



Advanced Card Systems Ltd.
Card & Reader Technologies



ACOS5-B

CRYPTOGRAPHIC CARD

A Product Presentation



Rundown

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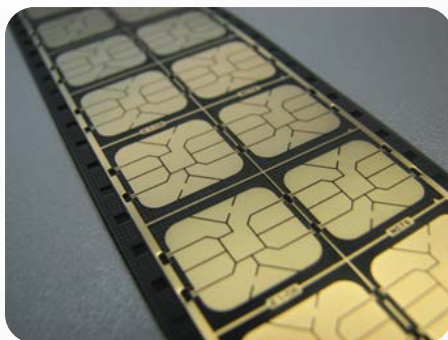


Product Overview

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ACOS5 Series (32KB EEPROM)

Cryptographic Smart Card and Token



Module



Full-Sized Card



SIM-Sized Card



**CryptoMate USB
Token**

For further detail about CryptoMate, please visit:

<http://www.acs.com.hk/index.php?pid=product&id=CRYPTOMATE>





Product Features



What are the Key Features of ACOS5?

Time-to-market

Mask chip shortens development & lead time

Unrivalled Security

Complies with ISO standards

Perfect medium for PKI applications

Safeguarding your Certificate private & public keys

High Portability

Applicable for different machines without compromising your security



Ease of integration

Can be quickly used with PKCS-& CSP-complaint software like Netscape, Mozilla, Internet Explorer and Outlook Express

High speed and high security

- High baud rate up to 115K bps
- Cryptographic processor

Strong performance

- RSA-512 signature:
62.5ms (w/CRT), 123.4ms (w/o CRT)
- RSA-1024 signature:
193.9ms (w/CRT), 604.8ms (w/o CRT)
- RSA-2048 signature:
1081.2ms (w/CRT)



Comparison Chart



Comparison Chart

Category		ACOS3	ACOS3 Combi*	ACOS5/ CryptoMate	ACOS6	ACOS6-SAM
Product Code		ACOS3-B/D	ACOS3-G	ACOS5-B/ ACOS5T-A	ACOS6-C	ACOS6S-B
Modules						
ISO 7816 compliant 8-contact module		✓	✓	✓	✓	✓
Communication Speed						
Contact	9,600 bps (default)	✓	✓	✓	✓	✓
	14,400 bps	✓	✓		✓	✓
	28,800 bps	✓	✓		✓	✓
	115,200 bps	✓	✓	✓	✓	✓
	223,200 bps	✓	✓		✓	✓
Contactless	106kbps/ 212kbps/ 424kbps/848kbps		✓			
EEPROM Size						
User Memory (byte)		32/72K	8K	32K	64K	32K



Remark: ACOS3 Contactless card has the same contactless features of ACOS3 Combi card

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Product Code		ACOS3-B/D	ACOS3-G	ACOS5-B/ ACOS5T-A	ACOS6-C	ACOS6S-B
Protocol						
Contact	T = 0	✓	✓	✓	✓	✓
Contactless	T = CL		✓			
ISO standards						
Contact	ISO 7816 – 1/2/3	✓	✓	✓	✓	✓
	ISO 7816 – 4			✓	✓	✓
	ISO 7816 – 8/9			✓		
Contactless	ISO 14443-1/2/3/4		✓			
	ISO 14443 Type A		✓			



Remark: ACOS3 Contactless card has the same contactless features of ACOS3 Combi card

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Product Code	ACOS3-B/D	ACOS3-G	ACOS5-B/ ACOS5T-A	ACOS6-C	ACOS6S-B
File Systems					
Directory File			✓	✓	✓
Transparent (Binary File)	✓	✓	✓	✓	✓
Linear Fixed Record	✓	✓	✓	✓	✓
Linear Variable Record			✓	✓	✓
Cyclic File			✓	✓	✓
Security Keys					
User, Admin & Application Specified PIN Support	✓	✓	✓		
DES/ 3DES	✓	✓	✓	✓	✓
3KDES					✓
Customizable PIN & Key Codes				✓	✓



Remark: ACOS3 Contactless card has the same contactless features of ACOS3 Combi card

