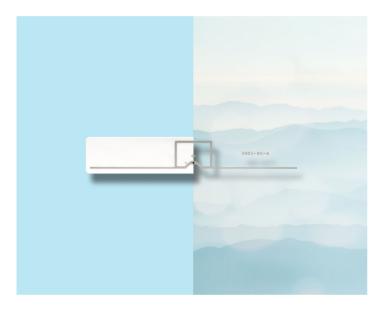
RFID In-Mold Label (IML) – A Thin and Flexible Solution for Complex Industrial Applications

AD Line U9XE IML



Overview

Frequency Band	UHF 860 - 960 MHz	
Chip / Chip Attachment Technology	NXP UCODE 9xe / Direct Chip Attach	
Antenna Dimensions	70 x 9.4 mm / 2.76 x 0.37 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	

AD Line U9XE IML is a high-performance RFID inlay designed for integration into plastic items through the injection molding process, offering a versatile and sustainable solution for a wide range of industrial applications. Built to endure the demands of harsh environments, the label delivers long-lasting performance and supports circular economy goals by enabling the reuse and serialization of plastic assets. With its thin, flexible, and optimized design, the AD Line U9XE IML is compatible with injection-moldable materials such as Polypropylene (PP) and performs reliably across a wide temperature range while maintaining efficient cycle times.

This RFID inlay is ideal for applications involving reusable containers like plastic pallets, plant trays, shipping bins, and waste containers, as well as tools, equipment, and plastic components—both finished and semi-finished. It supports a range of critical use cases including supply chain management, asset tracking, and item-level identification. By enabling digital traceability, it ensures visibility from production to distribution and even waste collection. The label also facilitates maintenance scheduling and enables each item to carry a unique digital ID, supporting initiatives like Digital Product Passport (DPP) and lifetime product identification.

Engineered for durability, the AD Line U9XE IML provides robust performance with a typical post-molding read range of 5–6 meters, making it suitable for high-value assets and returnable transport items.

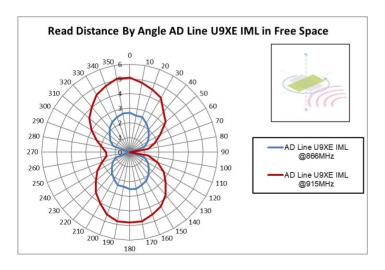


Technical features

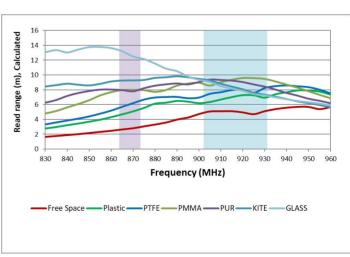
Chip / Chip Attachment Technology	NXP UCODE 9xe / Direct chip attach (DCA)		
EPC and User Memory	128-bit and n/a		
TID Memory	96-bit / 48-bit unique serial number		
Product Code	IL-613618	IL-613619	
Delivery Format	Dry inlay Continuous	Dry inlay Singulated on PET liner	
Die-Cut Dimensions	NA	NA	
Die-Cut Radius	NA	NA	
Inlay Substrate	White PP	White PP	
Face Sheet	NA	NA	
Adhesive	NA	NA	
Total Thickness (over chip and release liner)	7.48 mils / 190 microns	9.45 mils / 240 microns	
Standard Pitch	28 mm / 1.10 in	28 mm / 1.10 in	
Web Width	76 mm / 3 in	76 mm / 3 in	
Core Size	76 mm / 3 in	76 mm / 3 in	
Quantity / Reel	5,000 pcs/reel	5,000 pcs/reel	
Size of Roll	MAX OD: less than 10"	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



















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