



EOS-460 U9

TAGEOS

Datasheet



TAGEOS

Small Footprint and High Performance for Tire Tagging

The EOS-460 U9 inlay combines a market-leading small footprint with high performance in inventory control applications for tires and other rubberized items.

As of October 2022, the narrow pitch makes the EOS-460 U9 the most optimized, ARC specification T qualified product for cost-effective processing. Reliably performing on rubber surfaces and a wide range of high dielectric materials, EOS-460 U9 is perfectly suitable for both tire trade companies and several manufacturing industries, including automotive and aerospace.

The inlay's UCODE 9 IC is 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.

The EOS-460 U9 inlay offers robust global performance and is available in dry, wet and paper-face formats.

Like all Tageos' RFID products, the inlay is compliant with ISO 9001:2015 Quality Management System and ISO 14001:2015 Environmental Management.

Tageos is one of the first companies to have successfully completed the ARC Quality Certification from Auburn University RFID Lab. All products comply with 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 / - 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

- Inventory Visibility
- Track and Trace
- Parts Management



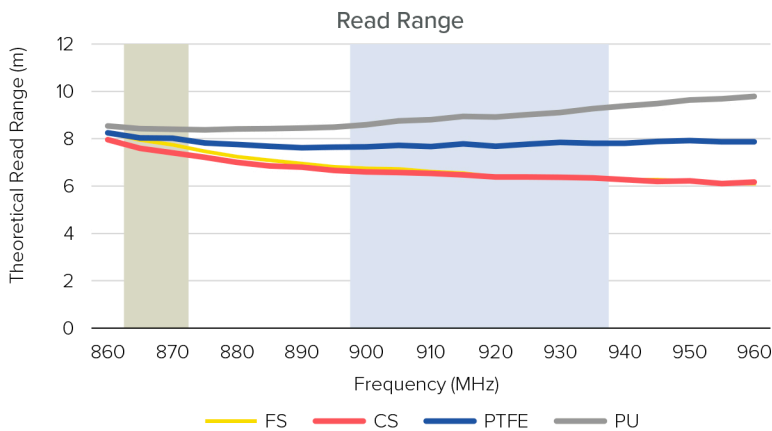


EOS-460 U9

T A G E O S

Technical Overview

| | Dry | Wet | Paper-face |
|-----------------------|----------------------------------|---------------------------------|---------------------------------|
| Product Code | 4600000001 | 4600000002 | 4600000003 |
| Antenna Size | 47 x 75 mm 1.85 x 2.95 in | 47 x 75 mm 1.85 x 2.95 in | 47 x 75 mm 1.85 x 2.95 in |
| Finish Size | - | 50 x 78 mm 1.97 x 3.07 in | 50 x 78 mm 1.97 x 3.07 in |
| Web Width | 53 ± 1 mm 2.09 ± 0.04 in | 53 ± 1 mm 2.09 ± 0.04 in | 53 ± 1 mm 2.09 ± 0.04 in |
| Pitch | 82.55 ± 0.2 mm 3.25 ± 0.01 in | 82.55 ± 1 mm 3.25 ± 0.04 in | 82.55 ± 1 mm 3.25 ± 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 -40°F / +185°F | -40°C / +85°C -40°F / +185°F | -40°C / +85°C -40°F / +185°F |
| Final Inspection | 100% tested | 100% tested | 100% tested |
| ARC Approvals | T | T | T |



