

The “FeliCa”, contactless IC card system consolidates multiple services (such as e-money, employee ID, membership card, and access control) on a single smart card. FeliCa is rapidly becoming a high-performance multi-application IC card system, requiring more data capacity, faster processing speed and higher security than contactless IC cards.

The new RC-S880 contactless IC card is a high capacity, high security and high performance next generation FeliCa card capable of meeting all the diverse needs and more.



* Printing shown on card is only a sample.

Large Capacity

Fast Processing

High Security

OVERVIEW

- Contactless communication between the Reader/Writer and the card is activated by electromagnetic waves radiated from the Reader/Writer antenna. FeliCa technology complies with ISO/IEC 18092 communication method.
- The card is durable and thin with the size conforming to ISO /IEC 7810ID-1.
- The basic material of the card is PET plastic that can be easily recycled and exerts minimal adverse influence on the environment even when incinerated.

FEATURES

• Large Capacity for Multi-Application

RC-S880 contains a 9KB IC chip (RC-S960) to support the need for large capacity*. The card can store large amounts of data, as used in biometric authentication, e-ticketing applications, and so on. A single card can also store loyalty points, coupons and numerous other service data backed by its large capacity multi-application memory.

* Compared to SONY RC-S860.

• Fast Processing Speed

RC-S880 can complete all card detection, mutual authentication and read/write transactions, including encryption and decryption within only 0.1 seconds with Reader/Writer. The new Ferroelectric Random Access Memory (FRAM) dramatically improves*¹ data- processing speed for faster read/write results.

The new card supports both the conventional data transfer rate of 212kbps and the double data transfer rate of 424kbps*². The card automatically adjusts both the incoming and outgoing data transfer rate according to the speed of the Reader/Writer to provide the high speed communication in a seamless manner.

*1. Compared to SONY RC-S860.

*2. For more information about the 424kbps data transfer rate, contact Sony Corporation.

• High Security

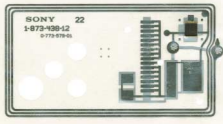
RC-S880 is a secure IC card based on a secure IC chip with superior tamper resistant characteristics. The IC chip hardware and the IC chip including both hardware and software are certified to ISO/IEC 15408 (“Common Criteria for Security Evaluation”), levels of assurance: EAL4+ and EAL4 respectively.

• Better Data Rewrite Endurance

RC-S880 offers drastically improved memory performance* (with a data rewrite endurance of 10 billion cycles), for high-frequency use.

* Compared to SONY RC-S860.

PRODUCT SPECIFICATIONS

		RC-S880
Antenna		
Communication distance ^{*1}	30mm(when using RC-S460/S490) 100mm (when using RC-S460C) ^{*2} 5mm (when using RC-S320/S(GC))	
Communication method	Compliant with ISO/IEC 18092 (212kbps/424kbps Passive mode)	
Operating frequency	13.56MHz	
Modulation system	ASK modulation	
Bit coding	Manchester encoding system	
Communication speed	Supports automatic 212kbps/424kbps switching (at 13.56MHz operating frequency) ^{*3}	
Operating temperature/humidity	0 ~ 40 /20%RH ~ 90%RH 40 ~ 50 /50%RH or less	
Storage temperature/humidity	- 10 ~ +60 /60%RH or less	
Dimensions(H × W × D)	54.0 × 85.6 × 0.76 mm(Conforms to ISO/IEC 7810ID-1 type cards)	
Mass	Approx. 5g	
Basic material	Uses plastic material such as PET which exerts minimal effects on the environment even if incinerated.	
Memory Size	SRAM	3,072 bytes
	ROM	49,152 bytes
	FRAM	9,216 bytes
	User memory area	6,400 bytes (16 bytes x 400 blocks)
FRAM Characteristics	Data Retention Performance	10 years (at 70)
	Rewrite endurance	10 billion (at 55) *Continuous read = 1 billion (at 55)

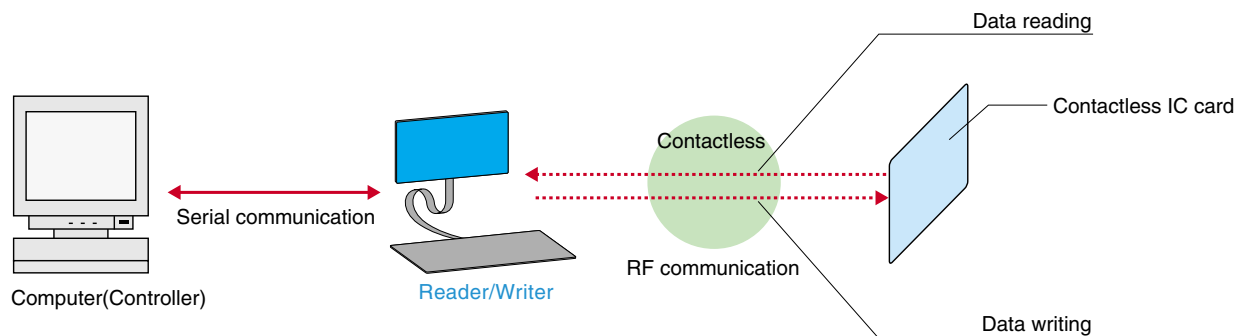
*1. The communications distance varies according to the user environment. Please note that the specifications reflect the distance in an ideal environment without the effects of peripheral radiofrequencies and/or metal obstructions. Furthermore, based on the Reader/Writer antenna and RC-S880 being parallel to each other, and when both of the median points are located on a same perpendicular linear plane.

*2. RC-S880 has an IC chip with a security sensor. Use in a hot place or in the periphery of a powerful magnetic field may activate the security sensor, reset the information on the card and result in communications failure. Check the usable environment and reader/writer communication status prior to use.

*3. At 424kbps transfer rate.

Please contact Sony corporation for futher details.

TYPICAL SYSTEM LAYOUT



• Specifications and external appearance are subject to change without prior notice.

• FeliCa is a trademark of Sony Corporation.

• FeliCa is contactless IC card technology developed by Sony Corporation.

Sony Corporation

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