UCP
PAYMENT SPECIALISTS

TECHNICAL DATA SHEET

Gemalto Document Reader AT9000 MK2

ANTI-GLARE

Product Use

The Gemalto Document Reader AT9000 MK2 is designed to Inspect, authenticate or capture data from electronic travel and identity documents quickly and reliably in a wide variety of government and commercial applications. With a standard 400 DPI camera it also is available with a high resolution 10 megapixel (Mp) camera providing images up to 720 dots per inch (DPI) for superior document authentication.

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, true-color images, with anti-glare technology to reduce document laminate reflections and ambient light interference therefore improving image quality

> Removable hood for easy document and mobile device placement and stapled books, especially when using gloves

> Reads 1D and 2D barcodes from paper and mobile devices

> When a document is placed the reader automatically detects it and initiate optical reading, MRZ decoding, barcode reading and reads the contactless chip if present

KEY FEATURES & FUNCTIONALITY

> Multiple document reading and imaging using true-colour image matching

> Anti-Glare technology eliminates image artifacts due to laminate or OVDs

> Multiple wavelength illumination – Visible, Infra Red, Ultra Violet and Gemalto Confirm™ Security Laminate

> Anywhere placement of ID cards

> Configurable image resolution up to 400 or 720DPI

> OCR data capture of the Machine Readable Zone (MRZ)

> Complete access to OCR data and images captured via Software Development Kit (SDK)

> Access to images as BMP, PNG or JPEG format

> Hoodless operation in many environments[1]

> Auto-triggering of document capture – presence of document is automatically detected

> Windows® 7, Windows® 8.1, Windows® 10, macOS and Linux® compatible[2]

> USB 2.0 high speed compatible

> Integrated USB 2.0 Hub – 2 ports for external peripherals (magnetic strip reader, 2D barcode gun, etc.)[2]

> Rugged design, no moving parts and internally sealed optical chamber to prevent dust ingress

> Carbon (optional) glass coating to help reduce scanning surface scratching

> Powered from a single USB or external power supply[2]

Gemalto Document Reader AT9000 MK2

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.

> Configuration via file or api, can be configured in field and saved

> 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

> ICAO 9303 checksum, IR ink and UV dull validation

> 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 AT9000 MK2 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, UPC-A, 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

Contact Smart Card Option

> Supports ISO 7816 Class A and AB smart card

> T=0, T=1 protocol support

> Communication speed up to 344,105 bps (PPS, FI parameter)

> Frequency up to 8 MHz (PPS, DI parameter)

> 8 contacts – ISO location

> Sliding contact

MSR Option

> Magnetic swipe add-on module available

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

> Dual antennas capable of reading shielded passports

> iDL & eDL reading and access control for driving licenses to ISO 18013 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™ (drivers for all supported OS)

> SDK certified to BSI TR-03105 Parts 5.1 and 5.2

> RFID reader optionally certified to BSI TR-03105 Part 4

Identity Document Verification Option

Additional software can authenticate an identity document using 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 including UV, IR, Visible and Gemalto Confirm™ laminate patterns

> 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

Quality Assurance Option

> Check photo in chip against photo on data page

> Positional quality assurance (QA) – assures document is printed to applicable ISO, ICAO or customer standards

> Measures skew, left margin, line spacing, character spacing, line length, print contrast, stroke width and distance from each character to the bottom of the document

Illumination

The reader illuminates documents in multiple wavelengths and lighting orientations:

> Near IR B900, 880nm, +/-5%

> White visible, 430-700nm

> Ultraviolet (UVA): 365nm

> Gemalto Confirm™ Security Laminate (optional)
  • 24 Bit Color
  • 8 Bit Monochrome IR

Resolution

> Standard 400 DPI image resolution, 3.1 Megapixel sensor

> High Resolution 720 DPI option, 10 Megapixel sensor[1]

> RGB 24 bit color system

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Status Indicators

The reader provides user feedback via the following status indicators:
> Red - Read Error LED
> Green - Valid Read LED
> Yellow - Busy LED, progressing document
> Blue - Ready LED

The API provides for audible feedback via the computer speaker.

The reader performs a power-up self-test and indicate failure using status LEDs.

Minimum PC Specification

Software must be installed on a customer-supplied PC, some aspects of the 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 [2]
> macOS (limited SDK functionality) [2]

Security

> Kensington® Security Lock
> Recessed power switch on rear panel

Standard Dimensions

> Length: 19.0 cm (7.5")
> Width: 16.2 cm (6.4")
> Height: 15.7 cm (6.2") (with light shield)
> Weight: < 1 kg or 2.2 lbs
> Window size 125 x 88 mm

Dimensions with Smart Card Option

> Length: 20.4 cm (8.0")
> Width: 16.2 cm (6.4")
> Height: 15.7 cm (6.2")
> Weight: < 1.1 Kg or 2.4 lbs

Regulatory

> FCC Part 15 Class A
> UL, UL-C
> CB report
> CE - RED, LVD & EMC
> EU WEEE, REACH & RoHS Directives

Environment

> Humidity: 20 to 95% (R.H. non-condensing)
> Temperature: -10º to 50º C operating; -20º to 50º C storage
> IP50 rating for dust ingress protection in the optical chamber

Firmware Upgrade

> Upgradeable firmware via USB 2.0 interface
> Non-volatile memory for configuration and calibration accessed via USB 2.0 interface

Power

Powered from a single USB 2.0 port or via optional universal input external power supply:
> Power consumption: 5 volts DC, 500mA (when USB 2.0 powered)

External PSU:
> Input voltage 100 - 240 VAC plus/minus 10%
> Frequency 47 - 63 Hz
> Detachable IEC320 AC mains power cable
> Locking 3 pin connector

Service & Maintenance

> One-year warranty
> Annual maintenance agreement available
> Each reader is supplied with one Micorfibre cleaning cloth

Contact Gemalto

www.gemalto.com/govt
Gemalto SA
6, rue de la Verrerie
CS 20001
92197 MEUDON CEDEX

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[1] Hood and external power supply required for high resolution camera option
[2] Optional external power supply required to activate rear panel peripheral USB ports or when working under Linux and macOS