

E-Plex 5800 Series Access Control System

Solutions for FIPS 201 Government Smart Cards



Homeland Security Presidential Directive-12

President Bush signed Homeland Security Presidential Directive-12 (HSPD-12) in 2004 to establish a mandatory Government-wide standard for secure and reliable forms of identification issued by the Federal Government to its employees and contractors. This standard is known as Federal Information Processing Standard (FIPS) 201–Personal Identity Verification.

The standard resulted in the development of a dual interface smart card leveraging ISO standards 14443A/B RFID (contactless smart card) and 7816 (contact smart card). Importantly, the crucial data is cryptographically protected. A major benefit of the design is that the card contains all the necessary data to unequivocally identify an individual and to determine the credential is valid.



Following the establishment of FIPS 201, Kaba's E-Plex 5800 series was the first Physical Access Control System (PACS) integrating certified CHUID (Cardholder Unique Identifier) readers into stand-alone locking devices certified to meet the General Services

Administration (GSA) standard for FIPS 201 products. The E-Plex 5800 series is listed on the FIPS 201 approved product list (APL).

The E5800 locks and controllers support various types of FIPS 201 cards including: the Personal Identity Verification (PIV) cards used by U.S. federal government employees and contract workers, Transportation Worker Identification Credential (TWIC™) used by transportation and seaport workers, the new version of the Common Access Card (CAC) used by the Department of Defense and PIV Interoperable (PIV-I) such as the First Responder Authentication Credential (FRAC) used by emergency services workers. In addition to supporting all FIPS 201 compliant ID cards, the lock also supports the Philips DESFire® Contactless smart cards for any valid users who have not been issued FIPS 201 cards such as temporary users and visitors.

Trusted for 150 Years

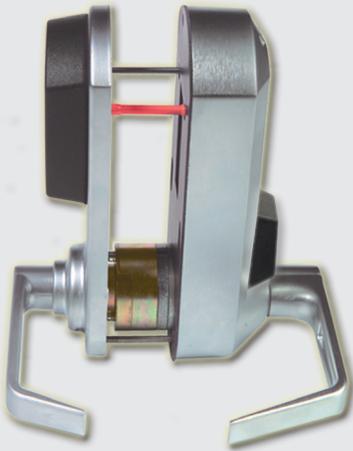
After nearly 150 years of providing effective security solutions of the highest standards, KABA is uniquely positioned to deliver scalable and comprehensive credentialing platforms compliant with Homeland Security Presidential Directive 12 (HSPD-12) and Federal Information Processing Standard 201 (FIPS 201). Kaba products have been used by the US government for decades—including the prevalent Simplex pushbutton locks.

Kaba Access Control, based in Winston- Salem, North Carolina, offers a diversified product line of access control solutions made in the USA. With Peaks® patented key control systems, Simplex® mechanical pushbutton locks and E-Plex® electronic access control products – Kaba Access Control offers a solution for every access point and every budget.



Made in USA
Meets Buy American Act

Special Features



LectroBolt™ Feature

One of many benefits the E-Plex 5800 series offers is easy installation. E-Plex's Patent Pending LectroBolt™ eliminates running wires to or through the door—no risk of damage from pinched wires. A door can quickly be converted from a mechanical lock to one requiring a Government Smart Card.



LearnLok™ Feature

Another special feature of the E-Plex 5800 Series is the ability to use the lock in LearnLok™ mode. In LearnLok™ mode, up to 300 cards can be enrolled at the lock without using any software. This feature can be helpful during an initial transition period for doors with just a few users, or where software management is not desired. The lock is easily converted (on door) to a software-managed lock if desired at a later date.



Card Enrollment

A USB driven Card Enrollment device is used to enroll FIPS or DESFire® credentials with either of the two available software packages. The device uses the contact interface of the FIPS credentials to extract and store user data (photo, name, credential expiry data, etc.) into the database.

FIPS 201 Compliance has never been easier or more cost-effective!



Credential Options at Door

- **Single Credential**
Card only
- **Dual Credential**
PIN code, followed by Card
- **Optional**
Card or PIN for Service Users



Electronic Power Parameters

- Locks have three power options
 - Standard—4 AA batteries
 - Optional—high capacity battery kit
 - Optional—12-24 VDC power input from standard off-the-shelf power interface units
- Controller requires 12-24 VDC power input from standard off-the-shelf power interface units.
- If power is lost, user table, and lock parameters are retained in on-board memory.

A Flexible System

The E-Plex 5800 series has the flexibility to be used in a variety of field configurations—from a simple stand-alone system without any computer/software, to a stand-alone PACS system with networkable software that validates current status of FIPS 201 credentials.

