Avery Dennison Smartrac Product Data Sheet



AD Belt U9 PureTM

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

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

Paper recyclability: PTS- RH021:97/2012



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

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

Sustainability

The AD Belt U9 Pure™ is produced via innovative antenna manufacturing technology where aluminium antenna is made directly on a paper substrate. Inlays and Tags using this antenna are 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 innovative manufacturing process also enables other benefits, such as recycling excess materials and reducing the total amount of materials while maintaining the overall performance of the product. In addition, based on extensive testing against PTS-RH 021:97/2012 paper and cardboard recycling method with third party laboratorio shows that standard Pure™ inlays and label are recyclable within the items.

Application

AD Belt U9 PureTMinlays and tags 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.

Quality

Avery Dennison inlays and tags 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.

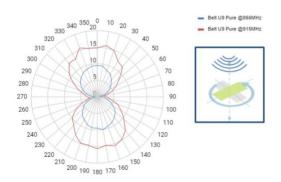


Technical features

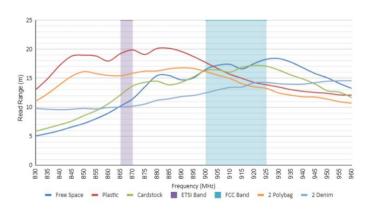
Chip	NXP UCODE 9			
Chip Attachment Technology	Direct Chip Attach (DCA)			
EPC and User Memory	96-bit and n/a			
TID Memory	96-bit / 48-bit unique serial number			
Product Code*	3008497 / IL-604363	3008498 / IL-604364	3008485 / IL-604353	
Delivery Format	Dry inlay	Wet inlay	Label	
Die-Cut Dimension	_	73 x 17 mm / 2.87 x 0.67 in	73 x 17 mm / 2.87 x 0.67 in	
Inlay Substrate**	Paper 82	Paper 82	Paper 82	
Face Sheet	-	-	Mid-gloss paper	
Overall Thickness (excluding IC and siliconized paper)	92 μm	112 μm	182 μm	
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 10,000 pcs/box	5,000 pcs/reel 10,000 pcs/box	
Operating Temperature	-40 °C to 85 °C / -40 °F to 185 °F			
Certificate	ARC Spec F, G, I, J, K, L, N, O, Q, R, W1, W2, W3, W4, W5, W6, Y			

^{*} Other product codes available upon request.

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

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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.

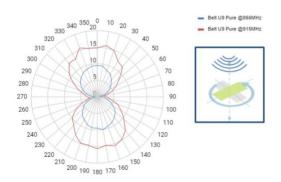
^{**} Available also with other papers

Technical features

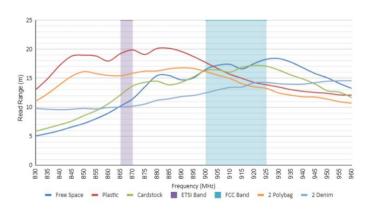
Chip	NXP UCODE 9			
Chip Attachment Technology	Direct Chip Attach (DCA)			
EPC and User Memory	96-bit and n/a			
TID Memory	96-bit / 48-bit unique serial number			
Product Code*	3008783 / IL-604589	3008789 / IL-604593	3008788 / IL-604592	
Delivery Format	Dry inlay	Wet inlay	Label	
Die-Cut Dimension	_	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	-40 °C to 85 °C / -40 °F to 185 °F			
Certificate	ARC Spec F, G, I, J, K, L, N, O, Q, R, W1, W2, W3, W4, W5, W6, Y			

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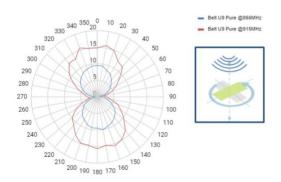
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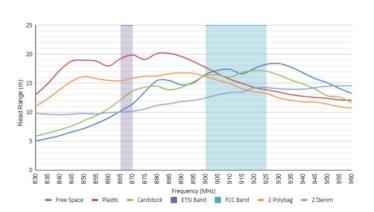
Chip	NXP UCODE 9			
Chip Attachment Technology	Direct Chip Attach (DCA)			
EPC and User Memory	96-bit and n/a			
TID Memory	96-bit / 48-bit unique serial number			
Product Code*	3009205 / IL-604939	3009206 / IL-604983	3009204 / IL-604963	
Delivery Format	Dry inlay	Wet inlay	Label	
Die-Cut Dimension	_	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 (excluding IC and siliconized paper)	77 μm	97 μm	167 µm	
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	
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