Optical module Regula 4178

The optical module is intended for advanced authenticity verification of passports, ID cards and other travel documents, visa stamps and seals, including but not limited to entry permits, banknotes, driving licenses, vehicle registration certificates and other vehicle related documents, signatures and handwriting fragments, revenue and special stamps, securities and other documents with security features.

Regula 4178 is a compact USB device constructed in plastic body in the form of a base for a spectral luminescent magnifier Regula 4177. The device power supply, control, displaying and processing examination results are carried out via a PC and Regula Forensic Studio software.

The optical module widens the spectral luminescent magnifier field of view. The device is equipped with additional light sources.

Functionality

- **Examinations on different levels**
  - **protection of the document basis**
    - security fibers, planchetes, security threads, holograms, foil stamping, pole feature, transparent vanish coating, etc.
  - **printing methods**
    - *intaglio*: texts, guiloche frames, rosettes and vignettes, microprinting, latent images and moire patterns, signs for the visually impaired, blind embossing, colour shifting ink, including OVI with embossing and latent images, etc.
    - *letterpress*: serial numbers, texts, barcodes, etc.
    - *offset printing* including Orlov and rainbow printing: texts, microprinting, moire patterns, background and anti-copy patterns, etc.
    - *screen printing*: security features with optically variable effects, etc.
    - perforation
  - **physico-chemical protection**
    - UV luminescence
    - IR luminescence
  - **complex security features**
    - holographic images, OVD
    - security features with IR-metameric ink
    - special polymer coating of security laminates
    - metallized coating
    - laser engraving
- **Additional examination of**
  - fragments of document images depending on the degree of absorption or reflection of IR light
  - document alterations such as erasure, etching etc.
  - traces of signature forgery
  - extraneous lines (do not originally belong to the examined object) that are performed with IR opaque inks
  - blurred, crossed out entries, texts and images
  - document mechanical defects such as cuts, tears, folds, etc.

Application

- Border control and immigration services
- Customs authorities
- Law-enforcement agencies
- Forensic laboratories
- Financial institutions
- Other agencies and organizations authorized to check documents

Functionality		
Light sources	white	incident
		4 oblique from different sides
		24 oblique for hologram examination
	ultraviolet, nm	254
		313
		365
	4 oblique infrared, 870 nm – from different sides	

