

EOS-241 M830

TAGEOS

Datasheet

One Inlay for Almost Everything in Retail

The EOS-241 M830 delivers truly best-in-class performance in a highly versatile, ultra-compact footprint that simplifies tag management for large-scale retail deployments. It is the first 42x16 mm RAIN (UHF) RFID inlay on the market to receive ARC certification for specs R and Y2, enabling fast, reliable, long-range readability on a huge selection of retail apparel and general merchandise items.

The EOS-241 M830 inlay is available in dry, wet, and paper-face formats.

The inlay is based on Impinj's M830 RAIN RFID IC with 128-bit EPC memory. The new IC combines improved read sensitivity (-1.5 dB, compared to M730), AutoTune™ performance, and backscatter efficiency with a size reduction to support Tageos' sustainability approach. As a result, the EOS-241 M830 sets new standards in applications like high-speed inventory

counting, loss prevention with frictionless self-checkout, and embedded tagging with seamless product returns.

Tageos maintains annual ARC Quality Certification for all manufacturing sites worldwide and was among the first companies to receive certification for its manufacturing processes from the Auburn University RFID Lab in 2020. The EOS-241 M830 complies with ARC specifications F, O, Q, R, Y2, W5, W6.

In addition, all Tageos products meet the RoHS and REACH environmental directives.

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.



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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

- Accessories & Jewelry
- Apparel
- Consumer Electronics
- Inventory Visibility
- Supply Chain Mgmt.
- ... and many more.



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responsible forestry
FSC® C166692



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Technical Overview

	Dry	Wet	Paper-face
Product Code	2400000269	2400000270	2400000271
Antenna Size	42 x 16 mm 1.65 x 0.63 in	42 x 16 mm 1.65 x 0.63 in	42 x 16 mm 1.65 x 0.63 in
Finish Size	- -	44 x 18 mm 1.73 x 0.71 in	44 x 18 mm 1.73 x 0.71 in
Web Width	48.00 ± 1 mm 1.890 ± 0.04 in	48.00 ± 1 mm 1.890 ± 0.04 in	48.00 ± 1 mm 1.890 ± 0.04 in
Pitch	22.23 ± 0.2 mm 0.875 ± 0.01 in	22.23 ± 1 mm 0.875 ± 0.04 in	22.23 ± 1 mm 0.875 ± 0.04 in
ARC Approval	F, O, Q, R, Y2, W5, W6	F, O, Q, R, Y2, W5, W6	F, O, Q, R, Y2, W5, W6
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



Contact:

Tageos SAS (HQ) . 1340 rue de Pinville . 34000 Montpellier . France . sales@tageos.com



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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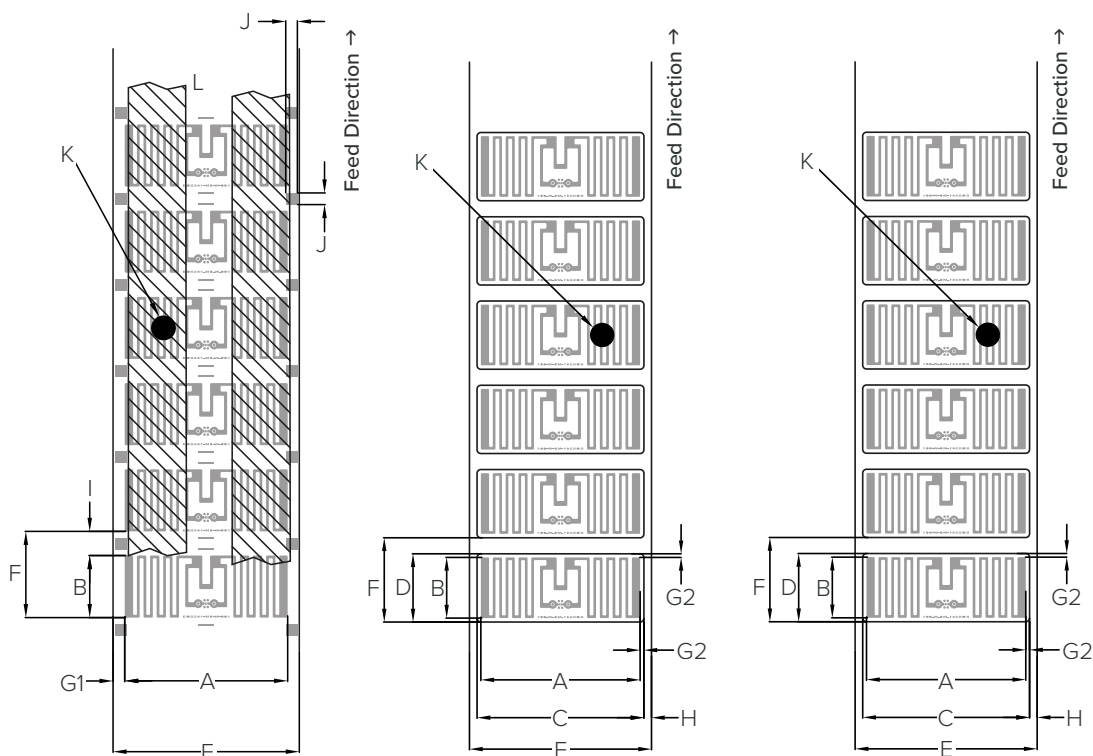


