



EOS-233 M830

T A G E O S

## Datasheet

### First ARC Spec B2-certified Inlay for Bottle Caps



The EOS-233 M830 has been designed in accordance with Auburn University's ARC Spec B2. At just 30mm in diameter, it is the industry's first RAIN RFID inlay to meet ARC Spec B2 (March 2025), enabling RFID to a wide range of products, including bottled merchandise.

Its innovative antenna design and latest IC technology ensure superior read performance, especially on bottles with difficult-to-tag contents like household cleaners, automotive fluids or nutraceuticals.

The EOS-233 M830 is available in dry, wet, and paper-face delivery formats.

Based on Impinj's M830 RAIN RFID IC with 128-bit EPC memory, it combines enhanced read sensitivity, AutoTune™ performance, and backscatter efficiency with Impinj Gen2X enhancements that speed

inventory counts, increase tag read range, and inhibit tag and item counterfeiting. The reduced IC size supports Tageos' sustainability approach. As a result, the IC sets standards in solutions like high-speed inventory counting, loss prevention with frictionless self-checkout, and embedded tagging with seamless product returns.

Tageos maintains ARC Quality Certification for all its manufacturing sites worldwide and is one of the first companies to be certified by Auburn University's RFID Lab since 2020.

Tageos complies with ISO 9001:2025 Quality Management and ISO 14001:2015 Environmental Management as well as utilizing sustainable manufacturing processes and materials, such as FSC®-certified paper, whenever possible. In addition, all Tageos products meet the RoHS and REACH environmental directives.

#### Overview

IC:	Impinj M830
EPC/User Memory:	128 bit / - bit
TID Memory:	96 bit incl. 48 bit unique S/N
Frequency Band:	860 - 960 MHz
Protocol:	EPC Class 1 Gen 2 - ISO 18000-63

#### Application Areas

- Inventory Visibility
- Item Level Tagging
- Supply Chain Management



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FSC® C166692

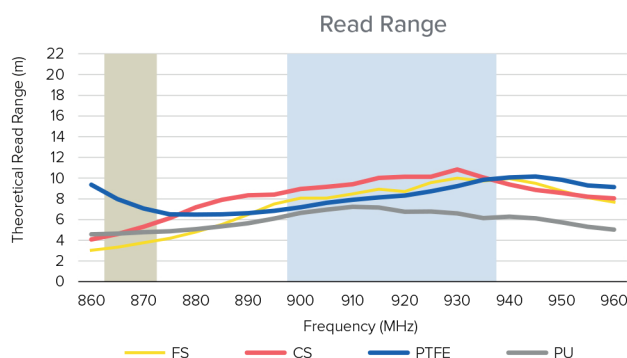


# EOS-233 M830

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## Technical Overview

	Dry	Wet	Paper-face
Product Code	2300000011	2300000012	2300000013
Antenna Size	ø 30 mm 1.18 in	ø 30 mm 1.18 in	ø 30 mm 1.18 in
Finish Size	- -	ø 33 mm 1.30 in	ø 33 mm 1.30 in
Web Width	40.00 ± 1 mm 1.575 ± 0.04 in	40.00 ± 1 mm 1.575 ± 0.04 in	40.00 ± 1 mm 1.575 ± 0.04 in
Pitch	36.37 ± 0.2 mm 1.432 ± 0.01 in	36.37 ± 1 mm 1.432 ± 0.04 in	36.37 ± 1 mm 1.432 ± 0.04 in
ARC Approval	B2	B2	B2
FSC® Certification	-	-	-
Antenna Material	Aluminium	Aluminium	Aluminium
Front Face	-	PET clear	Paper TT
Inlay Substrate	PET Clear 50µm	PET Clear 50µm	PET Clear 50µm
Inlay Adhesive	-	permanent	permanent
Liner	-	Paper	Paper
Operating Temperature	-40°C / +85°C   -40°F / +185°F @20% to 90% RH	-40°C / +85°C   -40°F / +185°F @20% to 90% RH	-40°C / +85°C   -40°F / +185°F @20% to 90% RH
Shelf Life	2 years @ +25°C/40%RH	2 years @ +25°C/40%RH	2 years @ +25°C/40%RH
Final Inspection	100% tested	100% tested	100% tested



**IMPINJ**  
CONNECTED

**RoHS**  
compliant



**Graphs:** All the graphs are indicative; performance in real life applications may vary. The data has been determined based on calculations for transmitters with a normal output power level and respective IC silicon. **Storage & handling precautions:** Observe standard storage and handling practices to minimize Electro Static Discharge. Tageos reserves the right to change its products and services at any time without notice. As our products are used in circumstances beyond our control, we cannot be held liable for any damages caused through their use. This is a general purpose product not designed or intended for any specific application.

