Advanced Card Systems Ltd.
Card & Reader Technologies

CryptoMate64
Cryptographic USB Token

A Product Presentation

Rundown

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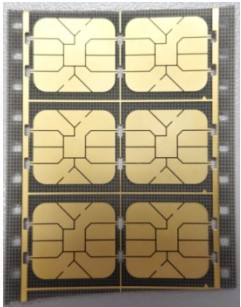4. Product Applications
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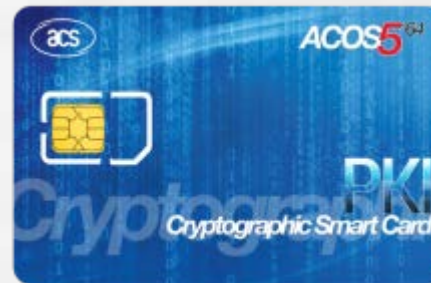# Product Overview

Product Overview

ACOS5-64 Series (64 KB EEPROM)
Cryptographic Smart Card and Token

Module   **Full-sized Card**   **SIM-sized Card**   **USB Token**

What is CryptoMate64?
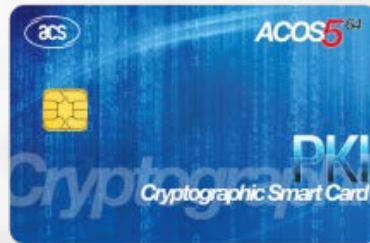
Smart Card Reader **+** ACOS5-64 Cryptographic Smart Card **=** CryptoMate64 USB Token

Physical Characteristics

Keychain hole

Dimension:
53.5mm (L) x 15.7mm (W) x 7.8mm (H)

Weight: 6 g

LED indicator

CryptoMate64 USB Token

Product Features

What are the Key Features of CryptoMate64?

Speed and Memory

- 64 KB EEPROM for Application Data
- High Speed Transmission (9600 BPS – 223,000 BPS)
- Configurable ATR
- Anti-tearing Function

Compliances and Certifications

- ISO 7816 Parts 1-4, 8-9 (T=0)
- NSH-1 (ICP Brazil) Certified
- Common Criteria EAL5+ (Chip Level)
- FIPS 140-2 (US Federal Information Processing Standards) compatible

Cryptographic Capability

- DES/3DES/AES-128/AES-192/AES-256/RSA (up to 4,096 bits)
- On-board RSA processor for key generation, signature and encryption
- Supports SHA-1 and SHA-256 hashing algorithm

Security Functions

- Provides multi-level secured access hierarchy
- Supports Secure Message and MAC
- Supports Mutual Authentication and Session Key Generation

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Comparison Charts

Comparison Chart

Category		ACOS5-64	CryptoMate64
Product Code		ACOS5-C	ACOS5T-B2
Communication Speed			
Contact *(Smart Card)*	9,600 BPS - 223,200 BPS	✓	✓
USB Full Speed			✓
User EEPROM Memory			
User Memory		64 KB	64 KB
ISO Standards			
Contact	ISO 7816 – 1/2/3	✓	✓
	ISO 7816 – 4	✓	✓
	ISO 7816 – 8/9	✓	✓

Comparison Chart

Category		ACOS5-64	CryptoMate64
Product Code		ACOS5-C	ACOS5T-B2
Protocol			
Contact	T = 0	✔	✔
File Systems			
Directory File		✔	✔
Transparent (Binary File)		✔	✔
Linear Fixed Record		✔	✔
Linear Variable Record		✔	✔
Cyclic File		✔	✔
EEPROM Endurance			
500,000 write/erase cycles		✔	✔

Comparison Chart

Category	ACOS5-64	CryptoMate64
Product Code	ACOS5-C	ACOS5T-B2
Cryptographic Capabilities		
DES/3DES	✓	✓
AES-128/192/256 bits	✓	✓
RSA-512 to 4096 bits (in 256-bit step)	✓	✓
SHA -1/SHA-2	✓	✓
Secure Messaging	✓	✓
Mutual Authentication	✓	✓
Applications		
E-government (e.g., National ID, Online Filing of Government Documents)	Digital Signature, Secured Network Access Control	Digital Signature, Secured Network Access Control
Logical & Physical Access Control (e.g., Enterprise Security, Time & Attendance, etc.)	Corporate ID, Windows Logon	Corporate ID, Windows Logon
Banking and Financial (e.g., Online banking, insurance, stock trading, etc.)	PKI Application, Network Security	PKI Application, Network Security

Product Applications

In what applications can we use CryptoMate64?

Encryption

Network Security

Digital Signature

Windows Log-on

E-Government Services

E-mail Security

In what areas can we apply CryptoMate64?

Company provides the token to its employees

Employees request for a digital certificate via the company website

Employee plugs CryptoMate64 into the computer

Employee uses his/her digital certificate to sign and encrypt the email

Employee stores the digital certificate in the token

Administrator checks the credentials and provides the employee with the link to download and store the certificate in the token

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In what areas can we apply CryptoMate64?

**Citizens go to Registration Authorities to apply for a Digital Certificate**

Certificate Authority provides the citizen with the digital certificate

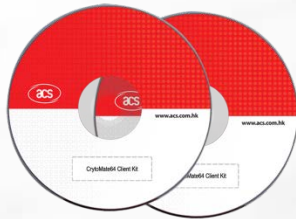**Citizen logs in to a secured website and submits the digitally signed and encrypted document to the government agency**

Citizen digitally signs and encrypts his Income Tax Statement using the digital certificate stored in the token
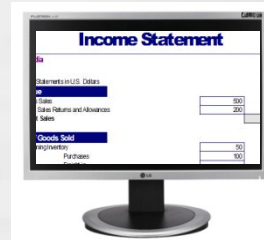
Related Products

CryptoMate-64 Client Kit

The CryptoMate64 Client Kit is a secure and easy-to-use package solution ideal for managing, protecting and using digital certificates.

All sensitive credentials and private keys are stored inside the CryptoMate64 and not in the threat-susceptible computer, thus ensuring that sensitive pieces of information never leave the smart card token providing added security for your digital credentials.

The client kit contains two types of packages - Admin Package and User Package.

Thank You!

For more information visit:

http://www.acs.com.hk/en/products/18/cryptomate64-usb-cryptographic-tokens/