The E-Plex 5800 series PACS is built upon the concept of stand-alone electronic locks and controllers that are managed by a centralized software system. The decision to grant access to a user is made locally at the locks/controllers, based upon data that has been transferred from the software to the locks/controllers by a hand held maintenance unit. The benefit of this type of system is that it is much more cost effective than wired, on-line systems in terms of acquisition and installation cost. In many cases, the benefits of stand-alone locks/controllers are in applications where it is either not physically or financially practical to extend a wired, online system to certain doors. In a FIPS

201 environment, the common credential makes it easy to have a hybrid solution of wired and stand-alone openings in your facility, maximizing the overall reach of your access control capabilities and budget. If you already have a wired, online access control system for the perimeter of your facility, that is already doing credential validation, then the E-Plex FIPS General software is the best option since it simply provides an ability to extend your access control solution to electronic locksets that can be cost effectively installed to complement your enterprise PACS solution. If your facility does not have an existing wired, on line system and there is a need for High Assurance

PKI-based access control, then the E-Plex FIPS High Assurance software provides an immediate and cost effective upgrade for your access control needs. The system incorporates **“CoreStreet Enabled”** FIPS 201 High Assurance PKI-based technology ensuring enhanced credential authentication using Public Key Infrastructure (PKI) cryptography. In either case, both software systems offer the same access control functionality.



LearnLok Mode	FIPS General PACS Software	FIPS High Assurance PACS Software
Up to 300 Users/Door	Up to 3,000 Users/Door	Up to 3,000 Users/Door
Audit Trail retains most recent 30,000 events	Audit Trail retains most recent 30,000 events	Audit Trail retains most recent 30,000 events
Enroll cards directly at E-Plex 5800 reader	Access Schedules, door groups, visitor management and other access control features	Access Schedules, door groups, visitor management and other access control features
Reads FASC-N (Federal Agency Smart Credential Number)	Reads CHUID and FASC-N	Complete PIV and PKI Solution
No computer or software required	Software Required	Software required—requires higher level of IT knowledge
	Single PC or Networkable	Single PC or Networkable
		High Assurance PKI-based FIPS card authentication

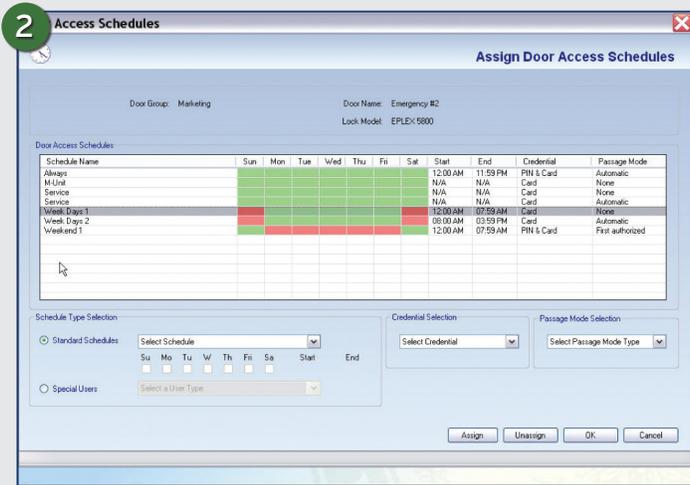
System Overview

Both versions of software are user-friendly, and can run in either stand-alone mode (express installation) on a single PC or in a networked client/server environment (custom installation).



1 Manage User Profile:
The E-Plex FIPS 201 software allows you to add and maintain users, import their photos, and check the status of Smart Cards.

2 Door Access Schedules:
From this window, you can manage door access assignments including access schedules and credential requirements.



Easily manages up to 3,000 users/door and unlimited users in database

16 Access schedules per door and unlimited schedules in database

32 holiday/vacation blocks per door and unlimited holiday/vacation days in database

Visitor management with programmable expiry of any length in days from 1 day to 1 year

Flexible management of Service users—Service users can have either one-time access, expiry from 1 to 96 hours, or no expiry only. If desired, selected service users can be programmed to have PIN only access without expiry

Access groups allow quick assignment of a new user to a group of doors, or a door to a group of users

Extensive reporting including lock audits, access groups, access schedules, users by doors, doors by users, user ID cards, etc.

In High Assurance version, cards are verified with CoreStreet Enabled authentication and validation during enrollment process, and credentials are automatically checked daily for current status

Stand-alone locks/controllers communicate with software using a handheld maintenance unit (M-unit) such as a mini-laptop/netbook

Smart Cards supported include FIPS 201 Compliant Cards: PIV, PIV-I, FRAC, TWIC™, CAC, etc. which have both Contact (ISO 7816-4) and Contactless (ISO 14443 A/B) interfaces. Philips DESFire® cards which are contactless only (ISO 14443 A/B compliant)

The Kaba FIPS software is built upon a SQL database and a .NET framework

	E-Plex FIPS General Software	E-Plex FIPS High Assurance Software
Card has not been modified or altered	✓	✓
Card has not been copied or cloned	✓	✓
FIPS 201 PIN matches card information	✓	✓
Card has not expired	✓	✓
Card is from a trusted issuer		✓
Card has not been revoked		✓

Mechanical Security Hardware

All E-Plex 5800 locks and controllers feature exclusive Kaba engineered FIPS 201 smart card readers for Online PACS functionality without the hassle or expense of running wires to doors from a central system. The Series offers a variety of options to accommodate different customer preferences and installation requirements.

