See The Truth Inside

### Doculus Lumus



doculuslumus.com

#### See the Truth Inside in 30 Seconds



Experienced document specialists know what they need to look for. Often the place where fake documents are analysed more precisely, is an office far away from the border posts. So prior to this, fake documents must be identified by the frontliners at the border, on the motorway, on the train or at the airport. Usually only 30 seconds are available for the examination of a document and to decide

Usually only 30 seconds are available for the examination of a document and to decide whether a fake is present or not.

#### Frontline counts!

### charismaTec OG – Management



DI (FH) Sandra Slavinec

Expertise: Marketing management, sales, RFID process optimization, technical training and consulting (intra logistics, RFID, smart automation for industry 4.0, document and product security)



FH-Prof. Dipl.-Ing. Dieter Lutzmayr

Expertise: Software development (embedded/microcontroller, PLC, Android, IOS, C#), prototyping, 3D print design, industrial design, technical training and consulting

#### In close cooperation with experts in the following areas:

Document security, border security, electronic design, civil engineering, safety engineering, semiconductor industry, RFID industry, augmented reality

## Doculus Lumus – the Perfect Tool for You as a Document Examiner



### Doculus Lumus® Fulfils Your Needs: Specifications at a Glance

- 15x or 22x magnification with achromatic, colour-true and distortion-free quality glass lens system with an inspection area of more than 2 cm shielded from light from outside
- 4 LEDs for incident light with extra strong boost (torch light mode)
- 4 UV-LEDs for extra strong ultraviolett light with 365 nm, also as a replacement for an UV-torch and with magnification to detect UV nano features
- 8 LEDs for automatic rotating oblique light: Moving darkfield illumination makes raised features and paper fibres visible like a 3D realistic object, also perfect for colour changing holograms
- Right-/left-handed mode for all left handers who want to activate incident light with the thumb
- Steady light for documentation purposes: 1 min active, available with all light features; documentation without any additional smartphone app, just taken with a smartphone or tablet camera
- Automatic shutdown after 1 min even on lasting keypress (if activated by accident during transportation)
- Minimum 3-5 months battery lifetime with just 2 AAA standard batteries or rechargeables ("eneloop" recommended)
- Large and sensible buttons for usage with gloves while having the device secured with the hand wrist band
- Robust but small housing and design: Drop safe from up to 1,5 m, fits in any shirt pocket
- Certifications: Europe (CE), USA (FCC), Canada, Australia (ACMA) and New Zealand
- E-passport verification with RFID quick check for all passport transponders (Type A and Type B, both ID and ICAO)
- Colours: blue, red, violet, grey, lime, orange and new military colours forest (olive) and desert (sand)

The unit has been developed with and for police officers. Every feature that a document examiners needs to confirm the suspicion of a counterfeit in 30 seconds has been implemented. Questions and answers can be found on our website in the FAQs, see <a href="http://www.doculuslumus.com/doculus-lumus174/faqs/">http://www.doculuslumus.com/doculus-lumus174/faqs/</a>

#### Certifications for Doculus Lumus®

- CE, tested and approved compliance with the requirements of the following European directives and standards:
  - 1999/5/EC Radio and Telecommunications Terminal Equipment (R&TTE)
  - 2011/65/EU Restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)
  - IEC 60950-1 Information technology equipment Safety
- FCC (Federal Communications Commission of the United States): Grant of Equipment Authorization, FCC IDENTIFIER 2ACVI-DL
- IC (Industry Canada / Industrie Canada): CERTIFICATION NUMBER 12347A-DL
- ACMA (Australian Communications and Media Authority, also valid for New Zealand): Regulatory Compliance Mark (RCM)

#### 15x Doculus Lumus®

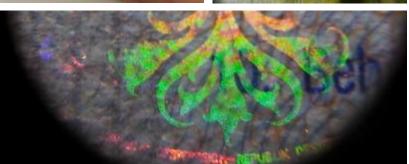
#### Mobile Document Checking Device:

- 15x magnification with quality glass lenses
- 4x incident LED lights with torch light mode
- 4x extra strong UV LED lights 365 nm
- 8x LED lights for rotating oblique light
- Left-/right-handed mode
- Steady light mode for documentation purposes
- Optional: e-Passport check with RFID













