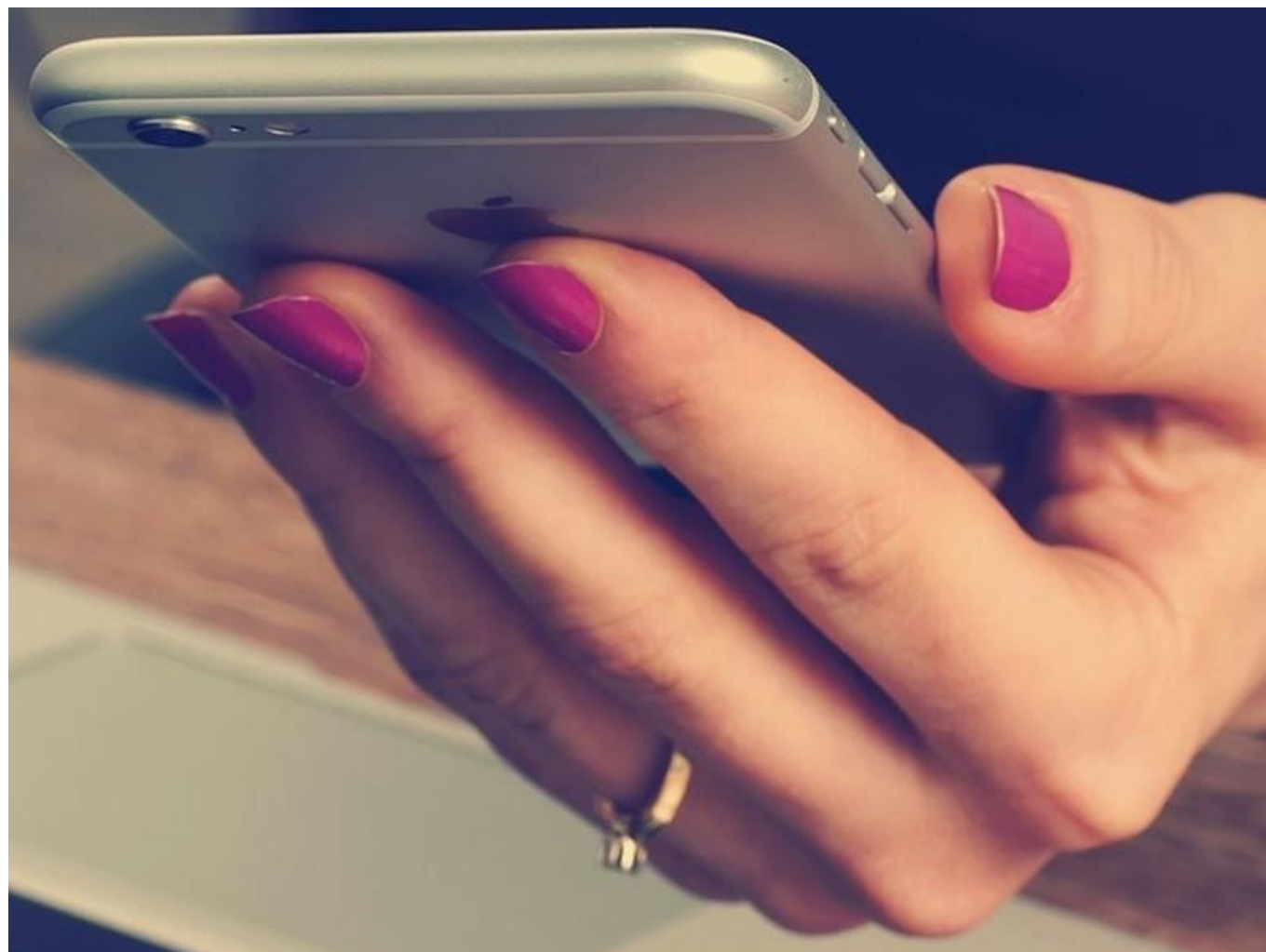


A new dimension in brand protection with machine-readable holograms

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IQ Structures, a research and production organisation focused on nanotechnology engineering, part of the IQS Group, has introduced holograms for packaging-related security applications that can be authenticated automatically, using normal light and a mobile phone app.

When checking the security features, it can happen that a supervisor is not completely sure of the authenticity and yet, for various reasons, is not able to verify it against the database entry. This is what the machine-readable holograms solve, says the company. By illuminating the hologram, it becomes readable with a phone

and the downloaded app confirms authenticity there.

“Machine-readable holograms combine two very powerful principles. Our holograms contain unique visual effects that virtually cannot be replicated because they are based on special nanostructures. The second principle is automated control, immune to human failure.

Each is powerful, but together it is unbreakable,” says IQ Structures CEO Petr Franc. “This new technology has a range of applications, from personal documents to paper certificates and brand protection.”

The machine-readable holograms are put into ID documents as part of IQ proID’s product. This product is based on micro-segmentation technology to ensure seamless integration into the card. Any attempt to manipulate the holographic layer ends up disintegrating the hologram into thousands of miniature parts.

Other advantages of IQ proID are the possibility of full area protection, so no one can change any data on the document, plus the possibility of creating integrated security features combining different technologies (security printing, UV and OVI printing, tactile surface embossing and holographic). Many customers prefer this technology because of the distinctive visual effects, it claims.

Machine-readable holograms can be also used in the area of brand protection. With brand protection, for example, the company may have some sort of track and trace system, but doesn’t want to give access to all customers.

The customer doesn’t even know the details of the hologram, so they are only able to make a general check that there is a hologram present on the packaging. With machine-readable hologram technology, he or she could download an app and check that it is a genuine security feature.

Machine-readable holograms open up many other possibilities that will multiply the protective power of existing technologies.

This article was created in collaboration with AIPIA (the Active and Intelligent Packaging Industry Association). Packaging Europe and AIPIA are joining forces to bring news and commentary about the active and intelligent packaging landscape to a larger audience. To learn more about this partnership, [click here](#).