Thales Gemalto Biometric eKiosk

Security, convenience and flexibility

- Gemalto Biometric eKiosks with face recognition are designed to achieve a new level of security in user authentication and convenience in using eServices.
- Biometric data confidentiality is assured with a matching algorithm using only face or fingerprint data secured within the eDocument.
- A comprehensive array of build-in high-quality components paired with Thales’ expertise with ID documents, biometrics and secure software solutions enables fast, reliable and confidential identity checks to ensure broadest support for various use cases.

Function highlights

- Face recognition enables convenient and secure user authentication.
- A sophisticated liveness detection does not ask users for specific gestures, but uses 3D depth information of the user’s face to prevent spoofing the system with photos or videos.
- Alternatively, fingerprints can be used for biometric user authentication, also with advanced liveness detection to prevent to fool the system with fake fingerprints.
- A easy to use web based graphical user interface with touch control that automatically activates when a person approaches the kiosk provides access to a variety of public and private eServices.
- eKiosk setup to easily interface with Thales’ document management, digital identity and post-issuance services.
- For using any sensitive and private services, the eKiosk will require an official identity document for strong 2-factor user authentication.
- Thales Gemalto Document Verification solution verifies both the physical and electrical features of any valid ID document (card or passport) to prevent authentication with falsified documents and hence ID theft.

Document is subject to change without notice - Specifications might defer from eKiosk demo system.
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FEATURES

- **Built-in 3D camera** for face recognition and liveness detection with additional lamp light for reliable authentication even in difficult illumination situations
- **Single fingerprint scanner** with fingerprint matching and liveness detection
- **Thales document scanner** for cards and passport datapages visual verification and for reading barcodes and MRZ data (Machine Readable Zone)
- **Online connection** to a Thales Gemalto Document Management System (DMS) or other back-end databases to block usage of any document reported as lost, stolen or otherwise watch listed
- **Integrated contactless RFID chip reader** for smartcards and ePassports
- **Additional contact chip reader** for smartcards in ID1 format incl. mag stripe reading
- **Contact and contactless reader with Thales reader software** for digital verification of eDocuments digitally, to perform strong on-card user authentication (face, fingerprint, PIN) and to use and manage chip applications in post-issuance mode
- **Integrated large high-resolution touch screen** with web-based user interface and access to various online services for easy navigation and convenient kiosk usage
- **Infrared sensor** at the front for detection when user is close to the kiosk and to automatically turn on screen
- **Build-in speakers** for improved user experience and support for visually impaired persons
- **Build-in printer** to issue receipts and transaction reports
- **Point-of-Sales** bank card reader (optional) to proceed with payment for a service

MAIN HARDWARE COMPONENTS

- **Robust single fingerprint scanner device**: Futronic FS88H FIPS201
- **Document scanner** (cards or passports, incl. MRZ and RFID chip reading): Thales AT10K
- **Contact card reader**: IDTECH SPT3-598-00-1LG0C-0C
- **Stereo camera for face recognition and liveness detection**: Intel Real Sense D415
- **Workstation with Intel Core i7 6700K CPU, 8GB RAM and 250GB SSD (Windows 10)**
- **High-definition 19” LCD touch screen**
- **Receipt Printer**: ICOD TM80A
- **Speakers**
- **Lamplight for camera**
- **Infrared proximity sensor**
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Thales Document Reader Specifications

- Capable to read multiple types of documents in visible, infrared and ultraviolet light using 24-bit color and true-color image matching technology
- Default 370 DPI image resolution with 3.1 megapixel sensor (optional 10 megapixel sensor for 550 DPI high-resolution)
- RGB 24 bit color system
- Reads documents and barcodes placed at any rotation
- OCR data capture of the Machine Readable Zone (MRZ)
- Anti-glare technology eliminates image artifacts from laminates or OVDs
- Auto-triggering of document capture – presence of document is automatically detected
- Contactless microchip reading for ePassports and contactless smartcards (ISO 14443 Type-A and Type-B)
- Low-scratch glass with oleophobic coating and internally sealed optical chamber to prevent dust ingress for low maintenance & easy cleaning
- Multi-color status indicators to provide easy comprehensible user feedback

Contact Smartcard Reader specifications

- Reads both magnetic stripe and smart cards
- Compliant to cards acc. ISO 7810, 7811 and 7816
- Gold-plated contacts for dependable connections to card pads and reliable electronics to guarantee over one million card cycles
- Tri-color LED indicating read status

3D Camera Specifications

- Stereo camera with both depth and RGB sensor for face recognition and liveness detection
- IR light projector for illuminating person to collect depth data
- Dual rolling shutter sensors for up to 90 FPS
- Full HD RGB camera synchronized to depth data with up to 1280x720 resolution at 30 FPS
- Intel RealSenseTM Vision Processor D4 for real-time depth
- Depth FOV (Field Of View DxVxH): 69.4 x 42.5 x 77, 0.3 m minimal depth distance

Receipt Printer Specification

- Thermal printing on 80mm paper roll with integrated cutter and anti-paper jam system
- 8 dots/mm resolution, 72mm effective printing width, 150 mm/s printing speed

Fingerprint Scanner Specifications

- Robust single fingerprint capture device with advanced CMOS sensor technology and precise optical system
- Infrared LED light source
- Scratch resistant crown glass with 16.26 x 24.38mm scanner window for heavy duty use
- 320x480 pixels resolution, 500 DPI, 8 bit grey level
- Build-in special electronic circuit for Live Finger Detection (LFD)
- FBI certified acc. PIV-071006 Image Quality Specification and FIPS 201 for Personal Identification Verification (PIV)
- Microsoft WHQL standard support
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Dimensions

- Height: 174 cm
- Width: 500 cm
- Depth: 500 cm
- Pedestal: 524 cm x 420 cm
- Weight: 66 kg

Power

- Input voltage: 220 VAC (+/- 20%)
- 50 Hz (+/-10%)

Network connectivity

- 2 Gigabit network ports

Service integration

- Seamless integration with Thales Gemalto cloud-based server solutions:
  - Thales Gemalto Document Management System (DMS),
  - Thales Gemalto Post-Issuance Server (PIS),
  - Thales Gemalto Public Key Infrastructure (PKI),
  - Thales Gemalto Digital Services (IdP, ID Federation, etc.)
  - Thales Gemalto ID Verification Solutions (KYC)
  - …

- Connectivity to 3rd party solutions via web portal
- Optional locally installed Thales Gemalto eID Document Middleware for offline card transaction

Regulatory compliance

- RoHS Directive 2011/65/EU

Environment

- Humidity: 0% to 80% (R.H. non-condensing)
- Temperature: -10º to 35º C operating; -20º to 50º C storage