



EOS-431 U9

T A G E O S

Datasheet

Highly Versatile Inlay for Global Retail Applications

The EOS-431 U9 is designed for maximum versatility in large-scale retail RFID deployments. The 70x10 antenna design can be used across virtually all ARC retail merchandise categories to simplify tag management. It is globally compliant and provides fast, reliable inventory of dense RFID tag populations, including on the sales floor, in the stock room, and throughout the supply chain.

EOS-431 U9 is available in dry, wet, and paper-face delivery formats.

EOS-431 U9 uses NXP's UCODE 9 IC, which 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.



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Tageos maintains annual ARC Quality Certification for all its manufacturing sites worldwide and was among the first companies to receive certification from the Auburn University RFID Lab in 2020. EOS-431 U9 complies with ARC specifications F, H, I, L, O, Q, R, Y2, C2, W5, and W6.

Tageos complies with ISO 9001:2025 Quality Management and ISO 14001:2015 Environmental Management as well as utilizing sustainable manufacturing processes and materials, such as FSC®-certified paper, whenever possible. In addition, all Tageos products meet the RoHS and REACH environmental directives.

Overview

IC:	NXP UCODE 9
EPC/User Memory:	96 bit / - bit
TID Memory:	100 bit incl. 48 bit unique S/N
Frequency Band:	860 - 960 MHz
Protocol:	EPC Class 1 Gen 2 - ISO 18000-63

Application Areas

- Apparel
- Beauty & Cosmetics
- Consumer Electronics
- Inventory Visibility
- Item Level Tagging
- ... and many more.



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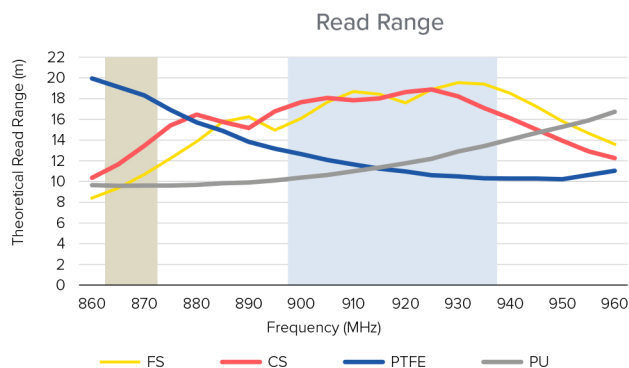


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Technical Overview

	Dry	Wet	Paper-face
Product Code	4300000106	4300000107	4300000108
Antenna Size	70 x 10 mm 2.76 x 0.39 in	70 x 10 mm 2.76 x 0.39 in	70 x 10 mm 2.76 x 0.39 in
Finish Size	- -	73 x 14 mm 2.87 x 0.55 in	73 x 17 mm 2.87 x 0.67 in
Web Width	80.00 ± 1 mm 3.150 ± 0.04 in	80.00 ± 1 mm 3.150 ± 0.04 in	80.00 ± 1 mm 3.150 ± 0.04 in
Pitch	20.00 ± 0.2 mm 0.787 ± 0.01 in	20.00 ± 1 mm 0.787 ± 0.04 in	20.00 ± 1 mm 0.787 ± 0.04 in
ARC Approval	F, H, I, L, O, Q, R, Y2, C2, W5, W6	F, H, I, L, O, Q, R, Y2, C2, W5, W6	F, H, I, L, O, Q, R, Y2, C2, W5, W6
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