#### 22x Doculus Lumus®

#### Mobile Document Checking Device:

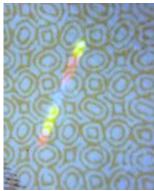
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- Steady light mode for documentation purposes
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#### Doculus Lumus® Bag

#### Description:

- Splash-proof, robust belt bag made of strong Nylon<sup>®</sup> with soft velvet inside
- Snap button closure
- Belt hook
- Top is closeable with a cord
- Main compartment for the device
- Small compartment
- Side compartment for spare batteries



## Individual, fresh colours matching your personality



#### Military-Edition: Signal, Forest and Desert



New on stock Autumn-/Wintercollection 2016

- Signal (orange)
- Forest (olive green)
- Desert (sand colour)



#### Doculus Lumus® is very robust!

#### Common situations:

You step onto your Doculus Lumus by accident?

Your Doculus Lumus falls to the ground (about 1.5 m)?

You sit down on your Doculus Lumus by accident?



- Take your Doculus Lumus back into your hand
- Check the correct position of the batteries
- 3. Continue working as usual

Robustness tests: <a href="http://www.doculuslumus.com/videos/">http://www.doculuslumus.com/videos/</a>

### Let's dive into the microscopy world with Doculus Lumus<sup>®</sup>



## See Structures: Incident vs. Oblique



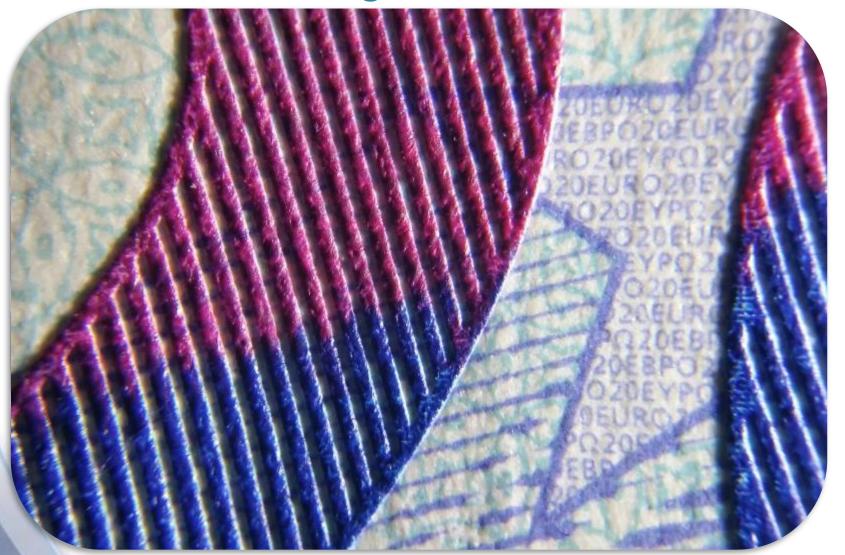


### **Embossed Intaglio Printing**

(22x Doculus Lumus® Smartphone Snapshot)



## Orloff-Intaglio: (15x Doculus Lumus® Snapshot with 2x Zoom) Seamless colour gradient and embossing



### OVI (Optical Variable Ink)

(15x Doculus Lumus® Snapshot with 3x-Zoom of a Samsung Galaxy Note 4)

