SAM Encoded Card

Hardened NXP SAM Card with Secure Cryptography



Overview

One Chip. More Readers. More Ways to Use Schlage Credentials.

The Schlage® SAM Encoded Card is the industry's streamlined path to smart, interoperable access control across any facility. For decades, the security industry has navigated fragmented systems, complex integrations, and proprietary limitations. The Schlage SAM Encoded Card changes that narrative by serving as the direct bridge connecting existing hardware to the future of smart access control.

By utilizing a standard 2FF SAM slot on compatible readers, this drop-in solution delivers the fastest, easiest path to deploy Schlage MIFARE® DESFire® and mobile credentials across diverse hardware environments. Any reader manufacturer with an available SAM slot can now participate in the Schlage ecosystem, eliminating integration headaches and hardware lock-in.

For integrators, it means streamlined installations, reduced labor, and simplified system architecture without the expense of full reader replacements. For end users, it delivers ultimate credential freedom, ensuring total ownership of custom encryption keys while enabling a smooth transition to mobile wallet access. Fast, flexible and secure, this is the next generation of interoperable access control.

Encryption Key & Credential Interoperability

- Configured with our default encryption keys or custom keys developed by Schlage Custom Encryption Key Service (SCEKS) including NXP, HID® and NFC
- Schlage MIFARE® DESFire® EV3 high-security smart credentials
- NFC mobile credentials in Apple Wallet® and Google Wallet™
- Standard 13.56 MHz smart credentials supporting compatible open key structures

Features & Benefits

- Interoperable by design - Works with any 2FF SAM slot compatible reader
- Supports secure credentials - Enables MIFARE® DESFire® and mobile credentials
- Total key ownership - End users maintain full control of custom encryption keys
- Easy to deploy - Drop-in solution for faster installs and lower costs
- Future-ready - Built to evolve with emerging security technologies

Applications

- Secure Print Services
- SSO (Single Sign-On)
- EV Rentals and Charging
- Conference Rooms
- Vending Machines
- Industrial Machine & Operator Authentication
- Tap-and-Go Medical/Healthcare
- Kiosks & Ticketing

Secured Communication

The connection between the SAM Encoded card and the reader is performed using security protocols based on secure cryptography protocols that comply with state-of-the-art standards and ensure data confidentiality and integrity.

SAM AV3 is backwards compatible with MIFARE® SAM AV2 that supports the lastest security features of MIFARE® DESFire® 13.56 MHz credentials so you can use Allegion default and custom keys in many new applications. Additional support required for legacy MIFARE Classic® credentials.

Reader Compatibility

3rd Party Reader Manufacturer must provide parsing and transmission of the data based on the PACSA app.

SAM Slot Configuration

SAM Slot #	Version	Type	Purpose
3A	AES-128	Allegion	DESFire PACSA Read/Validation Key (APPVK)

Ordering Information

Description	Part Number	Configuration ID
Allegion Key Encoded SAM AV3	MF4SAM3-	CKM-XXX-XXX[1, 2]
Nedap Configured MIFARE DESFire Card (Nedap readers purchased from Allegion include the MF4-NDP-SCH-DESF SAM Encoded card. Order must specific default keys or provide a CKM configuration.)	MF4-NDP-SCH-DESF	CKM-XXX-XXX[1]

1. Custom keys are highly recommended. If a custom key is not requested the cards will be encoded with the Allegion default keys.
2. Manufacturers with SAM 2FF slots can order an evaluation sample by emailing custom.readers@allegion.com with your request.

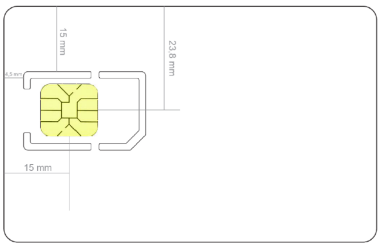
Card Format & Physical Specifications

Card body: Industry-standard white PVC, CR-80 (ID-1), conforming to ISO/IEC 7810

Card dimensions (L × W): 85.6 ± 0.12 mm × 53.98 ± 0.05 mm

Card thickness: 0.76 ± 0.08 mm

Embedded SAM: MIFARE SAM AV3, 2FF (ID-000) SIM format, with a 3-bar punch



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