

EOS-202 U9xe

TAGEOS

Datasheet



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Compact and High-Performing 128 bits Option for Medical Items

EOS-202 U9xe RAIN RFID inlay from Tageos adds extended EPC memory to a unique combination of an ultra-compact antenna footprint of just 20x10mm with strong performance on all types of ARC Category S specified items in healthcare and pharmaceutical applications.

With its outstanding read sensitivity and reliability, even in dense RFID tag populations, the EOS-202 U9xe inlay is suitable for use on a wide range of unit-dose medication items, including glass syringes, clear and amber liquid glass vials, clear glass powder vials, plastic/COC syringes, and blow-fill-seal vials. The additional memory makes the performance advantage even more valuable in hospital, pharmacy, and inventory management workflows.

The EOS-202 U9xe RAIN RFID inlay features a sophisticated extra-small antenna design that

leverages the capabilities of NXP's latest UCODE 9xe IC. Designed as a drop-in replacement for UCODE 9, the new IC offers the same features and high RF performance as its predecessor, but with 128-bit Electronic Product Code (EPC) memory to support even smarter IoT use cases.

EOS-202 U9xe inlay is available in dry, wet, and paper-face formats.

Like all Tageos' RFID products, the EOS-202 U9xe inlay 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.

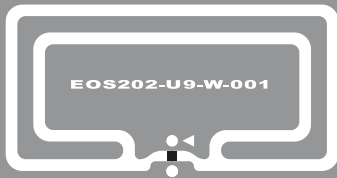
Overview

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

- Pharma & Healthcare
- Beauty & Cosmetics
- Consumer Electronics



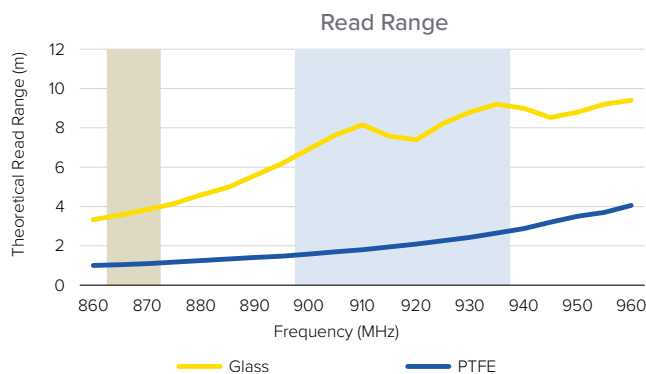


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Technical Overview

	Dry	Wet	Paper-face
Product Code	2000000139	2000000140	2000000141
Antenna Size	20 x 10 mm 0.79 x 0.39 in	20 x 10 mm 0.79 x 0.39 in	20 x 10 mm 0.79 x 0.39 in
Finish Size	-	22 x 12 mm 0.87 x 0.47 in	22 x 12 mm 0.87 x 0.47 in
Web Width	32.00 ± 1 mm 1.260 ± 0.04 in	32.00 ± 1 mm 1.260 ± 0.04 in	32.00 ± 1 mm 1.260 ± 0.04 in
Pitch	19.05 ± 0.2 mm 0.750 ± 0.01 in	19.05 ± 1 mm 0.750 ± 0.04 in	19.05 ± 1 mm 0.750 ± 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
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	S	S	S



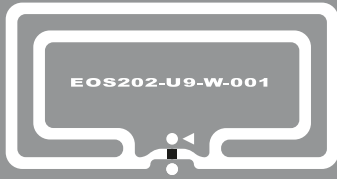
Contact:

