Thales Gemalto Intelligent OEM Document Reader AT10Ki

Identity & Biometric Solutions

Product Use

With built-in networking and high-performance processing the Gemalto Intelligent OEM Document Reader AT10Ki is designed for cloud and virtual computing environments.

The AT10Ki OEM inspects and images travel documents, including electronic travel documents and 1D and 2D barcodes used by the airline industry on boarding passes and cell phones. The reader’s low profile and simple shape make it ideal for integration with self-service kiosks, counters and eGates at airports and other locations such as railway and cruise terminals.

Designed for use in demanding airport self-service scenarios, it also serves banking, hospitality, government and any other industries where you need accurate and reliable document and ID verification and reading.

The design of the Gemalto AT10Ki OEM is based on detailed and exhaustive analysis of field experience and numerous deployed projects. Especially designed for self-service customers the new “landing lights” LED feedback arrangement naturally encourages the correct placement and use of the reader, which leads to faster customer processing and reduced passenger frustration.

The virtually flat top with new user instruction decals makes the reading area clearly visible when presenting a paper or cell phone boarding pass or passport.

iSeries Overview

The Intelligent “i” series readers include an embedded Arm® processor running Linux® meaning that for networked mode all the document processing is carried out on the reader. Ready for the cloud the Gemalto AT10Ki OEM uses web style encrypted JSON messaging to simplify application development, deployment and maintenance. For the operator and integrator this means:

- The AT10Ki OEM can connect to any mobile device, phone or tablet
- The reader can be used in pool mode connecting to multiple devices (you can create reader farms)
- A single computer can connect to multiple readers
- Flexible install options
- Lower development and life time IT costs
- Direct connection with Software as a Service (SaaS) and enterprise back-end applications
Benefits

- Quickly and simply connect the Gemalto AT10Ki OEM to your network, tablets, phones and enterprise SaaS applications
- Many user customizable features, intuitive user LEDs and “anywhere” placement make the reader simple to use and reduce customer stress during self-service
- Complete integrated system, reader, on-board image processing, OS, device management, network protocols and security for your faster development and deployment
- Whether you deploy portable suitcases, wheeled or fixed kiosks, the WiFi and POE/Ethernet connections provide installation flexibility
- Reads 1D and 2D barcodes (BCBP) from paper and mobile devices
- A unique progress bar withTick / Cross indicators make reading a document intuitive, helping to direct the user during a read and visually show the result of the read
- More accurate document verification & face recognition due to glare/OVD suppression, high quality images and true-color image processing when used with add-on document authentication and live face recognition engines
- Optional support for biometrically enabled travel documents and driving licenses containing contactless integrated circuit chips (eIDs, eDLs and ePassports)
- Fast document processing, ease of placement and hands free RFID reading even on multiple stapled books allows operators to focus on the passenger resulting in faster passenger processing and improved detection of travelers of concern
- Create a personal service experience by accessing the closest document reader from your tablet or mobile device using pools of Gemalto AT10Ki OEM readers
- Simple phone app displays a barcode to provision a reader, either pre-deployment or by the end user
- Use of modern web interfaces and cloud/virtualized applications reduces total cost of ownership for IT systems using document readers
- No PC required for network mode – reducing costs

Features

- On-board dual core Arm® Cortex® A9 processor with Linux® OS runs image processing and RFID functions in reader
- Ethernet and WiFi network interfaces running the Web-API host interface
- Browser accessible management console
- Data & PII security built in by design
- Easy integration to enterprise and SaaS applications for document authentication and verification, hotel property management systems and biometrics management
- “Landing lights” & tick/cross user LEDs and new silk screen design makes document placement and reading very intuitive even for infrequent users
- Reads 1D cards and barcodes placed at any rotation on the glass
- OCR data capture of the Machine Readable Zone (MRZ) & 1D/2D barcode reading from paper and mobile boarding passes
- > Hoodless operation in most environments using proprietary ambient light removal algorithms – even on UV images
- Low scratch, low-iron, fully bonded glass with oleophobic coating for low maintenance & easy cleaning
- Chemically Strengthened Glass without Oleophobic coating option for advanced durability
- Reads and images multiple types of documents in Visible, Infra-red and Ultra-violet light using 24-bit color and true-color image matching technology to provide vibrant accurate colors and images can be saved in BMP or JPEG format
- Anti-glare technology eliminates image artifacts due to reflective laminates or OVDs
- Auto-triggering of document capture – presence of document is automatically detected
- Powered from USB, Power over Ethernet (POE) or external power supply
- USB3.1 interface supports legacy Gemalto SDK
- Full management and diagnostic interfaces
- Bluetooth® interface for future applications
- Windows® 7, Windows® 8.1, Windows® 10, iOS, macOS, Android™ and Linux® Web-API compatible
- Internally sealed optical chamber prevent dust ingress
- Optional document spine hold down clip and optional hood

