

Device for forensic examination of questioned documents Video Spectral Comparator Regula model 4307



The device is intended for advanced authenticity verification of passports, ID cards, travel documents, passport stamps, banknotes, driving licences, vehicle registration certificates and other vehicle related documents, signatures and handwriting fragments, paintings, revenue stamps and other security documents.

The device is made as a single unit for desktop use. It is used with a PC and fully controlled through Forensic Studio software interface (supplied with a unit).

Features

- Magnification up to X174 (for 30 inch monitor)
- Connection interface – USB 3.0
- Protective shields against harmful UV radiation
- Big size/thick documents examination option
- Possibility to use with additional equipment (magnetic ink visualizer Regula model 4197, spectral luminescent magnifier Regula 4177) and information reference systems on travel documents and banknotes

Applications

Device is intended for use by questioned documents laboratories, immigration and customs authorities, central bank laboratories, private document examiners.

Functionality

- Examination
 - Optical security features in different spectral ranges
 - Optical and physical security features in different light types (incident, oblique, transmitted)
 - Holograms/Kinegrams
 - General document view and view of specific security elements (microtexts, fibers, background printing, intaglio, etc.) under high magnification
- Comparison of two images in different combinations (two saved images, saved image against live video, saved images against etalon image from information reference systems, etc.)
- Automatic reading of:
 - Textual information from machine readable zone of ICAO compliant documents (ID-1, ID-2, ID-3);
 - 1D and 2D barcodes
 - Information from RFID chips in eDocuments (DG1 to DG15, BAC, EAC, AA, PA, TA, PACE) and verification of those chips.

Technical specifications:

Light sources: Incident	<ol style="list-style-type: none">1. UV 365 nm2. UV 313 nm3. UV 254 nm4. UV 400 nm*5. 400 nm*6. 450 nm*7. 470 nm*8. 505 nm*9. 530 nm*10. 590 nm*11. 613 nm*12. 630 nm*13. IR 700 nm14. IR 860 nm15. IR 940 nm16. White incident17. IR 850-1100 nm for Anti-Stokes (optional) <p style="color: red; margin-top: 10px;">All light sources are LEDs except UV 365, 313, 254 nm * – separate LEDs, can be used in combinations (256 combinations)</p>
--------------------------------	---

Technical specifications:

Light sources: Transmitted	<ol style="list-style-type: none">1. White (variable brightness)2. IR (variable brightness)3. UV 365 nm4. Focused White5. Focused IR <p>All light sources are LEDs</p>
Light sources: Oblique	<ol style="list-style-type: none">1. 6×White2. 6×IR <p>All light sources are LEDs</p>
Light sources: Coaxial polarized	White LED
Light sources: OVD	<ol style="list-style-type: none">1. Horizontal 31 LEDs2. Vertical 14 LEDs
Filters	<ol style="list-style-type: none">1. IR High pass 580 nm2. IR High pass 600 nm3. IR High pass 630 nm4. IR High pass 650 nm5. IR High pass 670 nm6. IR High pass 685 nm7. IR High pass 700 nm8. IR High pass 715 nm9. IR High pass 730 nm10. IR High pass 780 nm11. IR High pass 850 nm12. Visible pass 370-700 nm13. UV cut off 450-1100 nm14. Polarization filter15. Visible pass 390-410 nm16. Visible pass 440-460 nm17. Visible pass 460-490 nm18. Visible pass 490-520 nm19. Visible pass 520-550 nm20. Visible pass 580-600 nm21. Visible pass 605-620 nm22. Visible pass 615-645 nm23. Neutral
Video camera	3.2 Mp, CMOS (5 Mp – optional)
Resolution, pixels	1920×1080
Magnification	optical: x3.9 to x117 fields of view: 5.7×3.2 mm to 172×97 mm digital: x1.5 <p>All magnifications are approximate and based upon a 30 inch (75 cm) monitor</p>

Technical specifications:

