



## NXP® MIFARE Plus® X 2K RFID Card

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|---------------|---------------------------------------------------------|
| SKU:          | RS-MFPX2k-CR80                                          |
| Chip Type:    | NXP® MIFARE Plus® X 2K                                  |
| Frequency:    | HF 13.56 MHz                                            |
| EEPROM:       | 250 bytes                                               |
| UID:          | 4 bytes / 7 bytes                                       |
| Protocol:     | ISO/IEC 14443-A, ISO/IEC 7816                           |
| Industry:     | Events, Healthcare, Transportation, Business            |
| Applications: | Access Control, NFC, ETC Toll Payment, Vehicle Tracking |

The NXP® MIFARE Plus® X 2K RFID Card brings enhanced security and flexibility to modern contactless applications by combining proven MIFARE Classic compatibility with advanced AES-128 cryptography. Operating at 13.56 MHz and compliant with ISO/IEC 14443-A, ISO/IEC 7816, this card enables a seamless upgrade path from legacy MIFARE Classic systems to higher-security infrastructures without changing the physical card or reader setup. With its 2 kB EEPROM, it supports secure data storage and multi-application functionality, making it a reliable foundation for access control and smart city solutions.

Engineered for high performance and interoperability, the MIFARE Plus® X 2K card offers backward compatibility along with flexible security levels, allowing operators to enhance protection progressively as their systems evolve. Ideal for corporate access, transportation, campus ID, and loyalty programs, it ensures smooth transactions, fast response times, and robust data encryption. For organizations seeking to future-proof their contactless systems, the MIFARE Plus® X 2K provides the perfect balance of security, scalability, and operational efficiency.

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|----------------------|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| Physical Information | Material                                    | Black core PVC, White core PVC, White core PET(WEEE Directive✓), White core ABS(WEEE Directive✓), Wooden(WEEE Directive✓) |
|                      | Card Size                                   | 85.6×54×0.88 mm                                                                                                           |
|                      | Net Weight                                  | About 5.8 g                                                                                                               |
|                      | Operating Environment                       | -20°C~+50°C, 20%~80% RH                                                                                                   |
|                      | Storage Environment                         | +18°C~+28°C, 40%~60% RH                                                                                                   |
|                      | Surface Treatment                           | Glossy, Matte or Frosted                                                                                                  |
|                      | Personalized Printing (NA for Wooden Cards) | Thermal Transfer/Dye Sublimation                                                                                          |
|                      | Customization Options (NA for Wooden Cards) | Pre-Printing, Barcode Printing, Embossing, Holograms, Signature Panels, UV Printing, Hot Stamping, Punch Holes            |
|                      | Care Tips                                   | 1. Avoid excessive bending<br>2. Keep away from water<br>3. Store in cool and dry place                                   |
|                      | Cleaning Tips                               | 1. Use a soft, dry cloth<br>2. Avoid harsh chemicals or abrasive cleaners<br>3. Remove stains immediately                 |

|                       |                                               |                                                                                      |
|-----------------------|-----------------------------------------------|--------------------------------------------------------------------------------------|
| Technical Information | Operating Frequency                           | 13.56 MHz                                                                            |
|                       | Communication Protocol                        | ISO/IEC 14443-A, ISO/IEC 7816                                                        |
|                       | Chip Type                                     | NXP® MIFARE Plus® X 2K                                                               |
|                       | Data Transfer                                 | 848 kbit/s                                                                           |
|                       | EEPROM                                        | 250 bytes                                                                            |
|                       | UID                                           | 4 bytes / 7 bytes                                                                    |
|                       | NUID                                          | 4 bytes                                                                              |
|                       | Virtual Card Concept                          | Support                                                                              |
|                       | Anti-Tearing Mechanism                        | Writing AES keys                                                                     |
|                       | Keys Can Be Stored As                         | MIFARE CRYPTO1 keys (2 × 48-bit per sector) and as AES keys (2 × 128-bit per sector) |
|                       | Simple Fixed Memory Structure Compatible With | MIFARE Classic 1K and MIFARE Classic 4K (sectors, blocks)                            |
|                       | Proximity Check                               | Support                                                                              |
|                       | Common Criteria Certification                 | EAL4+                                                                                |
|                       | Security Features                             | AES-128 Encryption for authenticity and integrity                                    |

|                       |                  |                                                                               |
|-----------------------|------------------|-------------------------------------------------------------------------------|
| Packaging Information | Packing Format   | Single pieces, piece by piece                                                 |
|                       | Packing Quantity | 200 pcs/case, G.W. : 1.26 kg                                                  |
|                       | Packing Method   | 1000 pcs or 2000 pcs/carton                                                   |
|                       | Carton Dimension | 1000 pcs: 23x20x17cm (G.W.: 6.3 KG);<br>2000 pcs: 48x23x14cm (G.W.: 12.6 KG). |

● **Performance and Illustrations:** Graphs and visuals are for reference only; actual product performance may vary depending on usage and environment.
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