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► New MIFARE DESFire Smart Card Technologies

DESFire Reader support new MIFARE DESFire Tags



Our RFID DESFire Reader **Desktop Reader EVO**, **Stick Reader EVO** and RFID DESFire Modules **M900**, **M890** and **R835** are suitable for an **even wider range of applications** thanks to the **new RFID MIFARE DESFire smart card technologies**. Especially for **single-use applications in public transport or at events, for RFID Tags solutions in supply chain and inventory management or for IoT applications**, the new smart card technologies are used.

► MIFARE Ultralight® Nano

MIFARE Ultralight® Nano is the latest generation of contactless Smart-Paper-Ticketing-ICs within the MIFARE Ultralight Family. The innovative contactless solution was developed for single-use applications and **should replace magnetic stripes, barcode/QR Code and printed standard paper tickets**.

The **MIFARE Ultralight® Nano** of NXP paves the way to contactless systems with a **cost-efficient migration of single-use paper tickets for the public transport or event tickets**. The advantages of contactless solutions are **lower costs for system installation and maintenance, increased user throughput, fraud reduction and aggregated NFC-based services**.

MIFARE Ultralight® Nano complies with the international **Standard ISO 14443 Type A** and can therefore be easily integrated into existing contactless systems. Standard paper ticket vending machines can also be upgraded to enable contactless smart paper tickets.

► MIFARE Ultralight® C

The contactless IC **MIFARE Ultralight® C** is a cost-effective solution, which used the open cryptographic 3DES standard for chip authentication and data access. The widely used 3DES standard allows **easy integration into existing infrastructures**, and the integrated authentication command set provides effective copy protection that helps prevent tag forgery.

Tickets, vouchers or tags based on **MIFARE Ultralight® C** can function as **single public transport tickets, event tickets or low-cost customer loyalty cards and are also used for device authentication**.

MIFARE Ultralight® C works with the **Standard ISO/IEC 14443 A** and enables a **reading range of up to 10 cm**. In addition, the IC has an **expanded user memory** and a number of **additional security features** not previously available on low-cost contactless ICs.

Existing solutions based on **MIFARE Ultralight® C** products benefit from the same authentication commands used for MIFARE DESFire EV1. The MIFARE Ultralight C is compatible with the **NFC-Tag Type 2**.

► I-Code SLI DNA

I-Code SLI DNA IC is a HF-Tag-IC for **applications within inventory and supply chain management**. This security is primarily based on a **128-bit AES key** that is securely stored on IC's and with which cryptographic authentication is performed by an AES co-processor.

The **I-Code SLI DNA** IC can operate in **reading ranges of up to 1.5 m**. **I-Code SLI DNA** includes an intelligent anti-collision function that allows the simultaneous operation of several tags in the field. The **I-Code SLI DNA** contains several security and privacy aspects, such as UID, originality signature, EAS and AFI functionality and others.

► NTAG 424

NTAG 424 DNA defines the standard for secure **NFC and IoT applications**. The new Chip Generation provides Public Security and Privacy features on attack-resistant certified silicon. **NTAG 424**-DNA is designed to provide AES-128 cryptographic operation, a new SUN authentication mechanism each time it is read by an NFC-enabled mobile device, and confidential data protection with crypto-secure access privileges. This enables enhanced product and content protection as well as secure and unique real-time user experiences.

The **NTAG 424** DNA TagTamper Tags go even further and allow even more individualized tasks by providing status-aware, relevant consumer messages as soon as the seal of the tag on a label or container is broken.

► MIFARE DESFire® Light

MIFARE DESFire® Light of NXP is a contactless IC, which was developed for the easy integration in new and existing systems. The predefined file system and the total available memory of 640 bytes (equivalent to MIFARE Classic® with 1 kB) make it an excellent choice for single-use application designs in a variety of use cases.

The **MIFARE DESFire® Light** is compatible with MIFARE® DESFire® EV2, so designers can easily extend their systems to support new applications. MIFARE DESFire EV2 compatibility allows developers to promote their services in NXP's AppXplorer, a collaboration platform that creates an App Store-like experience on smart cards.

MIFARE DESFire® Light can also be configured as an NFC forum NFC type tag 4 so that it can be used with a wide range of mobile devices with contactless reading functions.

More Information about our Products:

[RFID Desktop Reader EVO DESFire](#) | [RFID Stick Reader EVO DESFire](#)

[RFID Module M900](#) | [RFID Module M890](#) | [RFID Module R835](#)

PLEASE CONTACT US IF YOU HAVE QUESTIONS ABOUT OUR PRODUCT PORTFOLIO



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