



MIFARE® DESFire® EV2

MIFARE_DESFIRE_EV2_2K_8K

Not Recommended for New Designs

Not recommended for new designs. For new designs please use replacement product [MIFARE DESFire EV3](#).

Last Updated: Feb 26, 2025

MIFARE DESFire EV2 (MF3D(H)x2) is the latest addition to the MIFARE DESFire product family introducing new features along with enhanced performance for best user experience. The MIFARE DESFire EV2 is Common Criteria EAL5+ security certified which is the same security certification level as demand for smart card IC products used, e.g., for banking cards or electronic passports. It fully complies with the requirements for fast and highly secure data transmission and flexible application management.

MIFARE DESFire EV2 offers flexibility when creating multiapplication schemes and features such as MIsmartApp with multiple key sets and Transaction MAC are supporting new business models. Smart Cities services, for example, could be used with only one MIFARE DESFire EV2 card by combining services such as public transport, car or bike-sharing, access to city attractions with citizen services, closed-loop e-payment applications, and local loyalty programs.

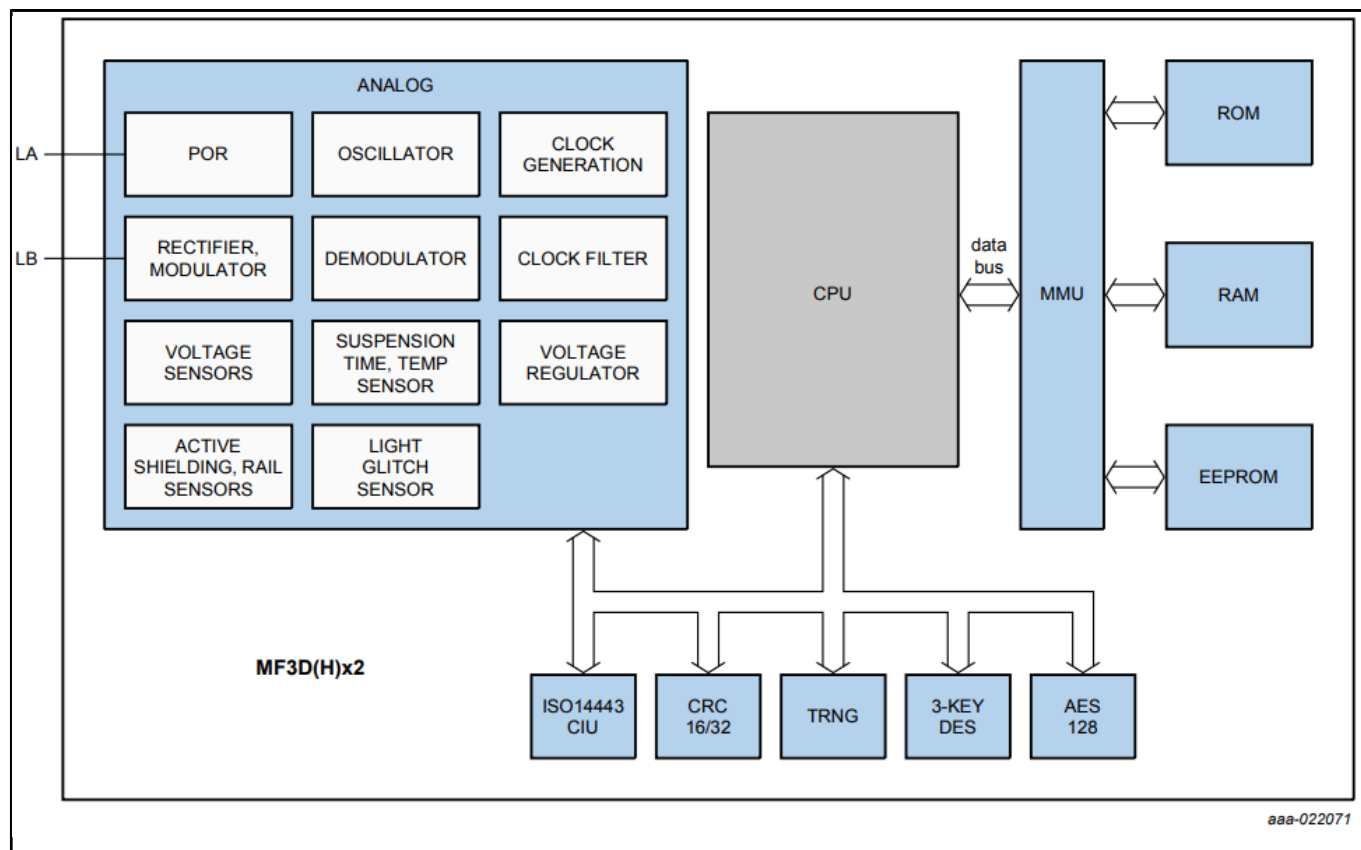
MIFARE DESFire EV2 is based on global open standards for both air interface and cryptographic methods. It is compliant to all levels of ISO/IEC 14443A and supports optional ISO/IEC 7816-4 commands (APDU and file structure supported) and is fully interoperable with existing NFC reader infrastructure.

Featuring an on-chip backup management system and the mutual three-pass authentication, a MIFARE DESFire EV2 card can hold as many applications as the memory can accommodate. Each application can hold up to 32 files with various data configurations.

MIFARE DESFire EV2 delivers the perfect balance of speed, performance, and cost-efficiency. Its open concept allows seamless future integration of other ticketing media such as smart paper

tickets, banking convergence card, and mobile ticketing based on Near Field Communication (NFC) technology. It is also fully compatible with the existing NFC reader hardware platform.

MIFARE DESFire EV2 IC Block Diagram Block Diagram



View additional information for [MIFARE® DESFire® EV2](#).

Note: The information on this document is subject to change without notice.

www.nxp.com

NXP and the NXP logo are trademarks of NXP B.V. All other product or service names are the property of their respective owners. The related technology may be protected by any or all of patents, copyrights, designs and trade secrets. All rights reserved. © 2025 NXP B.V.