



## SC 542

The VeriFone SC 542 smart card reader/writer supports a wide range of smart card applications and offers the advantages of a second smart card reader.

Now you can benefit from the combined functionality of a dual smart card reader/writer and a high-security PIN pad in a compact, cost-effective product. The SC 542 lets you support stored value card programs and value-added services in one convenient unit, reducing clutter at the checkout stand.

The SC 542 supports memory and microprocessor smart cards, while its second smart card reader supports retailer chip cards for added data storage or removable/upgradeable security modules. And the flexible unit is designed to the joint specifications from Europay, MasterCard and Visa (EMV) for smart card support.

### **Supports A Wealth Of New Services**

With the SC 542, you can deliver new programs and services that benefit your business today and tomorrow. Programs like electronic purse, which offers a new payment option, or electronic benefits transfer (EBT) for the delivery of government entitlements. You can also offer customer loyalty and frequent-shopper programs that reward repeat business and encourage larger sales amounts.

### **Physically And Electronically Secure**

The SC 542 provides the level of security you need. It can give you basic protection or, through a selection of optional hardware and software features, meet the most stringent requirements for high physical and electrical security.

The units have an integral security module, with a custom-designed encryption chip, that offers simultaneous support for encryption and key management functions. The module works with DES and RSA encryption plus Master/Session Key, DUKPT (Derived Unique Key Per Transaction) and regional

key management methods. Durable, tamper-resistant plastic casing further safeguards the systems against incursion. And optional built-in detection features can sense sophisticated attempts at physical or electronic tampering. Any unauthorized attempt to access the system's security module results in the immediate and automatic erasure of the secret data stored in the chip.

### **Optional Graphics Display**

The SC 542 offers an optional display that supports a variety of graphic character sets, including those used in Japanese, Chinese, Arabic and Cyrillic-based languages. The display can be configured to show two lines of Chinese prompts, two lines of large characters or up to four lines of roman text. It can even display two languages simultaneously, such as French and English, for use in multilingual markets.

### **Supports Custom Application Development And Remote Downloading**

VeriFone's SC family of products shares a common development environment, which means you can port applications written for the SC 450™ or SC 455™ smart card readers/writers to the higher functionality SC 542. Using industry-standard C language, developers also can create new applications, then download them to the SC 542 either directly or remotely, through VeriFone's ZONTALK 2000™ software.

The SC 542 gives you the flexibility you need to upgrade your system capabilities and add new programs and services. The versatile SC family of products lets your business change with the times, growing to meet new business needs and increased customer requirements.

# SC 542

## Features

- Supports a second, fully inserted smart card
- Works with industry-standard asynchronous microprocessor chip cards and synchronous memory cards
- Supports joint specifications from Europay, MasterCard and Visa (EMV) for smart card support
- Provides an optional graphics display and multiple character sets, including Chinese, Cyrillic and Arabic
- Offers comprehensive software security and a tamper-proof casing
- Provides simultaneous support for multiple key management functions
- Performs as a PIN pad in online and offline debit transactions (with security module)
- Complies with ANSI and ISO global standards
- Supports VeriFone MKIXOR™ software for key injection
- Works with PCs, ECRs and VeriFone terminals as well as with other manufacturers' equipment
- Offers plug compatibility for existing VeriFone PINpads such as PINpad 101 and PINpad 1000

## Specifications

### Hardware

Display	2-line x 16-character LCD Option: 120 x 32 dot matrix graphic display
Keypad	16 keys (all programmable)
Memory	128 Kbyte RAM (32Kbyte RAM optional)

### Host Interface

Asynchronous serial (7/8 data bits, even/no parity)  
Baud rates of 300 – 19,200 supported  
Compatible with V.24/RS-232 signal levels

### Smart Card Interface

All asynchronous microprocessor cards conforming to ISO 7816-1, -2, -3  
Synchronous memory and protected memory cards conforming to ISO 7816-1, -2

### Security Module

DES, Master/Session Key and DUKPT key management operations performed by the security chip  
Keys stored in security chip  
Communication between keyboard, display and security module safeguarded

### Physical

Height	2.0 in (50 mm)
Width	4.3 in (110 mm)
Depth	7.9 in (200 mm)
Shipping Weight	1.5 lb (0.7 kg)

### Environmental

Operating Temperature	0° to 40° C (32° to 104° F)
Operating Humidity	15% to 90%, non-condensing
Storage Temperature	-18° to 66° C (1° to 138° F)

### Power

7.5–15 volts DC  
230 mA (maximum consumption)



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