

*e-Passports & Visas*

*ID Cards*

*Driver Licenses*



# VDR 1

## Document Reader

**Introduction** VDR-1 document reader is a stationary device for automated, reliable and secure scanning and single step optical and chip reading of electronic travel and identification documents: passports, visas, personal IDs, driver licenses, etc. Accompanied with advanced software components, the device verifies number of optical and digital security features, reads machine readable data printed on document, reads data stored on chip, hence enabling biometric verification of identity. Highly configurable and feature rich, VDR-1 supports all relevant international and industry standards. This makes it ideal for integration in large scale projects.

The device conforms to relevant EC standards:  
EN 55022:1988+A1:2000+A2:2003; EN 55024:1998+A1:2001+A2:2003;  
EN 61000-3-2:2000; EN 61000-3-3:1995+A1:2001; IEC/EN 60950-1:2001

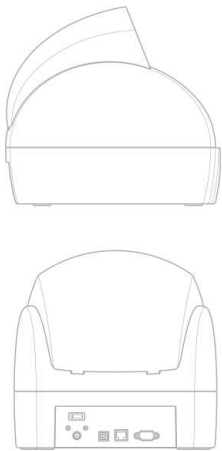
**Features**

**Optical**

- VDR-1 is capable of scanning and reading ICAO compliant travel documents and electronic ID cards, but can perform scan of any kind of travel document in high resolution. Scanning is performed with three kinds of illumination: white, infrared and ultraviolet
- Scanning process is started automatically by placing document on the reading surface. After scanning is over, operator can perform visual check of protective elements on the document
- Automatic recognition of document type
- Standard microprint, laminates, UV and IR security features, as well as advanced digital security features like watermarking can be verified
- Automatic process of extraction and reading characters from Machine Readable Zone (MRZ)
- Automatic process of extraction and decoding of 2D barcode (PDF-417 and Datastrip formats)

**Smartcard Chip**

- Reading ISO/IEC14443A&B contactless chip from electronic ID cards and travel documents (for example ICAO compliant ePassport)
- Advanced security features are provided by use of Security Access Modules (SAM) for Id3 format cards, which implies that cryptography algorithms and digital certificates can be stored (decrypting data with keys stored on SAM, checking digital signatures etc.)



**Software** Communication with desktop computer is performed over Ethernet and USB interface so integration in existing Local Area Networks is trivial.

Clear, easy to use and comprehensive interface to VDR 1 is provided by VDR 1 ready-to-use software with following features:

- Displaying captured images in three or more types of illumination
- Easy to use zoom utility for easier checking of protective elements
- Displaying data read from MRZ, 2D barcode and contactless chips
- Document validity check upon verification of digital signed data from 2D barcode and contactless smart cards
- Advanced verification and matching of data read from MRZ, 2D barcode and contactless smart cards and displaying the results of verification
- Automatic process of archiving data and easy database searching interface.

With provided SDK it is easy to develop custom applications with special end-user needs including ICAO LDS 1.7 and PKI 1.1 with BAC (Basic Access Control) and SOD (Secure Object Data), as recommended by ICAO and required by many states.

Technical Specifications

<b>Size</b>	Width: 260mm Depth: 270mm Height: 270mm
<b>Window size</b>	125mm x 88mm
<b>Weight</b>	3.7 kg
<b>Image size</b>	2048 x 1536 (3.2Mpixels, 24bits/pixel RGB)
<b>Image resolution</b>	400 dpi
<b>Image formats</b>	BMP, JPG, TIFF
<b>Illuminations</b>	- Visible, IR@900nm, UV@365nm - coaxial light (optional)
<b>Processes</b>	- Image capturing - OCRB - 2D Barcode decoding (PDF417) - Contactless chip reading (ISO/IEC14443A&B) - Data verification - Advanced security features (SAM modules)
<b>Hardware interface</b>	Ethernet, USB
<b>Operating temperature</b>	0 ÷ 40°C
<b>Humidity</b>	0 ÷ 90%
<b>Operating systems</b>	Windows NT, XP, 2000, optionally Linux
<b>System requirements</b>	
<b>Required</b>	Pentium @ 466MHz, 64MB RAM
<b>Recommended</b>	Pentium IV @ 2.4GHz, 512MB RAM

