ACOS3X

ACOS3x
Identification
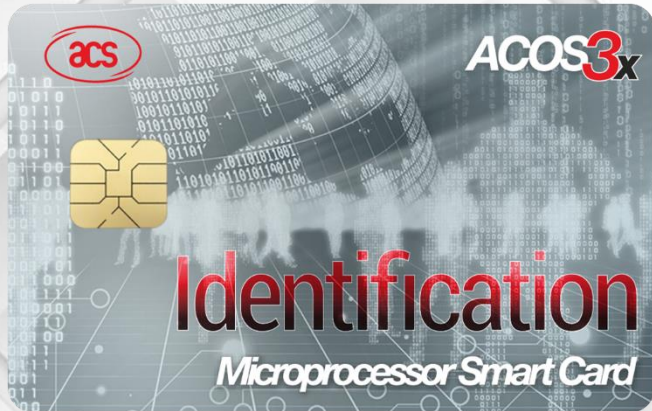*Microprocessor Smart Card*

Advanced Card Systems Ltd.
Card & Reader Technologies

Outline

1. Product Information
    - Product Overview
    - Product Features
    - Technical Specifications
    - Certifications/Compliance
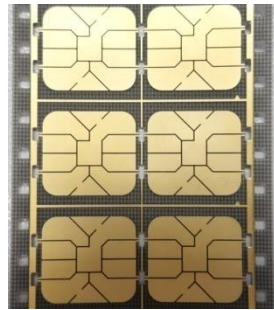2. Product Applications

Product Information

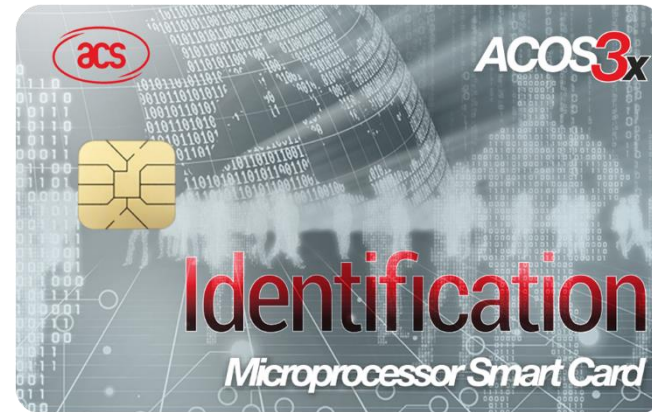# ACOS3X (256KB EEPROM)

Module

Full-sized Card

Key Features of ACOS3X

KEY FEATURES

- Based on ACOS3 platform with larger EEPROM memory size and faster processing time

- 256 KB EEPROM Size

- High Baud rate of up to 223.2 Kbps with modifiable ATR

- Account data structure for highly secure payment applications as an optional feature
- Maximum support of 128 user files

- Can be paired with ACOS6-SAM for key diversification and mutual authentication

SECURITY FEATURES

- DES/3DES

- AES

- 5 secret codes + issuer code

- Session key based on FIPS 140-2 compliant true random numbers

- PIN code that can be updated by card holder

COMPLIANCE TO STANDARDS

- ISO 7816 Parts 1, 2, 3 supporting the T=0 direct protocol

acs

Technical Specifications

	ACOS3X
Product Code	ACOS3X-E
User EEPROM Memory	
User Memory	256 KB
Compliance to ISO Standards	
Contact — ISO 7816 – 1/2/3	✓
Communication Speed and Protocol: Contact Interface	
Protocol	T=0
Speed	223.2 kbps
Operating Conditions	
Temperature	-25 °C to 85 °C

