



Advanced Card Systems Ltd.
Card & Reader Technologies



ACOS5-64

CRYPTOGRAPHIC CARD

A Product Presentation



Rundown

1. Product Overview
2. Product Features
3. Comparison Chart
4. Product Applications
5. Order Information
6. Q & A



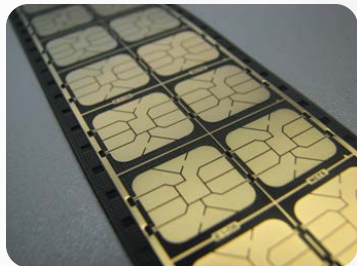


Product Overview



ACOS5-64 Series (64KB EEPROM)

Cryptographic Smart Card and Token



Module



Full-Sized Card



SIM-Sized Card



**CryptoMate64 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 ACOS5-64?

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 223K bps
- Cryptographic processor

Strong performance

- RSA-1024 signature:
140.9ms (w/CRT), 151.3ms (w/o CRT)
- RSA-2048 signature:
380.4ms (w/CRT), 879.4ms (w/o CRT)
- RSA-4096 signature:
1332.3ms (w/CRT), 6490.5ms (w/o CRT)



Comparison Chart



Comparison Chart

Category		ACOS3	ACOS3 Combi*	ACOS3X	ACOS5-64	ACOS6	ACOS6-SAM
Product Code		ACOS3-B/D	ACOS3-G	ACOS3X-E	ACOS5-C	ACOS6-C	ACOS6S-B
Modules							
ISO 7816 compliant 8-contact module		✓	✓	✓	✓	✓	✓
Communication Speed							
Contact	9,600 bps	✓	✓	✓	✓	✓	✓
	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	256K	64K	64K	32K



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

Comparison Chart



Category		ACOS3	ACOS3 Combi*	ACOS3X	ACOS5-64	ACOS6	ACOS6-SAM
Product Code		ACOS3-B/D	ACOS3-G	ACOS3X-E	ACOS5-C	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

Comparison Chart



Category	ACOS3	ACOS3 Combi*	ACOS3X	ACOS5-64	ACOS6	ACOS6-SAM
Product Code	ACOS3-B/D	ACOS3-G	ACOS3X-E	ACOS5-C	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

Comparison Chart



Category		ACOS3	ACOS3 Combi*	ACOS3X	ACOS5-64	ACOS6	ACOS6-SAM
Product Code		ACOS3-B/D	ACOS3-G	ACOS3X-E	ACOS5-C	ACOS6-C	ACOS6S-B
Cryptographic Capabilities							
DES/ 3DES		✓	✓	✓	✓	✓	✓
3KDES					✓		✓
AES-128/192/256 bits					✓		✓
RSA-512, 768, 1024, 1280 ... 4096 bits (256steps)					✓		
SHA – 1/ SHA-2					✓		
Secure Messaging		✓	✓	✓	✓	✓	✓
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			✓		✓		



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

Comparison Chart

Category	ACOS3	ACOS3 Combi*	ACOS3X	ACOS5-64	ACOS6	ACOS6-SAM
Product Code	ACOS3-B/D	ACOS3-G	ACOS3X-E	ACOS5-C	ACOS6-C	ACOS6S-B
Applications						
E-government E.g. National ID, Health Card, etc.				PKI Application, Multilevel secured access hierarchy	Multi-Purpose in one application, Multilevel secured access hierarchy	
Logical & Physical Access Control E. g. Enterprise Security, Time attendance, etc.	Corporate Security/ Identification	Corporate Security/ Identification	Corporate Security/ Identification	Corporate Security/ Identification, Microsoft Windows Logon	Corporate Security/ Identification	Security Access Module (SAM)
Banking and Financial E.g. Online banking, insurance, stock trading, etc.	Network Security, Secure Messaging	Network Security, Secure Messaging	Network Security, Secure Messaging	PKI Application, Network Security, Secure Messaging	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	E-Payment, Customer Loyalty	Security Access Module (SAM)
Transportation E.g. Automatics fare collection, etc.						Security Access Module (SAM)



