

SOFTWARE SYSTEM SOLUTION IN SOUL



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We, SISOUL, value our customers who visit us. SISOUL was founded as NFC solution and module development company on Jul.2013.

The convergence of the new technology changes the world and created new revolution. It's fast adapted and created again. Now, we could not continue just the device development itself.

SISOUL continues to growth on the basis of technology management. And, with the continuous R&D investment, we'll create new IOT convergence and scratch the customer's back.

In 2016, We've got the EMVCo Level1. And In 2018, We've created non-battery fingerprint NFC card and Easy Multi-dongle which is not in the world, yet.

Sisoul will do our best as a "Good company as trusting partner".

I appreciate for your interest again and hope to see our growth together.

President WOOKYU.LEE



Sisoul Business Model : NFC Software Application with NFC Solution

NFC Module Manufacture and Solution
NFC IC and NFC Software technical support

History

NFC module development

2013

- Jul.2013 SISOUL established.
- Develop NFC application for mobile menu order system using NFC..

2014

- NFC module development and variation with software. (SMCP-I)
- Registered as Venture(Reg.No : 20140102649)
- Establish SISOUL R&D Center (2014110252)

Sales NFC module to POS company - Payco

2015

- Module customization for IMU, Payco payment terminal. (Nautilus Hyosung)
- Get the EMVCo Level1 certification with Payco Signpad
- Partnership with CISC semi conductor. (NFC test equipment company)

EMVCo L1 Certi. By Sisoul

2016

- Develop SMCP-III and get the EMVCo L1 certification with SDCP.
- Sales start for POS company - Payco
- Extension of market to other customer. (MCPAY, E2S, IMU, NICE, LGD ..)

Develop Multipad solution and Fingerprint Card

2017

- Develop the Sisoul Multipad. (SSCP-I)
- New Business for NFC Fingerprint Card without Battery.
- New Design of Multipad.

Upgrade solution and New product

2018

- Upgrade SMCP-III to SMCP-IV (change main chip to PN7462)
- Develop S-IPAD (Easy multi-dongle)
- Develop traffic payment terminal for tram.



Non-battery Fingerprint NFC card



SDCP (Sisoul NFC Dongle) SMCP-IV



Durable

- No Battery required and strong to cracking

Safe

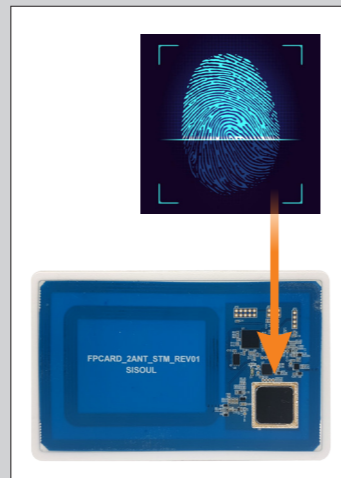
- The FP information is not transferred out of the cards. (Only on the card)

Secured

- Secure and stable access (FPC module adapted.) in 1sec
- Combines the NFC and the biometric security with SISOUL's energy harvesting technology
- FIDO U2F Protocol adapted (on demand)

Application

- Support various card application based on ISO-14443 A type4.
- Dual LED (Red, Yellow) adapted for the recognition



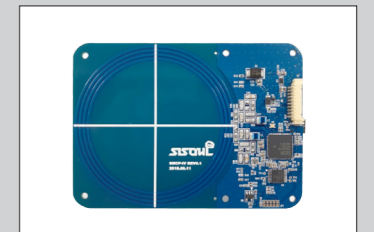
Compare	Normal FPC(competitor)	No powered FPC(SISOUL)
Required	FP Enrollment / Battery and Charger	FP Enrollment / Nothing.
Pros/Cons	Button press to activate cards, Need to charge the FPC, Working by itself.	Simple proximity access No Battery (Permanent, cost saving) Only available with reliable reader. No way to cheating from your wallet without your fingerprint.

Cost Effective and Optimized NFC module(Dongle) for the multiple application.

- Customized small and simple NFC Reader(module)
- Low cost NFC reader with SDK for Windows/Linux
- Automatic detect by the type of NFC cards.
- Various Application adaptable by software with one dongle like payment / access / KIOSK / UID reader or card writer.

Main Feature

CPU	ARM Cortex 32bit M0 processor (up to 20MHz)
Memory	160kB Flash memory/ 4kB SRAM
Supported Contactless Card	Full NFC tag support (Type 1, Type 2, Type 3, Type 4A and Type 4B) Mifare classic, ISO/IEC 14443 Type A and B ISO/IEC 15693 and ISO/IEC 18000-3 mode 3 Card Emulation, P2P, Felica
SAM Slot	4 SAMs
Interface	USB (mini B type port), UART, I2C or SPI (10 pin)
LED / Audio	Dual Color LED (RED, GREEN) / Buzzer
Dimension	93mm(L) x 68mm(W) x 10.0(H) mm
Power	USB Power 300mA @5V



Payment Multi-Dongle Sisoul-IPAD

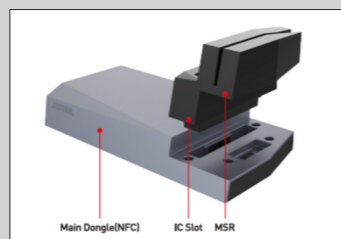


Cost effective, Selectable, Fast change, Extendable Multi Dongle by assembly

- Designed for easy slot replacement for IC and MSR.
- Secured from unauthorized replacement attempt by adapting tamper-proof technology.
- Nice payment dongle with low cost on your POS

Expected Main Feature

CPU	Cortex®-M3 CPU (120 MHz max) 32bit RISC
OS	Free RTOS
Memory	512KBytes memory (Flash) / 128kBytes SRAM
Support	Mifare, ISO 14443 A/B, ISO 15693, ISO 18092 (P2P), Felica, CE
Contact	ISO7816, Sync, Async Cards
MSR	ISO/IEC 7811 and JIS2 format support
SAM Slot	6 SAMs
Interface	RJ11(UART) 2 port (CAT, POS)
LED / Audio	4 LEDs (Ready, Process, Complete, Error) / Buzzer
Power	500mA @5V



Traffic Payment NFC terminal with BLE



Low cost traffic payment terminal with beacon advertising.

- Application Support for the BLE traffic terminal. (e.g. Handsfree payment system)
- Small and easy mount on the bar type stool with simple tie.
- Easy to change the beacon message through ethernet. (Multiple information can be transferred from control center)

Expected Main Feature

CPU	Cortex M5 Core CPU (500 MHz max) 32bit RISC
OS	Embedded Linux
Memory	256Mbytes DDR3L SDRAM. SD Card
Support	Mifare, ISO 14443 A/B, ISO 15693, ISO 18092 (P2P), Felica, CE
SAM Slot	4 SAMs
Interface	RJ45(Ethernet) USB (Debugging)
Beacon	nRF51822
LED	Dual Color LED (RED, GREEN)
LCD	4.3", TFT, 480 X 272
Power	1A @ 5V
Audio	Stereo Speaker.