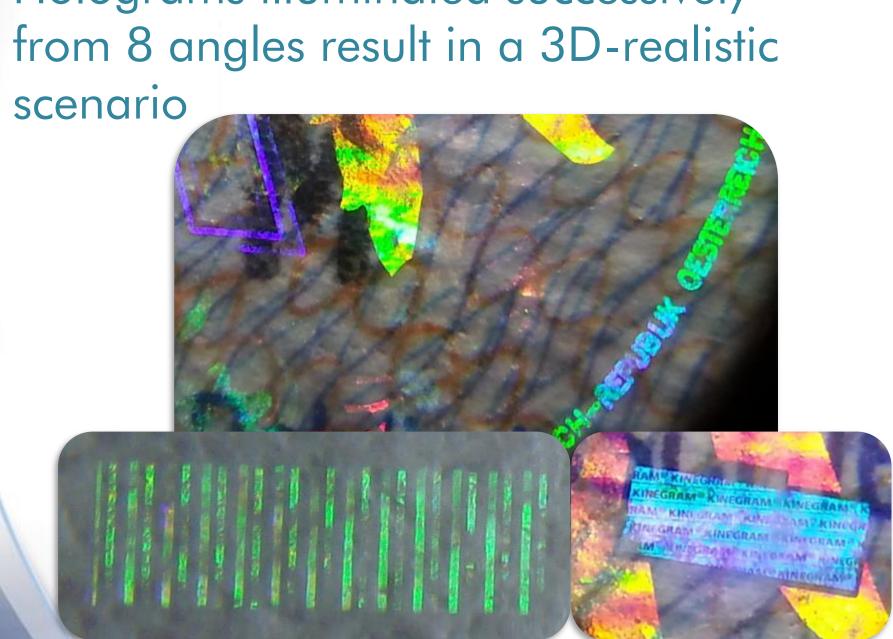


## 8 LEDs for automatic, rotating oblique light, to view all facets from all angles

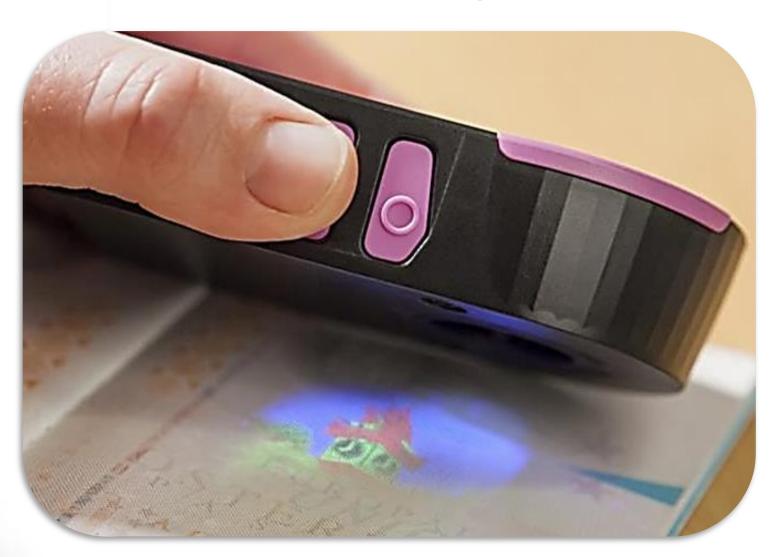
(15x Doculus Lumus® Smartphone Snapshots)

