IDeSTIX®

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		NXP UCODE 7	NXP UCODE DNA
	TID	96-bit (incl. 48-bit unique serial number)	96-bit (incl. 48-bit unique serial number)
	EPC	128-bit	224-bit (alternative configuration upon request)*
	User	–	3072-bit
Typical read range**	EU (866 MHz)	9 m	8 m
	US (915 MHz)	8 m	7 m
RFID-based security features		32-bit kill password and 32-bit access password	32-bit kill password and 32-bit access password
		Various "memory lock" options	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

Application	Self-adhesive IDeSTIX® is applied to the inside of the vehicle windscreen as a third license plate for electronic vehicle identification. IDeSTIX® is the perfect supplement to the IDePLATE®, the RFID-based aluminium license plate.

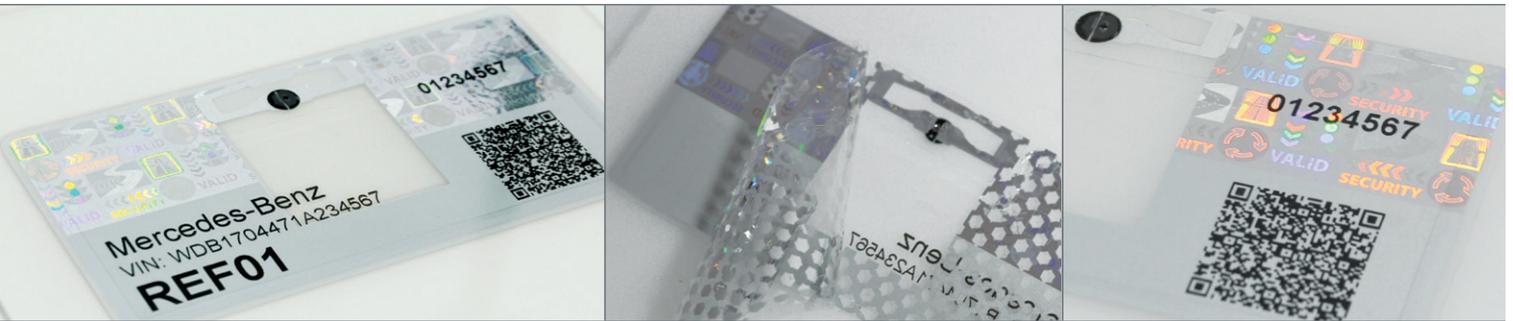| Die-cut size		Basic
	Overall label size	100 x 50 mm
	Printable surface	88 x 38 mm
	RFID inlay	Integral part of the holographic layer
	Operating temperature***	– 40 °C up to + 85° C
	Write cycle endurance	Minimum 100.000
	Data retention****	20 years

*   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. Metallised windscreens (heat insulation) or windscreen heaters may lead to a limited usability.

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

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

TÖNNJES E.A.S.T.

IDeSTIX®

Supported services

Print	Customized colour printing of logos and text per agreement

Mechanical security level	Pressure sensitive adhesive
	Void effect and patterned destruction for tamper evidence
	Protection of printable personalisation inside the label construction
	Full surface metallic label with holographic image
	• Morphing or kinematic animation
	• iridescent rainbow multiplexing
	• Positive/negative effect with high diffractive or achromatic colours
	• Negative demetallised lettering / laser engraving
	• Micro and Nano text
	• …
	Matte white area for inside printable personalisation with thermal transfer printing
	Protection of printable serialisation inside the label construction

Programming	Pre-programming of the ICs is optional per agreement

TÖNNJES E.A.S.T.