



# The Value of Genuine MIFARE<sup>®</sup> Products





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MIFARE is NXP's well-known brand for a wide range of contactless IC products with 260 million reader and more than 10 billion contactless and dual interface ICs sold. MIFARE is used in over 40 different applications worldwide.

## ABOUT MIFARE

MIFARE is a registered trademark owned by NXP B.V. MIFARE products are proven and reliable more than any other interface technology in the market. The huge installed base of MIFARE products enables service providers to expand their offerings while reducing the overall costs and increasing users' convenience.

Over 1,000 business partners are part of the MIFARE community and ecosystem.

MIFARE market leadership:

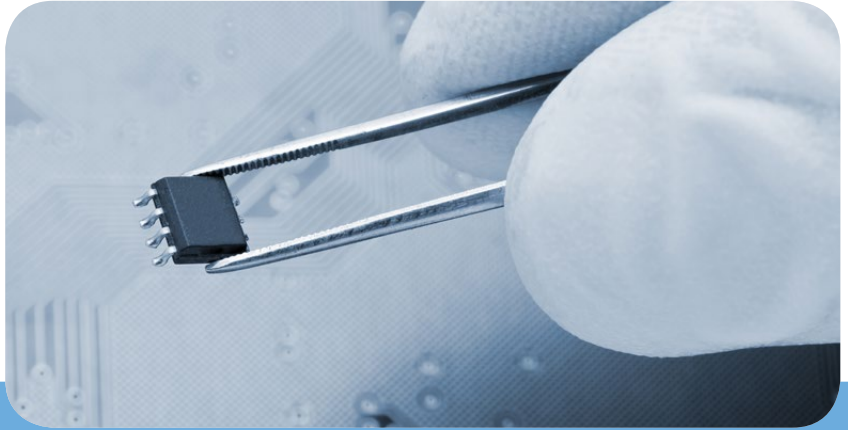
- ▶ More than 750 cities using MIFARE-based transport ticketing solutions
- ▶ More than 77% of all automatic fare collection (AFC) schemes
- ▶ More than 80% of all contactless, limited-use ticketing credentials
- ▶ More than 55% of all high-frequency (HF) access management systems
- ▶ More than 260 million readers and 10 billion card components shipped
- ▶ MIFARE is deployed in more than 210 million mobile phones

## BENEFITS OF USING GENUINE MIFARE PRODUCTS

Only genuine MIFARE products have the high level of security, interoperability, stability and reliability across all form factor options demanded by the market for state-of-the-art contactless schemes. The MIFARE product portfolio ranges from entry-level security to a common criteria certified security. This meets the highest security standards designed to offer seamless migration of first-generation systems.

By buying genuine MIFARE items, NXP assures that you get products

- ▶ that have undergone NXP's stringent quality procedures,
- ▶ with benchmark global support service,
- ▶ that strictly comply with the ISO/IEC 14443 standard,
- ▶ that are cooperatively produced at the world's most advanced wafer fabs.



# MIFARE 3rd Party Offerings

Unauthorized copies do not meet basic requirements and as a result cause more costs to the end-customer.

## MIFARE OFFERINGS OF 3RD PARTY COMPANIES

The success of MIFARE is also related to NXP's active licensing and certification strategy for its products. Multiple semiconductor and card manufacturers are licensed to offer a wide range of MIFARE products. In addition, certification from independent testhouses like Arsenal, UL and LSI-TEC substantially contribute to the functionality and interoperability requirements of MIFARE-based systems worldwide.

However, be aware that unauthorized, non-licensed and non-certified IC product copies are offered on the market.

These products lead to several issues of concern to our industry:

- ▶ Quality of unauthorized copies does not meet basic requirements, resulting in high field returns and non-working products.
- ▶ Interoperability of the system components and credentials is not secured, as ISO standards are not met.
- ▶ Uniqueness of IC identifiers is not guaranteed.
- ▶ Without common criteria certification from accredited authorities, these products do not meet the latest security standards.
- ▶ No seamless migration options to higher security products are offered.



# MIFARE Trademark and IP Rights

Manufacturers, OEMs, card makers and traders through the value chain are liable for damages caused by any counterfeit products.

NXP is the sole owner of the technology related to the MIFARE products, the MIFARE trademarks and the corresponding intellectual property rights (IPR). We do not tolerate infringements of our rights and are fully committed to take all necessary actions against any infringer. If necessary, we will also communicate about infringements to the public.

IPR laws prohibit not only manufacturers to manufacture, but also OEMs and traders to import and/or sell or otherwise dispose of products that include IPR infringing components made by unlicensed manufacturers or that make unauthorized use of trademarks. Even the advertising of such products may be prohibited.

Counterfeit products can be subject to seizure by customs authorities. In consequence, courts can ban them from the market.





# Anti-Counterfeit Activities

NXP's legal team and REACT cooperated in several activities against companies offering MIFARE clone products and integrating IPR's.

## ACTIVITIES AGAINST UNAUTHORIZED COPIES

NXP's Intellectual Property and Licensing Department together with the MIFARE and RFID Intellectual Property Protection team take appropriate actions against unauthorized clone activities.