E-Plex 5800 Series Lock

Locks are available in standard cylindrical, ASM mortise, and exit trim versions to fit most exterior or interior wooden or steel core doors.

Features and Options

- Non-handed, preassembled for left hand door installations - easily changed in the field
- Available with optional remote unlock feature
- Mechanical key override option available on all locks for emergency access. Use of key is recorded in audit trail
- Locks are easily configured in the field to function as Entry, Privacy and Residence Lock. Thumbturn is required for privacy and residence feature
- Fully weatherized design permits mounting in exterior or interior applications
- The E-Plex 5800 Series offers a universal exit trim model that is compatible with leading manufacturers' exit devices



Cylindrical

Mortise

Exit Trim

Back-to-Back

E-Plex 5870 Stand-Alone Access Controller (SAC)

From a functionality and feature standpoint, the E-Plex 5870 SAC offers the same performance as the E-Plex 5800 locks. The principal difference is that the SAC is intended to control the access at openings which use an electric strike, magnetic door lock (e.g. narrow stile door), or is released by a relay output such as parking gates, turnstiles, roll-up doors, entry gates, etc. The E-Plex 5870 SAC uses 12-24 VDC power and incorporates anti-vandalism technology to prevent forced entry.



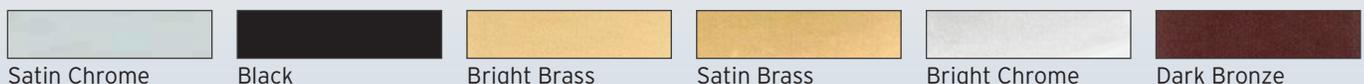
Roll-up Doors

Parking Gates

Turnstiles



Available Finishes



Satin Chrome

Black

Bright Brass

Satin Brass

Bright Chrome

Dark Bronze

Certifications and Approvals

The KABA E-Plex 5800 lock has been developed using the chassis of the proven KABA E-Plex family already deployed in critical government applications, which means that it shares the same approvals for Builders Hardware Manufacturers Association (BHMA) Grade 1 rating and Underwriters Laboratory (UL) 3 Hour 10C rating for Fire Door applications.



Certification and Testing

- **ISO Standards:** 14443A and 14443B–Read Only, FIPS 201 Compliant Credentials and DESFire®
- **US Government:** GSA APL (Approved Product List)–FIPS 201 CHUID Reader (contactless), GSA Listing (Schedule 70, SIN 132-62), or Schedule 84 (SIN 246-35)
- Accessibility Americans with Disabilities Act (ADA) Standard
- **Durability:**
 - **E-Plex 5800 Cylindrical** - ANSI/BHMA A156.25, Grade 1 Certification
 - **E-Plex 5800 Mortise** - ANSI/BHMA A156.13, Grade 1 Certification
 - **E-Plex 5800 Exit Trim** - ANSI/BHMA A156.3, Grade 1 Certification
- **Fire Rating:** Three-hour UL/ULC fire door rating for “A” labeled doors
- **Environmental:** Indoor/Outdoor Approved Front Housing: -31° F (-35° C) to + 151° F (66° C) Rear Housing: -31° F (-35° C) to + 130° F (55° C)

Warranty:

Locks/controllers have a 3 year warranty from date of installation; built in warranty counter in lock memory

Communication Between Software and Lock

If using software to manage your E-Plex 5800 series products, you can communicate between the software and lock using a laptop or netbook/mini-laptop via a USB/IRDA interface kit available from Kaba.

For certain situations, you may also program a DESFire® card to use as a special maintenance card.

These include:

- 1) To quickly delete a permanent or temporary user
- 2) To temporarily replace a permanent card which is lost



IMPORTANT NOTICE

Kaba's E-Plex 5800 series Stand-alone Electronic Locks and Controllers (SACs) have been approved by a certified GSA lab to meet FIPS 201 product standards.

However, we cannot guarantee that all cards claiming to meet FIPS 201 will work with our products, as we have observed some cards that have been issued that do not meet FIPS 201 specifications. This may be due to a card manufacturing defect, third party customization of the card, or damage done once the card was in circulation.

It is the responsibility of the end-user Agency or Company to validate and verify that the specific credentials intended to be used with Kaba's E5800 series Locks and Controllers are interoperable with our product. Our product warranty does not cover any replacement product or other costs due to specific cards not working with the E-Plex 5800 series products.



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