6	96-bit	0	96 bits of serialized TID with 48-bit serial number
R6-B	Impinj® Monza® R6-B	96-bit	0	96 bits of serialized TID with 48-bit serial number
R6-P	Impinj® Monza® R6-P	96/128-bit	64/32-bit	96 bits of serialized TID with 48-bit serial number
G2iM	NXP G2iM	256-bit	512-bit	96 bits of serialized TID with 48-bit serial number
U7	NXP UCODE 7	128-bit	0	96 bits of serialized TID with 48-bit serial number
U7XM	NXP UCODE 7XM	448-bit	2K-bit	96 bits of serialized TID with 48-bit serial number
U7XM+	NXP UCODE 7XM+	448-bit	2K-bit	96 bits of serialized TID with 48-bit serial number
U8	NXP UCODE 8	128-bit	0	96 bits of serialized TID with 48-bit serial number
DNA	NXP UCODE DNA	224-bit	3K-bit	96 bits of serialized TID with 48-bit serial number

Auburn University ARC Approved Inlay Designs

Model No	F	G	I	K	L	M	N	Q	U	W1	W2	W3	W4	W5	W6
AD-229R6/R6-P	●	●	●	●		●	●	●							
AD-236U7	●	●	●	●	●	●	●	●		●	●			●	
AD-237R6/R6-P	●	●	●	●	●	●	●	●		●	●	●	●	●	●
AD-238U8	●	●	●	●	●	●	●	●		●	●	●	●	●	●
AD-301R6/R6-P								●							
AD-310U8	●	●	●	●		●		●			●			●	●
AD-320U7		●				●		●							
AD-321R6/R6-P		●				●		●							
AD-324U8 FCC	●	●		●		●		●			●			●	●
AD-324U8 ETSI				●											
AD-332U8	●	●				●	●	●		●	●	●	●		
AD-370U7								●							
AD-372U8	●	●		●			●	●						●	
AD-383U7	●	●		●		●		●			●			●	●
AD-384R6/R6-P	●	●		●	●	●	●	●		●	●			●	
AD-385U8	●	●		●	●	●	●	●		●	●	●	●	●	●
AD-550M5									●						
AD-553U8									●						
AD-554R6-B									●						

Please Contact: SmartCard America for more information.

Avery Dennison RFID / SmartCard America
Americas / Europe / Asia Pacific
+1–281-344-2001
info@smartcardamerica.com

Drawings not to scale. The chart contained herein is only intended as a suggestive guide for preliminary inlay selection. Please refer to www.averydennison.com/rfid 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.