Technical Specifications

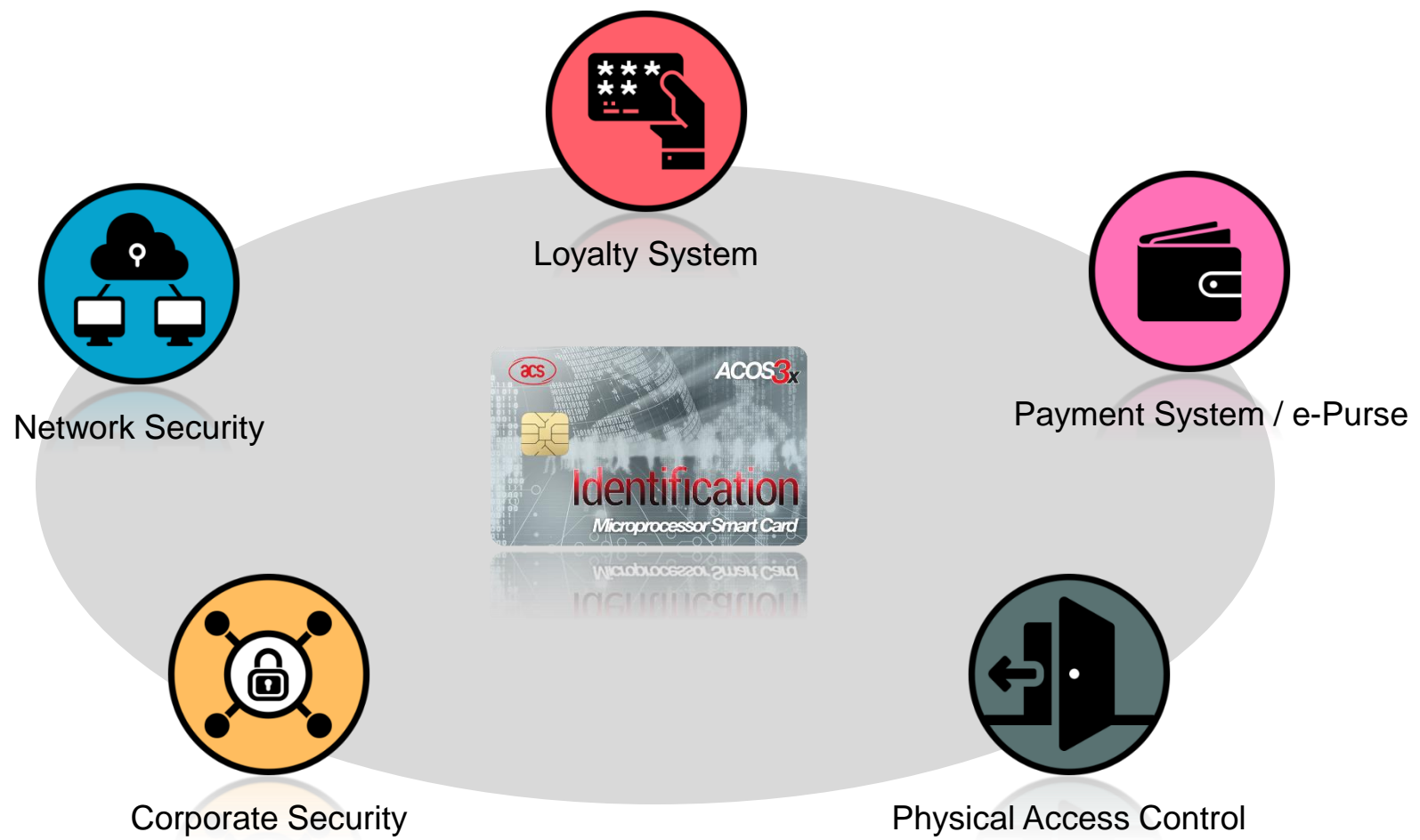|	ACOS3X
File System	
Transparent (Binary File)	✓
Linear Fixed Record	✓
Cryptographic Capabilities	
DES/3DES	56/112 bits
AES	128/192 bits
MAC	✓
Secure Messaging	✓
Mutual Authentication	✓
Random Number Generator	✓
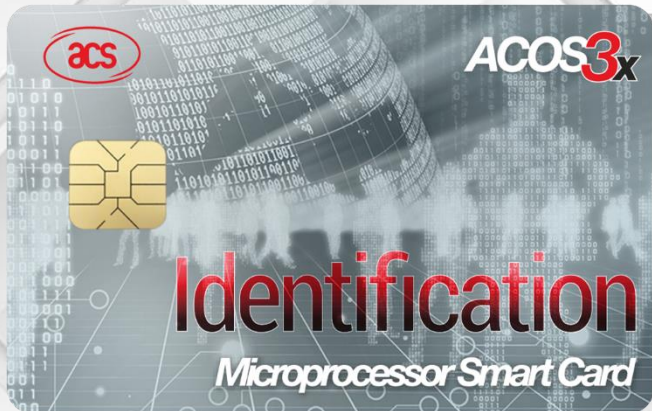
Product Applications

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In what areas can the ACOS3X be used?

Loyalty System

Network Security

Payment System / e-Purse

Identification
Microprocessor Smart Card

Corporate Security

Physical Access Control

How to Use ACOS3X - Overview

Sample Scenario: Student Card Application

Student ID (ACOS3X Card)

SAM cards are stored inside the device for mutual authentication

- **Authenticate the data received from the student card inserted, and prove to the cards the authenticity of the terminal.**

Information stored

e.g.:

1. **Student Name**
2. **Gender**
3. **Biometric Data (Fingerprint)**
4. **e-Purse amount**
5. **Library record**

Smart Card Reader (e.g., ACR1281)

Classroom

- Classroom door access
- Records the attendance in the school database

Computer Center

- Printing services payment
- Computer Login

Library

- Borrow books
- Transactions are transferred to library database

Thank You!

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