RoHS
compliant

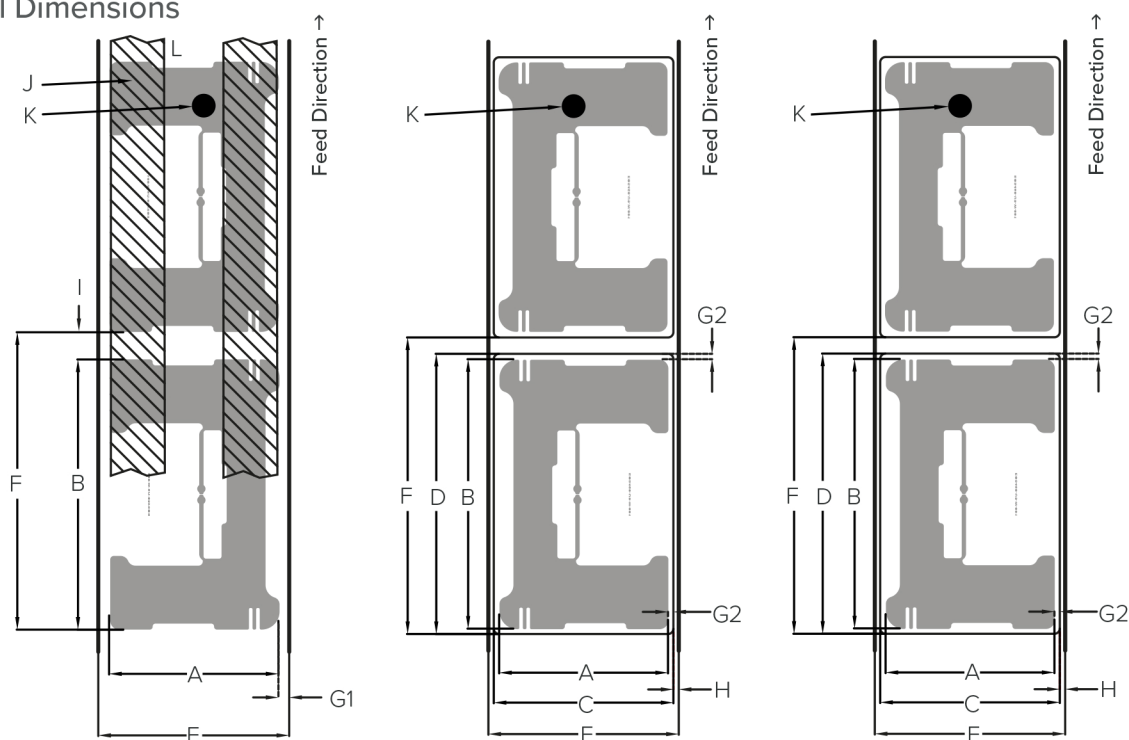


Graphs: All the graphs are indicative; performance in real life applications may vary. The data has been determined based on calculations for transmitters with a normal output power level and respective IC silicon. **Storage & handling precautions:** Observe standard storage and handling practices to 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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Product Specifications

Mechanical Dimensions



| | Dry | Wet | Paper-face |
|---------------------|---|-------------------------------|-------------------------------|
| Product Code | 4600000001 | 4600000002 | 4600000003 |
| Antenna Size | A x B 47 x 75 mm / 1.85 x 2.95 in | 47 x 75 mm / 1.85 x 2.95 in | 47 x 75 mm / 1.85 x 2.95 in |
| Finish Size | C x D - | 50 x 78 mm / 1.97 x 3.07 in | 50 x 78 mm / 1.97 x 3.07 in |
| Web Width | E 53 ± 1 mm / 2.09 ± 0.04 in | 53 ± 1 mm / 2.09 ± 0.04 in | 53 ± 1 mm / 2.09 ± 0.04 in |
| Pitch | F 82.55 ± 0.2 mm / 3.25 ± 0.01 in | 82.55 ± 1 mm / 3.25 ± 0.04 in | 82.55 ± 1 mm / 3.25 ± 0.04 in |
| Antenna to Web Edge | G1 3 ± 1 mm / 0.12 ± 0.04 in | - | - |
| Antenna to Die-cut | G2 - | 1.5 ± 1 mm / 0.06 ± 0.04 in | 1.5 ± 1 mm / 0.06 ± 0.04 in |
| Die-cut to Web Edge | H - | 1.5 ± 1 mm / 0.06 ± 0.04 in | 1.5 ± 1 mm / 0.06 ± 0.04 in |
| Antenna Gap | I 7.55 mm / 0.30 in | - | - |
| Converting Spot | J 19.96 x 4.07 mm / 0.79 x 0.16 in, antenna section can be used | - | - |
| Bad Mark | K Ø 6 mm / 0.24 in | Ø 6 mm / 0.24 in | Ø 6 mm / 0.24 in |
| Interleaves | L Yes | No | No |



EOS-460 U9

T A G E O S

Packing Details

| | Dry | Wet | Paper-face |
|-----------------------|--|--|---|
| Product Code | 4600000001 | 4600000002 | 4600000003 |
| 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 | 319 mm / 12.56 in | 327 mm / 12.87 in | 182 mm / 7.17 in |
| Unwinding Direction | Inlay on outside of roll | Inlay on outside of roll | Inlay on outside of roll |
| Standard Roll Size | 9 000 | 5 500 | 1 000 |
| Min. Guar. Yield/Roll | 98.5% | 98.5% | 98.5% |
| Box Dimensions | 39.5 x 39 x 17 cm / 15.56 x 15.35 x 6.69 in | 39.5 x 39 x 17 cm / 15.56 x 15.35 x 6.69 in | 26 x 26 x 37 cm / 10.24 x 10.24 x 14.57 in |
| Roll/Box | 2 | 2 | 6 |
| Inlays/Box | 18 000 | 11 000 | 6 000 |
| Box Gross Weight | 8.90 kg / 19.62 lbs | 10.10 kg / 22.27 lbs | 7.76 kg / 17.11 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 | 864 000 | 528 000 | 216 000 |
| Pallet Gross Weight | 452 kg / 997 lbs | 510 kg / 1124 lbs | 304 kg / 670 lbs |



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23/AUG/2023