

News release

trinamiX launches spectroscopy solution for smartphones and highly secure face authentication in collaboration with Qualcomm Technologies

- Qualcomm Technologies and trinamiX extend ongoing collaboration
- Introduction of full authentication solution running on Qualcomm Trusted Execution Environment to raise protection of users' personal data
- Reference design of an integrated NIR spectroscopy solution for smartphones to unlock new consumer applications

Ludwigshafen, 08-18-2022 – [trinamiX GmbH](#), a leader in biometric and infrared sensing solutions, introduces a near-infrared (NIR) spectroscopy module for smartphone integration as well as an all-in-one, easy-to-integrate face authentication solution in collaboration with Qualcomm Technologies, Inc.. trinamiX Face Authentication is powered by Qualcomm® Trusted Execution Environment (TEE) and trinamiX's unique algorithms to raise the protection of users' personal data. In the future, trinamiX Consumer Spectroscopy could unlock novel health and fitness applications.

In the past few years, Qualcomm Technologies and trinamiX, a wholly owned subsidiary of BASF SE and member of the [Qualcomm® Platform Solutions Ecosystem Program](#), have been joining forces to accelerate the development of trinamiX Face Authentication. Optimized for use on Snapdragon® mobile platforms, trinamiX got their next-generation solution off the ground and just recently had it certified in accordance with highest biometric security requirements. Qualcomm Technologies and the German sensing pioneer are now extending their ongoing collaboration with trinamiX's introduction of a full hardware/software authentication solution as well as a reference design of an NIR spectroscopy solution for smartphones.

Closing the gaps in data security

trinamiX Face Authentication combines regular 2D face detection and recognition with trinamiX's unique liveness check based on skin detection. By running all software components in the Qualcomm TEE, trinamiX is further raising the protection of users' personal data on devices powered by Snapdragon. As stated by Stefan Metz, Head of Smartphone Business Asia at trinamiX, the achievement is not only to make today's authentication methods more secure but to also provide the convenience of a touchless solution. "During the development of our solution, we have seen and unveiled so many crucial security gaps in available biometric solutions," he said. "Qualcomm Technologies has helped us pave the way for a face authentication solution that finally closes these gaps."

The solution fulfills the highest biometric security requirements defined by the International Internet Finance Authentication Alliance (IIFAA), the FIDO Alliance and Android (Google). It has thus been approved for Android integration and for use in digital payment processes with particularly high security demands. Its potential is based on the underlying patent-protected algorithms that verify a person's liveness by checking for human skin. Thanks to their new approach, trinamiX Face Authentication is the first solution to also pass these certifications while the hardware is invisibly mounted behind OLED. "Our focus is on the perfect combination of premium performance and affordability. The hardware comes with a small technical footprint and low requirements, which allow for an easy integration into new smartphone models," Metz added. The full reference design will be available to manufacturers from November 2022.

Enabling everyone to gain molecular insights

In 2020, trinamiX already announced their vision to also integrate spectroscopy into consumer electronics. “Just like people are used to taking photos with the integrated camera anywhere they go today, it will become natural to scan their skin and to instantly learn about, for example, their physical condition,” said Wilfried Hermes, Director Spectroscopy Smartphone Business at trinamiX. According to Hermes, future smartphones will be equipped with a full-performance NIR module, which allows for real-time insights on a molecular level – just by pointing the device to a given object. Among these use cases are non-invasive measurements on skin, which provide users with tailored, real-time advice on how to keep and improve their health and fitness. After sharing a first preview of their reference design for smartphone integration, trinamiX is now accelerating the market introduction of their innovation.

trinamiX is a member of the [Qualcomm Platform Solutions Ecosystem](#).

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About trinamiX GmbH

trinamiX GmbH develops cutting-edge biometric and mobile NIR spectroscopy solutions, which are used in both consumer electronics and industrial designs. The company’s products enable humans and machines to better capture data with the goal of understanding the world around us. This results in improved decision making as well as stronger biometric security. trinamiX, based in Ludwigshafen (Germany), was founded in 2015 as a wholly owned subsidiary of BASF SE. The company employs over 200 people worldwide and holds more than 300 patents and patent applications.

For further information visit www.trinamiXsensing.com.

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