* Future feature
Reading Capability
The Gemalto Intelligent OEM Document Reader AT10Ki reads the following documents:
- ICAO compliant documents in near infrared (IR) per ICAO 9303 specification
- One line Driving Licenses in near infrared (IR) per ISO 18013 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

Reads using optional RFID antenna from contactless chips like eMRTD and eID according to:
- 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 to ISO 18013 parts 2 & 3 and ISO/CEI TR 19446) 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

Reader Physical Interfaces
- USB 3.1 with USB Type-C™ connector, SuperSpeed up to 5 Gbps Gen 1 Specification Revision 1.0
- 10/100/1000 Mbps Ethernet to IEEE® 802.3-3
- WiFi IEEE 802.11b/g/n standards up to 150Mbps with WPA/WPA2/WEP
- Bluetooth® v2.1, v3.0 and v4.0 (classic/Low Energy) future enhancement for future on-board applications*
- Optional ISO 14443 (13.56MHz) Type-A and Type-B RFID eMRTD reader. All standardized rates, up to 848 Kbps, read-out times depend on RFID tag, operating system and amount of data stored in the chip
- Integrated USB 2.0 Hub in USB mode – 2 ports for external peripherals connected to upstream USB3 port via the hub
- Integrated USB 2.0 Hub in Networked mode – 4 ports for external peripherals for future on-board applications*

Software Upgrade
- Software updates can be pushed to the reader via the Web-API over the network or locally using the Web-UI
- Reader can check in for updates with a customer hosted update server, either automatically or in when prompted via Web-API*
- All updates are digitally signed by Thales ensuring integrity & security

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* Future feature
Illumination
The reader illuminates documents in multiple wavelengths:
• Near IR B900: 880nm, +/-5%
• White visible: 430-700nm
• Ultraviolet (UVA): 365nm

Resolution
• Sensor: 10 Megapixels, CMOS, RGB 24 bit color
• High resolution 700 DPI imaging

Regulatory
• FCC Part 15 Class A
• CB report
• US & CA ETL listed (pending)
• CE - RED, LVD & EMC
• EU WEEE, REACH & RoHS Directive

Status Indicators
The readers provide user feedback status indicators:
• Unique yellow Progress Bar
• Red Cross and Green Tick
• The readers perform a power-up self-test and indicate failure using status LEDs.

Power
Powered from USB port, Power over Ethernet or via universal input external power supply:
• External PSU:
  Input voltage 100 - 240 VAC plus/minus 10%, Frequency 47 - 63 Hz
  Detachable IEC320 AC mains power cable
• Power Interface to IEEE® 802® 3af for a Powered Device (PD) typically 36-48V. Only for networked mode operation
• From a single USB 3 (900mA) or USB 2.0 (500mA), Requires at least 1.5A using USB-C for optimum performance. Only for USB mode operation

Service & Maintenance
• One-year warranty
• Annual maintenance agreement available

Mechanical
• Length: 171 cm (6.7”)
• Width: 14.5 cm (5.7”)
• Height: 6.5 cm (2.6”)
• Weight: 1.1 kg (2.4 lbs)
• Low scratch, low-iron glass with oleophobic coating for low maintenance & easy cleaning
• Optional Chemically Strengthened glass to improve durability

Environment
• Humidity: 20 to 95% (R.H. non-condensing)
• Temperature: -10º to 50º C operating; -20º to 50º C storage
• IP52 rating for dust ingress protection in the optical chamber (pending)

Minimum host Specification in Networked mode
In Networked mode Thales provides a thin Messaging API layer which can be installed on:
• Windows® 7, Windows® 8.1 or Windows® 10 operating systems, 32 or 64 bit
• Builds for Ubuntu and CentOS LTS, 32 & 64 bit
• iOS 11.4 and macOS for iPhone and iPads, etc
• Android™ 4.1.x for mobile phones and tablets with network connectivity
• Java JVM v8

USB Mode Operation
Legacy compatibility is provided through USB mode for users who want to manage a migration to networked operation:
• Compatible USB interface with AT10K reader
• Not possible to use USB mode and Networked mode concurrently
• In USB mode the on-board processing is not used
• Uses the same API interface as other Gemalto document readers using Gemalto Document Reader SDK
• Compatible USB interface with AT10K reader
• For specifications of the AT10K OEM USB mode please see the AT10K Technical Data Sheet and user manual

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