Isorg obtains FBI certification for security market's first organic photodiode-based module for fingerprint scanners

US approval of FAP 10 module, first in a new category of optical sensors, is approbation that global biometrics market is ready for organic electronics in security applications

Limoges, France, March 8, 2021 – Isorg, a pioneer in organic photodetectors (OPDs) and large-area image sensors, today announces its Fingerprint Acquisition Profile (FAP) 10 module has received FBI certification, the first in this category of organic photodiode (OPD) based optical sensors. The FAP 10 biometrics module is now approved for use in security applications, in particular in mobile device identification for access control at airports and other facilities where the highest security levels are needed.

FAP 10 is manufactured by printing organic photodiode on a TFT (Thin Film Transistor) backplane. Isorg is the only manufacturer in the world commissioned to mass produce OPD sensors; it is ready for ramp-up to industrial batches at its state-of-the-art plant in Limoges, France.

As FAP 10 benefits from strong in-house optical know-how, another significant advantage for customers is the module's ability to withstand acute brightness, from intense indoor lighting to direct sunlight. The police, security guards and other task force officers can conduct controls indoors or outdoors without the fingerprinting device producing saturated images; quickly authenticating a person's identity in all-weather conditions or under strong artificial light.

"This FBI certification confirms Isorg's capacity to deliver biometrics modules based on organic electronics that rise to the challenges of the security market and meet its stringent requirements," said Jean-Yves Gomez, CEO at Isorg. "We are the very first to gain security approval of an OPD fingerprint sensor that assures the high-level image quality, accuracy and robustness that customers need in border control, access control, voter identification, etc. The security market will continue to benefit from our ongoing developments to achieve certification on higher form factors (up to FAP 60) based on the same scalable OPD technology."

FAP 10 is a complete solution, incorporating an image sensor, dedicated light source, optical filters and driving electronics. To support customer product development, Isorg will provide a reference design with its latest integrated ROIC (Read Out Integrated Circuit) and software processing for image quality enhancement that is optimized with Isorg's OPD sensor technology.

The module is a flat, slim design (less than 2mm thick) and robust enough for all outdoor conditions. This makes it ideal for mobile ID devices in use anywhere, unlike competing optical modules whose fingerprint scanners are bulky, heavy and more fragile. Isorg's module architecture is versatile, allowing the company to offer a roadmap of up to four-finger authentication for a FAP 60 module with scalability for even larger palm-sized surface areas. Anti-spoofing features can also be easily integrated into the hardware and software.

Isorg's FAP 10 is approved for one finger authentication, with a surface area of 0.5" to 0.65" (1.27 – 1.65cm). The company is planning for FBI certification of larger area biometrics modules, up to four fingers (FAP 60) offering very significant cost advantages for large areas.

Isorg has already capitalized on similar benefits from this advanced technology that provides smartphone makers with the slimmest complete solution for large area Fingerprint on Display (FoD) applications. It enables the entire area of the smartphone screen to function as a digital fingerprint scanner.

About Isorg

Isorg is a pioneer in organic and printed electronics for large area photo-detectors and image sensors. It offers a new generation of high-performance imagers with the capability for easy integration into systems with various shapes or form factors. Its flexible image sensors have application in medical devices, ID security and access control, IoT and consumer electronics. In 2016, it launched the first worldwide proof of concept of a large-sized high-resolution (500 dpi) flexible plastic fingerprint sensor for biometric security and other applications. Created in 2010 and partnering with CEA-Liten, a leading French innovation center for new energy technologies and nanomaterials, Isorg achieved a Series B fundraising round amounting to €8M ($8.9M) in 2014, followed by a €24M ($26.6M) fundraising round in 2018.

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