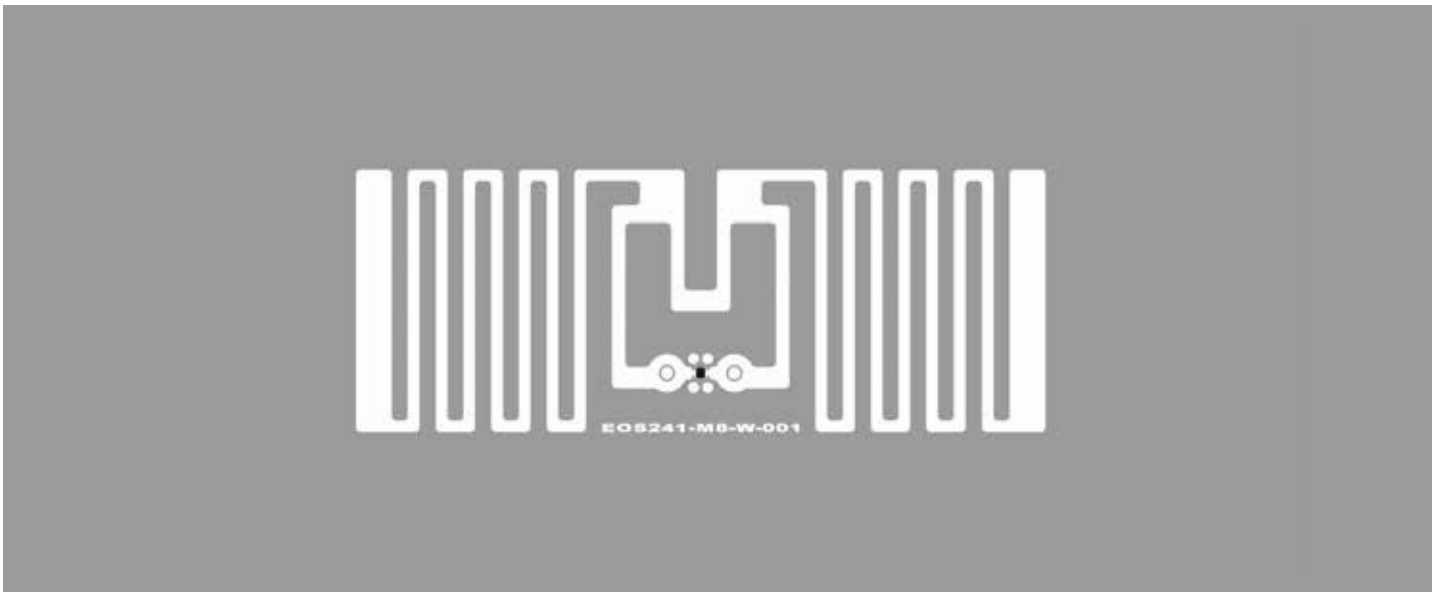
# EOS-241 M830

One inlay for almost everything in retail




The EOS-241 M830 delivers category-leading performance in an ultra-compact, highly versatile format that simplifies tag management in large-scale retail deployments. It is the first 42 x 16 mm RAIN RFID (UHF) inlay on the market to receive ARC certification for the R and Y2 specifications, enabling fast, reliable, long-range reading across a wide range of apparel and general merchandise. The EOS-241 M830 inlay is available in dry, wet and paper-face versions.

This inlay is based on the Impinj M830 RAIN RFID IC, with 128 bits of EPC memory. The new chip combines:

- Higher read sensitivity (-1.5 dB vs. the M730)
- AutoTune™ technology
- Better backscatter efficiency
- Smaller size, aligned with a sustainability focus.

**GL Retail & Investments LLC**
20801 Biscayne Blvd, Suite 403, Aventura, FL 33180, USA
**david@glretail.us**
**glretail.us**

As a result, the EOS-241 M830 sets new standards in applications such as:

- High-speed inventory counting
- Loss prevention with frictionless self-checkout
- Embedded labeling with simpler product returns

## Certifications:

The EOS-241 M830 meets ARC specifications F, O, Q, R, Y2, W5, W6. In addition, all products comply with the RoHS and REACH environmental directives, ISO 9001:2025 – Quality Management and ISO 14001:2015 – Environmental Management. It uses sustainable manufacturing processes and materials, such as FSC®-certified paper, whenever possible.

