SONY

FeliCa

RC-S892
Token

RC-S893
Token Module

The RC-S892 and RC-S893 products are suitable for applications that demand robust security. For example, e-money payment and ID authentication. These products can be set up easily in a wide range of products such as wristbands, key fobs, figurines, and so on.

High-speed transactions

High security

Compact size

RC-S892

RC-S893

FEATURES

・ High-speed transactions

Thanks to an efficient mutual authentication method and an advantageous transmission system, the transaction process (including secure encryption) between the reader and this product is completed within 0.1 second.
FRAM has been adopted in memory, enabling even faster data reading and writing as well as improved data processing capabilities.[1]
The supported communication speed is double-speed 424 kbps[2] as well as the conventional 212 kbps. Furthermore, the data transfer rate is automatically detected and switched to either 212 kbps or 424 kbps.

[1] Compared to our RC-S891 product.
[2] To utilize communication at 424 kbps, the reader must be able to communicate at 424 kbps.

・ High security

The IC chip (RC-S962) is a security chip with a tamper-resistant function designed for security systems, which is incorporated in the RC-S892 / RC-S893 products. To assure the security level, the IC chip has acquired EAL4+ (hardware) and EAL4 (composite) of the Common Criteria (ISO/IEC 15408, the international standard for evaluation criteria in IT security).

・ Rewriting durability

The product has been made sufficiently durable to withstand 10 billion data rewrites and its performance has been improved dramatically* for extremely-frequent use.

* Compared to our RC-S891 product.

・ Compact size

Maintaining sufficient communication distance and promoting antenna downsizing, a compact form factor has been achieved to broaden the applicable scope.

	RC-S892	RC-S893
Appearance		
Communication distance[*1]	100 mm (when using RC-S461C) 30 mm (when using RC-S461B) 20 mm (when using RC-S320) 10 mm (when using RC-S620 / RC-S400B) 5 mm (when using RC-S330)	
Communication method	Conforms to ISO/IEC 18092（212 kbps / 424 kbps Passive communication mode）	
Operating frequency	13.56 MHz	
Communication speed	212 kbps / 424 kbps automatically switchable[*2]	
Operating temperature / humidity range (under conditions without dew condensation)	-10 °C to +50 °C / 50% RH or lower; 50 °C to 60 °C and above / 0% RH	
Storage temperature / humidity range (under conditions without dew condensation)	-20 °C to +70 °C / 60% RH or lower	
External dimensions (token shape)	Diameter: 30 mm, thickness: 3 mm	Diameter: 26.5 mm
Mass	Approx. 2.4 g	Approx. 0.4 g
Material	Polycarbonate (exterior); Polyester resins (filler)	Epoxy glass substrates FR-4

Non-volatile memory	Size (Type)	4 Kbyte FRAM	
	User memory	2,464 bytes (16 bytes x 154 blocks)	
	Data retention period	10 years (at 70 °C)	
	Write endurance	10 billion times (at 55 °C) *For sequential reading: 1 billion times (at 55 °C)	

*1 Communication distance depends on the peripheral environment. Under ideal conditions and data transfer rate 212kbps, this value is unaffected by electromagnetic waves or metallic substances.
*2 To utilize communication at 424 kbps, the reader must be able to communicate at 424 kbps.

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