

# AD-456 U8 ETSI Tamper Evident

## Overview

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**Frequency Band**

UHF 860 - 960 MHz

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**Chip**

NXP UCODE 8

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**Antenna Dimensions**

64 x 6 mm / 2.52 x 0.24 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 hence 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 Pressure Sensitive Label.

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.

A tamper-evident security label construction designed to provide visible evidence of tampering when label removal is attempted. A thin layer of paper (47# Tamper Resistant Litho) left behind on the surface of the tagged product will indicate the label had been removed. In addition, the removed tag will be absent of adhesive, preventing it from being re-applied or attached to another product. This product helps to protect against incidents of fraud and theft.

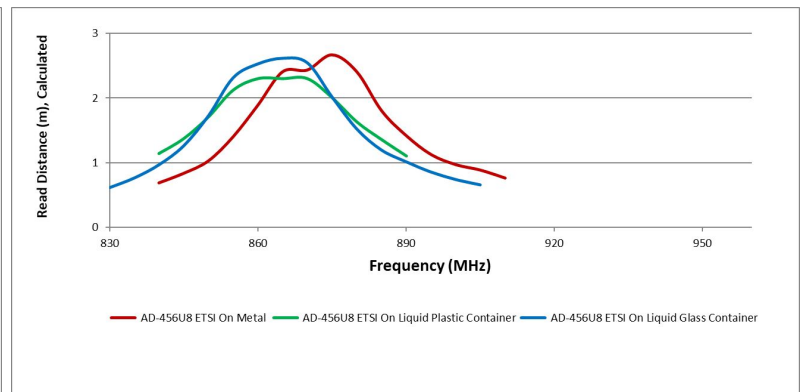
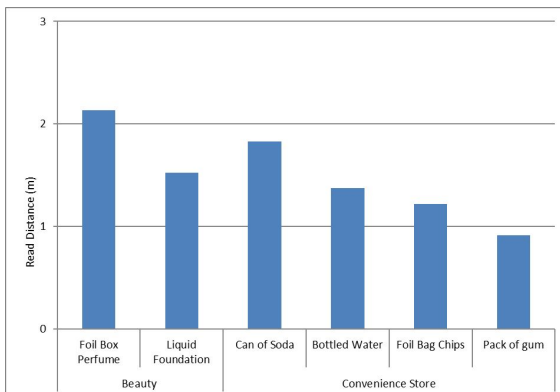
## Technical features

Chip	NXP UCODE 8
EPC and User Memory	128-bit and n/a
TID Memory	96-bit / 48-bit unique serial number
Product Code	RF100593 / IL-607896
Delivery Format	Label / sticker
Die-Cut Dimension	64 x 6 mm / 2.52 x 0.24 in
Inlay Substrate	PET
Face Sheet	2 mil White PET
Inlay Liner Material	40# SCK
Security Material	47# Tamper Resistant Litho
Total Thickness	39.3 - 41.3 mils / 998 - 1049 microns
Standard Pitch	25.4 mm / 1 in
Web Width	68.6 mm / 2.7 in
Core Size	76 mm / 3 in
Quantity / Reel	1,549 pcs / reel
Operating Temperature	-40 °C to 85 °C / -40 °F to 185 °F
Certificates	Metal

## Read Distance, Single Item

## Read range

RFD8500 ETSI +30dBm



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

### Contact information

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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.

