

KONA12

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KONA12 is a member of the KONA™ card Platform family. KONA12 is perfect for the use of EMV product by completing the certification from Visa & Master Card. In addition, multi application can be loaded for various value added service by using high capacity memory and dual interface. (Under the process PBOC Certificate.)

Product features

KONA 12 is a GlobalPlatform card and a dual interface card which has 36 Kbytes EEPROM. It supports "Dynamic Data Authentication" (DDA).

General Features

- JavaCard 2.2.1
- GlobalPlatform Card Specification 2.1.1
- VISA GlobalPlatform 2.1.1 Card with Configuration 3
- Data Encryption Standard (DES) and Dual / Triple key DES3 via co-processor
- PKI (Public Key Infrastructure) via co-processor for RSA
- Contact interface with T = 0 (Default) and T = 1 protocols according to ISO/IEC 7816-3
- Contactless interface with T = CL (TypeA) protocol according to ISO/IEC 14443
- Contactless interface with MIFARE® RF protocols according to ISO/IEC 14443-2

H/W Features

- Chip Model : NXP P5CD036
- CPU : 8-bit Secure_MX51
- ROM : 160 Kbytes
- EEPROM : 36 Kbytes
- RAM : 4,608 bytes
- Operating Temperature : -25°C ~ 85°C
- Operating Voltage : 1.62 V ~ 5.5 V

Applets

- VSDC 2.5.1 or VSDC 2.7.1
- PayPass M/Chip4 Select
- PSE 2.2
- Mifare Access Applet
- Optional. (ATM, E-Book, Loyalty, E-Cash, etc.)

Certificate

- Visa Certified
- Master Card Certified
- Under the process PBOC Certificate

Product detail information

Java Card Features

- **Java Card 2.2.1**
- **All features including RMI, Multiple Logical Channels and Garbage Collection**

Visa GlobalPlatform Features

- **Visa GlobalPlatform 2.1.1**
- **Configuration 3 implementation**
 - Public key DAP Verification
 - SCP02 with implementation option '15'
 - Global PIN via CVM interface
 - EMV Level 1 requirements
 - Delegated Management
 - Secure Channel Protocol (SCP)
 - : By default SCP02 is supported.
 - : Optionally, SCP01 can be selected.

Security Features

- **Cipher**
 - DES_CBC : NOPAD, ISO9797_M1, ISO9797_M2
 - DES_ECB : NOPAD, ISO9797_M1, ISO9797_M2
 - RSA : NOPAD, PKCS1
 - SEED_CBC : NOPAD, NRPAD
 - SEED_ECB : NOPAD, NRPAD
- **Signature**
 - DES_MAC8 : NOPAD, ISO9797_1_M2_ALG3, ISO9797_M1, ISO9797_M2
 - RSA_SHA : PKCS1, ISO9796
- **Message Digest**
 - MD5, SHA-1
- **RSA computation** : Up to 2,048 bits
- **RSA Key Generation**
 - RSA_KEYPAIR (key length up to 2,048 bits)
 - RSA_CRT_KEYPAIR (key length up to 2,048 bits)

Application fields



EMV Card

This product applies to Debit / Credit Card for EMV Migration since VSDC and M/Chip Applet are loaded and VISA and Master Card are certified. It can be used for not only VISA and Master Card but also Local EMV Card. Also, it can be used for PBOC.



Banking Card

When loaded with Banking applet such as ATM Applet, E-Book Applet, you can use this product as applications for general banks and as a public card issuing with EMV Application.



Loyalty Card

When you load the loyalty applet such as XLS applet from WRT, it is applicable for a loyalty card for being used in the loyalty service connecting with the loyalty system.



E-Cash Card

When you load E-Cash Applet in this product, it is applicable for a E-cash card which can purchase goods with replenishing value.



Transit Card

When you load Transit Applet(or E-Cash Applet) in this product, it is applicable for a E-cash card which can purchase goods by using a contact interface and also as a Transit Card in the AFC(Automatic Fare Collection) System for a bus or a subway by using a contactless interface.

One card can support
multi application services
in various ways.

Combination 1 : **EMV + ATM + Transit + Loyalty** / Combination 2 : **EMV + ATM + ETC + Loyalty**
Combination 3 : **ATM + E-Book + E-Cash + PKI** / Combination 4 : **Membership + PKI + Biometric**
Combination 5 : **ID + PKI + Biometric** etc.



Membership Card

When you load Membership Applet in this product, it is applicable for a general ID card and a membership card.



Government ID Card E-Passport Card, Health Card

When you load ID Applet, E-Passport Applet or Health card Applet in this product, it is applicable for a Government ID Card, a E-Passport Card or a Health Card since it has 'high capacity memory' and 'high security'.



Biometric Card

When you load Biometric Applet which stores, manages and compares the information of a fingerprint in this product, it is applicable for a biometric card and it is also applicable for the controlling system of entrance and exit and a security card.



ETC Card

When you load ETC (Electronic Toll Collection) Applet in this product, it is applicable for a payment card in the ETC system. And it can be used by both ways of 'Touch & Go' and OBU since it is a dual interface card.