



EOS-500 M830

TAGEOS

Datasheet

Reliable Solution for Use on Several Dielectric Materials



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EOS-500 M830 provides robust performance on materials with varying dielectric loads. Featuring superior read-ranges globally, the inlay is a solution of choice for inventory visibility and other applications in industrial manufacturing, logistics, and supply chain management.

EOS-500 is based on Impinj's M830 RAIN RFID IC with 128-bit EPC memory. The 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 IC sets standards in solutions like high-speed inventory counting, loss prevention with frictionless self-checkout, and embedded tagging with seamless product returns.

EOS-500 M830 is available in dry, wet, and paperface delivery formats.

Tageos was one of the first companies to qualify for ARC Quality Certification for its manufacturing operations from Auburn University RFID Lab.

Like all Tageos' RFID inlays and tags, EOS-500 M830 complies with ISO 9001:2015 Quality Management System and ISO 14001:2015 Environmental Management System as well as Environmental Directives RoHS and REACH, utilizing sustainable manufacturing processes and materials, such as FSC®-certified paper whenever possible.

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

- Automotive
- Inventory Visibility
- Item Level Tagging
- Logistics
- Supply Chain Management



The mark of responsible forestry
FSC® C166692



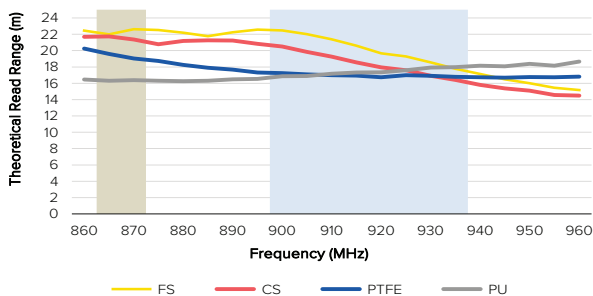
EOS-500 M830

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Technical Overview

| | Dry | Wet | Paper-face |
|-----------------------|--|--|--|
| Product Code | 5000000100 | 5000000101 | 5000000102 |
| Antenna Size | 94 x 24 mm 3.70 x 0.94 in | 94 x 24 mm 3.70 x 0.94 in | 94 x 24 mm 3.70 x 0.94 in |
| Finish Size | - | 97 x 27 mm 3.82 x 1.06 in | 97 x 27 mm 3.82 x 1.06 in |
| Web Width | 105.00 ± 1 mm 4.134 ± 0.04 in | 105.00 ± 1 mm 4.134 ± 0.04 in | 105.00 ± 1 mm 4.134 ± 0.04 in |
| Pitch | 30.04 ± 0.2 mm 1.183 ± 0.01 in | 30.04 ± 1 mm 1.183 ± 0.04 in | 30.04 ± 1 mm 1.183 ± 0.04 in |
| ARC Approval | - | - | - |
| 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 |

Read Range



Contact:

