

National Symbols Become Anti-counterfeiting Protection

IQ Structures' custom security features for ID documents

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IQ Structures, a research and manufacturing organization focused on innovative solutions against counterfeiting, creates a custom National Identity Guard (NIG) for various countries. This is a solution providing unified protection for various national identity documents (ID card, passport, driving license, social security card, etc.). The NIG combines the world's best optical security features (as demonstrated by its IHMA award) and the No 1 solution for document anti-counterfeiting protection (its IQ proID product received a Government Security Award).

In recent months, NIG designs have been developed for a number of countries in Africa, America, Asia, and Europe, including Egypt, Indonesia, Italy, Kazakhstan, Malaysia, Philippines, Spain, Vietnam, and the USA.



(Prototype only. Not an actual document)

IQ Structures CEO Petr Franc said, "It's no secret that IDs are supposed to be beautiful and highly secure against forgery. Yet how do we make that happen for specific

countries? How can we increase security by unifying the design for different documents like ID cards, passports, visas, social security cards, driving licenses, etc.? Our National Identity Guard gives a clear answer. It puts something tangible in the hands of the people responsible for issuing documents, allowing them to plan for future development. When you see it up close, the difference between the outdated technology that is often still in use and IQ Structures' advanced security products is immediately striking."



(Prototype only. Not an actual document)

The key features of the National Identity Guard are as follows:

- **Combining ultimate security with superb looks.** There is no need to compromise. The latest technology provides outstanding visual possibilities, giving artists room while dramatically increasing resistance to counterfeiting.
- **Engaging national heritage in security.** The nature of the concept – multiple large-area optical security features – gives the designers a unique tool not only to depict all relevant national symbols, but to reflect the most important national heritage elements and tell visual stories from the country’s history.
- **Increased resistance through mathematics and advanced material science.** Sophisticated mathematical algorithms together with high-end nanofabrication technologies provide the optical security features composing the National Identity Guard with extraordinary resistance to alteration, imitation, and counterfeiting. The features are integrated into the polycarbonate so that any attempt at tampering will result in irreversible damage.
- **Facilitating authenticity checks.** Finally, there is a solution to the long-standing problem that as security technologies become more advanced, the complexity for officials whose job it is to check them also increases. The NIG will allow the official to focus on a limited number of security elements and thus achieve perfect knowledge of them, allowing them to identify even the smallest deviation. The result is an unparalleled safeguarding of both security and appearance.
- **Breathtaking visual effects.** Features emulating the curvature of space and movement in a different axis when the document is tilted, and more. This is both visually distinctive and impenetrable to counterfeiters.
- **Integrating security technologies.** The NIG leverages one of the key features of the IQ proID security product – the ability to integrate computer-generated optical features with security printing, embossing and other protection technologies to create a visually unified element. This is the Holy Grail of document security: an increase in security without an increase in complexity for the official. This is what makes it most secure.

All this was achieved through the inventive use of the IQ proID product. It is the world’s leading solution for protecting polycarbonate documents and is used by a number of countries. After winning several large contracts, IQ Structures has expanded its capacity so that it is now able to protect 100 million documents a year.

Sources/References:

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IQ Structures is a first-class supplier of anti-counterfeiting protection based on holographic nanostructures. It protects more than a billion documents every year and delivers leading-edge anti-counterfeiting solutions to protect ID documents, banknotes, and valuables. IQ Structures is a member of IQS Group, a scientific, research, and manufacturing organization focused on controlled nanostructures.

