



Synaptics Unveils Next-Generation Touch Controller Engineered for Foldable OLED Displays

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S3930 series extends technology leadership into the rapidly expanding foldables segment with the smallest high-performance touch controller for highly responsive OLED display interactions

SAN JOSE, Calif., April 14, 2025 (GLOBE NEWSWIRE) -- Synaptics® Incorporated (Nasdaq: [SYNA](#)) today announced its S3930 series breakthrough touch controllers purpose-built to meet the unique technical challenges and high-performance demands of foldable OLED mobile device displays. The S3930's innovative approach delivers exceptional responsiveness, accuracy, and energy efficiency for the thin, larger panels used in a new generation of foldable devices, a market growing at 42% (CAGR).¹

"Foldable OLED large panels present challenges such as high background capacitance, extreme display noise, and limited sensing time," said Sam Toba, Director of Product Marketing at Synaptics. "These challenges only increase as displays get thinner. The S3930 series provides customers with new sensing and filtering capabilities that overcome these challenges to ensure a seamless and highly responsive touch experience while solidifying our roadmap to support future device implementations."

Innovations aimed at large, thin OLED display challenges

At the core of the S3930 series are innovations that can mitigate noise by improving filtering and isolating touch signals. A key enabler is Synaptics' patents around multi-frequency-region parallel sensing (MFRPS). This technique reduces sensing bursts required for large touch sensors. It uses continuous time sensing with a digital analog front-end (dAFE), making multi-frequency decoding more efficient and cost-effective.

The S3930 also adds an upgraded processor to handle complex algorithms effectively. It incorporates the latest E7 MCU core from Si-Five and Synaptics' proprietary Hydra vector co-processor. The E7 enables efficient and high-performance compute necessary for noise removal and mistouch mitigation algorithms; the Hydra vector co-processor is specifically designed to accelerate ML algorithms that rely on extensive matrix arithmetic.

Optimized for next-generation devices

The S3930's design supports larger OLED panels, including LTPO and polarizer-less, while enabling ultra-narrow bezels. It features the smallest 5.1 x 6.8 mm footprint package, allowing thinner, lighter devices with consistent touch performance, even in dynamic bending scenarios. The compact size allows product developers more device real estate for other needs, such as larger batteries.

Availability

The S3930 series is sampling now, with mass production scheduled for July 2025. Multiple OEMs and LCMs are evaluating it for inclusion in next-generation devices. For more information:

- Get [images](#)
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- Contact your [local sales representative](#)

About Synaptics Incorporated

Synaptics (Nasdaq: [SYNA](#)) is leading the charge in AI at the Edge, bringing AI closer to end users and transforming how we engage with intelligent connected devices, whether at home, at work, or on the move. As the go-to partner for the world's most forward-thinking product innovators, Synaptics powers the future with its cutting-edge Synaptics Astra™ AI-Native embedded compute, Veros™ wireless connectivity, and multimodal sensing solutions. We're making the digital experience smarter, faster, more intuitive, secure, and seamless. From touch, display, and biometrics to AI-driven wireless connectivity, video, vision, audio, speech, and security processing, Synaptics is the force behind the next generation of technology enhancing how we live, work, and play. Follow Synaptics on [LinkedIn](#), [X](#), and [Facebook](#), or visit www.synaptics.com.

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