



# 5<sup>th</sup>Sense Combo

## Personal Authentication Peripheral

Veridicom

*Veridicom delivers a revolutionary line of fingerprint authentication products and services for e-business*

### Applications

- PC or laptop computer security
- Enhance smartcard security by requiring a fingerprint, not just a PIN
- Improve security and efficiency for e-commerce and point-of-sale transactions
- Authenticate for single sign-on to multiple applications
- Enhance security for PKI
- Improve access control to Networks, PCs and the Internet
- Provide portable, secure credentials on smartcards
- Eliminate passwords or PINs when using Veridicom's Match-on-Card technology
- Authenticate for home banking



Veridicom's compact 5<sup>th</sup>Sense™ Combo peripheral combines a highly accurate fingerprint sensor with a smartcard reader for ultra-secure authentication. The Combo's multi-factor authentication approach—*something you have, something you know, plus something you are*—brings a whole new level of trust and accountability to network, intranet and Internet authentication.

The 5<sup>th</sup>Sense Combo peripheral represents a simple, user-friendly device for strong authentication that can be used as a fingerprint reader, smartcard reader, or both.

### Plug and Play Peripheral

The 5<sup>th</sup>Sense Combo peripheral plugs into a USB or parallel port (a parallel pass-through connector is provided) for use with any Windows-based PC or laptop computer. The Combo combines a convenient vertical smartcard reader slot and an integrated Veridicom fingerprint sensor chip into a very small footprint—4.5 x 2.6 inch—making it ideal for logon and other PC applications.

### Eliminate Passwords and PIN Administration

To logon, simply insert a smartcard into the upright card slot and place your fingertip on the built-in, solid-state fingerprint sensor chip. As an option, you can also enter a personal identification number (PIN) to unlock the card. In less than a second, a high-resolution, highly accurate image of the fingerprint is read, and a geometric pattern or template is extracted, based on the unique ridges and valleys of each fingerprint. This template must match the template stored on the smartcard before the

user can gain access to networks, workstations, or databases. Passwords or PINs can be completely eliminated if special smartcards are used with Veridicom's Match-on-Card technology. With Match-on-Card, the match takes place on the smartcard and the enrolled fingerprint template never leaves the smartcard.

### Supports all Major Standards

The 5<sup>th</sup>Sense Combo supports PC/SC, EMV and OCF standards, allowing it to communicate with a broad range of applications. It also supports all ISO7816-compliant smartcards - the dominant standard in the industry. Additionally, it supports either a USB or parallel interface, and it is the only device in its class to offer pass-through parallel capability. These features increase productivity by making the 5<sup>th</sup>Sense Combo peripheral flexible, easy to implement, and easy to use.

### Secure Data Transfer

Veridicom's advanced SecureLink encryption technology protects all communications between the Combo peripheral and the host Windows system. Each fingerprint image file is scrambled every time a fingerprint pattern is acquired. It is then securely transferred to the host computer system for decryption. The SecureLink feature protects systems from a variety of hacker ploys, including replay, man-in-the-middle, and sniffing attacks.

### Smart Cards and Biometrics: an Ultra-Secure Combination

The 5<sup>th</sup>Sense Combo peripheral creates a more powerful security tool. Smartcards provide portability. And because the fingerprint template can be stored and even matched on the card, smartcards can be used on multiple terminals without the burden of enrollment for each user or creating a secure database on a server. Fingerprint verification authenticates the user of the smartcard, neutralizing the security threat posed by lost or stolen cards. This makes the 5<sup>th</sup>Sense Combo peripheral ideal for a broad range of applications, including information security, financial transactions, point-of-sale, e-commerce, and PKI infrastructure.

### Smartcard and API Standards

- ISO 7816
- EMV (Europay, MasterCard, Visa)
- PC/SC (Microsoft)
- OCF (IBM OpenCard Framework)

### Supported Protocols

- T=0, T=1

### Operating Systems

	<u>PRL</u>	<u>USB</u>
95	Yes	No
98	Yes	Plug & Play
NT	Yes	No
2000	Plug & Play	Plug & Play

### Environmental Specifications

- Operating Temperature:  
0° C to +50° C
- Storage Temperature:  
-40° C to +70° C
- Certifications:  
FCC, CE, UL, CUL, VCCI, TUV-GS

### Power Consumption

	<u>Parallel</u>	<u>USB</u>
Operating	180 mA	170 mA
Idle	140 mA	130 mA
Suspend	—	1.5 mA

### Communications

- Parallel: 9600 to 28,000 baud
- USB: 9600 baud

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### Physical Features

The robust and compact design is made of a conductive composite plastic that provides an excellent electrostatic discharge (ESD) path to ground. A spring-loaded door covers the fingerprint sensor, providing impact and environmental protection. Nonskid bumpers on the bottom keep the module stable when in use.

### Interface

The parallel 5<sup>th</sup>Sense Combo supports the EPP, ECP (without DMA), and byte parallel port operating modes with speeds between 4 and 6 FPS (frames per second), and the power coming from a pass-through PS/2 interface cable. In addition, the parallel interface and connector supports pass-through mode, allowing multiple devices to be used on a single parallel port.

The USB 5<sup>th</sup>Sense Combo communicates with the host over a USB interface at speeds of 4 to 5 FPS. It is bus-powered and requires no separate power connection.

### SecureLink Encryption

The 5<sup>th</sup>Sense Combo provides SecureLink encryption, allowing for secure communication with the host system. Each time the driver reads a fingerprint image, or one row of an image, it generates a random number and sends it to the fingerprint sensor. The fingerprint sensor uses this random number to scramble the fingerprint image, then sends the data to the driver. The driver receives the data, unscrambles it, and sends it through the normal fingerprint image processing functions.

### Technical Features

The versatile 5<sup>th</sup>Sense Combo peripheral was engineered for your security and privacy. Its unique combination of features makes it flexible, dependable, and easy to use.

- Solid-state capacitive, 500DPI fingerprint sensor and smartcard reader combined into one device
- USB and parallel interface; including parallel pass-through connection
- Compact 4.5 x 2.6 inch (115 x 67mm) footprint
- LED to indicate operational status
- Synchronous and asynchronous (T=0, T=1) operation
- Recognizes 3V and 5V cards
- Supports all ISO/IEC 7816 compliant smartcards
- Certified to WHQL (Microsoft Windows Hardware Quality Lab)



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