

# AD-456 U8 ETSI

## Overview

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**Frequency Band**

UHF 860 - 960 MHz

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**Chip**

NXP UCODE 8

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**IC Attachment Technology**

Direct Chip Attach

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**Tag Dimensions**

64 x 6 mm / 2.52 x 0.24 in  
64 x 18 mm / 2.52 x 0.71 in

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**International Standard**

ISO/IEC 18000-63 Type C

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**Industry Segments**

Beauty and Personal Care  
Food

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**Applications**

On-Metal Asset Tracking  
Brand Protection  
Food Item-Level Retail

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**RoHS**

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

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## Robust and versatile labels for hard to read surfaces

Available in both FCC and ETSI versions, AD-456u8 inlays from Avery Dennison are an excellent option for tagging items that cannot be RFID-enabled with traditional inlay designs.

Equipped with a UCODE 8 chip from NXP, the Gen2 UHF RFID labels are perfectly suited for applications related to manufacturing, computers and electronics, and miscellaneous consumer goods, including beverages such as bottled water, juices, and soft drinks in aluminum cans. AD-456u8 inlays are robust, high performing and incredibly versatile solutions for tagging hard to read surfaces.

The product's UCODE 8 chip features 128-bit of EPC memory and 96-bit unique factory-locked TID number. A 48-bit unique serial number is factory-encoded into the TID. The sole delivery format is label / sticker.

Like all RFID products from Avery Dennison, AD-456u8 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.

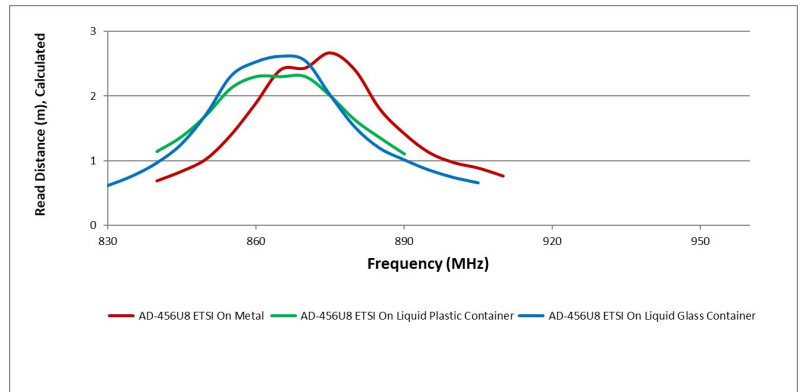
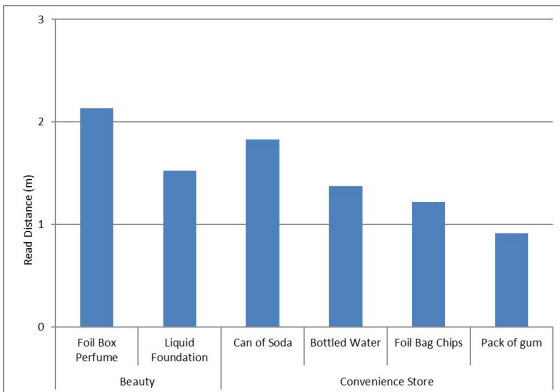
## Technical features

Chip	NXP UCODE 8		
EPC and User Memory	128-bit and n/a		
TID Memory	96-bit / 48-bit unique serial number		
Product Code	RF101023 / IL-609137 / 3009093	RF100662 / IL-603955 / 3007926	RF101130 / IL-609899 / 3009520
Delivery Format	Label	Label	Label
Die-Cut Dimension	64 x 6 mm / 2.52 x 0.24 in	64 x 6 mm / 2.52 x 0.24 in	64 x 18 mm / 2.52 x 0.71 in
Inlay Substrate	PET	PET	PET
Face Sheet	2 mil White PET	2 mil White PET	2 mil White PET
Total Thickness	37 - 39 mils / 932 - 983 microns	37 - 39 mils / 932 - 983 microns	37 - 39 mils / 932 - 983 microns
Standard Pitch	25.4 mm / 1 in	25.4 mm / 1 in	25.4 mm / 1.0 in
Web Width	68.6 mm / 2.7 in	68.6 mm / 2.7 in	68.6 mm / 2.7 in
Core Size	76 mm / 3 in	76 mm / 3 in	76 mm / 3 in
Quantity / Reel	1300 pcs / reel	1300 pcs / reel	1600 pcs / reel
Operating Temperature	-40 °C to 85 °C / -40 °F to 185 °F		
On-Metal	Metal		

### Read Distance, Single Item

### Read range

RFD8500 ETSI +30dBm



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

### Contact information

[rfid.averydennison.com/contact](http://rfid.averydennison.com/contact)  
+1-678-617-2359

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.

