



# M.O.S.T. Card<sup>®</sup>

Low Cost High Security Card Family



M.O.S.T. Cards<sup>®</sup> are a microprocessor-based smart card family designed for multi-function and/or high-security applications. M.O.S.T. Cards let you design a smart card system that grows with your needs, supporting multiple functions, applications, and readers—all while maintaining high security.

The family features up to 144 kB of user memory that can be configured for high security and purse functions. The cards contain the M.O.S.T. Card Operating System that supports a variety of security measures, including SHA-1 & SHA-256 bi-directional/mutual authentication, DES, 3DES, AES encryption, PIN/passwords, and internal random number generation for unique digital signatures and session journaling. The OS also features built-in anti-tearing mechanisms to support heavy transactional environments.

## M.O.S.T. Card Highlights

### Benefits

- High-security architecture
- Large user memory
- T=0 or T=1 protocols
- PC/SC compatible
- Negotiable communication speed (PTS)
- Rapid card development
- Multiple reader and terminal choices
- ISO 7816-1 through 7816-4 compliant

### Features

- 3 V-5 V operating voltage range
- Ultra low power CMOS ( 100µA standby, 10mA active)
- User memory can be configured an unlimited number of times
- ATR configuration and T=0 serial interface in accordance with ISO standard 7816 (asynchronous transmission)
- Data retention > 100 years
- Minimum of 5x10<sup>5</sup> write/erase cycles
- Electrostatic discharge protection > 4,000 V



### Dedicated Semiconductor and operating system countermeasures guard against:

- Side channel attacks
- Advanced fault attacks
- Velocity checking
- Voltage attacks
- Frequency attacks
- Temperature glitch attacks
- Optical attacks

### Secure printing options include:

- Laser engraving/indenting
- Guilloche and rosettes
- Microprinting
- Optically Variable Devices (OVDs) and holograms
- Hidden Card Validator™ graphics with lens viewer
- Ultraviolet (UV) Ink
- Watermark

M.O.S.T. <sup>®</sup> (Microprocessor Based) Cards					
CardLogix Part Number	Product Functionality/ Applications	Security Features	User-Data Memory (EEPROM)	Communications Protocols	Max. Supply Current
CLXSU064KJ4/T=0ED	Multifunction, Purse/Wallet, Identity, E-Commerce and Gaming	SHA-1 Authentication, Purse, DES, and 3DES Encryption	8kB	T=0	3 milliamps
CLXSU128KJ4/T=0ED	Multifunction, Purse/Wallet, Identity, E-Commerce and Gaming	SHA-1 Authentication, Purse, DES, and 3DES Encryption	16kB	T=0	3 milliamps
CLXSU256KJ4/T=0ED	Multifunction, Purse/Wallet, Identity, E-Commerce and Gaming	SHA-1 Authentication, Purse, DES, and 3DES Encryption	32kB	T=0	3 milliamps
CLXSU512KJ4/T=0ED	Multifunction, Purse/Wallet, Identity, E-Commerce and Gaming	SHA-1 Authentication, Purse, DES, and 3DES Encryption	64kB	T=0	3 milliamps
CLXSU512KC8/T=0ED	Multifunction, Purse/Wallet, Identity, E-Commerce and Healthcare	SHA-256 Authentication, Purse, AES, and DES Encryption	72kB	T=0	3 milliamps
CLXSU001MC7/T=0ED	Multifunction, Purse/Wallet, Identity, E-Commerce and Healthcare	SHA-256 Authentication, Purse, AES, and DES Encryption	144kB	T=0	3 milliamps

## Development Tools

M.O.S.T. Cards<sup>®</sup> are supported by the CardLogix M.O.S.T. Toolz™ File Creation Utility, and the Smart Toolz<sup>®</sup> Development Kit, featuring the powerful Winplex<sup>®</sup> API. M.O.S.T. Toolz enables rapid creation and enabling of sophisticated files and applications that make your card unique. The cards are fully compliant with ISO 7816-1 through 7816-4 standards and also work with the PC/SC API.

