

# KONA 10



**KONA 10** is a member of the KONA™ card Platform family. **KONA 10** is perfect for the use of EMV products by completing the certification from VISA & Master Card.

In addition, multi application can be loaded for various value added services by using high capacity memory and dual interface.



## PRODUCT FEATURES

**KONA 10** is a GlobalPlatform and dual interface chip which has 72 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
- ROM: 160 Kbytes
- EEPROM: 72 Kbytes
- RAM: 4.5 Kbytes
- Operating Temperature: -25°C ~ 85°C
- Operating Voltage: 1.62V ~ 5.5V

### Applets

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

### Certificate

- Visa Certified
- MasterCard Certified

## 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
  - SCOPO2 with implementation option '15'
  - Global PIN via CVM interface
  - EMV Level 1 requirements
  - Delegated Management
  - Secure Channel Protocol (SCP)
    - > By default SCOPO2 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 migrations. It can be used both for VISA and MasterCard. Also for Local EMV card programs.

## Banking Card

When loaded with Banking applet such as ATM Applet or E-Book Applet, you can use this product in general banking applications with the security of EMV environment.

## Loyalty Card

When you load the loyalty applet such as XLS applet from WRT, the chip can be used in loyalty card programs.

## E-Cash Card

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

## Membership Card

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

## Government ID Card

When you load the ID Applet, E-Passport Applet or Health Care Applet in this product, it can be used for Government ID-Card, E-Passport Card or Health Card thanks to its high memory capacity and its high level of security.

## PKI Card

When you load the PKI Applet in this product it is applicable for a PKI card connecting with PKI middleware since it supports PKI via co-processor for RSA.

## Biometric Card

When you load the Biometric Applet which stores, manages and compares the information of a fingerprint in this product, it is applicable for a biometric card, an access control card or a high security card.

## ETC Card

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

## ONE CARD SUPPORTS 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: E-Passport + PKI + Biometric

Combination 5: ID + PKI + Biometric etc

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