

July 2023

# AD Dynamo U9

## Overview

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**Frequency Band**

UHF 860 - 960 MHz

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**Chip**

NXP UCODE 9

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**Chip Attachment Technology**

Strap Attach

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**Antenna Dimensions**

45 x 7.5 mm / 1.772 x 0.259 in

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**International Standard**

ISO/IEC 18000-63 Type C

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**Industry Segments**

Beauty & Personal Care  
Healthcare  
Apparel

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**Applications**

Fashion Jewelry and Cosmetics  
Pharmaceutical and Healthcare  
Personal Care Products

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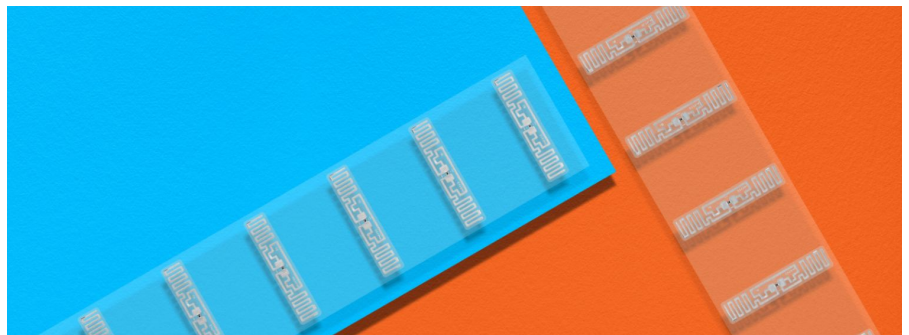
**RoHS**

EU Directive 2011/65/EU and  
2015/863 Compliant

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**REACH**

Regulation (EC) No. 1907/2006



## Ideal for item-level tagging

AD Dynamo U9 UHF RFID inlays from Avery Dennison Smartrac are ideal for tagging item-level retail products in Beauty & Personal Care, Healthcare and Apparel industries. The 45 x 7.5mm design was originally developed for tagging fashion jewelry cards in retail environment, but AD Dynamo U9 also performs well for tracking items such as cosmetics boxes.

Performance tests in a lab setting confirm the inlay is capable of reaching 2 -6 meters read distance with a handheld reader when single items are tagged and grouped according to package type. The best results are achieved by tagging items packaged with cardboard backing or in cardboard boxes, including boxes containing blister packs.

AD Dynamo U9 inlays are equipped with a UCODE 9 IC from NXP, featuring 96-bits of EPC memory and a 48-bit unique serialized TID number. NXP UCODE 9 supports all mandatory commands of EPC global specification Gen2v2.1 including Kill Command and optional command, BlockWrite (2 words, 32-bit).

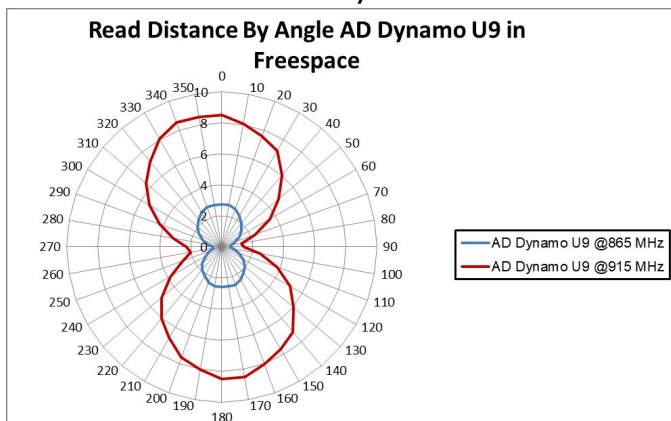
Delivery formats include dry inlay, wet inlay, and paper label. The antenna substrate on all three formats is Clear PET.

Like all RFID products from Avery Dennison, AD Dynamo U9 inlays are manufactured according to the industry's highest quality standards, as confirmed by the RFID Lab at Auburn University. Avery Dennison Smartrac was the first company to receive the significant and comprehensive Auburn University ARC accreditation for quality of the design and manufacture of RFID inlays.

## Technical features

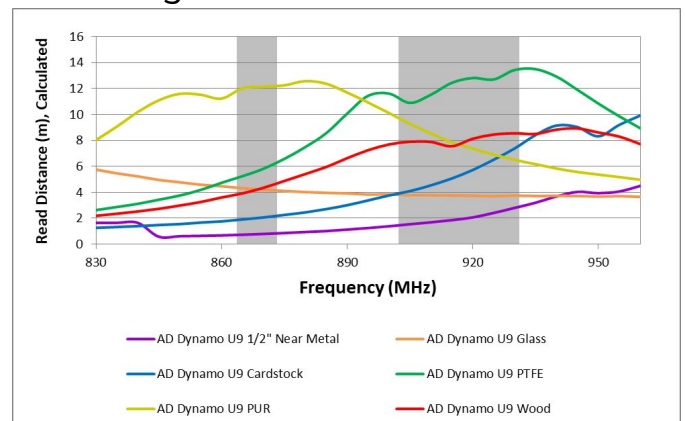
<b>Chip / IC Attachment Technology</b>	NXP UCODE 9 / Strap Attach		
<b>EPC and User Memory</b>	96-bit and n/a		
<b>TID Memory</b>	96-bit / 48-bit unique serial number		
<b>Product Code</b>	RF602912 IL-609014	RF602913 IL-609015	RF101602 IL-609283
<b>Delivery Format</b>	Dry inlay+	Wet inlay	Label
<b>Die-Cut Dimension</b>	-	48 x 10.5 mm 1.89 x 0.413 in	48 x 10.5 mm 1.89 x 0.413 in
<b>Inlay Substrate</b>	Clear PET	Clear PET	Clear PET
<b>Face Sheet</b>	-	-	TT2C
<b>Total Thickness</b>	10.3 - 12.3 mils / 261.62 - 312.42 microns	11.5 - 13.5 mils / 292.1 - 342.9 microns	15 - 17 mils / 381 - 438.8 microns
<b>Standard Pitch</b>	15.88 mm / 0.625 in	15.88 mm / 0.625 in	31.75mm / 1.25 in
<b>Web Width</b>	52.83 mm / 2.08 in	52.83 mm / 2.08 in	52.83 mm / 2.08 in
<b>Core Size</b>	76.2 mm / 3 in	76.2 mm / 3 in	76.2 mm / 3 in
<b>Size of Roll</b>	MAX OD: 15.5"	MAX OD: 13"	MAX OD: 8"
<b>Quantity / Reel</b>	13,277 +/- 10% pcs/reel	20,000 +/- pcs/reel	2,027 +/- pcs/reel
<b>Operating Temperature</b>	-40 °C to 85 °C / -40 °F to 185 °F		

## Orientation sensitivity



All graphs are indicative: performance in real life applications may vary.

## Read range



## Contact information

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Connect with us on:



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**Warranty:** Please refer to Avery Dennison standard terms and conditions: [rfid.averydennison.com/termsandconditions](http://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.