



RC-S660/S is a UART-compatible NFC module suitable for incorporating into various embedded devices. This module supports communication with ISO/IEC 14443 Type A / Type B and ISO/IEC 15693 cards and tags, as well as FeliCa™. In addition, as with previous products, the antenna and control have been integrated to maintain a compact size, making it easier to incorporate into a variety of devices.

Embedded
NFC Reader

High-speed
Communication

FEATURES

Reader module suitable for incorporating into various embedded devices

This product achieves better communication performance and requires approximately 60% less space compared with the conventional product ¹⁾, making it possible to incorporate the module into a wider range of devices.

¹⁾ Comparison with RC-S620/S

Available for various contactless IC cards

The module is read/write compatible with FeliCa cards, FeliCa-compatible devices, ISO/IEC 14443 Type A / Type B and ISO/IEC 15693 cards and tags.

High-speed communication

In addition to 424 kbps high-speed communication with FeliCa, equivalent to the conventional product ²⁾, 848 kbps high-speed communication using ISO/IEC 14443 Type A / Type B is available.

²⁾ RC-S620/S

APPLICATIONS

- Logical access control
- Online payment
- ID authentication
- Loyalty service

APPLICATION DEVELOPMENT ENVIRONMENTS

SDK for NFC <Reference Implementation> for embedded systems (optional)

For other widely-adopted operating systems, such as Linux, reference source code with transplantable C language is provided to develop applications for ISO/IEC 14443 Type A / Type B and ISO/IEC 15693 cards and tags, as well as FeliCa cards and FeliCa-compatible devices.

- Card Command Library is API-compatible with applications for RC-S620, RC-S632, RC-S634.

PRODUCT SPECIFICATIONS

	RC-S660/S
Regulation requirements	Japan: Radio law format specification number: AC-22045 USA: FCC-ID: AK8RCS660S Canada: IC: 409B-RCS660S EU: EN 300 330 * For details of other regulatory compliance, please contact us directly.
Communication method	Conforms to ISO/IEC 18092 (212 kbps / 424 kbps Passive communication mode) Conforms to ISO/IEC 14443 Type A / Type B Conforms to ISO/IEC 15693
Communication distance ¹⁾ (per card and device)	Approx. 25 mm
Carrier frequency (per card and device)	13.56 MHz
Communication speed (per card and device)	FeliCa: 212 kbps, 424 kbps ISO/IEC 14443: 106 kbps, 212 kbps, 424 kbps, 848 kbps ISO/IEC 15693: 26 kbps
Compatible cards / devices	FeliCa ISO/IEC 14443 Type A / Type B ISO/IEC 15693
API	Card Command Library (Basic Suite)
External interface	UART 9.6 kbps ~ 460.8 kbps (115.2 kbps at power-on, speed can be changed by command)
Operating temperature / humidity ²⁾ (no condensation)	-10°C to +40°C / 20%RH to 90%RH, 40°C to 60°C / 50%RH or lower
Storage temperature / humidity (no condensation)	-20°C to +70°C / 60%RH or lower
Mass	Approx. 4 g
External dimensions (W x H x D)	Approx. 45 mm x 2.3 mm x 25 mm
Operating voltage	DC 3.3 V
Consumption current	Max. 140 mA during operation

¹⁾ Communication distance varies depending on the operating environment and the card used. These values apply in an ideal environment without radio waves and metals in the vicinity.

²⁾ Function assurance temperature.

* Conforming to the RoHS Directive (a European environmental regulation), a halogen-type flame retardant is not used for the printed circuit board. Also, lead-free solder is used, and the design is environmentally friendly.

Verified cards / devices ³⁾

FeliCa cards / devices

• FeliCa Standard, FeliCa Lite-S, FeliCa Link, FeliCa Plug/NFC Dynamic Tag

MIFARE sample cards

• MIFARE Classic, MIFARE Ultralight, MIFARE DESFire, MIFARE Plus

Mobile phones with Mobile FeliCa OS ("Osaifu-Keitai")

NFC Forum Type 2 / 3 / 4A / 4B / 5 Tag

³⁾ Operation has been verified in our environment, and operation is not guaranteed in all environments and conditions.

· 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.
· MIFARE is a trademark of NXP Semiconductors.
· All other trademarks are the property of their respective owners.

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