

## Gemalto

# KR9000

### OEM Document Reader KR9000

The Gemalto OEM Document Reader KR9000 is used to inspect and image travel documents, including electronic travel documents and 1D and 2D barcodes used by the airline industry on boarding passes. The reader's low profile and simple shape make with self-service kiosks, counters and eGates at airports terminals. The flat top, no hood design makes document and cell phone placement very easy for untrained users in a self-service environment.



#### Functions Include:

- > Optional support for biometrically enabled travel documents containing contactless integrated circuit chips (eIDs and ePassports)
- > Optical document analysis in border management commercial markets
- > Accurate, true-colour images, with patent pending anti document laminate reflections and ambient light interference

#### FEATURES

- > Powered from USB or external PSU
- > Multiple document reading and imaging in 24-bit colour matching
- > No moving parts and internally sealed optical chamber to prevent dust ingress
- > 400 DPI high resolution imaging
- > Multiple wavelength illumination – Visible, IR, UV
- > Gemalto Confirm™ Security Laminate Imaging (optional)
- > OCR data capture
- > Complete access to OCR data and images captured via SDK
- > Access to images as BMP, PNG or JPEG format
- > Hoodless operation in most environments
- > Auto-triggering of document capture – presence of document is automatically detected
- > Windows® XP, Windows Vista®, Windows® 7 and Linux® compatible
- > USB 2.0 high speed compatible
- > Integrated ISB 2.0 Hub 2 ports for external peripherals
- > Patent Pending anti-glare technology eliminates OVDs
- > Tempered glass to improve durability
- > Carbon (optional) glass coating to help reduce scanning surface scratching



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## SPECIFICATION

### Comprehensive Software Features

Flexible software interface allows host application to select which illumination sources to use, image type, image compression, photo extraction, reflection or ambient light elimination, colour 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) including Active and Passive authentication, Basic Access Control and Extended Access Control (PKI 1.11). The SDK provides writing capability using APDUs 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 OEM Document Reader KR9000 reads the following:

- > ICAO compliant documents in near infrared (IR) per ICAO 9303 specification
- > ISO 14443 Type A and B contactless ICs at 13.56 MHz (optional)
- > 1D barcodes (2 of 5 interleaved, 2 of 5 industrial, Code 128, and Code 39)
- > 2D barcodes used on BCBP and other documents (PDF 417, QR Code®, DataMatrix™ and Aztec formats) from paper documents and some mobile devices

### 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 Colour
- > 8 Bit Monochrome IR

### Resolution

Sensor: 3.1 Megapixels, CMOS, RGB 24 bit colour system

Standard 400 DPI image resolution

### ePassport (RFID) option

Contactless IC reading and writing capability according to:

- > ISO 14443 Type-A and Type-B using a PC/SC interface
- > All standardized rates, up to 848 Kbps, read-out times depend on RFID tag, operating system and amount of data stored in the chip
- > ePassport support for ICAO 9303 LDS and PKI using included SDK
- > PC/SC interface provides support to other card types such as Mifare™

### Enhanced Document Authentication option

Enhanced Document Authentication uses optical pattern matching to:

- > Identify documents based on the type and country of origin
- > Check for presence of UV dull paper
- > Verify that areas are blank, devoid of patterns, text or printed matter
- > Match security features captured from a document against a database of trusted security features - including UV, Gemalto Confirm™ laminate and visible patterns

### Firmware Upgrade

Upgradeable firmware via USB 2.0 interface

Non-volatile configuration and calibration accessed via USB 2.0 interface

Configuration can be saved to a file for backup or maintenance

### Regulatory

- > FCC Part 15 Class A
- > UL, UL-C
- > CE, CB
- > WEEE & EU RoHS Directive 2011/65/EU

### Environment

Humidity: 20 to 95% (R.H. non-condensing)

Temperature: -10° to 50° C operating; -20° to 50° C storage

IP50 rating for dust ingress protection in the optical chamber

Slot for Kensington® Security Lock

### Security

### Dimensions

19 x 16.2 x 12.3 cm (LxWxH) Weight: 1.1kg

### Minimum PC Specification

- > Intel® Celeron® 1.0 GHz
- > 512 MB DRAM
- > USB 2.0
- > 100 MB of Hard Drive space for software
- > Windows® XP SP3, Windows Vista® or Windows® 7 operating systems, 32 or 64 bit
- > Builds for Ubuntu 10.04 and CentOS 6, 32 bit only

### Status Indicators

The readers provide user feedback via the following status indicators:

- > Red - Read Error LED
- > Green - Valid Read LED
- > Yellow - Busy LED
- > Blue - Ready LED

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



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