## Holograms to Protect Chips in E-Passports

Optaglio has recently announced a new holographic solution focused on protecting chips in ePassports against removal and replacement. The company anticipates future counterfeiting attacks will target chips with biometric data in the foreseeable future.



An example of Optaglio's hologram consisting of

Personal and biometric data stored inside a chip within a document is a robust authentication tool, supporting all levels of machine reading up to automated e-gates. However, these chips are often targeted by counterfeiters, despite the fact that most document producers apply protective features.

Dr Tomas Karensky, Senior Research Manager said: 'our discussions with forensic laboratories experts confirm recent growth in attempts for chip replacement. Some five years ago, the attackers mostly tried to disable chips, but the eGates force them to apply more sophisticated technologies.'

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## Chips in E-Passports (Continued)

The new Optaglio solution is based on covering the chip with a hologram comprising thousands of tiny particles. Any attempt of manipulation or interference results in irreversible disintegration of the hologram.

'We spent a lot of time and energy on testing, trying all possible methods of chip replacement. Now we are pretty confident that our solution is strong and resistant,' Karenský continues.

'We already had an excellent solution for polycarbonate, and now we can also cover PVC cards. The design of the hologram is critical as the counterfeiter can replace it with another hologram that looks similar.'

'The hologram must, therefore, include some striking and unusual visual effects that are not imitable. In this area, we are helped by the recent reaching of 5 million dpi resolution and the development of new effects including 3D animation'.

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