



**SECURE
METRIC**
TECHNOLOGY

SecureCOS is an advanced secure cryptographic Smart Card integrated with our own proprietary SecureCOS (Card Operating System) which is specially designed to support high security level Smart Card and Public Key Infrastructure (PKI) applications. It comes with industry latest Dual Interface technology where on the Contact Interface it complies with ISO7816-3 and supports both T=0 and T=1 protocols; whereas on the Contactless Interface it complies with ISO/IEC 14443A and supports T=CL protocol.

SecureCOS supports many popular security algorithms such as RSA, DES, 3DES, MD5 and SHA-1. Onboard 1024-bit RSA key pair generation together with built-in advanced cryptographic functions make it a perfect choice for Physical Access combines with PKI and Challenge Response Authentication implementation. As the middleware is designed to compliance with PKCS#11 and Microsoft CAPI standards, SecureCOS can be seamlessly integrated into many popular applications such as Internet Explorer, Outlook, Outlook Express, Netscape Communicator, Firefox, popular VPNs and more.

Contactless transaction has been in the highlights for years and definitely the wave is still moving on. Some credit card providers have implemented contactless payment for small amount transactions and proven to be very successful. Contactless mass transit system for public transportation has been implemented in many countries and the acceptances are remarkable. Contactless physical access security is nothing new to us, and we will surely see more new and excited applications on the go.

SecureCOS DUAL is a remarkable Dual Interface technology Smart Card with strong yet flexible security platform for easy integration into any Smart Card or 2FA implementation at most affordable costing.

SC
SECURECOS



SC
SECURECOS

This single contact interface model is compliant with ISO7816-3 and supports both T=0 and T=1 protocols. It is compatible to any Smart Card reader that is PC/SC and ISO7816 compliant.

SC
SECURECOS
DUAL

It comes with industry latest Dual Interface technology where on the Contact Interface it complies with ISO7816-3 and supports both T=0 and T=1 protocols; whereas on the Contactless Interface it complies with ISO/IEC 14443A and supports T=CL protocol.

Advantages of using SecureCOS

Dual Interface (SecureCOS DUAL)

By combining both contact and contactless connectivity into one single Smart Card will surely open up more business opportunities to our partners who can now offering trendy contactless mode with strong Smart Card security foundation remain.

Cost Effective

SecureCOS is designed and aimed for bank or government projects that given high volume potential thus we wish to position our product at most competitive options ever. Why pay more!

Secure

SecureCOS is built according to international Smart Card security standards with rigid requirements to ensure for maximum security integrity.

Versatile

SecureCOS can securely hold multiple security credentials, allowing support for many concurrent PKI applications.

Compatible

SecureCOS can work on any Smart Card reader that compliant to either ISO 7816-3 or ISO/IEC 14443A. It also bundle with the middleware that provides “out of the box” support for Internet Explorer, Microsoft Outlook, Outlook Express, Netscape Communicator or any software product based on the MS-CAPI or PKCS#11 standards. We also provide partners and OEM customers with a standard crypto tool kit to ease integration work. SecureCOS supports browsers with either Active X or Java Applet interface.

Customizable

We are willing to customized our SecureCOS for any feasible projects if the need arise. We can offer what other competing products don't.


SecureCOS Feature Highlights

- Contact interface complies with ISO 7816-3, and supports both T=0 and T=1 protocols. Contact interface baud rate is 9600 to 115200 bps.
- Contactless interface complies with ISO/IEC 14443A, and supports T=CL protocol. Contactless interface supports the following baud rates: 106 kbps, 212 kbps and 424 kbps.
- Supports clock stop mode for longer lifespan.
- Supports for use of different ATR information for cold and warm resets.
- Hardware-generated random number, and compliance with FIPS140-2.
- Globally unique hardware ID.
- Rapid Triple DES algorithm based on hardware.
- On-chip RSA key pairs generation.
- Supports for RSA algorithm up to 2432 bits.
- Supports for ECC algorithm up to 239 bits.
- 4 KV ESD (ElectroStatic Discharge) protections.
- RoHS compliant.
- JCOP2.0 and JCOP2.2 (Dual Interface)

How to get started

What you need now is to get a set of SecureCOS Developer Kit which will facilitate all you needs to start integrating SecureCOS Smart Card into your software application.

The contents inside the Developer Kit are listed as below:-

<p>SecureCOS Developer Kit</p> 	<ul style="list-style-type: none"> • 1 SecureCOS DEMO Smart Card • 1 SecureCOS DUAL DEMO Smart Card • A software/utilities CD-ROM • Contents inside the CD-ROM <ul style="list-style-type: none"> - Installation Guide - Developer Guide - API Samples for PC/SC, PKCS#11 Interface, CryptoAPI and Middleware Installation - DLLs and Header Files - Runtime Installation Package - Card Manager for Admin and User - User Guide for Online DEMO Card Management System
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SecureCOS Technical Specifications

	SecureCOS	SecureCOS DUAL
Hardware Platform	Secure Microprocessor Smart Card compliance to ISO 7816-3 and FIPS140-2 RNG.	
Processor	8-bit	
Card Operating System	Own proprietary SecureCOS	
Card Platform	JCOP2.0 and Compatible to PC/SC reader.	Philip SmartMX Platform, Java Card 2.2.1, GlobalPlatform 2.1.1.
Supported Protocols	T=0 and T=1	T=0 and T=1 (contact); T=CL (contactless).
Baud Rate	9600 to 115200 bps	9600 to 115200 bps (contact); 106kbps, 212 kbps and 424 kbps (contactless).
PKI Middleware	Compliance to PKCS#11 and MS CAPI, hot-pluggable to Internet Explorer, Outlook, Outlook Express, Netscape, Mozilla and Firefox.	
Supported PKI Interface	Active X Control or Java Applet	
Memory Size	32k (26K for User) on Smart Chip	72k (50+K for User) EEPROM on Smart Chip, 160K ROM.
Certificate Storage	X.509 v3 Certificate Storage	
On-Board Security Algorithms	DES, 3DES, SHA-1, and RSA 2048-bit key pairs generated onboard; true Random generator compliant to FIPS 140-2 certification.	
Chip Security Level	Secured and Encrypted Data Storage	
Electrical	Operating at 5V DC +/- 10% (class A), 3V DC +/- 10% (class B), 1.8V DC +/- 10% (class C); Max supply current < 20 mA; ESD protection < 5KV.	
Operating Temperature	0 C to 70 C (32 F to 156 F)	
Storage Temperature	-40 C to 85 C (-40 F to 185 F)	
Card	PVC and RoHS compliance.	
Memory Data Retention	At least 10 years	
Memory Cell Rewrites	At least 100,000 times	



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www.securemetric.com

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