

RFID label

051790



AD 223 and AD 224

- The AD 223 provides the best read range performance in the AD-22x family
- The AD 224 inlay offers a scalable 96 to 240 bit EPC memory to accommodate different length EPC codes - additional 512 bits user memory available (AD 224)
- Incorporating a UID (unique identification number) the AD 224 thereby is ideal for life cycle verification applications such as e-pedigree and brand authentication
- Increased read ranges and higher read rates across a wide variety of applications



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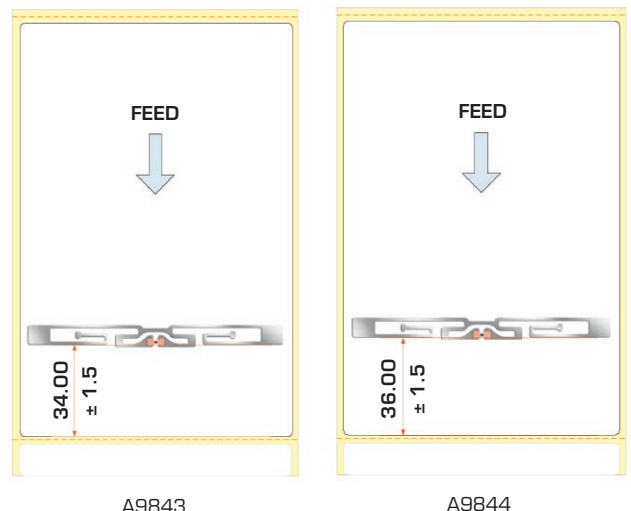
RFID

Your **RFID** label at a glance

RF Features	AD 223	AD 224
Optimized frequency range	Global (860-960 MHz)	Global (860-960 MHz)
Mode of operation	Passive (battery free)	Passive (battery free)
Protocol	ISO/IEC 18000-6C EPC global Class 1 Gen 2	ISO/IEC 18000-6C EPC global Class 1 Gen 2
EPC memory allocation	96 bit EPC Number	Up to 240 bit EPC number additional 512 bit user memory

Supply spec	
Avery Dennison Article number	A9843 (AD 223) A9844 (AD 224)
Roll outer diameter	Max 180 mm
Roll core diameter	76 mm (3 inch)
Winding direction	Label facing outside
Labels per roll	750
Minimum purchase quantity	1 box = 2 rolls = 1500 labels
Quality assurance	100% edit and replace

Label description	
	A9843 (AD 223) and A9844 (AD 224)
Label length	152.4 mm (6 inch)
Label width	101.6 mm (4 inch)
Inter label gap	3.175 mm (1/8 inch)
Material Standard	Thermal Transfer Receiver
Adhesive	Permanent



A9843

A9844

Inlay Type and Position	A9843 (AD 223)	A9844 (AD 224)
Inlay type	Avery Dennison - AD 223	Avery Dennison - AD 224 using NXP U-Code G2XM chip with 240 bit EPC + 512 bit user memory
Inlay position from top of label	34.0 mm (± 1.5 mm) - leading edge of antenna	36.0 mm (± 1.5 mm) - leading edge of antenna

Printer Settings	A9843 (AD 223)	A9844 (AD 224)	A9843 (AD 223)	A9844 (AD 224)
Frequency band	Parameter Antenna offset (#IM command)		Parameter Powerlevel (Menu-RFID Parameter)	
AP 5.4 - EU	46.5 mm	46.5 mm	248	243
64-Qx - EU	43 mm	47 mm	246	236
DPM / PEM / ALX 92x - EU	35 mm	44 mm	231	218



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UHF class 1 gen 2

- Very versatile for all common thermotransfer printers and print & apply systems – especially for the 64-Ox family, AP 5.4 and ALX 92x
- Suitable for metals, liquids, cartons and pallets
- Excellent reading range
- Size: 101.6 x 152.4 mm (4" x 6"), inlay AD-431



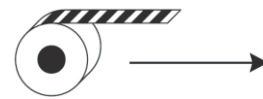
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Your RFID label at a glance

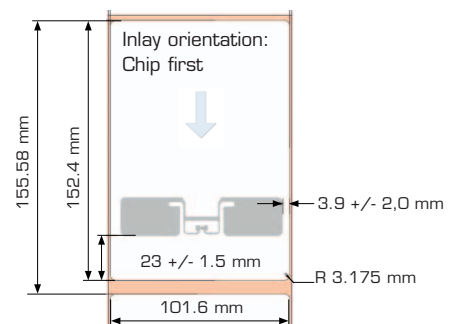
Label specifications:	
Article Number:	A9100
RF performance features:	Operating frequency: 860 - 960 MHz Operating mode: passive (without battery) RF performance: The tag ensures optimum signal quality on RF-friendly, reflecting and absorbing contents.
RF communication protocol:	EPC UHF class 1 gen 2, ISO 18000-6c
Memory capacity:	EPC storage allocation: 96 bits
Label material:	Thermotransfer printable paper
Glue:	Rubber based, high melting point, permanent
Material:	Label size: 101.6 x 152.4 mm (4" x 6") Inter label gap: 3.175 mm (1/8 inch) Winding direction: Label facing outside Roll outer diameter: max. 180 mm Roll core diameter: 76 mm Labels per roll: 750 Minimum purchase quantity: 1 box = 2 rolls = 1500 labels
Environmental requirements:	Operating temperature: - 40°C to + 65°C Storage temperature: - 40°C to + 85°C Humidity: 40 % to 80 % RH
Inlay specifications:	Antenna size: 96 mm x 23 mm Shelf life: 2 years Quality control: 100 % legibility tested Label thickness: max. 0.423 mm incl. chip



Avery Dennison Printer	Parameter Antenna offset [#IM command]	Parameter Powerlevel (Menu-RFID Parameter)	Additional Parameters (deviations from default values)
AP 5.4 EU	46 mm	220	N/A
AP 5.4 US	46 mm	220	N/A
64-Qx EU	47 mm	240	N/A
64-Qx US	47 mm	240	N/A
DPM/PEM/ALX 92x EU	28 mm	240	N/A

N/A = not applicable – no additional settings required

Note: With this material and the printer settings listed above a throughput of 27 labels/minute can be reached in a AP 5.4 using a print speed of 6 inch/second (= max speed).



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