LASINK™ 3D

Combining LASINK™ Origin and Stereo Laser Image (SLI™) technologies to secure secondary portraits

LASINK 3D

LASINK™ 3D is a full-color secondary portrait embedded in a transparent window. Its unique motion and depth effects make the authentication of polycarbonate ID documents unambiguous. Based on an exclusive personalization software, LASINK™ 3D is nearly impossible to reproduce or forge.

Trends in document fraud

Fraud remains a major concern for ID document issuing authorities. Today, fraudsters can purchase sophisticated equipment online to support their fraud or counterfeiting attempts. Furthermore, morphing attacks (altering the portrait) are increasing, especially at the post-issuance stage.

Combining LASINK™ Origin color technology and SLI™

When securing ID documents, protecting the holder's portrait is a priority. Based on two proven technologies - LASINK™ Origin color portrait and SLI™ - LASINK™ 3D offers enhanced portrait protection.

LASINK™ 3D is a color portrait that is laser embedded into a transparent window. It displays striking motion and depth effects.

These effects vary depending on the angle of view and are easily identifiable for both in-person or remote authentication.

The secondary portrait validates the main portrait, thus confirming the identity of the document holder. Interlinking both images makes forgery almost impossible, deterring any attempts at fraud.

Why IDEMIA?

With over 3 billion identity documents issued worldwide, IDEMIA has extensive experience in producing tamper-proof documents.

We understand the evolving challenges posed by fraud, and are continuously innovating to ensure that our partners are always one step ahead of fraudsters. Our security concept is to create ID documents that are hard to reproduce yet easy to inspect.

Andorra, Burkina Faso, Colombia, Costa Rica, Estonia, Latvia, Morocco, and many more, have already opted for LASINK™ Origin technology to secure their ID documents.

Benefits

Easy to inspect

› The color image combined with motion and depth visual effects enables LASINK™ 3D inspection for both trained agents and untrained individuals. Verification can be done face-to-face or remotely using the citizen's smart device camera.

Resistant to multiple types of fraud

› As exclusive software is needed to produce LASINK™ 3D, fraudsters cannot personalize the picture or create the optical effects using equipment widely available on the market. For the same reason, it is nearly impossible to modify the portrait or to clone the document.

Durable

› The LASINK™ Origin printed matrix is incorporated and laser engraved into the heart of the polycarbonate structure, making it secure and more resistant to attacks. This also makes it durable and allows for repeated use.

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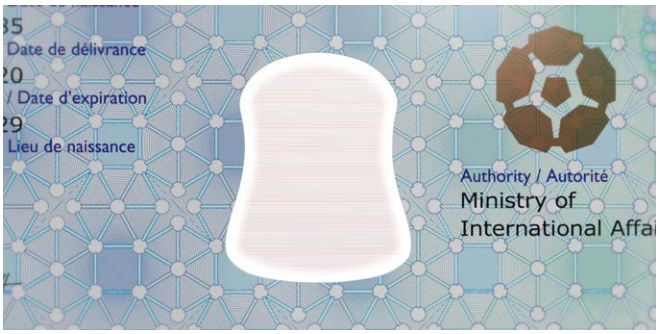
How it works?

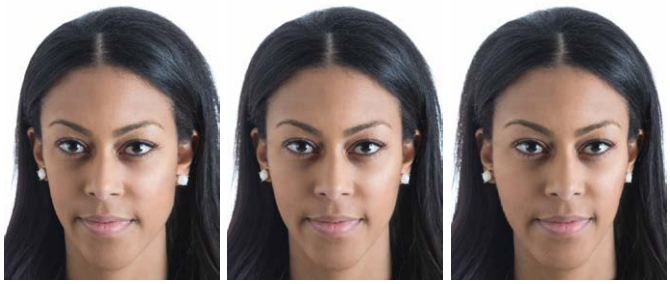
LASINK™ Origin and SLI™ combined into one technology

› LASINK™ 3D is based on **LASINK™ Origin** color technology, a matrix of cyan, magenta and yellow lines. This matrix is printed on a polycarbonate layer located in a transparent area on the ID document.

› LASINK™ Origin is combined with a lens structure based on IDEMIA's **SLI™** technology. SLI™'s 3D and depth effects are created using several sequential views of the same portrait under different angles of examination.



LASINK™ Origin matrix in a transparent window



SLI™: Different viewing angles of the portrait

› At the **personalization stage, an exclusive algorithm** will convert the photo of the document holder into several specific grayscale representations of the portrait. This will guide the laser engraving process through the lens structure. It will ensure the grayscale portraits with the matrix lines are perfectly registered, enabling the color portrait to be revealed.

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The result is a color portrait showing **motion effects when tilting** the document from left to right. The additional personalization of a date of birth, for example, will appear to be sitting in the forefront of the portrait. These numbers will move in the same direction as the portrait, but the movement will be wider, thus creating a **depth effect** between the portrait and the date of birth.

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