



Soitec and ZenSemi Partner to Scale 300mm BCD-on-SOI Production for Next-Generation Power Electronics

Bernin (Grenoble), France, June 29, 2026 - Soitec, a world leader in the design and manufacturing of innovative semiconductor materials, and ZenSemi, a premier specialty foundry in China, today announced a strategic collaboration to enable high-volume production of 300mm BCD-on-SOI (Bipolar-CMOS-DMOS on Silicon-on-Insulator) technologies for next-generation power electronics powering AI datacenters, EVs, humanoid robots and industrial applications.

In this partnership, Soitec will supply ZenSemi with its advanced 300mm Power-SOI substrates to support the development and capacity ramp-up of a new BCD-on-SOI process. By combining Soitec's expertise in the supply of engineered substrates with ZenSemi's specialty foundry capabilities, the two companies aim to provide fabless companies and integrated device manufacturers (IDMs) with a high-performance manufacturing platform tailored to market needs.

Compared with traditional BCD-on-bulk solutions, BCD-on-SOI technology serves as a critical enabler for advanced chip integration and reliability. Through full dielectric isolation—which inherently eliminates parasitic latch-up and drastically reduces electrical crosstalk and parasitics—the technology allows high-voltage power stages and sensitive low-voltage control circuitry to be densely integrated onto a single chip.

The result is a highly reliable, power-dense platform capable of handling the intense energy demands and strict functional safety (FuSa) requirements of next-generation applications.

The 300mm BCD-on-SOI process is designed to meet increasing requirements in high-value applications, including high-efficiency power distribution for AI datacenters, automotive and robotics systems subject to rigorous FuSa requirements and battery management systems (BMS) for electric vehicles and energy storage systems.

"This partnership underscores the maturity of the BCD-on-SOI ecosystem in China. By leveraging ZenSemi's specialized foundry services, led by a team with a proven track record in international power electronics standards, and Soitec's recognized engineered substrate quality, we are creating a new benchmark for power electronics," said René Jonker, Chief Product Officer at Soitec.

"We are extremely encouraged by successful first-silicon validation with our flagship lead customer. For an 18-channel analog front-end (AFE) device, our SOI-based implementation achieves a striking ~30% die size reduction versus traditional bulk BCD processes. This outcome powerfully validates SOI's unmatched strengths in die area miniaturization and circuit resilience."

Through our collaboration with Soitec, we will rapidly ramp our 300mm SOI-BCD manufacturing capacity. Once our platforms move into full-volume production, we will empower both domestic Chinese design houses and worldwide clients to build smaller, more robust, cost-optimized power ICs catering to fast-expanding automotive, artificial intelligence, and industrial markets,” said Ruby Yan, Vice President of Sales & Marketing at ZenSemi.

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About Soitec

Soitec (Euronext - Tech Leaders - SBF 120), a world leader in innovative semiconductor materials, has been developing cutting-edge products delivering both technological performance and energy efficiency for over 30 years. From its global headquarters in France, Soitec is expanding internationally with its unique solutions, and generated revenue of 600 million euros in fiscal year 2025-2026. Soitec occupies a key position in the semiconductor value chain, serving three main strategic markets: Mobile Communications, Automotive and Industrial, and Edge and Cloud AI. The company relies on the talent and diversity of nearly 2,000 employees, representing 50 different nationalities, working at its sites in Europe, the United States and Asia. Nearly 4,800 patents have been registered by Soitec.

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About ZenSemi

ZenSemi (Guangzhou ZenSemi Technology Co., Ltd.) is a professional IC foundry headquartered in Zhengsheng, Guangzhou, dedicated to driving the development of the intelligent sensor sector throughout the Guangdong-Hong Kong-Macao Greater Bay Area. It owns and operates the world's first 300mm (12-inch) fab exclusively built for MEMS and CMOS technologies, tailored for high-volume mass production of intelligent sensors and specialty semiconductor processes.

Focused on intelligent sensors and automotive-qualified semiconductor chips, ZenSemi has established a multi-process foundry portfolio covering MEMS, embedded non-volatile memory (e-NVM), and BCD technologies—including advanced BCD-on-SOI platforms. The firm serves clients worldwide with agile, customizable support via its hybrid business model combining standard foundry services and Customer Owned Technology collaboration. Upholding the core tenets of Integrity, Innovation, Collaboration, Openness and Trust, ZenSemi supplies premium wafer fabrication services to global partners, empowering end applications across automotive, industrial automation, renewable energy and artificial intelligence markets.

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