SONY

FeliCa Plug/NFC Dynamic Tag

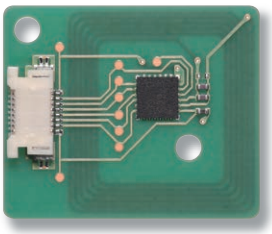
NFC Module with Host Interface
RC-S801

NFC Module with Host Interface
RC-S802

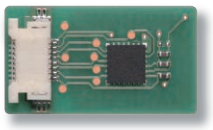
Contactless IC Chip
RC-S926

The NFC Dynamic Tag is a wireless module with a cable interface to enable data transmission between NFC reader/writers (Android™ smartphone, NFC port, PaSoRi, etc.) and other electronic equipment or gadgets.

Low current consumption | **Cable and wireless interface** | **Magnetic field detection function**



RC-S801



RC-S802

FEATURES

Cable and wireless interface

A cable interface uses our own triple-wire half-duplex communications and can be controlled even with a low-speed host CPU. For development of applications on the reader/writer side, it is possible to use existing products, such as SDK for NFC, which are able to access the wireless interface of the NFC Dynamic Tag.

* For any application development, the customer is required to follow the specifications.
* We are not planning to offer an interface library.

Low current consumption

The current consumption during operation is less than 1 mA and during standby is kept at 0.1 µA or less to provide power supply conditions suitable for a battery-operated device.

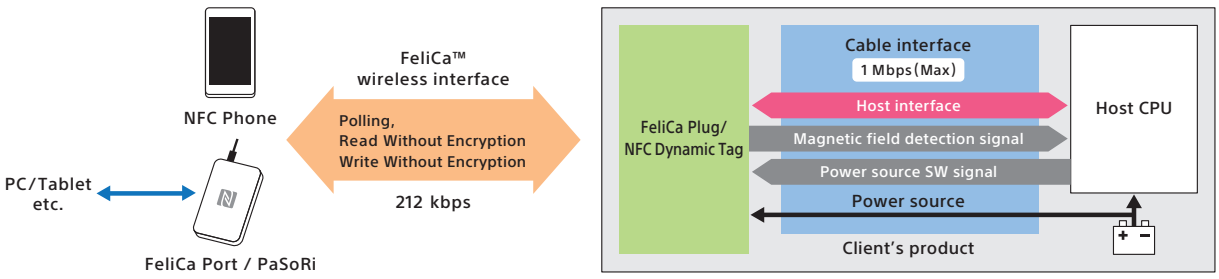
Magnetic field detection function

The NFC Dynamic Tag includes a function by which the magnetic field generated by the reader/writer can be detected and the host CPU informed.

Emulation of NFC Forum Type 3 Tag

The NFC Dynamic Tag can emulate an NFC Forum Type 3 Tag if the data from the host CPU in response to any commands sent by the reader/writer follows the specifications of the NFC Forum. The emulated device can communicate with any reader/writer, conforming to the specifications of the NFC Forum.

TYPICAL SYSTEM LAYOUT



* This product does not have a nonvolatile memory. If the power is cut, the internal data is lost. Unlike a FeliCa card there is no function to constantly store data.
* The 212 kbps is the modulation speed of the RF interface.
* The effective speed of data transmission is dependent on the processing capacity of the controller of the cable interface and the wireless interface system.
* After integrating into any (customer) device or gadget, please confirm the communication characteristics of the device with which the NFC Dynamic Tag should respond.

FeliCa

PRODUCT SPECIFICATIONS

		RC-S801	RC-S802
Communication distance ∗1		10 mm (when using RC-S320/S330)	10 mm (when using RC-S320/S330) ∗2
Wireless section	**Communications method**	Conforms to ISO/IEC 18092 (212 kbps Passive communication mode)	
	Operational frequency	13.56 MHz	
	Communication speed	212 kbps	
Cable section	**Communication method**	Triple-wire half-duplex serial interface (Sony's specification)	
	Communication speed	Dependent on data processing speed of Host CPU (Max.1 Mbps)	
Usage temperature/humidity		0 °C to 40 °C (32F° to 104F°) / 20%RH to 90%RH 40 °C to 50 °C (104F° to 122F°) / 50%RH or less	
External dimensions (W×H×D)		24 mm × 20 mm × 2.95 mm	19.5 mm × 11 mm × 2.95 mm
Mass		Approx.0.73 g	Approx.0.45 g
Operating voltage		1.8 V to 3.7 V	
Consumption current (25°C)		Operation mode: 1 mA or less (no load) Standby mode: (RF non-detection): 0.1 µA or less	
Connector		FPC/FFC 8-pole bottom connectiontype, pitch: 0.5 mm Applicable FPC/FFC thickness: 0.3 mm	

		RC-S926
Wireless section	**Communications method**	Conforms to ISO/IEC 18092 (212 kbps Passive communication mode) ∗3
	Operational frequency	13.56 MHz
	Communication speed	212 kbps
Cable section	**Communication method**	Triple-wire half-duplex serial interface (Sony's specification)
	Communication speed	Dependent on data processing speed of Host CPU (Max. 1 Mbps)
Operating temperature		-25 °C to +40 °C
Storage temperature		-40 °C to +125 °C ∗4
Consumption current (25°C)		Operation mode: 1 mA or less (noload), Standby mode: (RF non-detection): 0.1 µA or less
Package		VQON24
External dimensions (W×H×D)		3.8 mm × 3.8 mm × 0.55 mm (Max.)
Packaging type		Tape & reel
Mounting method		Reflow soldering

∗1 The communications distance varies according to the environment where the device is used. These are values in an ideal environment with no influence from any external electrical waves or metal. They are performance values with the reader/writer antenna and RC-S801/S802 in a horizontal state and with the respective center points located on the same line.
∗2 Compared to the RC-S801, the communications area is limited.
∗3 Depends on Host CPU.
∗4 Storage temperature of the IC chip in its standalone form.

· Features, design, and specifications are subject to change without notice.
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