



* The image printed on this card is only a sample.

RC-SA41 offers high security with AES support, while maintaining compatibility with the functions of previous models. In addition, security and privacy protection have been further enhanced through the addition of a session timer function and an improved randomized ID function.

* FeliCa Standard SD3: The 3rd generation of the IC chips and their products of FeliCa Standard products which support AES encryption.

AES
supported

Session
Timer
Function

FeliCa™
Secure ID

FEATURES

Industry-leading security to protect your valuable information

This product is equipped with industry-leading security features to protect your valuable information from threats such as unauthorized access and tampering. It adopts AES (Advanced Encryption Standard) as its standard encryption method and is equipped with the latest tamper-resistant technology to prevent external analysis and reading of its internal structure and recorded data.

This IC chip complies with PTPP¹⁾ under the international security standard ISO/IEC 15408, and has achieved Evaluation Assurance Level 'EAL5+'.

(Certification date: 2025/12/11, Expiration date: 2030/11/28).

1) PTPP (Public Transportation IC Card Protection Profile).

Please note that this IC chip does not comply with the standard for IC card tickets (Cybernetic Standards) established by the Congress of Japan Railway Cybernetics.

Compatibility with previous products

FeliCa Standard SD3 inherits features from previous products, including the Security Migration function from FeliCa Standard SD1, and the FeliCa Secure ID and Extended Overlap functions from FeliCa Standard SD2. This enables a smooth migration from existing services and products.

* Some setting changes are required when using the feature to enable or disable the Secure ID.

Enhanced Security and Convenience Features

Session Timer Function

This function increases the difficulty of attacks against a session by limiting the card access time. This makes it possible to build more robust security.

Expanded Randomized ID Function

The function that randomizes a part of the ID has been expanded, making it possible to randomize the entire area containing the card's unique value. This makes user tracking difficult.

Reading FeliCa Secure ID via NDEF²⁾

FeliCa Standard SD3 introduces a new function that allows the FeliCa Secure ID to be read as an NDEF Tag. On NDEF-compatible smartphones, the FeliCa Secure ID can be read without a dedicated application.³⁾

2) NDEF: NFC Data Exchange Format

3) A separate verification system (e.g., a server) is required to verify the FeliCa Secure ID read via NDEF.

PRODUCT SPECIFICATIONS

RC-SA41 AES IC Chip		
Communication method		ISO/IEC 18092 (212 kbps / 424 kbps Passive communication mode)
Operating frequency		13.56 MHz
Communication speed		212 kbps / 424 kbps automatic switching supported (when operating at 13.56 MHz) ¹⁾
Minimum operating magnetic field strength ³⁾		1.5 A/m
Supported encryption		AES encryption AES-MAC authentication
Supported commands		AES-encrypted commands Communication-with-MAC commands Non-encrypted commands
Non-volatile memory	Size	4 Kbytes
	User memory	160 blocks (1 block = 16 bytes)
	Data retention period	10 years (at Ta ²⁾ = 25 °C)
	Number of writings	200,000 Times (at Ta ²⁾ = 25 °C)
Operating temperature ⁴⁾		-25 °C to +85 °C
Storage temperature ⁵⁾		-40 °C to +125 °C

¹⁾ : To utilize 424 kbps communication, the reader/writer must support 424 kbps communication.

²⁾ : Ta: Ambient temperature of the chip.

³⁾ : The testing is conducted in accordance with the measurement methods specified in ISO/IEC 10373-6.

⁴⁾ : Indicates the ambient environment that satisfies the performance specified in the basic specifications.

Outside this range, communication performance may degrade (reduced communication distance, occurrence of communication dead zones, IC reset).

⁵⁾ : Indicates the storage environment range confirmed to show no abnormalities in the product even after short-term storage.

Long-term storage should be conducted in a normal temperature and humidity environment.

**For technical documents about this product, see “Technical Information” on the FeliCa website:
sony.net/Products/felica/business/tech-support/**

- Features, design, and specifications are subject to change without notice.
- SONY and FeliCa are registered trademarks or trademarks of Sony Group Corporation or its affiliates.
- FeliCa is a contactless IC card technology developed by Sony Corporation.
- All other trademarks are the property of their respective owners.

Sony Corporation
Secure Technology Business Division
Enterprise Solutions Business Unit

Sony City Osaki 2-10-1 Osaki Shinagawa-ku, Tokyo, 141-8610 Japan

FeliCa website

sony.co.jp/en/felica/

July, 2026

E2026-01-01