AD Anchor U9 IML

Overview

Frequency Band	UHF 860 - 960 MHz
Chip / Chip Attachment Technology	NXP UCODE 9 / Direct Chip Attach
Antenna Dimensions	41 x 12 mm / 1.61 x 0.47 in
International Standard	ISO 18000-63, EPC Class 1 Gen 2 Environmental Testing: IEC 60068-2-67 Temperature Cycling: JESD22-A104-B
Industry Segments	Industry Supply chain Logistics Automotive
Applications	Supply Chain Management Reusable Containers Asset & Item Tracking
RoHS	EU Directive 2011/65/EU and Directive (EU) 2015/863
REACH	Regulation (EC) No. 1907/2006

RFID In-Mold Label (IML) – Solution for Industrial Reusable Plastic Containers

AD Anchor U9 IML is a high-performance RFID inlay developed for seamless integration into plastic items through the injection molding process. Designed to meet the rigorous demands of industrial and commercial applications, it offers exceptional durability, long read range, and supports sustainability initiatives by enabling plastic items to be serialized and reused throughout their lifecycle. Its semi-rigid, optimized design is compatible with materials like Polypropylene (PP), and it maintains consistent performance across a wide temperature range—even in harsh environments.

As an integrated labeling solution, AD Anchor U9 IML is ideal for a variety of use cases including reusable containers such as plastic pallets, plant trays, shipping bins, and waste containers, as well as tools, equipment, and plastic components used in production and logistics. By enabling digital identification, it enhances supply chain visibility, supports asset tracking, and enables efficient maintenance scheduling. It allows each tagged item to carry a unique digital ID that can be used to monitor, track, and manage the item across its entire lifecycle.

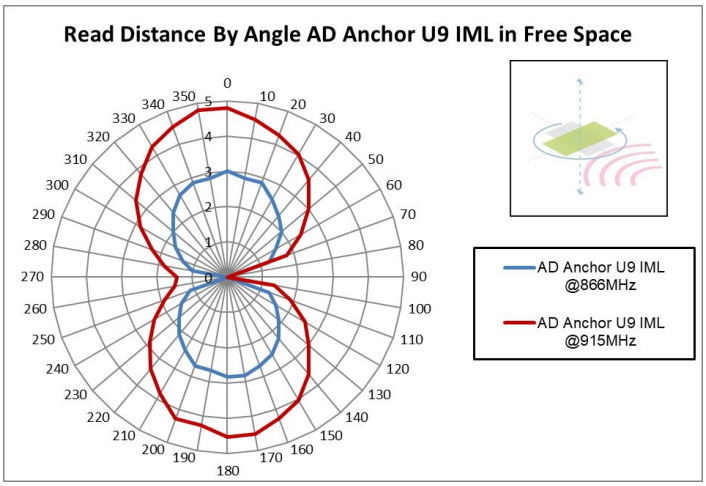
The label is engineered to withstand the injection molding process while maintaining a strong read performance—typically 4 to 5 meters post-molding—ensuring dependable functionality in the field. It also features a printable surface, allowing for easy customization and branding. With flexible format options, the AD Anchor U9 IML supports the needs of both converters and end users, making it a versatile choice for applications in industries such as supply chain, logistics, and automotive. This inlay helps reduce waste and extends the life of plastic assets, making it a key enabler of circular economy practices.

Technical features

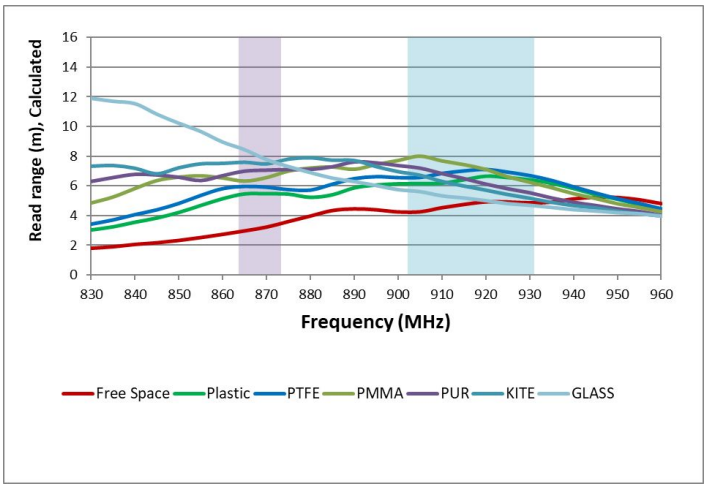
Chip / Chip Attachment Technology	NXP UCODE 9 / Direct chip attach (DCA)
EPC and User Memory	96-bit and n/a
TID Memory	96-bit / 48-bit unique serial number
Product Code	IL-611674
Delivery Format	RIF Dry inlay
Die-Cut Dimensions	NA
Die-Cut Radius	NA
Inlay Substrate	White PP
Face Sheet	White PP
Adhesive	NA
Total Thickness (over chip and release liner)	15.35 mils / 390 microns
Standard Pitch	20 mm / 0.78 in
Web Width	62 mm / 2.44 in
Core Size	76 mm / 3 in
Quantity / Reel	5,000 pcs/reel TBD pcs/box
Size of Roll	MAX OD: less than 10”
Operating Temperature	-40 °C to 85 °C / -40 °F to 185 °F
On-Metal	NA
ARC Certificates	NA

*Other product codes available upon request.

Orientation sensitivity



Read range

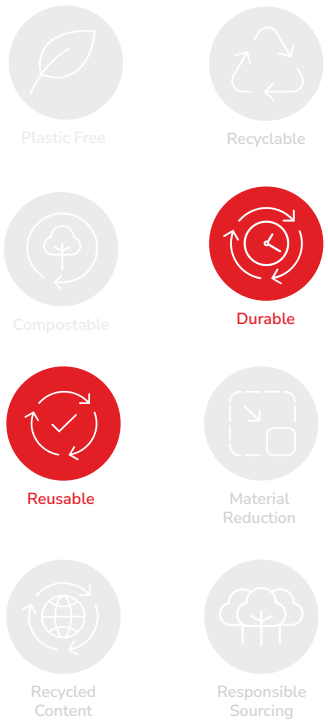


All graphs are indicative: performance in real life applications may vary.

Sustainability features

Durability / Circularity	Enable reuse leading to reduction of full environmental impact, impacting the supply chain overall Scope 3 GHG (Greenhouse Gas) emissions.

For more information, please visit the Avery Dennison sustainability page.



Find more label solutions at
rfid.averydennison.com

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