



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

RC-SA01 contactless IC chip supports greatly-enhanced security with the adoption of Advanced Encryption Standard (AES).

\* FeliCa Standard SD1: The 1st generation of the IC chips and their products of FeliCa Standard products which support AES encryption.

AES  
supported

Multi-  
application

## FEATURES

### Highest level of security for contactless smart-card chip

RC-SA01 IC chip has enhanced security provided by AES encryption.

The product is the contactless IC card chip with embedded software which has acquired EAL6+ certification in accordance with Common Criteria (ISO/IEC 15408), the international standard for evaluation criteria in IT security (Certificate issue date:2013/3/19, Certificate expiry date:2023/3/19).

### Multi-application platform with higher performance and reliability

Higher transaction speed is achieved for every type of card application, such as transportation ticket and e-payment. In addition, the IC chip achieves lower power consumption than the current FeliCa™ IC chips. The new Error Checking and Correcting (ECC) functionality improves the reliability of non-volatile memory data.

### Able to communicate with NFC Forum-compatible readers

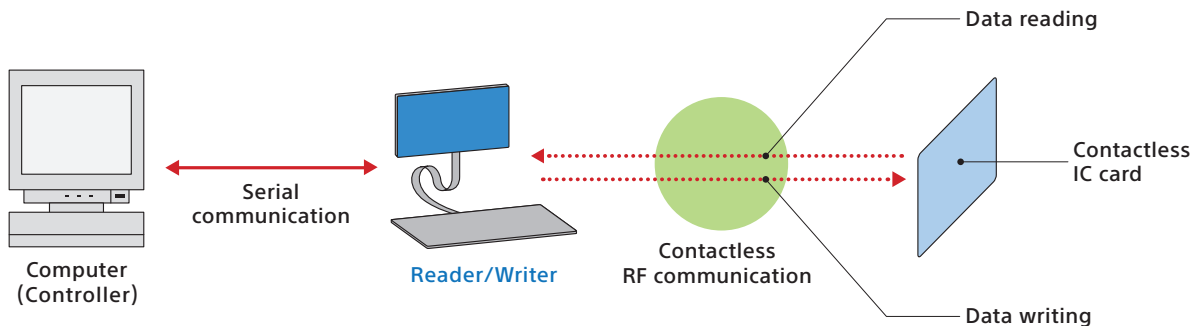
The chip complies with Type 3 Tag functionality defined by the NFC Forum. Therefore, the card with the chip can communicate with NFC-compatible smartphones and readers.

## PRODUCT SPECIFICATIONS

		RC-SA01
<b>Communication method</b>		Conforms to ISO/IEC 18092 (212 kbps or 424 kbps Passive communication mode)
<b>Operating frequency</b>		13.56 MHz
<b>Communication speed</b>		212 kbps and 424 kbps automatically switchable
<b>Supported encryption</b>		AES encryption
<b>Supported commands</b>		AES-encrypted commands Non-encrypted commands
<b>Non-volatile memory</b>	<b>Size (Type)</b>	4 Kbytes EEPROM
	<b>User memory</b>	160 blocks (1 block=16 bytes)
	<b>Data retention period</b>	50 years (25 °C), 10 years (85 °C)
	<b>Write endurance</b>	500,000 times (25 °C), 100,000 times (85 °C)
<b>Operating temperature</b>		-25 °C to +100 °C (Quality and reliability are assured when the operating temperature is within the range of -25 °C to +85 °C.)
<b>Storage temperature</b>		-55 °C to +125 °C

For technical documents about this product, see “Technical Information” on the FeliCa website:  
[sony.co.jp/en/Products/felica/business/tech-support/](https://sony.co.jp/en/Products/felica/business/tech-support/)

## TYPICAL SYSTEM LAYOUT



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FeliCa website

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July, 2025

E2012-29-05