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



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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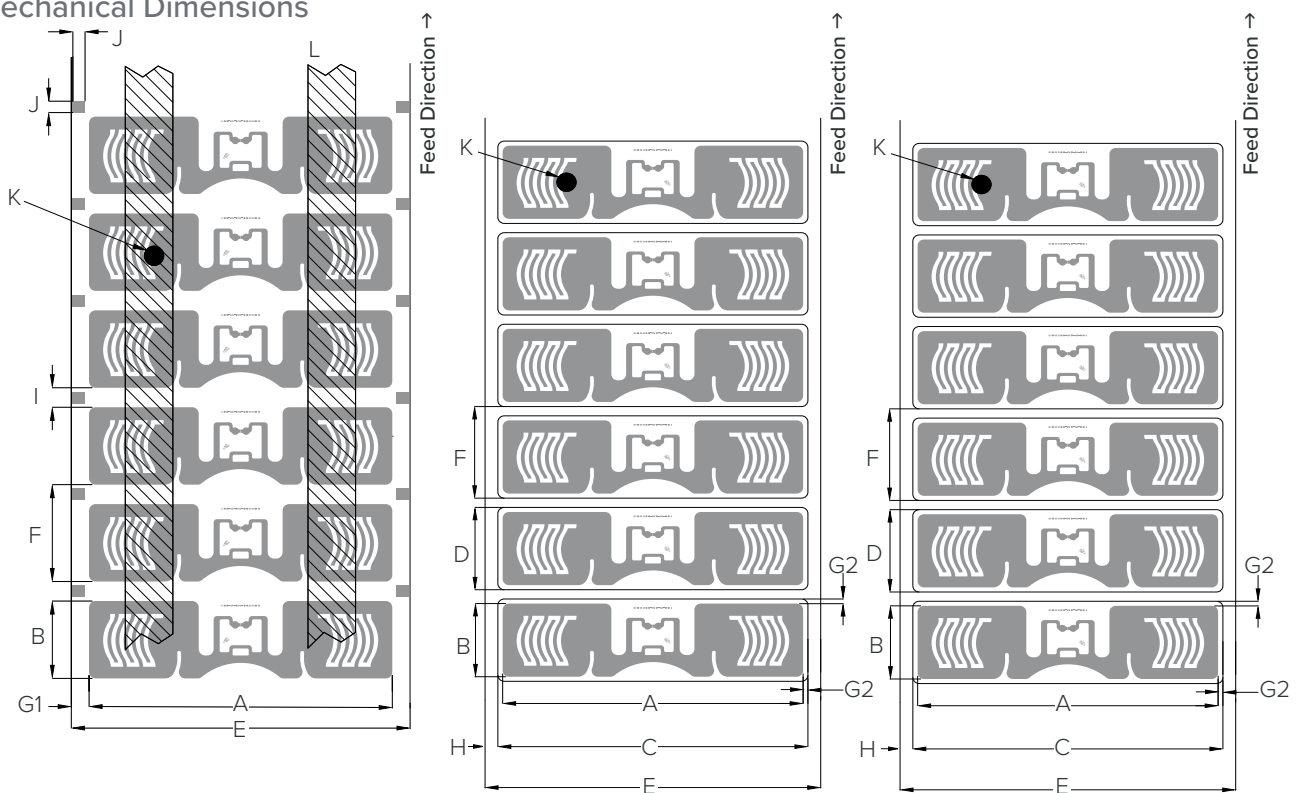


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Product Specifications

Mechanical Dimensions



| | Dry | Wet | Paper-face |
|---------------------|-------------------------------------|---------------------------------|---------------------------------|
| Product Code | 5000000100 | 5000000101 | 5000000102 |
| Antenna Size | A x B 94 x 24 mm / 3.70 x 0.94 in | 94 x 24 mm / 3.70 x 0.94 in | 94 x 24 mm / 3.70 x 0.94 in |
| Finish Size | C x D - / - | 97 x 27 mm / 3.82 x 1.06 in | 97 x 27 mm / 3.82 x 1.06 in |
| Web Width | E 105.00 ± 1 mm / 4.134 ± 0.04 in | 105.00 ± 1 mm / 4.134 ± 0.04 in | 105.00 ± 1 mm / 4.134 ± 0.04 in |
| Pitch | F 30.04 ± 0.2 mm / 1.183 ± 0.01 in | 30.04 ± 1 mm / 1.183 ± 0.04 in | 30.04 ± 1 mm / 1.183 ± 0.04 in |
| Antenna to Web Edge | G1 5.5 ± 1 mm / 2.165 ± 0.04 in | - | - |
| Antenna to Die-cut | G2 - | 1.5 ± 1 mm / 0.591 ± 0.04 in | 1.5 ± 1 mm / 0.591 ± 0.04 in |
| Die-cut to Web Edge | H - | 4.0 ± 1 mm / 1.575 ± 0.04 in | 4.0 ± 1 mm / 1.575 ± 0.04 in |
| Antenna Gap | I 6.04 mm / 2.378 in | - | - |
| Converting Spot | J 3.75 x 3.54 mm / 1.476 x 1.394 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 | 5000000100 | 5000000101 | 5000000102 |
| 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 | 338 mm / 13.31 in | 326 mm / 12.83 in | 200 mm / 7.87 in |
| Unwinding Direction | Inlay on outside of roll | Inlay on outside of roll | Inlay on outside of roll |
| Standard Roll Size | 28 000 | 15 000 | 3 500 |
| Min. Guar. Yield/Roll | 98.5% | 98.5% | 98.5% |
| 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 | 1 | 1 | 3 |
| Inlays/Box | 28 000 | 15 000 | 10 500 |
| Box Gross Weight | 10.56 kg / 23.28 lbs | 10.09 kg / 22.25 lbs | 9.93 kg / 21.9 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 | 1 344 000 | 720 000 | 378 000 |
| Pallet Gross Weight | 532 kg / 1 173 lbs | 509 kg / 1 122 lbs | 382 kg / 842 lbs |

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