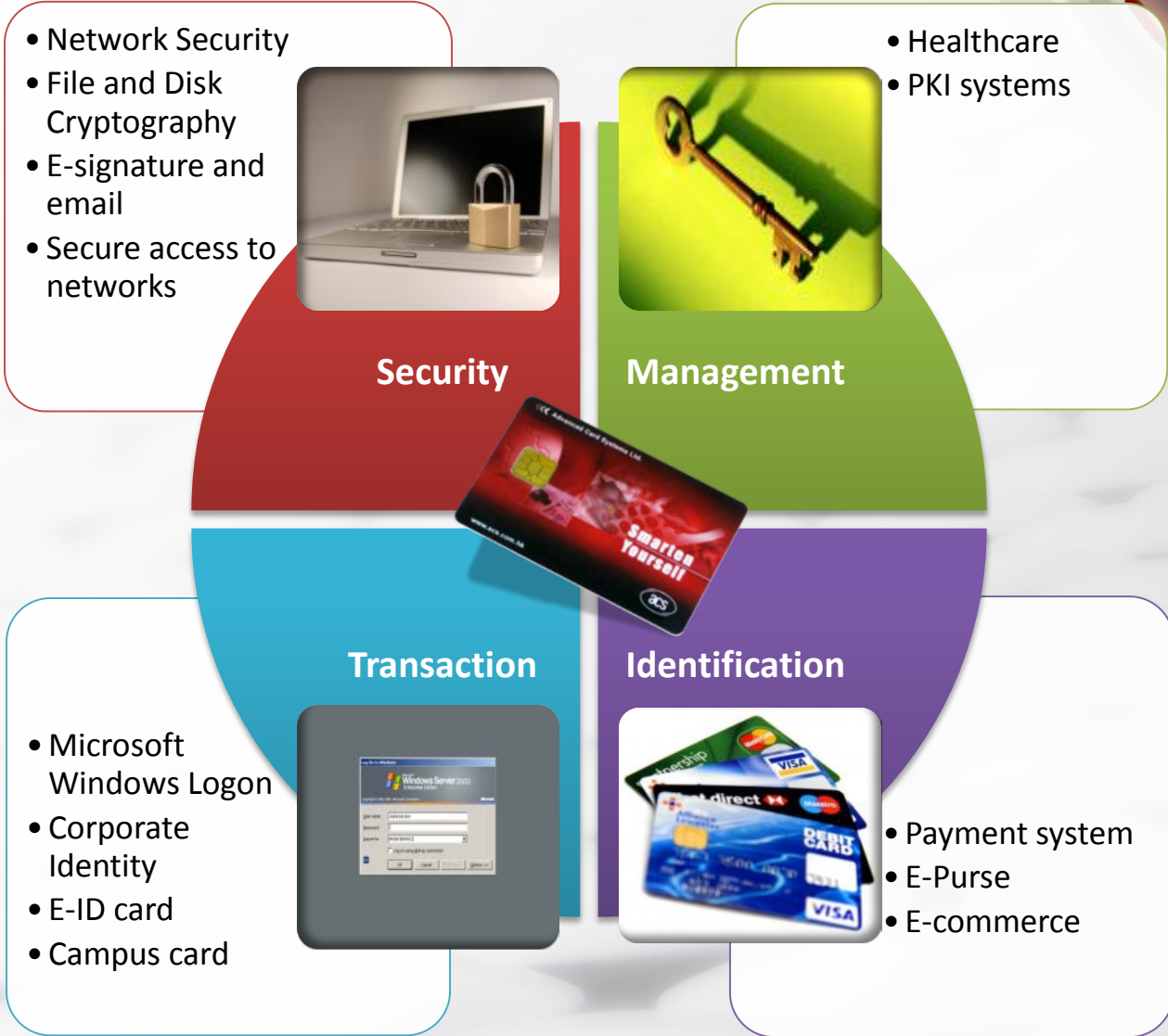
Remark: ACOS3 Contactless card has the same contactless features of ACOS3 Combi card



Product Applications



In what areas can we apply ACOS5-64?





Ordering Information

Ordering Information



Products	Description
ACOS5-C1AACSA2000	ACOS5 64K bytes cryptographic card (glossy PVC)
ACOS5-C2AACSA2000	ACOS5 64K bytes cryptographic SIM card (glossy PVC)
ACOS5T-B2ACSA04	CryptoMate64 USB Token, RoHS –compliant, CCID Version



Thank You!!!

More information on:

<http://www.acs.com.hk/acos5.php>



The ACS logo, consisting of the letters "acs" in a red, lowercase, sans-serif font, enclosed within a red oval border.