

Tessolve Partners with SigmaSense to Develop their Innovative DSP-based Sensing ASIC

SAN JOSE, CALIFORNIA, USA, July 24, 2024 /EINPresswire.com/ -- [Tessolve](#), a global provider of silicon and systems solutions for next-generation products has announced a strategic collaboration with [SigmaSense](#) to develop its innovative DSP-based sensing ASIC. This advanced mixed signal ASIC will feature a cutting-edge, low-power touch-sense controller chip, seamlessly integrated with SigmaSense's revolutionary software-defined sensing technology.

The chip redefines touch and touch-less interaction through its groundbreaking performance in sensitivity, refresh rates, and signal-to-noise. It overcomes the challenges of slimmer displays and high capacitive loads, enabling continuous and precise high-impedance sensing for a seamless user experience. Boasting a wide array of applications spanning the automotive, gaming, consumer electronics, and computing sectors, it offers SigmaSense customers

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unparalleled sensitivity and ultra-low power consumption even in demanding environmental conditions. Additionally, it features a proprietary digital signal processing solution, enhancing programmability for optimal user experience.

“Capitalizing on our expertise in pre-silicon design and post-silicon test, we developed the touch sense control solution, facilitating a smooth progression through the entire development process. This comprehensive approach effectively addresses the hurdles of conventional methods, resulting in faster time-to-market and enhanced quality for next-generation [chip design](#),” Srini Chinamilli, Co-founder & CEO, Tessolve. “At Tessolve, we specialize in design and



engineering services, with a focus on the seamless integration of various intellectual properties (IPs) into SOCs. Our primary focus behind this initiative was to prioritize stringent power demands through the integration of SigmaSense's Analog IP and DSP IP into a powerful sensing SOC tailored for 40nm specifications," he added.

Tessolve has leveraged SigmaSense's groundbreaking sensing technology to develop its innovative product designs. With the swift deployment of its IC Design and Methodology teams from RTL to GDS, it seamlessly integrated the revolutionary Analog and Mixed Signal technology, resulting in successful first-pass silicon. Tessolve improves time-to-market by providing comprehensive ASIC services, including Digital and Analog Design, post-silicon bring-up, and validation. To optimize cost and schedule, Tessolve deployed a hybrid staffing model, combining onsite engineering in Austin with a larger team based in Bengaluru. Utilizing their test lab in Austin, Tessolve expedited ATE Test Development for a faster ramp to production for the SDC300.

"Collaborating with Tessolve aligns with our vision of revolutionizing touch and sensing technology. Their expertise in silicon design and systems solutions was instrumental in bringing our innovative sensing ASIC to life," Dave French, CEO, SigmaSense. "Our software-defined sensing technology brings superior sensitivity, low power consumption, and high performance to the product, across various applications. We are confident that this advanced microcontroller will have a significant impact in transforming user experiences in various sectors."

About Tessolve

Tessolve offers a unique combination of pre- and post-silicon expertise to provide full turnkey silicon and system solutions from design to packaged parts. Tessolve provides a one-stop-shop solution with complete hardware and software capabilities and advanced silicon and system testing labs.

Tessolve continuously invests in its R&D centers with specific initiatives in High-Performance computing, System-level Tests, High-speed interfaces, Photonics, 5G, and others. Tessolve also offers product development from concept to manufacturing, focused on Automotive, Avionics, Data centers, Industrial/IoT, and Semiconductor applications. Tessolve helps clients bring their products to market faster with a portfolio of complementary and turnkey solutions. For more information, visit the website: www.tessolve.com

About SigmaSense

SigmaSense is pioneering a radically enhanced DSP-based sensing technology. The Company's software-defined sensing technology achieves breakthrough levels of speed, accuracy, resolution, and noise immunity previously deemed impossible. This unique approach is protected with more than 300 issued or allowed patents and over 150 patents pending across 35 application families. SigmaSense products increase the quality and efficiency of sensing data for

a wide range of applications including mobile, automotive, batteries, digital signage, wearables, and IoT. SigmaSense is largely funded by strategic investors, including NXP, Foxconn, LG-MRI, E ink, Corning, and GIS. The company is headquartered in Austin, Texas, with offices in Boise, Idaho, and Taipei, Taiwan. More information can be found at www.sigmasense.com.

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