

EOS-500 U9

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Datasheet



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Reliable Solution for Use on Several Dielectric Materials

The EOS-500 U9 inlay 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 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.

Available in dry, wet, and paper-face delivery formats, EOS-500 U9 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. EOS-500 U9 complies with ARC specification P.

Like all Tageos' RFID products, EOS-500 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 / - 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

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



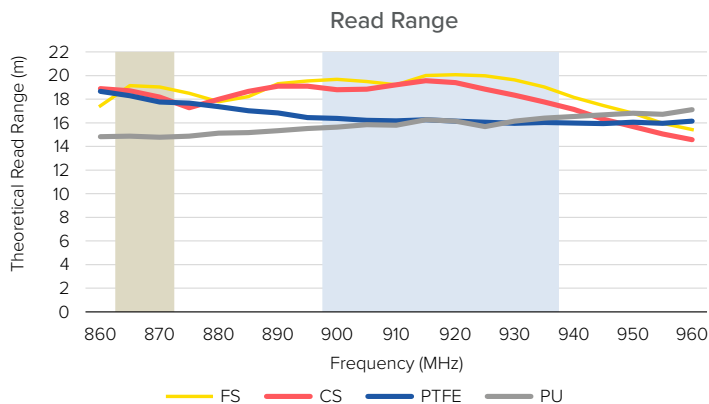


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Technical Overview

	Dry	Wet	Paper-face
Product Code	5000000087	5000000089	5000000090
Antenna Size	24 x 94 mm 0.94 x 3.70 in	24 x 94 mm 0.94 x 3.70 in	24 x 94 mm 0.94 x 3.70 in
Finish Size	-	27 x 97 mm 1.06 x 3.82 in	27 x 97 mm 1.06 x 3.82 in
Web Width	32.0 ± 1 mm 1.260 ± 0.04 in	32.0 ± 1 mm 1.260 ± 0.04 in	32.0 ± 1 mm 1.260 ± 0.04 in
Pitch	100.01 ± 0.2 mm 3.938 ± 0.01 in	100.01 ± 1 mm 3.938 ± 0.04 in	100.01 ± 1 mm 3.938 ± 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	P	P	P



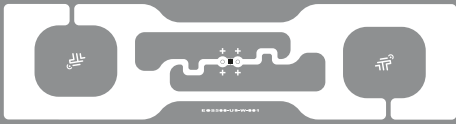
Contact:

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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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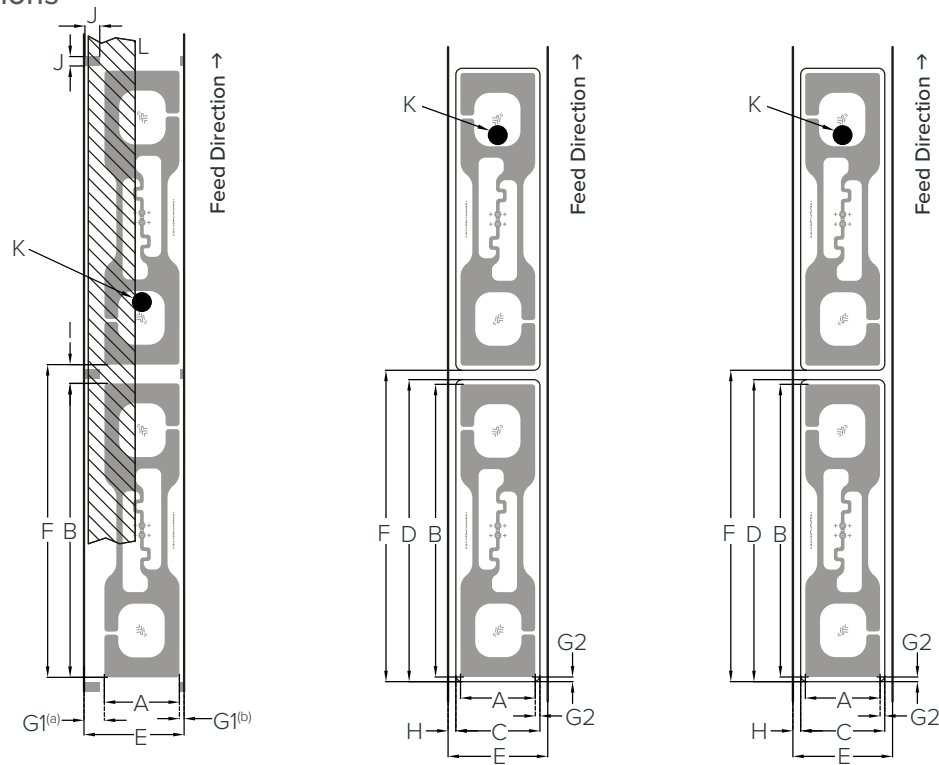


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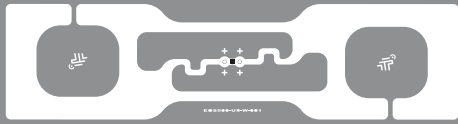
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Product Specifications

Mechanical Dimensions



	Dry	Wet	Paper-face
Product Code	5000000087	5000000089	5000000090
Antenna Size	A x B 24 x 94 mm / 0.94 x 3.70 in	24 x 94 mm / 0.94 x 3.70 in	24 x 94 mm / 0.94 x 3.70 in
Finish Size	C x D -	27 x 97 mm / 1.06 x 3.82 in	27 x 97 mm / 1.06 x 3.82 in
Web Width	E 32.0 ± 1 mm / 1.260 ± 0.04 in	32.0 ± 1 mm / 1.260 ± 0.04 in	32.0 ± 1 mm / 1.260 ± 0.04 in
Pitch	F 100.01 ± 0.2 mm / 3.938 ± 0.01 in	100.01 ± 1 mm / 3.938 ± 0.04 in	100.01 ± 1 mm / 3.938 ± 0.04 in
Antenna to Web Edge G1	6.5 ± 1 mm / 0.256 ± 0.04 in ^(a) 1.5 ± 1 mm / 0.059 ± 0.04 in ^(b)	-	-
Antenna to Die-cut G2	-	1.5 ± 1 mm / 0.059 ± 0.04 in	1.5 ± 1 mm / 0.059 ± 0.04 in
Die-cut to Web Edge H	-	2.5 ± 1 mm / 0.098 ± 0.04 in	2.5 ± 1 mm / 0.098 ± 0.04 in
Antenna Gap I	6.01 mm / 0.237 in	-	-
Converting Spot J	J 4.75 x 3.00 mm / 0.187 x 0.118 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	5000000087	5000000089	5000000090
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	331 mm / 13.03 in	325 mm / 12.80 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	8 000	4 500	1 000
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	3	3	9
Inlays/Box	24 000	13 500	9 000
Box Gross Weight	9.81 kg / 21.63 lbs	8.67 kg / 19.11 lbs	8.06 kg / 17.77 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	1 152 000	648 000	324 000
Pallet Gross Weight	496 kg / 1093 lbs	441 kg / 972 lbs	315 kg / 695 lbs

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