



# AD Belt U9 Pure™

## Overview

---

**Frequency Band**

UHF 860 - 960 MHz

---

**Chip Attachment Technology**

Direct Chip Attach

---

**Chip**

NXP UCODE 9

---

**Antenna Dimensions**

70 x 14 mm / 2.75 x 0.55 in

---

**International Standard**

ISO 18000-63, EPC Class 1 Gen 2

---

**Industry Segments**

Apparel

Industrial Applications

---

**Applications**

Brand Protection

Supply Chain Management

Home Essentials

---

**RoHS**

EU Directive 2011/65/EU and

Directive (EU) 2015/863

---

**REACH**

Regulation (EC) No. 1907/2006

---

**End of Life**

EU Paper recyclability: PTS-

RH021:97/2012

US Paper Recyclability: SBS-E Part I  
(Repulability) and Part II (Recyclability)



## Compact size, high performance and sustainable in item-level tagging

AD Belt U9 Pure™ inlays are designed for global retail, industry and supply-chain applications, offering excellent performance on difficult-to-tag or low-detuning materials e.g. cardboard and plastic, and in other demanding, close-coupling environments.

AD Belt U9 Pure™ inlays have a compact 73 mm / 2.8 inch form factor, which can be easily converted into end-application usage, and are available in dry, wet and label delivery formats. Belt equipped with NXP UCODE 9 offers 96-bit of EPC memory. Furthermore, it offers a self adjust feature to maximize product performance in challenging environments and has an improved read and write sensitivity and faster encoding speed compared to NXP UCODE 8.

AD inlays are compliant with ISO 9001:2015 Quality Management and ISO 14001:2015 Environmental Management, which ensure a reliable and state-of-the-art product that meets a variety of application needs, especially in the retail environment.

### Sustainability - 100% Plastic Free

Pure™ inlays are produced via innovative antenna manufacturing technology where aluminium antenna is made directly on a paper making the products 100% plastic free, and according to an LCA (Life Cycle Analysis) study by an independent institute provide typically 70-90% savings in carbon footprint compared to traditional etching method. 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™ 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.

\*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".

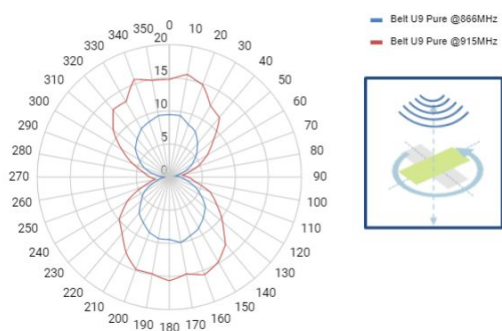
## Technical features

Chip	NXP UCODE 9		
Chip Attachment Technology	Direct Chip Attach (DCA)		
EPC and User Memory	96-bit and n/a		
TID Memory	96-bit / 48-bit unique serial number		
Product Code*	3008783 / IL-604589	3008789 / IL-604593	3008788 / IL-604592
Delivery Format	Dry inlay	Wet inlay	Label
Die-Cut Dimension	–	73 x 17 mm / 2.87 x 0.67 in	73 x 17 mm / 2.87 x 0.67 in
Inlay Substrate**	Paper 40#	Paper 40#	Paper 40#
Face Sheet	–	–	Mid-gloss paper
Overall Thickness (excluding IC and siliconized paper)	73 µm	93 µm	163 µm
Standard Pitch	22.225 mm / 0.875 in	22.225 mm / 0.875 in	22.225 mm / 0.875 in
Web Width	80 mm / 3.15 in	80 mm / 3.15 in	80 mm / 3.15 in
Core Size	76 mm / 3 in	76 mm / 3 in	76 mm / 3 in
Quantity / Reel	10,000 pcs/reel 20,000 pcs/box	10,000 pcs/reel 10,000 pcs/box	5,000 pcs/reel 10,000 pcs/box
Operating Temperature Certificate	-40 °C to 85 °C / -40 °F to 185 °F		
	<a href="#">ARC Specification Guide</a>		