The MIFARE community, the largest network of companies involved in contactless technologies, plays an important role in educating the market about the topic:

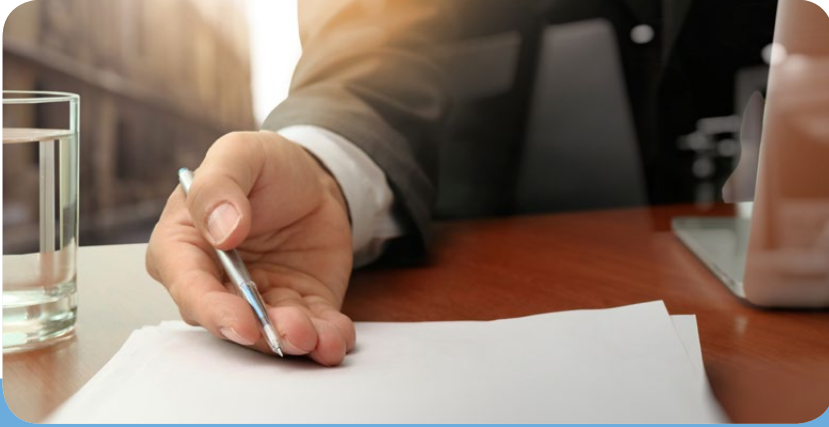
- ▶ Inform customers about the topic, the risks involved and the benefits of genuine MIFARE products.
- ▶ NXP recommends to source MIFARE products from MIFARE Premium Partners, such as AdvanIDe, HID Global, Identiv and Smartrac.

If you are aware of unauthorized, non-genuine MIFARE products, or if you doubt a product's originality, please contact us at [MIFARE@nxp.com](mailto:MIFARE@nxp.com) so that NXP can take appropriate action.

## LEGAL ACHIEVEMENTS

NXP's Intellectual Property and Licensing Department as well as the MIFARE and RFID Intellectual Property Protection team take appropriate actions against unauthorized clone activities:

- ▶ More than 100,000 unauthorized MIFARE clone product offerings in auctions, webshops and on webpages have been stopped, resulting in a loss of any marketing investments of these companies.
- ▶ A large number of clone product dealers have been stopped and, in many cases, have gone out of business.
- ▶ Dozens of individual cases related to the use of fake products converted to genuine MIFARE products have been initiated, including cases involving loyalty cards in Australia, university cards in the U.K. and food court cards in Asia.
- ▶ Successful seizures of unauthorized MIFARE product copies had been arranged at exhibitions in Europe and Hong Kong in co-operation with REACT, the Anti-Counterfeiting Network, which resulted in the removal of fake goods, promotional material and booth elements. As further consequence, first law suits have been initiated. For more details, just take a look at the following link: [www.mifare.net/anti-couterfeit-activities](http://www.mifare.net/anti-couterfeit-activities)



# Industry Statements

Companies around the world are pulling in one direction when speaking about counterfeit products.

*"...the use of clone products bears the RISK of commercial, technical and reliability issues. Therefore, Smartrac uses only genuine products guaranteeing long-term reliability and full interoperability without any IPR infringement. Also, wire embedding technology is well protected with IP and subject to potential infringements. We are happy to join the activity to educate the market about these risks involved with the use of clone products."*

**Thomas Hitzer, Smartrac, MIFARE Premium Partner**

*"Why would you even take the risk of having performance issues such as shorter read range and less stability and robustness leading to high failure rates in the field which would negatively impact your guest satisfaction metrics? Ask for genuine MIFARE products."*

**John Sindoni, ABnote North America**

*"As a trustworthy card manufacturer, our customers rely completely on the choice of our guaranteed genuine NXP MIFARE products with remarkable quality, reliability as well as professional services."*

**Kevin Wong, Shenzhen Takcere Credit Card Manufacturing Ltd., MIFARE Advanced Partner**

*"I need to disqualify this vendor, because I demand that the chips are NXP. Many years of experience in the chip market and issues in the field have helped me make this decision."*

**Leading Transport Operator from South America**

*"The usage of counterfeit products is a business risk that we recommend clients to avoid. Only genuine products offer high levels of functionality, security and provide a future-proof migration path."*

**Holger Rößner, AdvanIDe, MIFARE Premium Partner**





# Latest Tools and Services

NXP products offer the best performance and originality check features.

## GENUINE PRODUCTS FOR RELIABILITY

NXP highly recommends sourcing MIFARE products from MIFARE Premium Partners listed on [www.MIFARE.net](http://www.MIFARE.net). Genuine products guarantee the best performance and interoperability.

NXP constantly improves and develops its product portfolio. "As a result, our newest ICs—NTAG 21x products, MIFARE Ultralight EV1 and MIFARE Classic EV1—have a special originality signature to easily identify the card's origin."

We recommend sourcing the new MIFARE Classic EV1 product instead of the old MIFARE Classic IC because it offers best-in-class performance and reliable assembly besides the NXP Originality Signature. The MIFARE Classic EV1 is also hardened against all known "card-only" attacks. Moreover, migrating to the MIFARE Classic EV1 IC does not require any change of the existing infrastructure and even the price levels are the same as those for the old MIFARE Classic products.

## TOOLS AND SERVICES TO CHECK THE ORIGINALITY OF NXP ICs

NXP now offers a new version of the Originality Checker Reader, a convenient tool our clients use to verify the origin of cards they purchase from their suppliers. Additional information can be found here:

[www.mifare.net/nxp-oc](http://www.mifare.net/nxp-oc)

The MIFARE SDK library allows Android™ App developers to check whether the cards that interact with the app are genuine or not. By using genuine NXP products you can rely on the full performance of the app. Discover the MIFARE SDK online:

[www.mifare.net/mifare-sdk](http://www.mifare.net/mifare-sdk)

If there are still some doubts about an IC's originality, NXP Austria offers physical analysis. Please contact [MIFARE@nxp.com](mailto:MIFARE@nxp.com) to get more information.

## Contact us for more information

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Date of release: April 2016  
Document order number: MIFAREBR REV 0



[www.MIFARE.net](http://www.MIFARE.net)