Avery Dennison Smartrac Product Data Sheet



# AD-327 U9 ETSI Pure 95<sup>TM</sup>

## Overview

Frequency Band UHF 860 - 960 MHz

Chip NXP UCODE 9

Chip Attachment Technology

Strap Attach

Antenna Dimensions
41.4 x 16 mm / 1.63 x 0.63 in

Die-cut Dimensions

44.45 x 19.05 mm / 1.75 x 0.75 in

International Standard ISO/IEC 18000-63 Type C

**Industry Segments** 

Apparel Logistics Healthcare

**Applications** 

Supply Chain Management Home Essentials Inventory and Logistics

#### 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)





# Excellent read range and versatility

AD-327 U9 ETSI Pure 95 $^{\text{TM}}$  inlays leverage the capabilities of NXP's UCODE 9 chip, and are suitable for a wide variety of RFID tagging applications, including supply chain, inventory & logistics, apparel, and pharmaceutical & healthcare. The inlay design is optimized for outstanding performance in the ETSI frequency band (865-868 MHz) on a given footprint of  $41.4 \times 16$  mm. Delivery formats wet inlay and pressure sensitive label.

### Sustainability

AD-327 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  $95^{TM}$  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 West 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-327 U9 ETSI Pure  $95^{TM}$  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.

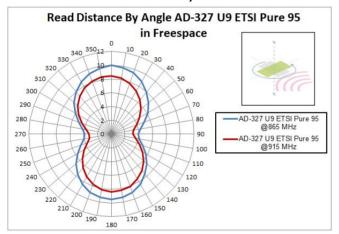
rfid.averydennison.com

\*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".

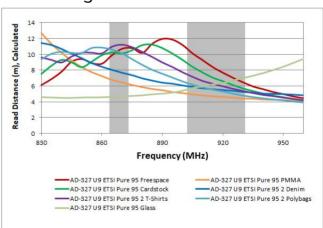
## Technical features

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	RF602351 / IL-605264	RF101073 / IL-605485	RF101072 / IL-606783
Delivery Format	Wet inlay	Label	Label
Die-Cut Dimension	44.45 × 19.05 mm / 1.75 × 0.75 in	44.45 × 19.05 mm / 1.75 × 0.75 in	44.45 × 19.05 mm / 1.75 × 0.75 in
Inlay Substrate	40# Paper	3pt Paper	5pt Paper
Total Thickness	11.6 – 13.6 mils / 294.64 – 345.44 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	50.8 mm / 2 in	50.8 mm / 2 in	50.8 mm / 2 in
Core Size	76 mm / 3 in	76 mm / 3 in	76 mm / 3 in
Size of Roll	MAX OD: 13 in	MAX OD: 8 in	MAX OD: 8 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		
Certificate	ARC Specification Guide		

# Orientation sensitivity



# Read range



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

#### **Contact information**

rfid.averydennison.com/contact +1-678-617-2359









Connect with us on: in (6)





© 2024 Avery Dennison Corp. All rights reserved. 170 Monarch Lane, Miamisburg, OH 45342, USA Third party trademarks and/or trade names used herein are the property of their respective owner(s). Some of the trademarks appear for identification purposes only.

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.