



# uTrust TS Cards

Modern, Secure, and Open



uTrust TS Cards are secure credentials for physical access control, based on NXP®'s MIFARE DESFire EV1/EV2 HF 13.56 MHz technology.

Hirsch's uTrust TS Cards are modern, secure credentials for physical access control, based on NXP®'s MIFARE DESFire high-frequency (HF) 13.56 MHz technology, and are compatible with 125 kHz LF proximity card systems. Standards-based card technology (MIFARE DESFire EV1 or EV2), combined with a published encoding profile, enables easy integration into third-party products (e.g., other OEM reader products, printers, etc.).

uTrust TS Cards may be used with the uTrust TS Universal Enroller, an integrated enrollment reader that simplifies the daily process of enrolling new cards. uTrust TS Cards come with a limited

lifetime warranty against material defects and workmanship.

When used with Hirsch's uTrust TS Readers, uTrust TS Cards provide an easy, cost-effective path to mitigating emerging security and compliance challenges, while maintaining compatibility with existing physical access control systems (PACS).

In contrast to other HF access cards that increase costs and fail to reduce the complexity of ordering and usage, uTrust TS Cards are priced to be less expensive than all alternatives, even typical low-frequency (LF) 125 kHz proximity cards from leading vendors.

## Compelling Pricing

- Priced significantly below equivalent competitive HF and LF offerings
- Even the most sophisticated uTrust TS Card is less expensive than a standard proximity card from a 3rd party supplier

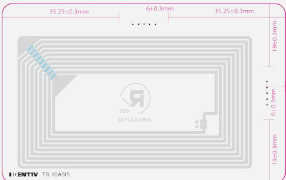
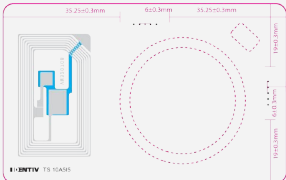
## High Security

- Based on industry-standard MIFARE DESFire EV1/EV2 technology (evaluated to Common Criteria EAL4+ or higher), provides a high level of security assurance

## Simplified Migration

- Can be programmed with a variety of different card data formats to match existing infrastructure, including 26, 35, 37, and 48 bit, with others available on request
- Migration cards incorporate 125 kHz proximity technology (ensuring compatibility with existing readers), are available with different card number programming between the HF and LF interface, and can support 26-bit encoding on the LF interface

## Specifications

Model	<ul style="list-style-type: none"> <li>• uTrust TS Standard 256B ISO Card</li> <li>• uTrust TS Standard 2K/4K/8K ISO Card</li> </ul>	<ul style="list-style-type: none"> <li>• uTrust TS Migration 256B Plus Prox ISO Card</li> <li>• uTrust TS Migration 2K/4K/8K Plus Prox ISO Card</li> </ul>
<b>Supported Application</b>	Physical Access Control	
<b>RFID Interface</b>	13.56 MHz only (HF, ISO/IEC 14443A)	13.56 MHz (HF, ISO/IEC 14443A) and 125 KHz (LF)
<b>Chip Technology</b>	NXP MIFARE DESFire EV1 256B or EV2 2K/4K or 8K Bytes	NXP MIFARE DESFire EV1 256B or EV2 2K/4K or 8K Bytes and Atmel T5577
<b>Cryptographic Algorithms</b>	AES-128 with key diversification and CMAC protection for card commands	
<b>Cryptographic Key Management</b>	Hirsch Key Set (NextUp Secure) or customer-specified keys (NextUp VIP)*	
<b>Card Format Encoding</b>	Managed formats to ensure that uniqueness of numbers guaranteed. See uTrust TS Card Ordering Guide for details.	
<b>Security Certification</b>	Common Criteria EAL4+ for DESFire EV1 and EAL5+ for DESFire EV2	
<b>Credential Form Factor</b>	ISO Card (ID1 format), ISO/IEC 7810	
<b>Dimensions</b>	3.37 x 2.125 x 0.033 in (85.6 x 54 x 0.84 mm)	
<b>Weight</b>	0.212 oz (6 g)	0.15 oz (4.3 g)
<b>Read Range**</b>	Up to 1.5 in (38 mm) using the HF interface	Up to 2.5 in (63.5 mm) using the LF interface
<b>Slot Punch</b>	Vertical or horizontal slot punch marks (punching of the cards can be done by Hirsch at extra charge)	
<b>Operating Temperature</b>	-49° to 158° F (-45° to 70° C)	
<b>Material</b>	Durable using composite with a mix of PVC (60%) and PET (40%)	
<b>Hirsch Part Numbers</b>	5020-SDXXX (XXX is variable based on card configuration ordered, refer to the TS Card Ordering Guide for more information)	5020-MDXXX (XXX is variable based on card configuration ordered, refer to the TS Card Ordering Guide for more information)
<b>Product</b>		
<b>Compatible Readers</b>	<ul style="list-style-type: none"> <li>• Hirsch's uTrust Readers (Advanced, Migration, and ScramblePad)</li> <li>• uTrust TS Universal Card Enroller</li> <li>• All ISO 14443 UID readers</li> </ul>	<ul style="list-style-type: none"> <li>• Hirsch's uTrust Readers (Advanced, Migration, and ScramblePad)</li> <li>• uTrust TS Universal Card Enroller</li> <li>• All ISO 14443 UID readers</li> <li>• All HID proximity compatible 125kHz LF readers</li> </ul>

\* Extra charge for this option. \*\*Read range is dependent on installation environment and reader tuning. uTrust TS Cards can be encoded in numerous Wiegand data formats. Please refer to the uTrust TS Card Ordering Guide for further details.