Thales Gemalto Document Reader AT10K

Identity & Biometric Solutions



Product Use

Inspect, authenticate or capture data from electronic travel and identity documents quickly and reliably with the Gemalto Document Reader AT10K.

Designed for use in demanding border management scenarios, it also serves banking, hospitality, travel and any other industries where you need accurate and reliable document and ID verification and reading.

The design of the Gemalto AT10K is based on detailed and exhaustive analysis of field experience and numerous deployed projects. With a new "landing lights" LED feedback arrangement and document hold down clip it naturally encourages the correct placement and use of the reader, regardless if the user is left or right handed, maximising first time read rate for faster customer processing.

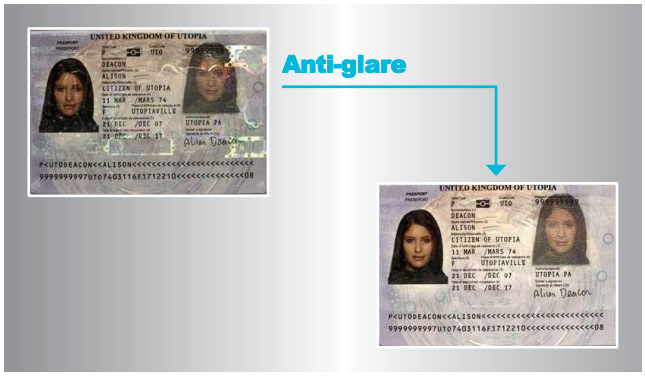
Thales has created a new stylish look that will fit into the décor of the most upmarket customer facing service desks.

Functions include:

- Optional support for biometrically enabled travel documents and driving licenses containing contactless integrated circuit chips (eIDs, eDLs and ePassports)
- Optical document authentication and verification in border management, police, transportation, banking and other commercial markets using additional software package
- Accurate, enhanced dynamic range, true-color images, with anti-glare technology to reduce document laminate reflections and ambient light interference therefore improving image quality
- A new progress bar with Tick / Cross indicators make reading a document intuitive, helping to direct the user during a read and visually show the result of the read
- Various hood options provide easy document and mobile device placement, with flexibility for operator use, gloves, left/right hand, etc.
- New design of document spine hold down clip, holds down new books and works on multiple, stapled books
- Reads 1D and 2D barcodes from paper and mobile devices

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Features

- Reads and images multiple types of documents in Visible, Infra-red, ultra-violet and optional co-axial light using 36-bit color and true-color image matching technology
- High resolution 550 dpi option includes high speed 5 Gbps USB 3.1 Type-C™ host port enabling fast image captures[2]
- Reads documents and barcodes placed at any rotation on the glass and presents images correct way up based on features in document
- Anti-glare technology eliminates image artifacts due to laminate or OVDs
- OCR data capture of the Machine Readable Zone (MRZ)
- Auto-triggering of document capture – presence of document is automatically detected
- Hoodless operation in many environments (kiosk mode)
- User removable hood and optional document spine hold down clip provide flexibility for the user to operate in their preferred style
- Optional rear hinged hood
- IP54 rated against water and dust ingress
- Low scratch, Chemically Strengthened, fully bonded glass with oleophobic coating for low maintenance & easy cleaning
- Glass can be supplied without Oleophobic coating option
- Powered from USB or external power supply
- Complete access to OCR data and images captured via Software Development Kit (SDK)
- Access to images as BMP, PNG or JPEG format
- Windows® 7, Windows® 8.1, Windows® 10, macOS and Linux® compatible[1]
- Integrated USB 2.0 Hub – 2 ports for external peripherals

Comprehensive Software Features

- Uses the same API interface as other Gemalto document readers using Gemalto Document Reader SDK
- Flexible software interface allows host application to select which illumination sources to use, image type, image compression, photo extraction, reflection or ambient light elimination, color enhancement, which data groups to read, etc.
- Simple high level API for quick program development or detailed low level API for fine control of all reader functions. SDK provides full configuration API
- Contactless IC reading for ePassports (LDS 1.7 & 1.8) including basic access control (BAC), passive/active authentication (PA/AA), Chip Authentication (CA), Terminal Authentication (TA), extended access control (EAC v1/v2), supplementary access control (SAC) and PACE-CAM are supported. The SDK provides writing capability using APDUs
- Contactless IC reading for eDL & iDL (electronic driving licenses) up to DG14 including basic access control (BAP v1), Password Authenticated Connection Establishment (PACE), passive/active authentication (PA/AA), Chip Authentication (CA), Terminal Authentication (TA), supplementary access control (SAC) and extended access control (EAC v1) are supported
- Full SDK including DLLs, code examples, utilities and demonstration programs. Can be used with Visual C++®, Java® and Microsoft® .NET Framework for Visual Basic® .NET and Visual C#®

Reading Capability

The Gemalto Document Reader AT10K reads the following documents:

