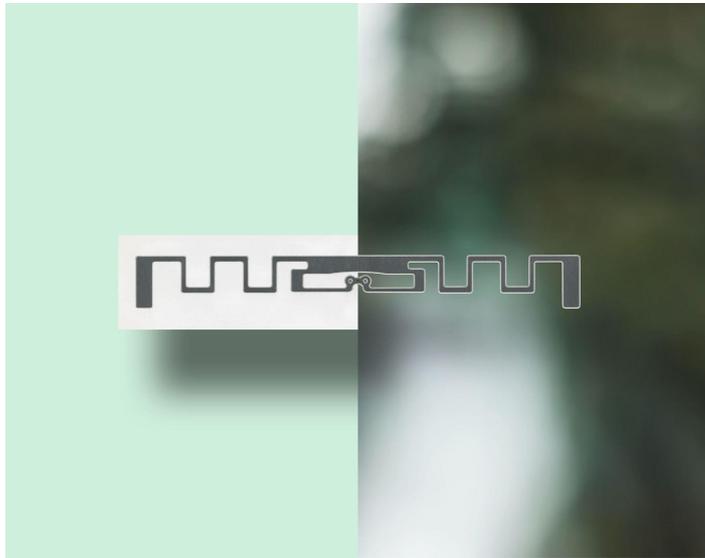


AD Squarewave M780 Pure™



Overview

Frequency Band	UHF 860 - 960 MHz / Direct Chip Attach
Chip / Chip Attachment Technology	Impinj M780
Antenna Dimensions	93 x 11 mm / 3.66 x 0.43 in
International Standard	ISO 18000-63, EPC Class 1 Gen 2
Industry Segments	Logistics
Applications	Supply Chain Management Inventory and Logistics Gaylords, envelopes, and pallet labels
RoHS	EU Directive 2011/65/EU and Directive (EU) 2015/863
REACH	Regulation (EC) No. 1907/2006



High-Performance Plastic-Free for Global Logistics and Sustainable Supply Chains

The AD Squarewave M780 Pure is a high-performance, plastic-free RFID inlay developed under the Pure Line sustainability initiative, delivering maximum performance in a condensed form factor to meet the growing demand for environmentally responsible identification solutions without compromising RF capability. Optimized for shipping and logistics use cases.

Sustainability

Sustainable while Maintaining the Overall Performance

100% Plastic Free - produced via innovative antenna manufacturing technology where aluminum antenna is made directly on a paper carrier

70-90% Lower Carbon Footprint* - enabled by innovative antenna manufacturing method (compared to traditional etching method)

Reduced Materials & Recycling Excess Materials - enabled by the manufacturing process

Recyclable in Paper & Cardboard Recycling Streams –

- **Europe:** verified by a third-party laboratory in the EU against Capi Recyclability Test Method Version 3 (Part I: Recycling mill with conventional process and PTS-RH 021:97/2012).
- **The USA:** the hang tag 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 hang tag and determined that the structure is eligible for a widely recyclable label.

EU PPWR Ready - a plastic-free component, simplifying compliance with upcoming Plastic Packaging Waste Regulations and recycled content targets.

Quality

Quality & Environmental Compliance: Compliant with ISO 9001:2015 Quality Management and ISO 14001:2015 Environmental Management standards.

* Proven by an LCA (Life Cycle Analysis) study by an independent institute

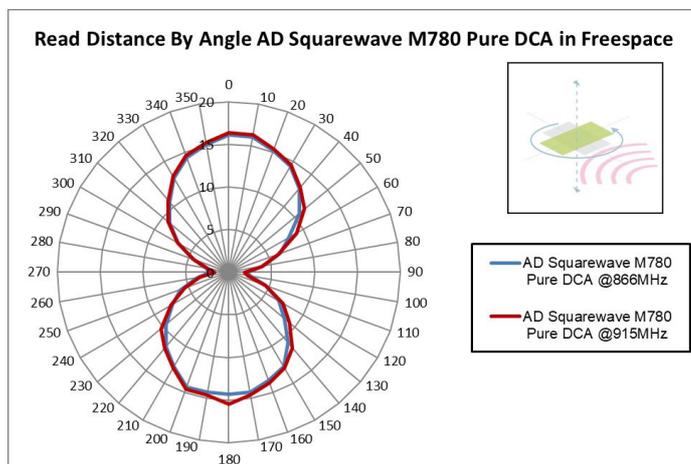
**How2Recycle: "Additional components, product application, or other attributes may change the final recyclability of the package. Must be a How2Recycle member and submit a label request to use the label on pack".

