

# AD-23x U9 Pure 95™

## Overview

### Frequency Band

UHF 860 - 960 MHz

### Chip

NXP UCODE 9

### Chip Attachment Technology

Strap Attach

### Antenna Dimensions

70 x 14.5 mm / 2.756 x 0.571 in

### International Standard

ISO/IEC 18000-63 Type C

### Industry Segments

Apparel  
Industrial Applications

### Applications

Brand Protection  
Supply Chain Management  
Home Essentials

### RoHS

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

### REACH

Regulation (EC) No. 1907/2006

### End of Life

EU Paper recyclability: PTS-  
RH021:97/2012  
US Paper Recyclability: SBS-E Part I  
(Repulpability) and Part II (Recyclability)



## Fit for a wide variety of RFID tagging applications

AD-23x U9 Pure 95™ inlays leverage the capabilities of the NXP UCODE 9 chip, and are suitable for a wide variety of RFID tagging applications, including supply chain, inventory and logistics, apparel and home essentials. The inlay design is optimized for broadband performance provide maximum performance on a given footprint of 70 x 14.5 mm. Delivery formats include wet inlay and pressure sensitive label.

### Sustainability

AD-23x U9 Pure 95™ is produced via innovative antenna manufacturing technology where the aluminum antenna is made with pure aluminum, replacing the PET aluminum laminate traditionally used in standard antenna production. By eliminating the plastic-based layer, the total inlay construction is up to 95% plastic-free in both wet inlay and label formats. A minimal amount of plastic strap is used for the memory chip attachment. According to an LCA (Life Cycle Analysis) study by an independent institute the innovative manufacturing technology provides typically 70-90% savings in carbon footprint compared to traditional etching methods.

The manufacturing process also enables recycling excess materials and reducing the total amount of materials while maintaining the overall performance of the product. The impact of the Pure 95™ paper-based inlays and tags in cardboard recycling has been verified by a third-party laboratory in the EU against PTS-RH 021:97/2012. In the US, the hangtag construction is certified by Western Michigan University against SBS-E Part I (repulpability) and Part II (recyclability). How2Recycle® has "pre-qualified" the RFID construction when applied to a paper hangtag and determined that the structure is eligible for a widely recyclable label.

### Quality

Like all RFID products from Avery Dennison, AD-23x U9 Pure 95™ inlays are manufactured according to the industry's highest quality standards, as confirmed by the RFID Lab at Auburn University. The inspection body awarded Avery Dennison its first comprehensive and significant ARC accreditation for quality.



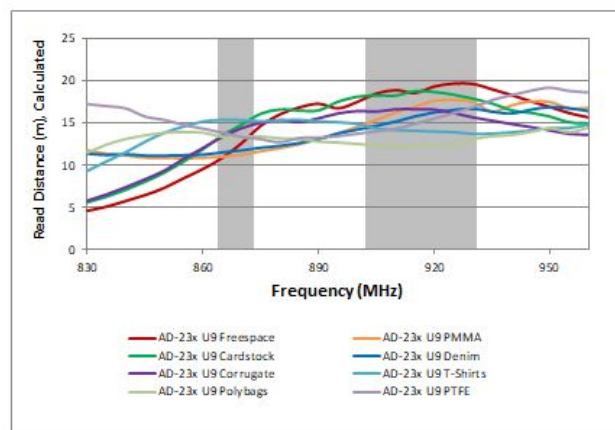
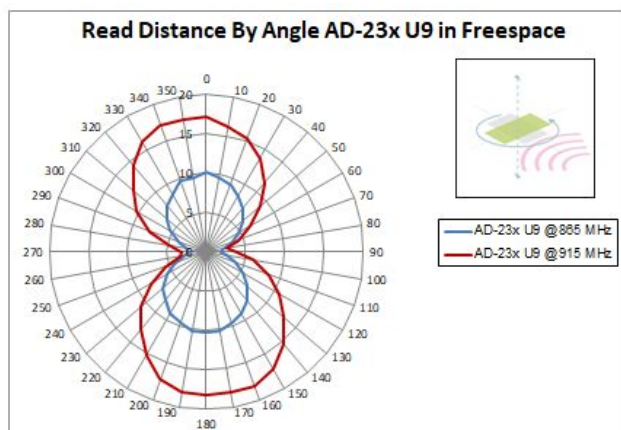
[rfid.averydennison.com](https://www.rfid.averydennison.com)

**\*How2Recycle:** "Additional components, product application, or other attributes may change the final recyclability of the package. Must be a How2Recycle member and submit a label request to use the label on pack".

## Technical features

Chip	NXP UCODE 9		
Chip Attachment Technology	Strap Attach		
EPC and User Memory	96-bit and n/a		
TID Memory	96-bit / 48-bit unique serial number		
Product Code	RF602368 / IL-607854	RF101076 / IL-605856	RF101077 / IL-606515
Delivery Format	Wet Inlay	Label	Label
Die-Cut Dimension	76 x 20 mm	76 x 20 mm	76 x 20 mm
Inlay Substrate	40# Paper	3pt Paper	5pt Paper
Total Thickness	12.5 – 14.5 mils / 317.5 – 368.3 microns	12.8 - 14.8 mils 325.12 - 375.92 microns	14.5 - 16.5 mils 368.3 - 419.1 microns
Standard Pitch	38.1 mm / 1.5 in	38.1 mm / 1.5 in	38.1 mm / 1.5 in
Web Width	82.55 mm / 3.25 in	82.55 mm / 3.25 in	82.55 mm / 3.25 in
Core Size	76.2 mm / 3 in	76.2 mm / 3 in	76.2 mm / 3 in
Size of Roll	MAX OD: 13 in	MAX OD: 8.0 in	MAX OD: 8.0 in
Quantity / Reel	5,767 pcs/reel	1,941 pcs/reel	1,740 pcs/reel
Operating Temperature	-40 °C to 85 °C / -40 °F to 185 °F		
On-Metal	Non metal		

## Technical features



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

### 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.