



High security RFID aluminium license plate with an outstanding performance

Overview

Operating frequency	860–960 MHz (global UHF band)
Integrated circuit (IC)	NXP UCODE DNA, passive (battery-free)
Supported protocols	GS1 EPC Gen2v2 respectively ISO/IEC 18000-63

Memory capacity

	TID	96-bit (incl. 48-bit unique serial number)	
	EPC	224-bit (alternative configuration upon request)*	
	User	3072-bit	
Typical read range**	EU (866 MHz)	18 m	520 x 110 mm plate size
	US (915 MHz)	16 m	300 x 150 mm plate size
RFID-based security features	32-bit kill password and 32-bit access password		
	Various “memory lock” options		
	Cryptographic tag authentication via 128-bit AES key according to ISO/IEC 29167-10 for proof of origin		
	Privacy protection via untraceable command and 128-bit AES key		

Mechanical specification

In consultation with our customer, we generate country-specific solutions that are individually tailored to the requirements of the local registration and logistical processes.

Application	The use of plastic license plate holders is recommended. The IDePLATE® can be perfectly complemented by our third license plates IDeSTIX® to achieve an even greater level of security. As shown in the picture, the polarization of the IDePLATE® is usually linear vertical. A different polarization is optional per agreement.
License plate design	Depends on the statutory provisions of the state
Standards conformity	ISO 7591 and DIN 74069
Operating temperature***	–40 °C up to +85° C
Write cycle endurance	Minimum 100.000
Data retention****	20 years

* 448-bit EPC/2.048 bit user memory

** Read ranges are laboratory values and therefore are indicative only. These values are calculated on basis of measurements in a non-reflective environment. Read ranges may vary depending on used frequency, radiated power, reader sensitivity, antenna polarization and gain, directivity of the antennas as well as environmental conditions.

*** Ambient temperature may have an influence on the maximum read range

**** If the ambient temperature is ≤ 55 °C

Supported services

Mechanical security level	<p>The RFID is an integral part of the aluminium license plate and cannot not be removed or tampered without visible damage or without compromising its intended functionality</p> <p>Special license plate holders or one-way screws to prevent plate theft</p> <p>The IDePLATE® can be offered as a Tamper Proof Plate (TPP) which leaves a visible destruction of a seal at the attempt of plate theft</p> <p>Embossed border and alphanumeric of the aluminium license plate coloured using opaque hot stamping foil</p> <p>Can be combined with several security features, e.g.</p> <ul style="list-style-type: none"> ▪ Incorporated graphics ▪ Unique laser engraved serialisation (alphanumeric text and 1D/2D barcode) ▪ Laser engraved watermarks visible at a certain angles only ▪ Tamper-resistant FE-script ▪ High security holograms ▪ Serialised holographic validation sticker ▪ Hot stamping foil with country-specific, diffractive inscription, e.g. iridescent colours ▪ ...
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Programming

Pre-programming of the ICs is optional per agreement

