



RF Protocol
ISO/IEC 18000-6C
EPC Class 1 Gen 2



Optimized Operating Frequencies
AD-812: 902-928 MHz (US)
AD-811: 865-868 MHz (Europe)

Antenna Size
1.00 in x 1.00 in

AD-812 & AD-811 RFID Inlays

- High performance on “deep case” pharma and item-level tagging applications
- Tuned for edge-on reading
- Ideal for arrays of pharma bottles tightly packed in corrugated cases

AD-812 & AD-811 RFID Inlays


RF Performance Features

Optimized operating frequencies	
AD-812	902-928 MHz (US)
AD-811	865-868 MHz (Europe)
Mode of operation	Passive (battery free)
RF performance	Edge-on reading tag provides superior performance on “deep case” pharmaceutical and item level applications

Protocol and Memory

Protocol	ISO/IEC 18000-6C EPC Class 1 Gen 2
EPC memory allocation	96 bits

Inlay Roll Format/Finishing

Un-wind direction	
Core size [mm]	3 in [76]
Maximum roll outer diameter (not to exceed) [mm]	16 in [406]
Average number of units per roll	10,000

Environmental Specifications

Operating temperature	-40° F to +149° F -40° C to +65° C
Storage temperature	-40° F to +185° F -40° C to +85° C
Humidity (recommended)	40% to 80% RH

Dry Inlay Specifications

Antenna dimensions [mm]	1.00 in [25.4] x 1.00 in [25.4]
Standard pitch [mm]	1.50 in [38.1]
Standard web width [mm]	1.79 in [45.5]
Inlay substrate material and thickness [microns]	Heat-treated PET, 2 mils [51]
Total thickness over chip (typical) [microns]	11.5 mils [279]
Shelf life	2 years
Quality assurance	100% read tested with out-of-tolerance inlay marked

Pressure-Sensitive Inlay Specifications

Die cut dimensions [mm]	1.25 in [31.8] x 1.25 [31.8]
Standard pitch [mm]	1.50 in [38.1]
Standard web width [mm]	1.38 in [35]
Inlay to liner adhesive	E828 (Fasson®)
Liner material	40# SCK (Fasson®)
Total thickness over chip (typical) [microns]	14 mils [356]
Shelf life	1 year
Quality assurance	100% edit and replace



Real-World™ RFID

Avery Dennison RFID focuses the resources of a global Fortune 500 company on developing the tags your customers need in the real world, including (clockwise from top):

- AD-220:** economical plug-and-play solution for reliable high printer yields and throughput;
- AD-612:** a truly wide-band tag with consistent and reliable high performance in many countries of the world;
- AD-622:** orientation-insensitive 3D read capability for pallet tags and applications with awkward read angles;
- AD-812/811:** enhanced edge-on reading capability for pharma and item-level applications;
- AD-420/421:** a position-insensitive tag to fit many applications;
- AD-820/821:** enhanced edge-on reading designed for garment hang tags and other item-level applications.



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