- ICAO compliant documents in near infrared (IR) per ICAO 9303 specification
- One line Driving Licenses in near infrared (IR) per ISO18013 part 2 specification
- 1D barcodes (2 of 5 interleaved, 2 of 5 industrial, Code 128, Code 39, EAN-8 and EAN-13)
- 2D barcodes used on BCBP and other documents (PDF 417, QR Code®, DataMatrix™ and Aztec formats) from paper documents and many mobile devices

Illumination

The reader illuminates documents in multiple wavelengths:

- Near IR B900: 880nm, +/-5%
- White visible: 400-700nm
- Ultraviolet (UVA): 365nm
- Co-axial (retroreflective) white (400-700nm) light for Thales Confirm™ laminate (optional)

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Resolution

- Standard 370 DPI image resolution, 3.1 Megapixel sensor, 30 bit RGB colour system
- High Resolution 550 DPI option, 10 Megapixel sensor, 36 bit RGB colour system for enhanced dynamic range and in-camera scalable images up to 700 dpi

ePassport (RFID) Option

Reads from and writes to contactless chips and eID according to:

- ISO 14443 (13.56MHz) Type-A and Type-B using a PC/SC interface
- ePassport support for ICAO 9303 LDS 1.7 & 1.8 and PKI using included SDK
- iDL & eDL reading and access control for driving licenses to ISO18013 parts 2 &3 and ISO/CEI TR 19446 using included SDK
- All standardized rates, up to 848 Kbps, read-out times depend on RFID tag, operating system and amount of data stored in the chip
- PC/SC interface provides support to other card types such as Mifare™
- SDK certified to BSI TR-03105 Parts 5.1 and 5.2

Identity Document Verification

Additional software can authenticate an identity document which uses optical pattern matching to:

- Identify documents based on the type and country of origin
- Match security features captured from a document against a database of trusted security features
- Check for presence of UV dull paper
- Verify that areas are blank, devoid of patterns, text or printed matter
- Check photo in chip against photo on data page
- Jura Invisible Personal Information™ and similar hidden data can be decoded using the high resolution 550dpi model

VIZ Data Capture Option

Additional software can decode the OCR text in the visible zone (HRZ) from identity documents as well as many driving licenses:

- Automate data entry, no more manual typing or photocopying
- Form filling, including into web pages
- Can auto fill forms
- Increased accuracy for data entry
- Global coverage for documents

Environment[3]

- Humidity: 20 to 95% (R.H. non-condensing)
- Temperature: -10° to 55° C (14° - 131° F) operating; -20° to 55° C (-4° -131° F) storage
- IP54 rating for dust ingress protection

Security

- Slot for Kensington® Security Lock

Minimum PC Specification

Software must be installed on a customer-supplied PC, some aspects of read speed may be affected by PC specification. The following minimum configuration is recommended:

- 2 GHz Pentium® 4 CPU (Intel Core 2 Duo recommended)
- 1 GB DRAM
- USB 2.0
- 60 MB of Hard Drive space for software
- Windows® 7, Windows® 8.1 or Windows® 10 operating systems, 32 or 64 bit
- Builds for Ubuntu and CentOS LTS, 32 & 64 bit [1]
- macOS (limited SDK functionality) [1]

Standard Dimensions

- Length: 18.7 cm (7.4")
- Width: 16.0 cm (6.3")
- Height: 6.5 cm (2.6") without hood, 10.3 cm (4.0") with hood
- Weight: 1.1 kg (2.4 lbs)

Status Indicators

The readers provide user feedback via the following status indicators:

- Red Cross – Indicates a Read Error
- Green Tick - Indicates a Valid Read
- Yellow Progress Bar pulsing - Ready to place a new document
- Yellow Progress Bar incrementing – Performing a read, keep document still on the glass
- Yellow Progress Bar stopped – Document can be removed from glass

The readers perform a power-up self-test and indicate failure using status LEDs.

[1] *An external power supply is required to activate rear panel peripheral USB ports or when working under Linux and macOS*
[2] *Standard resolution models have USB2.0 host port, compatible with USB*
[3] *Thales document readers are designed and certified for indoor use*

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Firmware Upgrade

- Upgradeable firmware via USB interface
- Non-volatile configuration and calibration accessed via USB interface

Regulatory

- FCC Part 15 Class A
- CB report
- US & CA ETL Listed
- CE - RED, LVD & EMC
- EU WEEE, REACH & RoHS Directive

Power

Powered from a single USB port or via universal input external power supply:

- Power consumption: 5 volts DC, keeping within USB port power limit, 500mA for USB 2.0, 900mA for USB3.1 Type A and 1.5A for USB-C

External PSU:

- Input voltage 100 - 240 VAC plus/minus 10%, Frequency 47 - 63 Hz
- Detachable IEC320 AC mains power cable

Optional Add-On Module

- Contact smartcard to ISO 7816 Class A and AB (T0/T1)
- Fits to right side of reader
- Factory fit or customer upgrade
- Width of reader plus smartcard add-on 16.9 cm (6.6")

Service & Maintenance

- One-year warranty - Extended agreement available
- Annual maintenance agreement available
- User changeable glass

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