Technical features

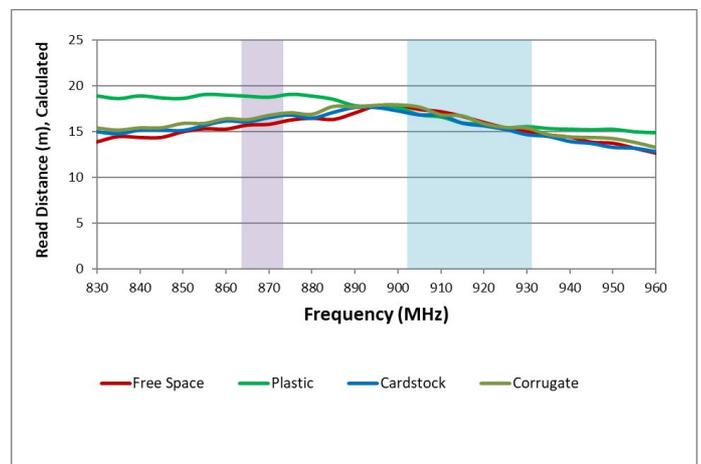
Chip / Chip Attachment Technology	Impinj M780 / Direct chip attach (DCA)		
EPC and User Memory	496-bit and 128-bit		
TID Memory	96-bit / 48-bit unique serial number		
Product Code	IL-614798	IL-614799	IL-614800
Delivery Format	Dry inlay	Wet inlay	Label / sticker
Die-Cut Dimensions	-	97 x 15 mm / 3.82 x 0.60 in	97 x 15 mm / 3.82 x 0.60 in
Die-Cut Corner Radius	-	3 mm / 0.12 in	3 mm / 0.12 in
Inlay Substrate	Paper 64	Paper 64	Paper 64
Face Sheet	-	-	Mid-gloss paper
Adhesive	-	ADH-100005	ADH-100002
Total Thickness (over chip and release liner)	7.64 mils / 194 microns	8.43 mils / 214 microns	11.93 mils / 303 microns
Standard Pitch	20 mm / 0.78 in	20 mm / 0.78 in	20 mm / 0.78 in
Web Width	100 mm / 3.94 in	100 mm / 3.94 in	100 mm / 3.94 in
Core Size	76 mm / 3 in	76 mm / 3 in	76 mm / 3 in
Quantity / Reel	20,000 pcs/reel	20,000 pcs/reel	5,000 pcs/reel
Size of Roll	Max OD 15"	Max OD 12"	Max OD 8"
Operating Temperature	-40 °C to 85 °C / -40 °F to 185 °F		
On-Metal	-		
ARC Certificates	-		

*Other product codes available upon request.

Orientation sensitivity



Read range



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

Functional Adhesive Group and Description

ADH-100002	General purpose permanent, acrylic based adhesive. Good adhesion on plastics including non polar surfaces with good temperature and chemical resistance
ADH-100005	General purpose permanent, acrylic based adhesive. Good adhesion to all generally used substrates such as paper, board and plastics

Sustainability features

Plastic Free	100% PET, PP, PE Free
Recyclability	The product is recyclable in the region where it is sold. Recyclability is subject to regional and country specific standards.
Paper & Cardboard	EU Paper recyclability: Paper and Board - Recyclability Laboratory test method, part 1 recycling mill with conventional process (version 3 Feb 2025) (CEPI), PTS RH021:97/2012 US Paper Recyclability: SBS-E Part I (Repulpability) and Part II (Recyclability) Certified by Western Michigan University (WMU) for RFID paper cardboard incl. Hangtags and flexible paper packaging How2Recycle® "pre-qualification" for RFID construction when applied to a paper hangtag and flexible paper packaging
Responsible Sourcing	100% Paper based raw materials come from responsible sources

For more information, please visit the [Avery Dennison sustainability page](#).



Plastic Free



EU Paper and Cardboard



Responsible Sourcing



Find more label solutions at rfid.averydennison.com



#MakingPossible

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