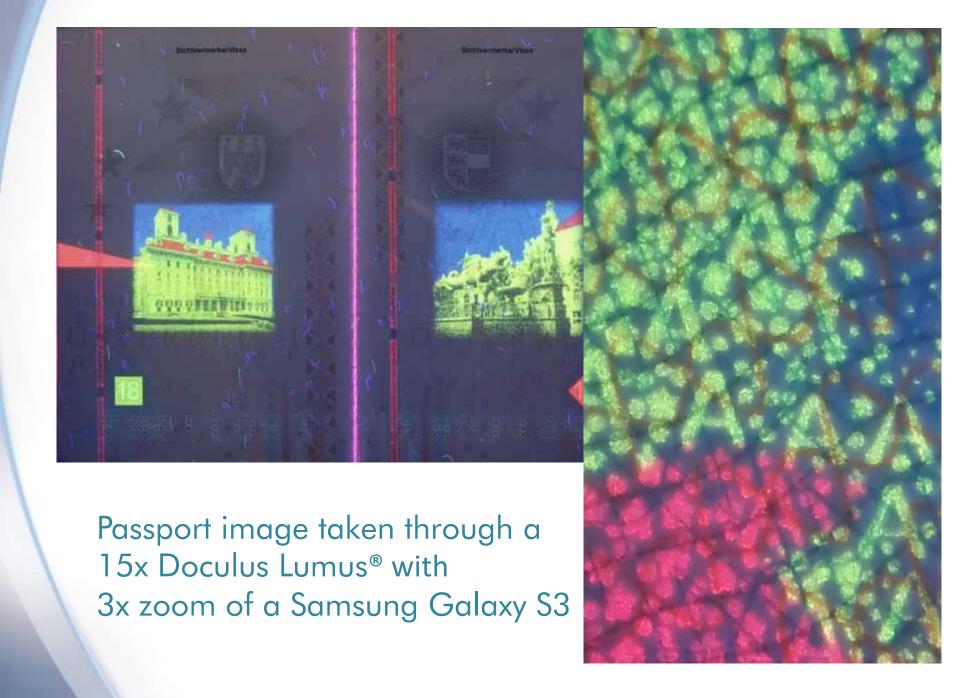


Holograms illuminated successively



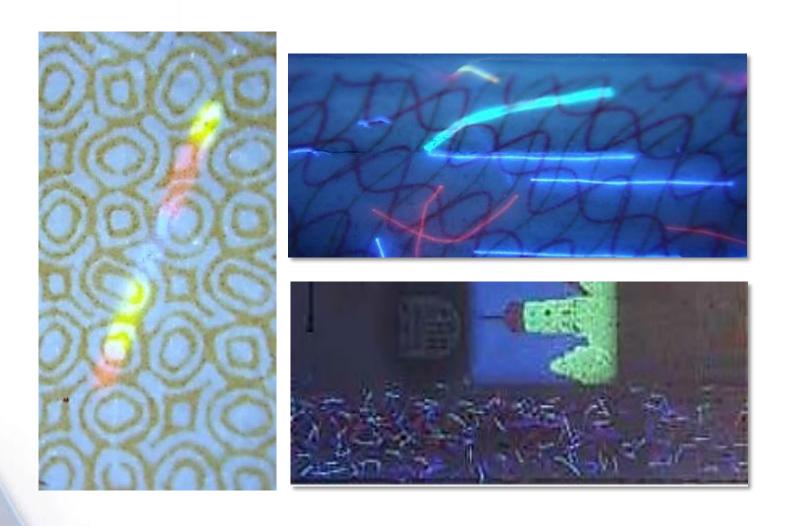
## Extra strong UV light replaces a small UV-torchlight



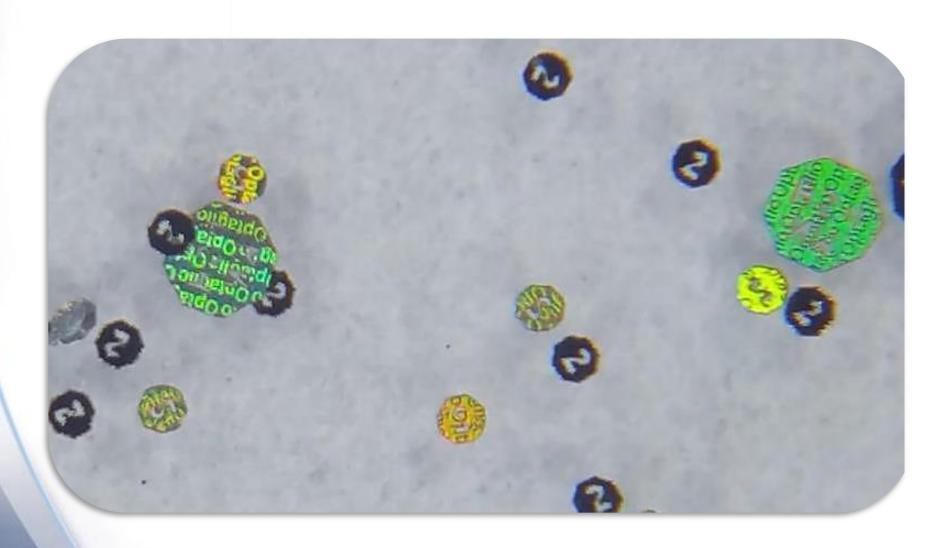


### Security melier fibers set in scene

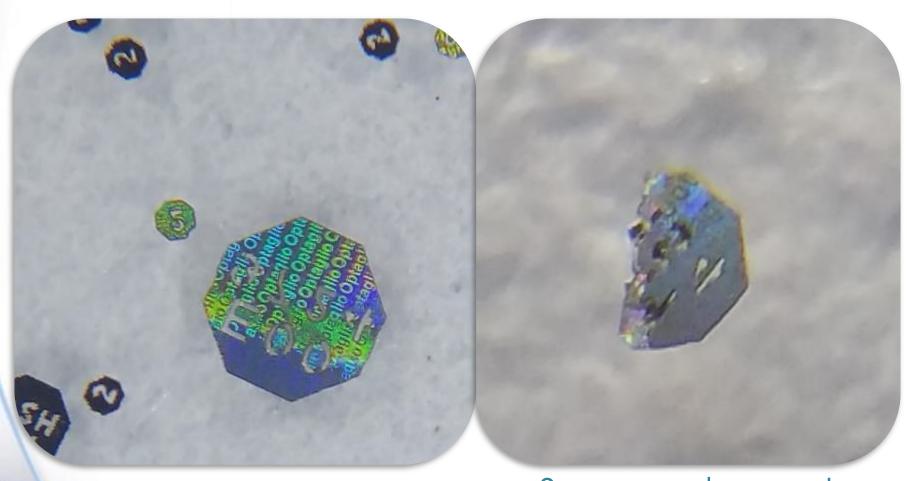
(22x Doculus Lumus® Snapshots)



