

EOS-500 U9xe

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## Datasheet



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### High Memory Inlay for Use on Dielectric Materials

The EOS-500 U9xe inlay combines robust performance on materials with varying dielectric loads with configurable memory. Featuring superior read-ranges globally, the inlay is a product of choice for a wide range of demanding applications in industrial manufacturing, logistics, and supply chain management.

EOS-500 uses NXP's UCODE 9xe IC. Designed as a drop-in replacement for the high-performance UCODE 9, the new IC offers the same feature set and RF performance as the UCODE 9, but with 128 bits of Electronic Product Code (EPC) memory to support smarter than before IoT use cases.

Available in dry, wet, and paper-face delivery formats, EOS-500 U9xe provides highly stable performance throughout all frequency ranges worldwide.

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 products, EOS-500 U9xe 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.

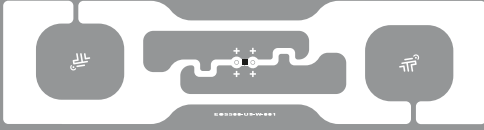
#### Overview

IC:	NXP UCODE 9xe
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



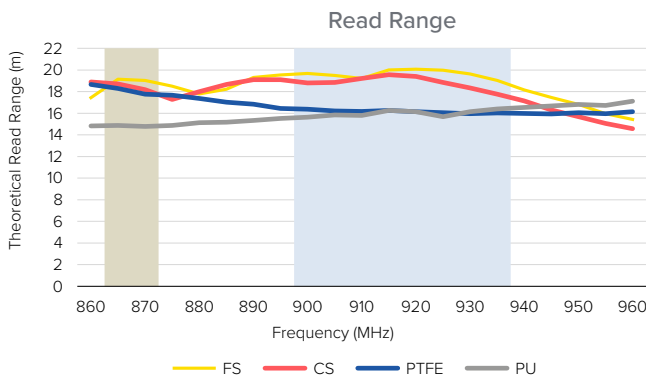


# EOS-500 U9xe

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## Technical Overview

	Dry	Wet	Paper-face
Product Code	5000000092	5000000093	5000000094
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
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	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 Time	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
ARC Approvals	-	-	-



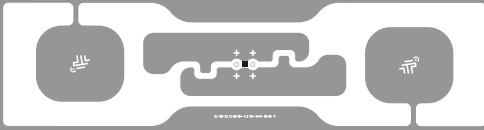
### Contact:

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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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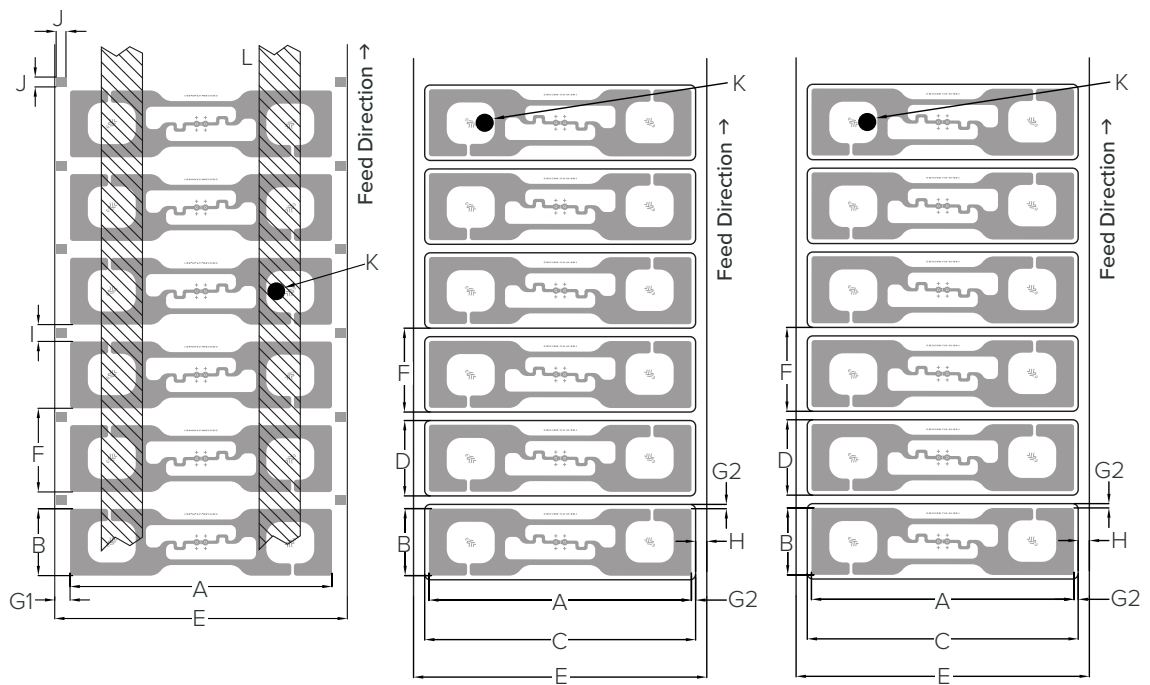


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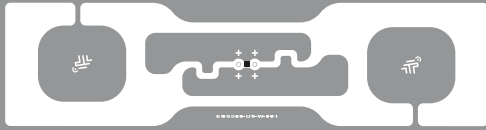
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## Product Specifications

### Mechanical Dimensions



	Dry	Wet	Paper-face
Product Code	5000000092	5000000093	5000000094
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 / 0.217 ± 0.04 in	-	-
Antenna to Die-cut	G2 -	1.5 ± 1 mm / 0.060 ± 0.04 in	1.5 ± 1 mm / 0.060 ± 0.04 in
Die-cut to Web Edge	H -	4.0 ± 1 mm / 0.157 ± 0.04 in	4.0 ± 1 mm / 0.157 ± 0.04 in
Antenna Gap	I 6.04 mm / 0.238 in	-	-
Converting Spot	J 3.75 x 3.54 mm / 0.148 x 0.139 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	5000000092	5000000093	5000000094
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 kg / 22.05 lbs	9.53 kg / 21.02 lbs	9.24 kg / 20.37 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	505 kg / 1 114 lbs	483 kg / 1 065 lbs	357 kg / 787 lbs

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