Maximal document size, mm	530×400
Output signal / Interface	USB 3.0
Control	Software
Saved document format	Internal format, which contains the document images under different lights and the additional document description. Image can be saved as BMP, JPG, TGA, TIFF file.
Operational System	Windows
Computer inside	Optionally
Image post processing	Yes
RFID reader (ISO 14443)	Yes (built-in)
1D and 2D Barcodes	Yes
Manual Focus	Yes
Database	Yes (with full software integration)
3M™ Confirm™ laminate	Yes
Hidden image (IPI)	Yes
OVI	Yes
Device overall dimensions (L×B×H), mm	565×480×435
Device weight, kg	30.4 (netto) 47.2 (with suitcase)
Power supply	110-240 V, 50-60 Hz, 200 W



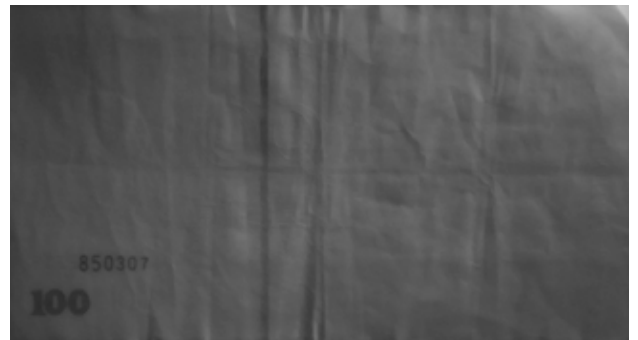
Incident white (100 CNY)



Transmitted white (watermark, 100 CNY)



Incident IR (100 CNY)



Oblique IR (100 CNY)



Incident UV A 365 nm (100 CNY)



UV A 365 nm (fragment, 100 CNY)



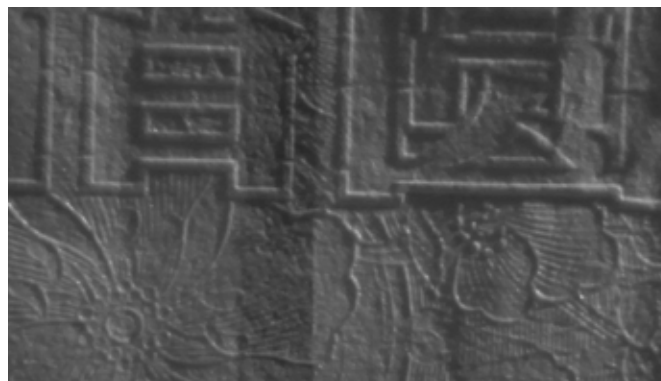
Incident white (microtext fragment, 100 CNY)



Incident white (microtext fragment, 100 CNY)



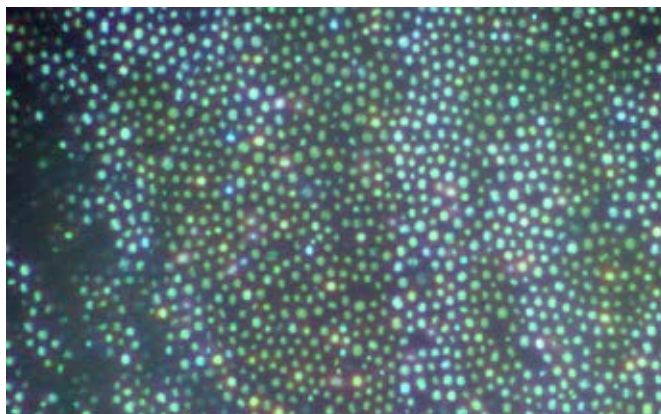
Oblique white (intaglio fragment, 100 CNY)



Oblique IR (intaglio fragment, 100 CNY)



3M confirm laminate (fragment, Australian passport)



3M confirm laminate (highly magnified fragment, Australian passport)



Hologram (fragment, Canadian passport)



Hologram (fragment, 5000 Lek)