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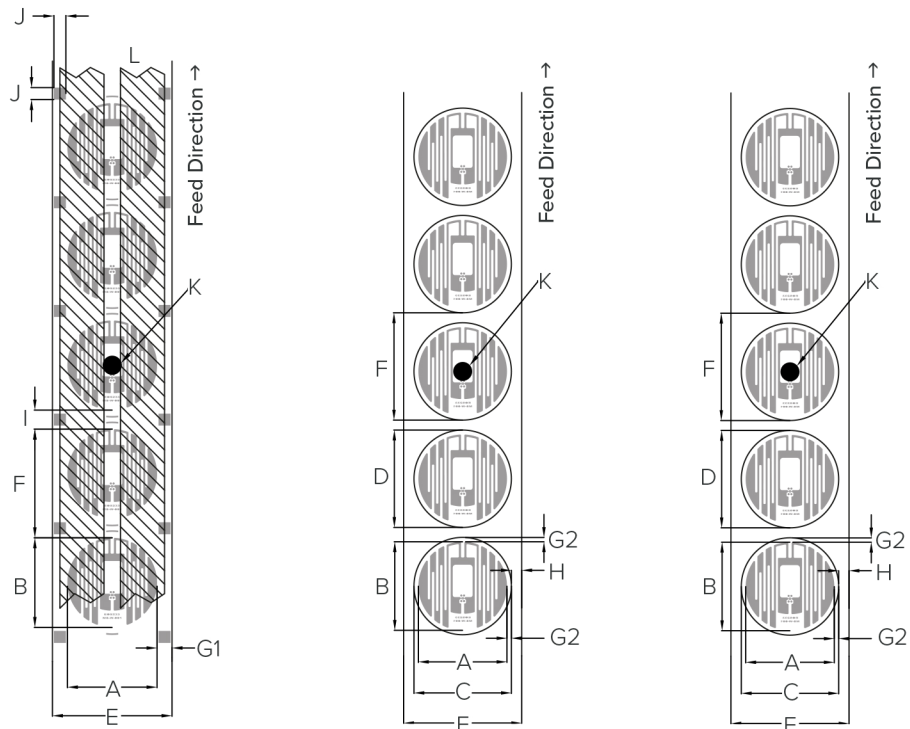


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## Product Specifications

### Mechanical Dimensions



	Dry	Wet	Paper-face
Product Code	2300000011	2300000012	2300000013
Antenna Size	A x B $\varnothing$ 30 mm / 1.18 in	$\varnothing$ 30 mm / 1.18 in	$\varnothing$ 30 mm / 1.18 in
Finish Size	C x D - / -	$\varnothing$ 33 mm / 1.30 in	$\varnothing$ 33 mm / 1.30 in
Web Width	E 40.00 $\pm$ 1 mm / 1.575 $\pm$ 0.04 in	40.00 $\pm$ 1 mm / 1.575 $\pm$ 0.04 in	40.00 $\pm$ 1 mm / 1.575 $\pm$ 0.04 in
Pitch	F 36.37 $\pm$ 0.2 mm / 1.432 $\pm$ 0.01 in	36.37 $\pm$ 1 mm / 1.432 $\pm$ 0.04 in	36.37 $\pm$ 1 mm / 1.432 $\pm$ 0.04 in
Antenna to Web Edge	G1 5.0 $\pm$ 1 mm / 0.197 $\pm$ 0.04 in	-	-
Antenna to Die-cut	G2 -	1.5 $\pm$ 1 mm / 0.059 $\pm$ 0.04 in	1.5 $\pm$ 1 mm / 0.059 $\pm$ 0.04 in
Die-cut to Web Edge	H -	3.5 $\pm$ 1 mm / 0.138 $\pm$ 0.04 in	3.5 $\pm$ 1 mm / 0.138 $\pm$ 0.04 in
Antenna Gap	I 6.37 mm / 0.251 in	-	-
Converting Spot	J 4.00 x 4.00 mm / 0.157 x 0.157 in	-	-
Bad Mark	K $\varnothing$ 6.0 mm / 0.236 in	$\varnothing$ 6.0 mm / 0.236 in	$\varnothing$ 6.0 mm / 0.236 in
Interleaves	L Yes	No	No



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## Packing Details

	Dry	Wet	Paper-face
Product Code	2300000011	2300000012	2300000013
Delivery Format	Roll (single row)	Roll (single row)	Roll (single row)
Core Inner Diameter	76 mm / 2.99 in	76 mm / 2.99 in	76 mm / 2.99 in
Roll Outer Diameter	331 mm / 13.03 in	333 mm / 13.11 in	203 mm / 7.99 in
Unwinding Direction	Inlay on outside of roll	Inlay on outside of roll	Inlay on outside of roll
Standard Roll Size	22 000 (-0% +1.5%)	13 000 (-0% +1.5%)	3 000 (-0% +1.5%)
Min. Guar. Yield/Roll	99%	99%	99%
Box Dimensions	39.5 x 39.0 x 17.0 cm / 15.56 x 15.35 x 6.69 in	39.5 x 39.0 x 17.0 cm / 15.56 x 15.35 x 6.69 in	26.0 x 26.0 x 37.0 cm / 10.24 x 10.24 x 14.57 in
Roll/Box	3	3	7
Inlays/Box	66 000	39 000	21 000
Box Gross Weight	9.98 kg / 22.01 lbs	10.68 kg / 23.54 lbs	7.96 kg / 17.56 lbs
Pallet Dimensions	120 x 80 x 139 cm / 47.2 x 31.5 x 54.7 in	120 x 80 x 139 cm / 47.2 x 31.5 x 54.7 in	120 x 80 x 114 cm / 47.2 x 31.5 x 44.9 in
Boxes/Pallet	48	48	36
Inlays/Pallet	3 168 000	1 872 000	756 000
Pallet Gross Weight	504 kg / 1 111 lbs	537 kg / 1 184 lbs	312 kg / 688 lbs



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