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OPTAGLIO security holograms exceeded 5 million DPI

By Antonio D'Albore | September 11, 2017

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LOCHOVICE (September 11, 2017) – OPTAGLIO, the global leader in high-resolution security holograms, has announced it exceeded the resolution of 5 million DPI. This move further enhances anti-counterfeit



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„This success is backed by long research. It is relatively easy to narrow stream of electrons, but it is necessary to deal also with particular technical and physical challenges such as proximity effect,“ said Dr. Tomas Karenský, senior research manager in OPTAGLIO. „This technology upgrade enables us to create entirely new visual effects. It underlines critical role of hologram design so that new possibilities are used completely.“

OPTAGLIO has already been the market leader working with the resolution of 2,5 million DPI, which is sufficient for placing a detailed map of the Moon on space of one square centimeter. With this resolution, OPTAGLIO has developed a portfolio of unique visual effects. „As far as we are informed, nobody has ever imitated 2,5M DPI security hologram. However, we understand the need for further increasing the technological advantage. Typical life cycle of identity document is ten years. It is important to ensure that attackers will not be able to imitate security elements all along the lifecycle.“



Optaglio holograms are created with e-beam lithography. This technology works with electron beam instead of a laser. The electron beam can be narrowed and broaden to create special effects while keeping reasonable effectivity.

5 million dpi holograms were developed in OPTAGLIO Labs, the research center situated in Lochovice, Czech Republic. This center was established in 2015 to unify and consolidate various research and development activities. In 1994, Optaglio originated from Czech Academy of Science and has kept its scientific spirit until now, which resulted in a range of patents and breakthrough innovations. OPTAGLIO Labs focus on both product innovation and material research.

About OPTAGLIO

Optaglio is a research organisation and the global leader in high resolution e-beam lithography security holograms. During almost 25 years of our history, we have delivered hundreds of millions of holograms



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