



EOS-402 U9

T A G E O S

## Datasheet

### Optimum Performance and Sustainability for Retail Applications

The EOS-402 U9 inlay combines optimized antenna size with best-in-class global performance in a wide array of retail and supply chain management applications, including those involving boxed merchandise in distribution centers.

EOS-402 U9 uses NXP's UCODE 9 IC which is well suited for inventory management applications and enables long read distance and fast inventory of dense RFID tag populations. The chip also features 96-bit EPC; kill password; EPC and kill password permalock; self-adjusting impedance; and memory integrity safeguards.

It complies with global frequency standards and is available in dry, wet, and paper-face delivery formats.



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

EOS-402 U9 complies with numerous retail-relevant ARC specification such as F, G, H, I, J, K, L, N, O, Q, R, Y, B1, W1 - W6, emphasizing its applicational versatility.

Like all Tageos' RFID products, EOS-402 U9 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 materials such as FSC® certified paper whenever possible.

#### Overview

|                  |                                  |
|------------------|----------------------------------|
| IC:              | NXP UCODE 9                      |
| EPC/User Memory: | 96 / - bit                       |
| TID Memory:      | 96 bit incl. 48 bit unique S/N   |
| Frequency Band:  | 860 - 960 MHz                    |
| Protocol:        | EPC Class 1 Gen 2 - ISO 18000-6c |

#### Application Areas

- Apparel
- Inventory Visibility
- Item Level Tagging
- Supply Chain Management





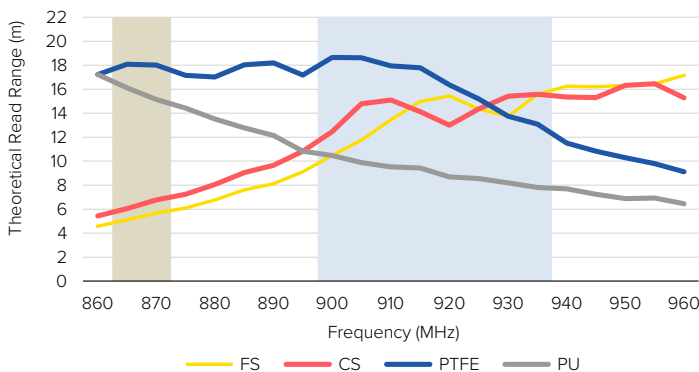
# EOS-402 U9

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## Technical Overview

|                       | Dry   | Wet   | Paper-face  |
|-----------------------|---|---|---|
| Product Code          | 4000000130  | 4000000131  | 4000000132  |
| Antenna Size          | 70 x 14.5 mm<br>2.76 x 0.57 in                                    | 70 x 14.5 mm<br>2.76 x 0.57 in                                    | 70 x 14.5 mm<br>2.76 x 0.57 in                                    |
| Finish Size           | -   | 73 x 17 mm<br>2.87 x 0.67 in                                      | 73 x 17 mm<br>2.87 x 0.67 in                                      |
| Web Width             | 76.0 ± 1 mm<br>2.992 ± 0.04 in                                    | 76.0 ± 1 mm<br>2.992 ± 0.04 in                                    | 76.0 ± 1 mm<br>2.992 ± 0.04 in                                    |
| Pitch                 | 20.00 ± 0.2 mm<br>0.788 ± 0.01 in                                 | 20.00 ± 1 mm<br>0.788 ± 0.04 in                                   | 20.00 ± 1 mm<br>0.788 ± 0.04 in                                   |
| Antenna Material      | Aluminium   | Aluminium   | Aluminium   |
| Front Face            | -   | PET clear   | Paper TT  |
| Inlay Substrate       | PET clear   | PET clear   | PET clear   |
| Inlay Adhesive        | -   | Permanent   | Permanent   |
| Liner                 | -   | Paper   | Paper   |
| Operating Temperature | -40°C / +85°C<br>-40°F / +185°F                                   | -40°C / +85°C<br>-40°F / +185°F                                   | -40°C / +85°C<br>-40°F / +185°F                                   |
| Final Inspection      | 100% tested   | 100% tested   | 100% tested   |
| ARC Approvals         | F, G, H, I, J, K, L, N, O, Q, R, Y,<br>B1, W1, W2, W3, W4, W5, W6 | F, G, H, I, J, K, L, N, O, Q, R, Y,<br>B1, W1, W2, W3, W4, W5, W6 | F, G, H, I, J, K, L, N, O, Q, R, Y,<br>B1, W1, W2, W3, W4, W5, W6 |