### Summary

IC: Impinj M830

EPC/User Memory: 128 bits / - bits

TID Memory: 96 bits, incl. 48-bit unique S/N

Frequency Band: 860 - 960 MHz

Protocol: EPC Class 1 Gen 2 / ISO 18000-63

### Application Areas

- Accessories and jewelry
- Apparel
- Consumer electronics
- Inventory visibility
- Supply chain management

**GL Retail & Investments LLC**
20801 Biscayne Blvd, Suite 403, Aventura, FL 33180, USA
**david@glretail.us**
**glretail.us**

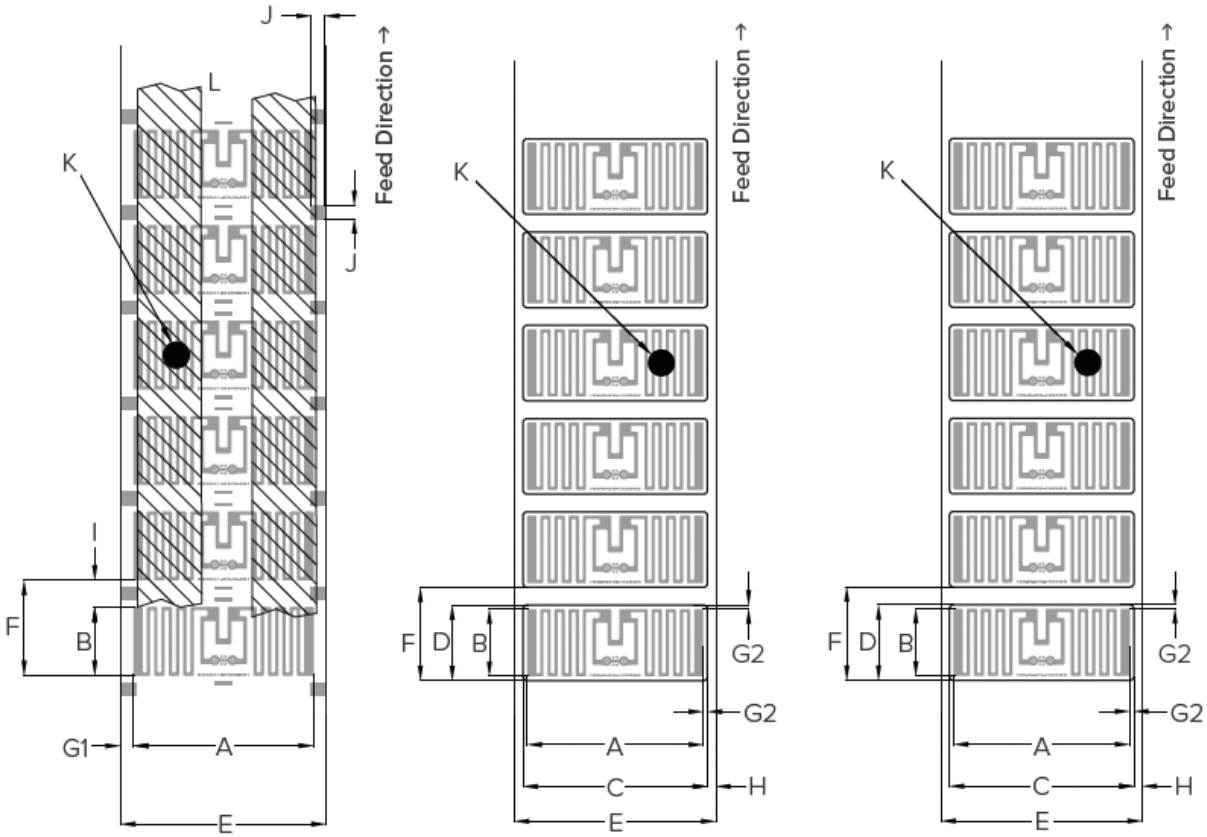
## Technical Specifications

| | Dry | Wet | Paper-face |
|---|---|---|---|
| Product Code | 2400000269 | 2400000270 | 2400000271 |
| Antenna Size | 42 x 16 mm | 42 x 16 mm | 42 x 16 mm |
| | 1.65 x 0.63 in | 1.65 x 0.63 in | 1.65 x 0.63 in |
| Finish Size | - | 44 x 18 mm | 44 x 18 mm |
| | - | 1.73 x 0.71 in | 1.73 x 0.71 in |
| Web Width | 48.00 ± 1 mm | 48.00 ± 1 mm | 48.00 ± 1 mm |
| | 1.890 ± 0.04 in | 1.890 ± 0.04 in | 1.890 ± 0.04 in |
| Pitch | 22.23 ± 0.2 mm | 22.23 ± 1 mm | 22.23 ± 1 mm |
| | 0.875 ± 0.01 in | 0.875 ± 0.04 in | 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 | -40°C / +85°C \| -40°F / +185°F | -40°C / +85°C \| -40°F / +185°F |
| | @20% to 90% RH | @20% to 90% RH | @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 |




**GL Retail & Investments LLC**
20801 Biscayne Blvd, Suite 403, Aventura, FL 33180, USA
**david@glretail.us**
**glretail.us**

## Product Specifications




| | | 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 |

**GL Retail & Investments LLC**
20801 Biscayne Blvd, Suite 403, Aventura, FL 33180, USA
**david@glretail.us**
**glretail.us**

## 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 |

**GL Retail & Investments LLC**
20801 Biscayne Blvd, Suite 403, Aventura, FL 33180, USA
**david@glretail.us**
**glretail.us**