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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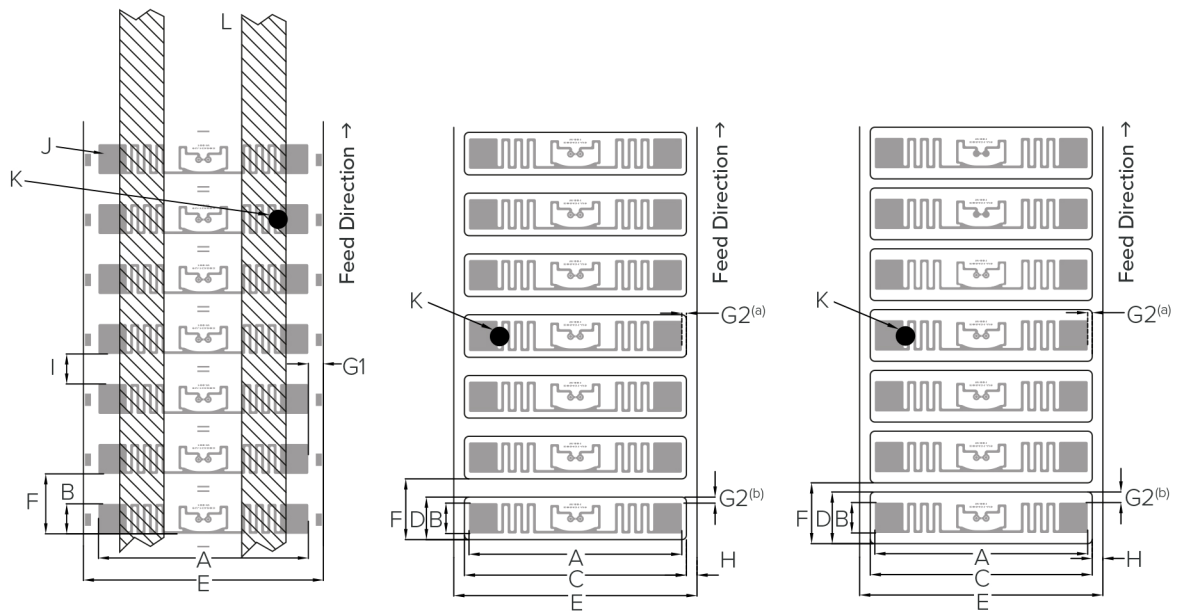


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Product Specifications

Mechanical Dimensions



	Dry	Wet	Paper-face
Product Code	4300000106	4300000107	4300000108
Antenna Size	A x B 70 x 10 mm / 2.76 x 0.39 in	70 x 10 mm / 2.76 x 0.39 in	70 x 10 mm / 2.76 x 0.39 in
Finish Size	C x D - / -	73 x 14 mm / 2.87 x 0.55 in	73 x 17 mm / 2.87 x 0.67 in
Web Width	E 80.00 ± 1 mm / 3.150 ± 0.04 in	80.00 ± 1 mm / 3.150 ± 0.04 in	80.00 ± 1 mm / 3.150 ± 0.04 in
Pitch	F 20.00 ± 0.2 mm / 0.787 ± 0.01 in	20.00 ± 1 mm / 0.787 ± 0.04 in	20.00 ± 1 mm / 0.787 ± 0.04 in
Antenna to Web Edge	G1 5.0 ± 1 mm / 0.197 ± 0.04 in	-	-
Antenna to Die-cut	G2 -	1.5 ± 1 mm / 0.059 ± 0.04 in ^(a)	1.5 ± 1 mm / 0.059 ± 0.04 in ^(a)
	-	2.0 ± 1 mm / 0.079 ± 0.04 in ^(b)	3.5 ± 1 mm / 0.138 ± 0.04 in ^(b)
Die-cut to Web Edge	H -	3.5 ± 1 mm / 0.138 ± 0.04 in	3.5 ± 1 mm / 0.138 ± 0.04 in
Antenna Gap	I 10.00 mm / 0.394 in	-	-
Converting Spot	J 9.42 x 10.00 mm / 0.371 x 0.394 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	4300000106	4300000107	4300000108
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	335 mm / 13.19 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	40 000 (-0% +1.5%)	24 000 (-0% +1.5%)	5 000 (-0% +1.5%)
Min. Guar. Yield/Roll	99%	99%	99%
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	4
Inlays/Box	40 000	24 000	20 000
Box Gross Weight	6.85 kg / 15.1 lbs	6.83 kg / 15.05 lbs	8.56 kg / 18.87 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	1 920 000	1 152 000	720 000
Pallet Gross Weight	354 kg / 781 lbs	353 kg / 778 lbs	333 kg / 734 lbs



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