



**Advanced Card Systems Ltd.**  
Card & Reader Technologies



# ACOS6

Multi-Application & Purse Card (MAP Card)

## A Product Presentation



# Rundown

1. Product Overview
2. Product Features
3. Comparison Charts
4. Product Applications
5. Q & A

# Product Overview

# Product Overview

## ACOS6 (64 KB EEPROM)

Multi-Application Multi Purse [MAP] Smart Card



**Module**



**Full-sized card**



**SIM-sized card**

# Product Features



# What are the Key Features of ACOS6?

## Multi-Application and Purse Card

- High speed and flexible smart card offering cost effective solutions
- Specifically designed to address the requirements of multiple applications and multiple e-purses

## Security Features

- DES/Triple DES capabilities
- AES-128 support
- Hardware based random number generator compliant to FIPS 140-2
- Mutual authentication with session key generation
- Multi-level secured access hierarchy

## Compliance to Standards

- ISO 7816 Parts 1, 2, 3, 4
- ISO 7816 Part 4 file structures – Transparent, Linear fixed, Linear Variable, Cyclic

## Storage and other Features

- 64 KB EEPROM Size
- High Baud rate of up to 223 Kbps
- Anti-tearing done on file headers and PIN commands

# Comparison Charts

# Comparison Chart

Category		ACOS6	ACOS6-SAM
Product Code		ACOS6-C	ACOS6S-B
Communication Speed			
Contact	9,600 BPS - 223,200 BPS	✓	✓
User EEPROM Memory			
User Memory		64 KB	32 KB
ISO Standards			
Contact	ISO 7816 – 1/2/3	✓	✓
	ISO 7816 – 4	✓	✓
Protocol			
Contact	T = 0	✓	✓
File Systems			
Directory File		✓	✓
Transparent (Binary File)		✓	✓
Linear Fixed Record		✓	✓
Linear Variable Record		✓	✓
Cyclic File		✓	✓



# Comparison Chart

Category	ACOS6	ACOS6-SAM
Product Code	ACOS6-C	ACOS6S-B
EEPROM Endurance		
100,000 write/erase cycles	✓	✓
Cryptographic Capabilities		
DES/3DES	✓	✓
3DES		✓
AES-128		✓
Secure Messaging	✓	✓
Mutual Authentication	✓	✓
Applications		
<b>e-Government and e-Healthcare</b> (e.g., Identification, Healthcare ID, etc.)	Identification, Healthcare ID,	Identification, Healthcare ID,
<b>Banking and Financial</b> (e.g., Online banking, insurance, stock trading, etc.)	Network Security	Network Security
<b>Loyalty and Retail</b> (e.g., Cashless retail payment, Customer loyalty, etc.)	e-Purse, Customer Loyalty, Online Top-Up	e-Purse, Customer Loyalty, Online Top-Up

# **Product Applications**

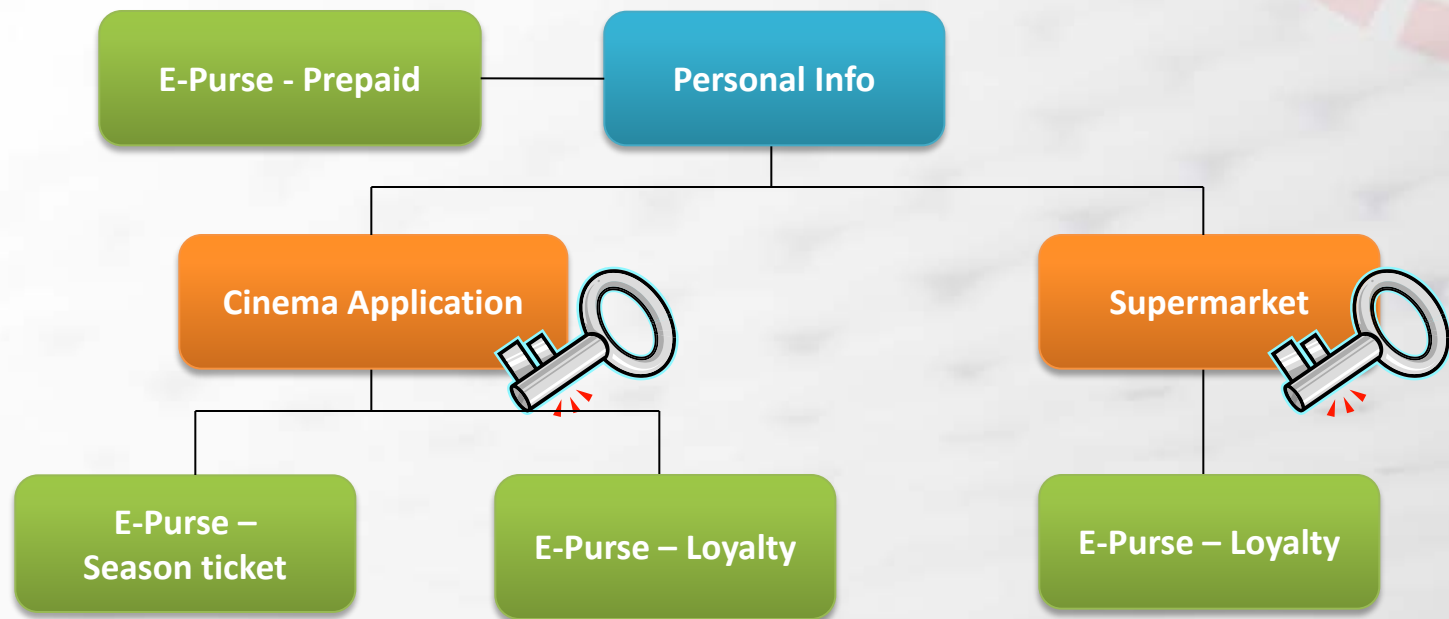
The ACS logo, consisting of the lowercase letters 'acs' in a red, sans-serif font, enclosed within a red oval border.

acs

# In what areas can we apply ACOS6?



# ACOS6 Sample Application



# How to Use ACOS6 - Overview

## Sample Scenario: e-Purse and Loyalty Application

Customer submits e-Purse and Loyalty Card application form



Processes application in Card Registration Terminal



e-Purse and Loyalty Card (ACOS6) is issued



Information stored

e.g.:

1. Customer Name
2. Gender
3. e-Purse Value
4. Points Earned



At the Redemption Terminal it can check the accumulated points and converts to gift items or e-Purse Value



At the terminal, the amount of the transaction is deducted from the prepaid (e-Purse value) and card is updated with the accumulated points



Customer makes purchases and presents ACOS6 card to purchase and earn points



acs



# Related Products

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

acs



# ACOS6 Related Product

## ACOS6 Software Development Kit (SDK)

Develop your own Multi-Application & Purse applications



### For Developers

To develop multi-application and purse applications in:

- ACOS6 Smart Card
- ACOS3 Smart card
- ACOS6 SAM card \*

*\*ACOS6-SAM supports various client cards which include ACOS6 and ACOS3*

For further details about the SDK, please visit:

ACOS6 SDK: <http://www.acs.com.hk/en/products/117/acos6-multi-application-purse-smart-card-software-development-kit/>

# Thank You!



**For more information, visit:**

<http://www.acs.com.hk/en/products/103/acos6-multi-application-purse-card-map-card/>