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 have proved the interoperability in all recent cross-over tests. With PRMc single step reader the electronic data can be read in a one-step process, regardless of the position of the RFID chip.

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
- ☑ High resolution images in IR, UV and normal light
- ☑ Security checking, authentication
- ☑ Can be linked to any database, ready for PKI integration
- ☑ Hands-free operation
- ☑ Compact design
- ☑ Automatic document detection
- ☑ No moving parts, maintenance-free operation

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Technical specifications

of PRMc e-passport reader series

The PRMc series
- PRMc 123: One camera, Visible + IR illumination
- PRMc 223: Two cameras, Visible + IR illumination
- PRMc 233: Two cameras, Visible + IR + UV illumination

Available options for PRMc series
- RFID module (type R)
- Smart card module (type S)
- 700PPi photo camera (type P)
- Extended document window 130x100mm (type E)
- Built-in USB hub
- Flip-top cover

Technical Specifications

Optical Specifications
- Image sensor: 3 Megapixel
- Image resolution: 400 PPi
- Face image resolution: 700 PPi (available in type P devices)
- Image colour depth: 24 bits/pixels RGB, 8 bits/pixels (Infra image)

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

Mechanical Data
- Size with cover : 213 x 173 x 179 mm (8,4" x 6,8" x 7.0")
- Window size : 130 x 98 mm (5,1" x 3,9")
- Case: ABS plastic on metal base
- Window glass: 4 mm tempered glass
- Operating temperature: +5°C to +45°C
- Operating humidity: 0-95% (non-condensing)
- Weight: 2,0-2,4 kg depending on the model
- No moving parts
- Kensington® security slot

Other Specifications
- Compliances: CE, FCC, RoHS, IEC 62471
- Interface: USB 2.0
- 3pcs free USB ports (available in type U devices)
- Number of status LEDs: 3 programmable
- Power: external power supply included (100-240V AC, 50/60Hz)

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

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

Advanced Document Authentication Module (ADAM)
- MRZ checksum validation
- MRZ comparing to VIZ (optional)
- Printed MRZ comparing to MRZ stored in RFID chip
- Printed face photo comparing to photo stored in RFID chip -DG2- (optional)
- 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)

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

Software Development Kit (SDK)

Supported OS
- Windows® 7, Vista (32/64bit), XP, 2003, 2000
- Linux® (optional)

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
- EAN8, EAN13, Code39, Code128. Interleaved 2 of 5

Image format
- BMP, JPG, JPG2000, PNG

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

Technical specifications are subject to change without prior notice

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