Regula 4177 field of view when using the optical module, mm — 16×22

Connection interface — USB 2.0

OS — Microsoft Windows XP (SP3), Windows Vista, Windows 7, Windows 8

Dimensions (length×width×height), mm — 106×70×46

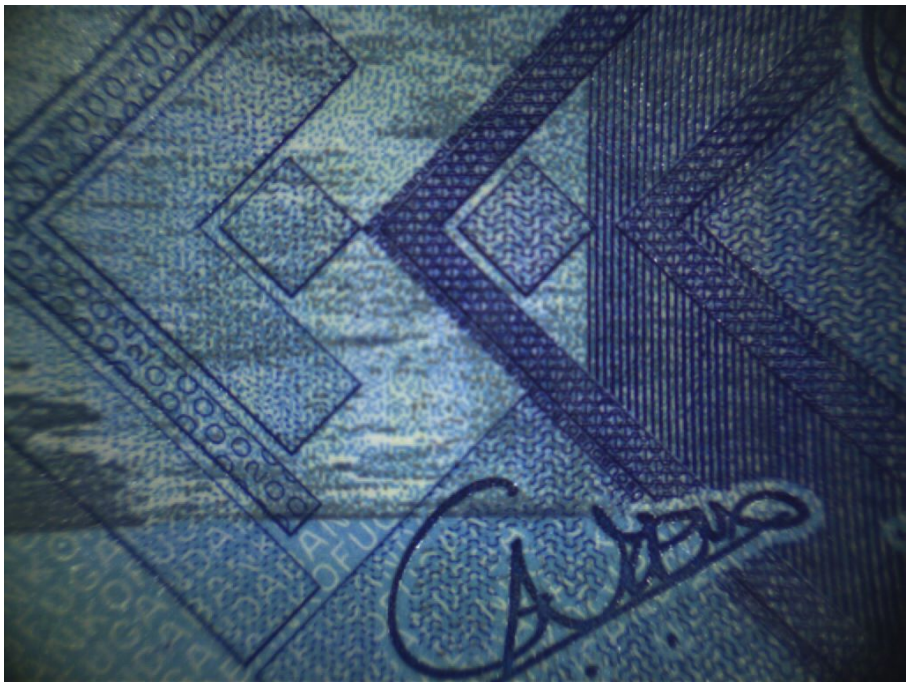
Weight, kg — 0,3

Power supply voltage, V — 5

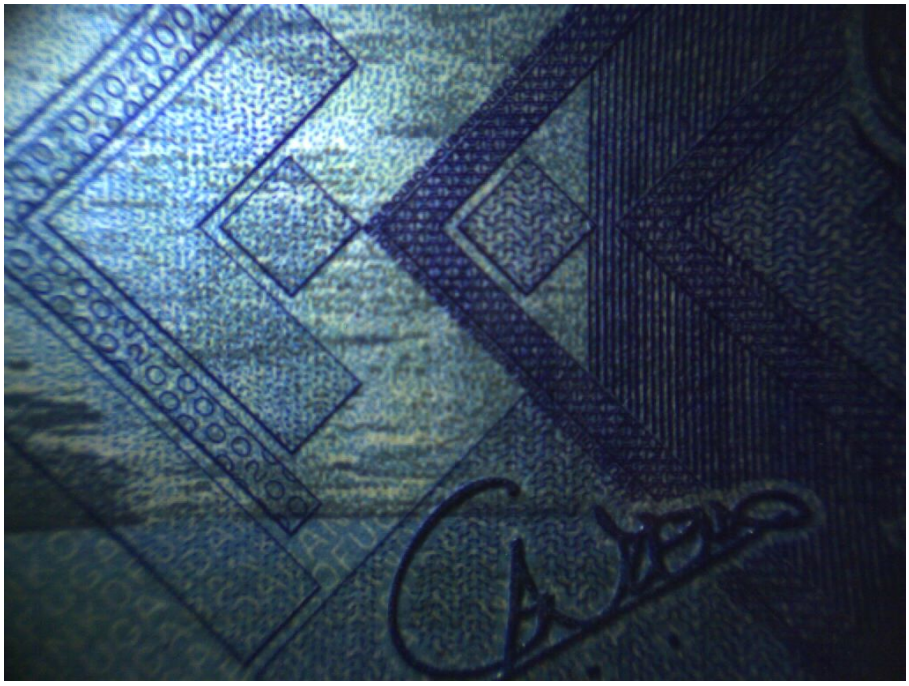
Power consumption, W — 2,5

PC requirements

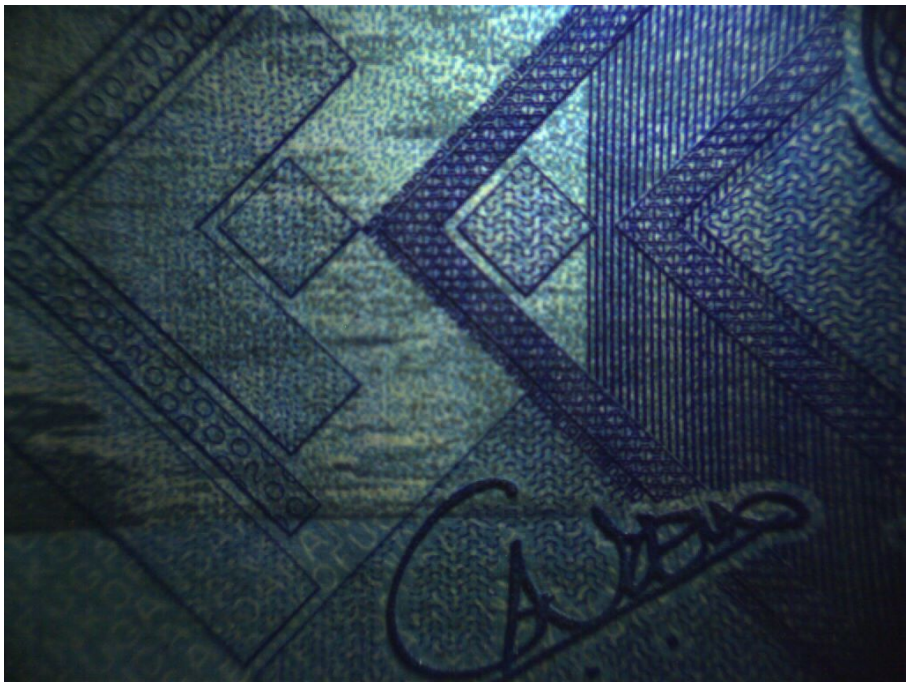
- Minimum configuration:
  - OS — Microsoft Windows 7 (Service Pack 1)
  - processor — Intel® Core™ i5 3.0 GHz
  - RAM, GB — 4
  - minimum free disk space, GB — 1
  - display resolution, pixels — 1600×1200
