The compact document reader with high-end OCR technology

PRMc e-passport reader series

PRMc series: compact all-in-one solution for document reading and verifying

PRMc units authenticate quickly and accurately the electronic and printed data in all ICAO standard travel documents. The built-in digital signal processor (DSP) significantly speeds up the image-processing and efficiently reduces the reading time.

PRMc readers offer one-step reading printed and electronic data.Electronic data from the chip is read regardless the position of the chip within the document.

Customized (OEM) models are available by request to serve specific needs. PRMc and the related software package (SDK) can be integrated easily into complete solutions.

Main advantages of PRMc e-passport reader

- ☑ Reading e-passports, visas and other documents
- ☑ Built-in DSP: outstanding reading performance
- ☑ Fast image processing and RFID reading
- ☑ Reading contact smart cards
- ☑ Exceptionally high rate of OCR reading
- ☑ Security checking, authentication
- ☑ Ready for PKI integration
- ☑ Hands-free operation
- ☑ Multilanguage support for the demo application
- ☑ FaceCompare algorythm
- ☑ Automatic document detection
- ☑ No moving parts, maintenance-free operation
- ☑ FREE Software upgrade

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Adaptive Recognition Hungary

Technical specifications

of PRMc e-passport reader series

The PRMc series
- PRMc 123: One camera, Visible + IR illumination
- PRMc 133: One camera, Visible + IR + UV illumination
- PRMc 233: Two cameras, Visible + IR + UV illumination

Available options for PRMc series
- RFID module (type R)
- 700PPi photo camera (type P)
- Smart card module (type S)
- UV LED (type L)
- Boro glass (type B)
- Extended document window 130x100mm (type E)
- Flip-top cover (type F)

Technical Specifications

Optical Specifications
- Image resolution: 400 dpi
- Face image resolution: 700 dpi (available in type P devices)
- Image colour depth: 24 bits/pixels RGB, 8 bits/pixels (Infra image)

Hardware Units
- Internal memory: storing factory calibration
- Built-in DSP data processing unit

Mechanical Data
- Size with cover: 213x173x179 mm (8.39" x 6.81" x 7.08")
- Window size: 130x98 mm (5.12" x 3.86")
- Case: ABS plastic on metal base
- Window glass: 4 mm glass
- Operating temperature: +5°C to +45°C (41°F to 113°F)
- Operating humidity: 0-95% (non-condensing)
- Weight: approx. 2kg (4.41lb) depending on configuration
- No moving parts
- Kensington® security slot

Other Specifications
- Compliances: CE, CB, FCC, RoHS, IEC 62471
- Interface: USB 2.0
- Number of status LEDs: 3 programmable
- Power: external power supply included (100-240V AC, 50/60Hz)
- Possible to use via TCP/IP by USB-LAN converter

RFID Module
- Single-step reading
- DUAL RFID antenna
- RFID chip is detected in any position within the passport
- Support all ISO 14443 A/B chip types
- Active/passive authentication, BAC, EAC
- RFID data is read with the highest possible speed supported by the chip
- Airspeed limit: max 848Kbps (if supported by the chip)

Smart Card Module
- Support ISO 7816 & EMV2 2000 Level 1 standards

Advanced Document Authentication Module (ADAM)
- MRZ checksum validation
- MRZ comparing to VIZ (ask for details)
- Printed MRZ comparing to MRZ stored in RFID chip
- FaceCompare algorythm: comparing the printed face photo with the photo stored in RFID chip -DG2-
- Expiry date check
- B900 ink check
- UV dull paper check (in case of devices with UV light)
- Automatic pattern matching under Normal, UV, IR light (optional, ask for details)

Authentication methods with Photo Camera (type P devices)
- Photo substitution check (manual)
- JURA IPI™, DIPI™ decoding (optional, ask for details)
- GSSC VIPhoto™ decoding (optional, ask for details)
- Background printing check (manual)
- Microprinting check (manual)

Software Development Kit (SDK)

Supported OS
- Windows® 7, Vista, XP (WHQL signed for 32&64 bits), Windows® Server 2003 (32/64bit), Windows® Server 2008 R2 (32/64bit)
- Linux® (ask for details)

Programing languages
- C/ C++, C#, Visual Basic 6.0, Delphi, VB.NET, Java

Processing time (depending on PC configuration)
- Image capture and MRZ Reading < 0.5sec

MRZ OCR reading
- ICAO 9303

VIZ OCR reading
- Zones defineable by user

2D Barcode reading
- PDF 417, Data Matrix, QR Code, Aztec Code

1D Barcode reading
- UPC-A, EAN8, EAN13, Code39, Code128, ITF

Image format
- BMP, JPG, JPG2000, PNG
- General interface: Twain, PCSC, BioAPI

Extended High Colour Fidelity (XCF)
- Automatic colour calibration
- Outstanding deltaE value (ref. Q-60R2 Kodak Target)

Technical specifications are subject to change without prior notice

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