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Product Specifications

Mechanical Dimensions



	Dry	Wet	Paper-face
Product Code	2400000269	2400000270	2400000271
Antenna Size	A x B 42 x 16 mm / 1.65 x 0.63 in	42 x 16 mm / 1.65 x 0.63 in	42 x 16 mm / 1.65 x 0.63 in
Finish Size	C x D - / -	44 x 18 mm / 1.73 x 0.71 in	44 x 18 mm / 1.73 x 0.71 in
Web Width	E 48.00 ± 1 mm / 1.890 ± 0.04 in	48.00 ± 1 mm / 1.890 ± 0.04 in	48.00 ± 1 mm / 1.890 ± 0.04 in
Pitch	F 22.23 ± 0.2 mm / 0.875 ± 0.01 in	22.23 ± 1 mm / 0.875 ± 0.04 in	22.23 ± 1 mm / 0.875 ± 0.04 in
Antenna to Web Edge	G1 3.0 ± 1 mm / 0.118 ± 0.04 in	-	-
Antenna to Die-cut	G2 -	1.0 ± 1 mm / 0.039 ± 0.04 in	1.0 ± 1 mm / 0.039 ± 0.04 in
Die-cut to Web Edge	H -	2.0 ± 1 mm / 0.079 ± 0.04 in	2.0 ± 1 mm / 0.079 ± 0.04 in
Antenna Gap	I 6.23 mm / 0.245 in	-	-
Converting Spot	J 3.00 x 3.00 mm / 0.118 x 0.118 in	-	-
Bad Mark	K Ø 6.0 mm / 0.236 in	Ø 6.0 mm / 0.236 in	Ø 6.0 mm / 0.236 in
Interleaves	L Yes	No	No



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Packing Details

	Dry	Wet	Paper-face
Product Code	2400000269	2400000270	2400000271
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	304 mm / 11.97 in	338 mm / 13.31 in	205 mm / 8.07 in
Unwinding Direction	Inlay on outside of roll	Inlay on outside of roll	Inlay on outside of roll
Standard Roll Size	30 000 (-0% +1.5%)	22 000 (-0% +1.5%)	5 000 (-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	2	2	6
Inlays/Box	60 000	44 000	30 000
Box Gross Weight	7.31 kg / 16.13 lbs	9.49 kg / 20.93 lbs	9.16 kg / 20.2 lbs
Pallet Dimensions	120 x 80 x 151 cm / 47.2 x 31.5 x 59.4 in	120 x 80 x 151 cm / 47.2 x 31.5 x 59.4 in	120 x 80 x 126 cm / 47.2 x 31.5 x 49.6 in
Boxes/Pallet	48	48	36
Inlays/Pallet	2 880 000	2 112 000	1 080 000
Pallet Gross Weight	376 kg / 829 lbs	481 kg / 1 061 lbs	355 kg / 783 lbs

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