## Optaglio Microdots (15x Doculus Lumus® Snapshot)



### Optaglio Microdots (22x Doculus Lumus® Snapshots)



See re-use damages!

## Steadylight Mode for Foto Documentation: 3 x Clicks for 1 Minute of Light (for Incident, UV, Oblique Light, Torchlight Mode)

Stable positioning of a smartphone:

1) Release the battery flap and push it in again one level higher to obtain a flat area

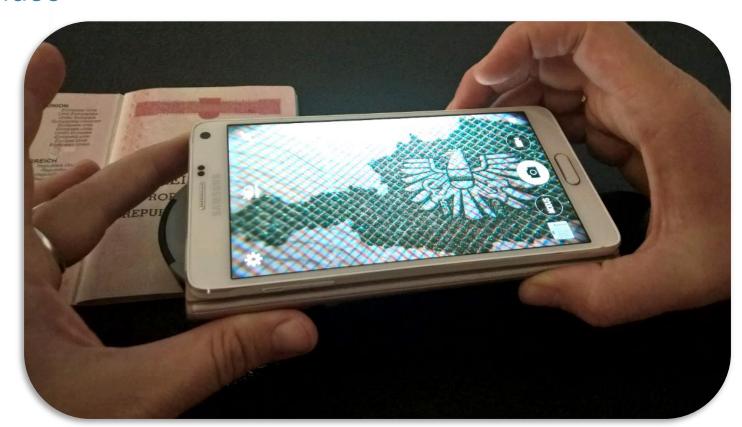


2) Place your smartphone with the camera looking through the lens system



## Steadylight Mode for Foto Documentation: 3 x Clicks for 1 Minute of Light

No need to keep on pressing buttons anymore – use your fingers to position your device, to take a photo or make a video



# RFID Chip Quick Check in less than 1 second for ICAO Standard | Type A and Type B

Information is signaled via red and green LEDs:

- 1) Transponder active?
- 2) Passport, ID or invalid transponder?
- 3) ICAO compliant?
- 4) Transponder type A or B?



## Bring Light Into the Dark with the Torchlight Mode



## Detect Watermarks with the Torchlight Mode



#### FaceMatch App



You often need to control passports or identity cards? How do you make sure that the person in front of you is same face you see in the document?

- Take a picture of the person in front of you and another one of the identity card picture
- Place both face-halves side by side or crossfade them
- Move the picture parts horizontally or vertically
- Control the transparency of the fading
- Save the result for documentation



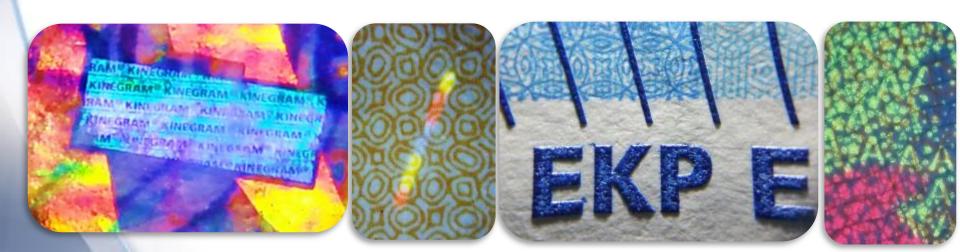
Take a picture



**Edit Comparison** 

Do you like these pictures?
Watch our video on YouTube, write us a message on <a href="www.doculuslumus.com">www.doculuslumus.com</a>, follow us on LinkedIn or Facebook and soon start working with your own

## Doculus Lumus®





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