  - connection interface — USB 3.0
- Recommended configuration:
  - OS — Microsoft Windows 7 (Service Pack 1)
  - processor — Intel® Core™ i7 3.4 GHz
  - RAM, GB — 16
  - minimum free disk space, GB — 1
  - display resolution, pixels — 1920×1200 or higher
  - connection interface — USB 3.0



Top white light 1x

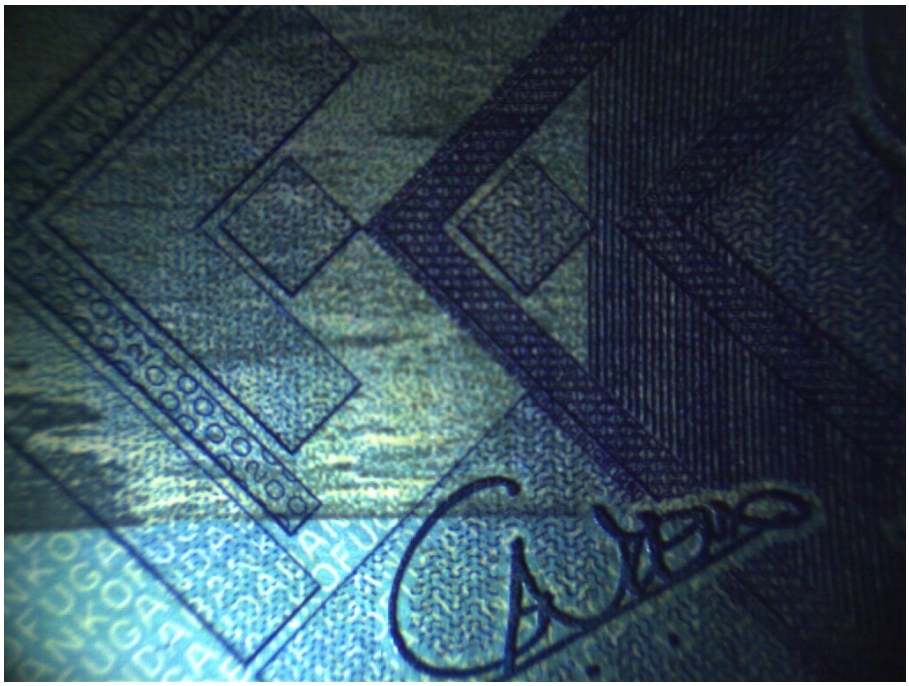


Oblique white light 1x



Oblique white light 1x

Oblique white light 1x



Oblique white light 1x

Oblique IR light 1x

Oblique IR light 1x

Oblique IR light 1x

Oblique IR light 1x

UV top light (254 nm) 1x

UV top light (313 nm) 1x

UV top light (365 nm) 1x