NFC/RFID GATEWAY

SILICON ENGINES

MODEL 13563

The Model 13563 NFC/RFID Gateway is a versatile Near Field Communications (NFC) platform for NFC applications. The module provides a portal for smartphones and tablets to interface with a wide range of applications including vending machines, point-of-sale equipment and industrial controls.

The Model 13563 reads and writes data to High Frequency RFID tags and cards and can store data for use in applications such as access control and consumer loyalty cards.

In addition, the Model 13563 supports mixed-mode NFC/RFID applications. For example, it talks to both NFC-enabled Android smartphones and HF RFID loyalty cards. The gateway continually scans between NFC and RFID modes, and switches automatically.

SPECIFICATIONS

- 13.56 MHz transceiver with built-in antenna
- Communicates with smartphone or tablet using NFC
- Near-field operating range
- Reads and writes to industry standard HF RFID cards and tags
- 10/100 Ethernet interface to host
- USB full-speed interface to host
- Optional MQTT protocol support
- 32-bit ARM Cortex M3 processor, 120 MHz, provides system intelligence
- Fully customizable for volume applications

VERSATILE NFC/RFID PLATFORM

Can be customized for specific applications

NFC ▶ Portal for smartphone or tablet for system communication

HF RFID ▶ Read and write HF RFID cards, tags and key fobs

M2M ▶ Integrates into machine-to-machine network

Time to get started on your NFC/HF RFID application…

Putting NFC to work…

NFC coming to a smartphone near you: Dozens of smartphones are already equipped with NFC, including many Android phones, and increasingly more and more smartphones are being designed with NFC technology.

NFC tablets: Many tablets also support NFC, enabling users to effortlessly and instantly share photos, web pages, contact details, files, etc. Tablets are also being used in conjunction with NFC tags to program events such as lighting or sound control.

NFC gateway: The Model 13563 provides an NFC interface that can be used by a variety of products, for example, point-of-sale systems and industrial controls.

NFC applications…

Manager mode access: Smartphones or tablets can be used to program an industrial control system and automate events.

Consumer loyalty programs: Customers can quickly identify themselves to a vendor's system, qualifying for points, discounts, and premium service.

Social networking: NFC can be used for social networking including sharing contacts, files, and photos or playing multi-player gaming applications on mobile devices.

HF RFID cards, key fobs, and tags…

HF RFID: High-frequency RFID operates at 13.56 MHz and is intended for short range use. HF RFID tags are preferred over UHF RFID (900 MHz) for applications in which it is necessary to avoid cross-talk with other nearby RFID elements.

Cards and key fobs: Cards and key fobs embodying HF RFID tags are issued to customers so they can quickly identify themselves to a system.

OEM tag reader: The Model 13563 serves as an OEM tag reader that can readily be adapted for a variety of applications.

M2M support…

MQTT protocol: The Model 13563 is available with the MQTT protocol, rapidly emerging as the industry-standard technology for machine-to-machine communications.

Custom I/0: Silicon Engines can provide interfaces to a wide variety of equipment, including temperature sensors, access door switches, etc.

System interface…

USB: The Model 13563 provides a full-speed USB interface.

Ethernet: The Model 13563 provides a 10/100 megabit/second Ethernet port for connection to the host through a CAT5 LAN cable.

Power compatibility…

USB power: Operates from 5V power provided by the host over the USB cable. If using Ethernet, the Model 13563 can be powered using a 5V charger with a standard micro-B USB connector.

Custom variations…

We can build your system: Contact Silicon Engines with your requirements.

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