AD-222 RFID Inlays

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

Operating Frequencies
866-954 MHz (Global)

Antenna Size
3.74 in x .310 in

- **Improved read rates**
- **Reliable wide-band (global) performance on many difficult to read contents like metals and liquids**
- **"Plug-and-play" with AD-220 and some other 4 x .5" Gen 2 inlays**
  - Position compatible on popular OEM equipment
  - No need to change artwork or printer settings
  - Compatible with existing carton placement specifications
- **Recycling-friendly aluminum antenna**
- **High performance in high-volume corrugated box labeling applications**
- **Available in high-yield/high-capacity rolls which integrate seamlessly into high-volume converting processes**

EPCglobal

AVERY DENNISON

AD-222 RFID Inlays

RF Performance Features	
Optimized operating frequency	866-954 MHz (Global)
Mode of operation	Passive (battery free)
RF performance	Superior performance on RF-friendly case contents

Protocol and Memory	
Protocol	Designed to comply with ISO/IEC 18000-6C and EPC Class 1 Gen 2. Option to utilize additional 32 bits of memory if lock & kill commands are not needed.
EPC memory allocation	96 bits

Inlay Roll Format/Finishing	
Un-wind direction	
Core size [mm] with adaptor insert	6 in [152.4]
Maximum roll outer diameter (not to exceed) [mm]	16 in [406]
Average number of units per roll	20,000

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]	3.74 in [94.9] x .310 in [7.9]
Standard pitch [mm]	0.625 in [15.9]
Standard web widths [mm]	4.75 in [120] 3.875 in [98.4]
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]	3.89 in [98.8] x .44 in [11.2]
Standard pitch [mm]	0.625 in [15.9]
Standard web width [mm]	4.125 in [104.8]
Inlay to liner adhesive	S490 (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

What does Real-World RFID mean to you? RF performance? Ease of adoption? Tag availability and affordability? Global functionality? At Avery Dennison RFID, we realize that in the real world, RFID means different things to different people. That's why we design, test and produce the broadest portfolio of EPC Gen 2 inlays in the industry… why we've invested heavily in applications engineering and testing at our Atlanta Technical Center… why we've developed the industry's fastest, most scalable inlay manufacturing process… and why we partner with the smartest suppliers, converters, systems integrators and end users in the business… all to make RFID real in your world.

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