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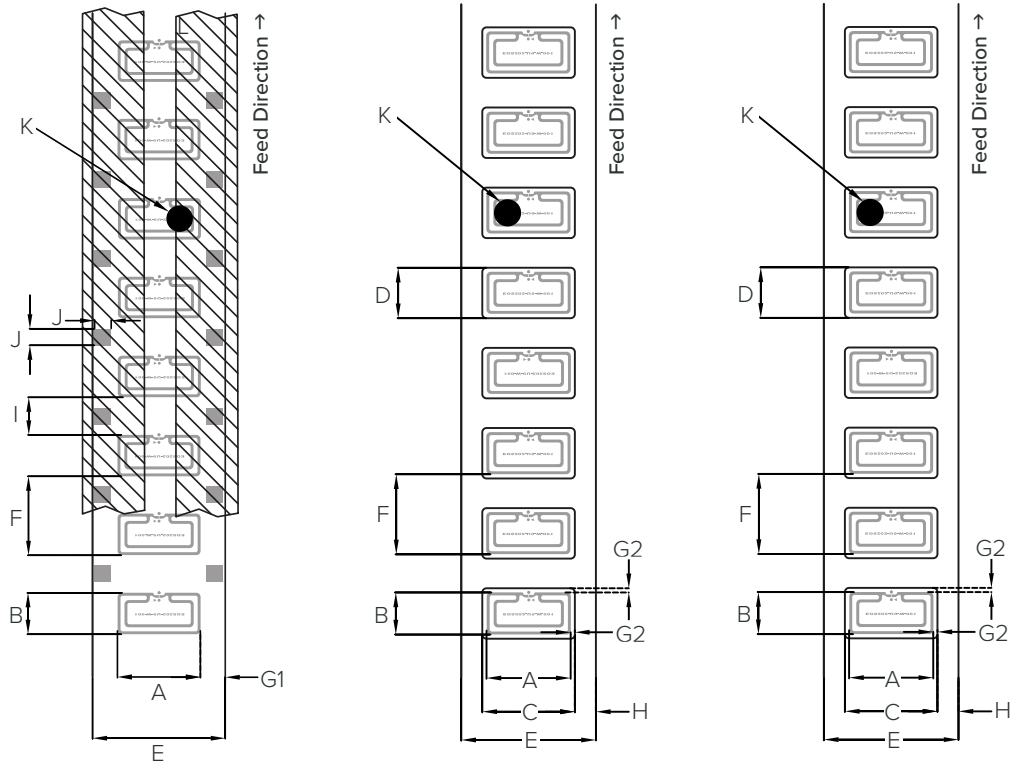
Graphs: All the graphs are indicative; performance in real life applications may vary. The data has been determined based on calculations for transmitters with a normal output power level and respective IC silicon. **Storage & handling precautions:** Observe standard storage and handling practices to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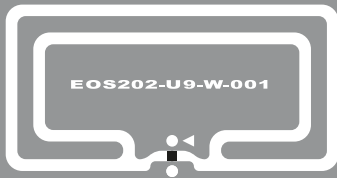


Product Specifications

Mechanical Dimensions



	Dry	Wet	Paper-face
Product Code	200000139	200000140	200000141
Antenna Size	A x B 20 x 10 mm / 0.79 x 0.39 in	20 x 10 mm / 0.79 x 0.39 in	20 x 10 mm / 0.79 x 0.39 in
Finish Size	C x D - / -	22 x 12 mm / 0.87 x 0.47 in	22 x 12 mm / 0.87 x 0.47 in
Web Width	E 32.00 ± 1 mm / 1.260 ± 0.04 in	32.00 ± 1 mm / 1.260 ± 0.04 in	32.00 ± 1 mm / 1.260 ± 0.04 in
Pitch	F 19.05 ± 0.2 mm / 0.750 ± 0.01 in	19.05 ± 1 mm / 0.750 ± 0.04 in	19.05 ± 1 mm / 0.750 ± 0.04 in
Antenna to Web Edge	G1 6.0 ± 1 mm / 0.236 ± 0.04 in	-	-
Antenna to Die-cut	G2 -	1.0 ± 1 mm / 0.039 ± 0.04 in	1.0 ± 1 mm / 0.039 ± 0.04 in
Die-cut to Web Edge	H -	5.0 ± 1 mm / 0.197 ± 0.04 in	5.0 ± 1 mm / 0.197 ± 0.04 in
Antenna Gap	I 9.05 mm / 0.356 in	-	-
Converting Spot	J 4.00 x 4.00 mm / 0.157 x 0.157 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	2000000139	2000000140	2000000141
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	283 mm / 11.14 in	334 mm / 13.15 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	30 000	25 000	5 500
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	3	3	9
Inlays/Box	90 000	75 000	49 500
Box Gross Weight	7.2 kg / 15.88 lbs	7.08 kg / 15.61 lbs	5.77 kg / 12.73 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	4 320 000	3 600 000	1 782 000
Pallet Gross Weight	371 kg / 818 lbs	365 kg / 805 lbs	233 kg / 514 lbs

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