Read Range



**Contact:**

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**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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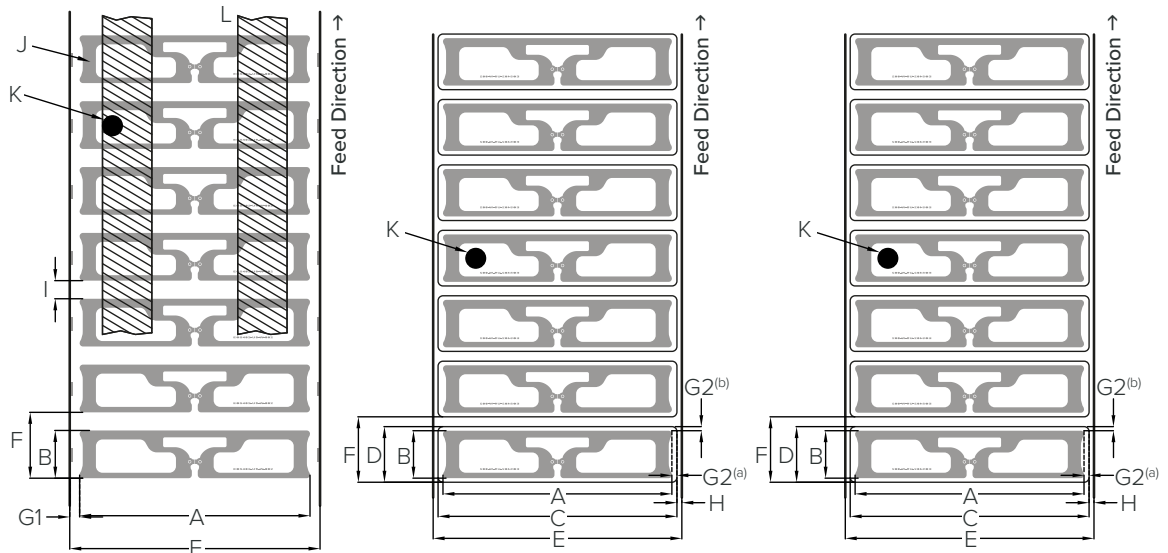


EOS-402 U9

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## Product Specifications

### Mechanical Dimensions



|                     | Dry   | Wet  | Paper-face   |
|---------------------|---|--|--|
| Product Code        | 4000000130  | 4000000131                                   | 4000000132   |
| Antenna Size        | A x B 70 x 14.5 mm / 2.76 x 0.57 in                               | 70 x 14.5 mm / 2.76 x 0.57 in                | 70 x 14.5 mm / 2.76 x 0.57 in  |
| Finish Size         | C x D -   | 73 x 17 mm / 2.87 x 0.67 in                  | 73 x 17 mm / 2.87 x 0.67 in  |
| Web Width           | E 76.0 ± 1 mm / 2.992 ± 0.04 in                                   | 76.0 ± 1 mm / 2.992 ± 0.04 in                | 76.0 ± 1 mm / 2.992 ± 0.04 in  |
| Pitch               | F 20.00 ± 0.2 mm / 0.788 ± 0.01 in                                | 20.00 ± 1 mm / 0.788 ± 0.04 in               | 20.00 ± 1 mm / 0.788 ± 0.04 in   |
| Antenna to Web Edge | G1 3.0 ± 1 mm / 0.118 ± 0.04 in                                   | -  | -  |
| Antenna to Die-cut  | G2 -  | 1.50 ± 1 mm / 0.059 ± 0.04 in <sup>(a)</sup> | 1.50 ± 1 mm / 0.059 ± 0.04 in <sup>(a)</sup><br>1.25 ± 1 mm / 0.049 ± 0.04 in <sup>(b)</sup> |
| Die-cut to Web Edge | H -   | 1.50 ± 1 mm / 0.059 ± 0.04 in                | 1.50 ± 1 mm / 0.059 ± 0.04 in  |
| Antenna Gap         | I 5.50 mm / 0.217 in  | -  | -  |
| Converting Spot     | J 4.00 x 14.50 mm / 0.157 x 0.571 in, antenna section can be used | -  | -  |
| 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          | 4000000130   | 4000000131   | 4000000132  |
| 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   | 289 mm / 11.38 in                                  | 329 mm / 12.95 in                                  | 196 mm / 7.72 in                                    |
| Unwinding Direction   | Inlay on outside of roll                           | Inlay on outside of roll                           | Inlay on outside of roll                            |
| Standard Roll Size    | 30 000   | 23 000   | 5 000   |
| Min. Guar. Yield/Roll | 98.5%  | 98.5%  | 98.5%   |
| Box Dimensions        | 39.5 x 39.0 x 17.0 cm /<br>15.56 x 15.35 x 6.69 in | 39.5 x 39.0 x 17.0 cm /<br>15.56 x 15.35 x 6.69 in | 26.0 x 26.0 x 37.0 cm /<br>10.24 x 10.24 x 14.57 in |
| Roll/Box              | 1  | 1  | 4   |
| Inlays/Box            | 30 000   | 23 000   | 20 000  |
| Box Gross Weight      | 5.11 kg / 11.27 lbs                                | 7.16 kg / 15.79 lbs                                | 8.38 kg / 18.47 lbs                                 |
| Pallet Dimensions     | 120 x 80 x 151 cm /<br>47.2 x 31.5 x 59.4 in       | 120 x 80 x 151 cm /<br>47.2 x 31.5 x 59.4 in       | 120 x 80 x 126 cm /<br>47.2 x 31.5 x 49.6 in        |
| Boxes/Pallet          | 48   | 48   | 36  |
| Inlays/Pallet         | 1 440 000  | 1 104 000  | 720 000   |
| Pallet Gross Weight   | 270 kg / 595 lbs                                   | 369 kg / 814 lbs                                   | 327 kg / 721 lbs                                    |

### Contact:

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