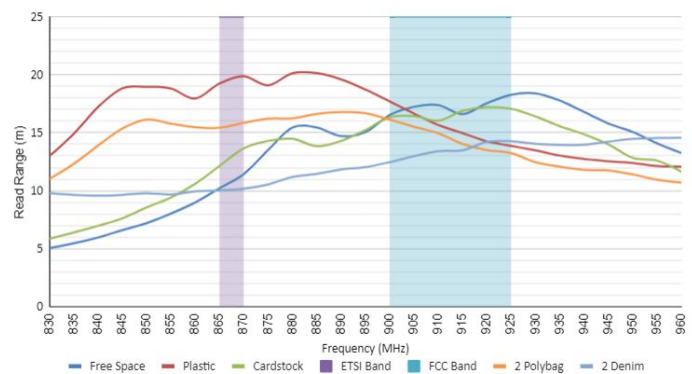
\* Other product codes available upon request.

\*\* Available also with other papers

## Orientation sensitivity



## Read range



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



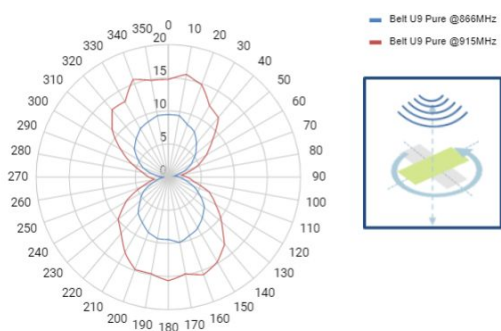
## Technical features

Chip	NXP UCODE 9		
Chip Attachment Technology	Direct Chip Attach (DCA)		
EPC and User Memory	96-bit and n/a		
TID Memory	96-bit / 48-bit unique serial number		
Product Code*	3009205 / IL-604939	3009206 / IL-604983	3009204 / IL-604963
Delivery Format	Dry inlay	Wet inlay	Label
Die-Cut Dimension	–	73 x 17 mm / 2.87 x 0.67 in	73 x 17 mm / 2.87 x 0.67 in
Inlay Substrate**	Paper 64	Paper 64	Paper 64
Face Sheet	–	–	Mid-gloss paper
Overall Thickness	77 µm	97 µm	167 µm
<b>(excluding IC and siliconized paper)</b>			
Standard Pitch	20 mm / 0.79 in	20 mm / 0.79 in	20 mm / 0.79 in
Web Width	80 mm / 3.15 in	80 mm / 3.15 in	80 mm / 3.15 in
Core Size	76 mm / 3 in	76 mm / 3 in	76 mm / 3 in
Quantity / Reel	10,000 pcs/reel 20,000 pcs/box	10,000 pcs/reel 20,000 pcs/box	5,000 pcs/reel 10,000 pcs/box
Operating Temperature Certificate	-40 °C to 85 °C / -40 °F to 185 °F		
	<a href="#">ARC Specification Guide</a>		

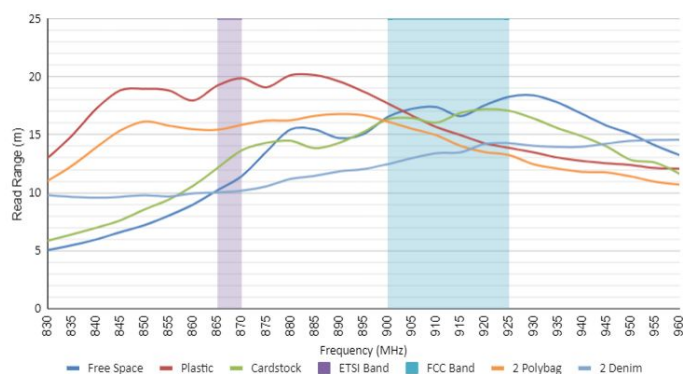
\* Other product codes available upon request.

\*\* Available also with other papers

## Orientation sensitivity



## Read range



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