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Product Code		ACOS3-B/D	ACOS3-G	ACOS5-B/ ACOS5T-A	ACOS6-C	ACOS6S-B
Cryptographic Capabilities						
DES/ 3DES		✓	✓	✓	✓	✓
3KDES					✓	
AES-128 bits				✓		✓
RSA-512, 1024, 2048 bits				✓		
SHA – 1, 256, 512				✓		
Secure Messaging		✓	✓	✓	✓	✓
FIPS140-2 compliant Random Number Generator					✓	✓
Authentication (MAC)	With Terminal	✓	✓	✓	✓	✓
	With ACOS3/ACOS6				✓	✓
	With Mifare Ultralight C/ DESFire/ DESFire EV1					✓
EEPROM Endurance						
100,000 write/erase cycles		✓			✓	✓
500,000 write/erase cycles			✓	✓		

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Product Code	ACOS3-B/D	ACOS3-G	ACOS5-B/ ACOS5T-A	ACOS6-C	ACOS6S-B
Applications					
E-government E.g. National ID, Health Card, etc.			PKI Application, Multilevel secured access hierarchy	Multi-Purse in one application, Multilevel secured access hierarchy	
Logical & Physical Access Control E. g. Enterprise Security, Time attendance, etc.	Corporate Security/ Identification, Microsoft Windows Logon	Corporate Security/ Identification, Microsoft Windows Logon	Corporate Security/ Identification, Microsoft Windows Logon	Corporate Security/ Identification, Microsoft Windows Logon	Security Access Module (SAM)
Banking and Financial E.g. Online banking, insurance, stock trading, etc.	Network Security, Secure Messaging	Network Security, Secure Messaging	PKI Application, Network Security, Secure Messaging		Security Access Module (SAM), Secure Messaging
Loyalty and Retail E.g. Cashless retail payment, customer loyalty, etc.	E-Payment, Customer Loyalty	E-Payment, Customer Loyalty	E-Payment, Customer Loyalty	E-Payment, Customer Loyalty	Security Access Module (SAM)
Transportation E.g. Automatics fare collection, etc.					Security Access Module (SAM)



Product Applications

In what areas can we apply ACOS5?

- Network Security
- File and Disk Cryptography
- E-signature and email
- Secure access to networks



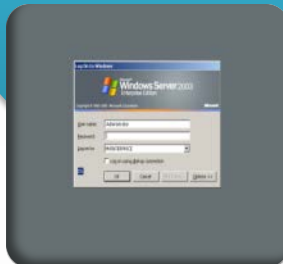
Security

- Healthcare
- PKI systems



Management

- Microsoft Windows Logon
- Corporate Identity
- E-ID card
- Campus card



Transaction

- Payment system
- E-Purse
- E-commerce



Identification





Related Products

ACOS5 Related Products

ACOS5 Software Development Kit (SDK)

- Develop your own Cryptographic PKI applications yourself



For Developers

To develop Cryptographic PKI applications in ACOS5 Smart Card

For further details about the SDKs, please visit:

ACOS5 SDK: <http://www.acs.com.hk/index.php?pid=product&id=ACOS5-SDK>



ACOS5 Related Products

ACOS5 Client Kit – Run Cryptographic PKI applications yourself



For IT operators and end-users

(Enterprise Use)

To run Cryptographic PKI applications in
ACOS5 Smart Card

CryptoMate Client Kit – Run Cryptographic PKI applications yourself



For IT operators and end-users

(Enterprise Use)

To run Cryptographic PKI applications in
CryptoMate

For further details about the SDKs, please visit:

ACOS5 Client Kit: <http://www.acs.com.hk/index.php?pid=product&id=ACOS5-CLIENT-KIT>

CryptoMate Client Kit: <http://www.acs.com.hk/index.php?pid=product&id=CRYPTOMATE-CLIENT-KIT>



Ordering Information

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Products	Description
ACOS5-B1AACSA1200	ACOS5 32K bytes cryptographic card (glossy PVC)
ACOS5-B2AACSA1200	ACOS5 32K bytes cryptographic SIM card (glossy PVC)
ACOS5T-A1ACSA02	CryptoMate USB Token, RoHS -compliant
SDK-ACOS5/25	ACOS5 Software Development Kit
EVK-ACOS5/25	ACOS5 Client Kit
EVK-ACOS5T/25	CryptoMate Client Kit

New code vs. old code:

ACOS5-B1AACSA1200: ACOS5-32-GP

ACOS5-B2AACSA1200: ACOS5-32-SIM-GP

ACOS5T-A1ACSA02: ACOS5-CTM-R

SDK-ACOS5/25: SDK-ACOS5

EVK-ACOS5/25: EVK-ACOS5-CTM

EVK-ACOS5T/25



Thank You!!!

More information on:

<http://www.acs.com.hk/index.php?pid=product&id=ACOS5>

