

## Socionext Adopts TSMC's 5-nanometer Technology for Custom SoCs Targeting Next-Generation Automotive Applications

*Delivering World-Leading Performance and Automotive Quality  
with Flexibility of Custom Design*

**Yokohama, Japan, February 4, 2021** — Socionext Inc., a world-leading provider of custom System-on-Chip (SoC) solutions, today announced that it will adopt TSMC's latest 5-nanometer process technology (N5P) for Socionext's high-performance SoC development for next-generation automotive applications. The custom SoC solutions target high-level advanced driver assistance systems (ADAS) and autonomous driving (AD) vehicles and are slated for risk production in 2022.

TSMC's N5P, a member of its 5-nanometer family, is the world's most advanced process technology available in the market. As capacity continues to ramp, N5P's defect density reduction is proceeding faster than that of the previous generation. N5P is an enhanced version over N5, providing a 20% performance gain or a 40% power reduction, and up to 80% logic density gain over the preceding N7 technology. At the same time, N5P enjoys support from the industry's most comprehensive design ecosystem.

"We are delighted to adopt TSMC's world-leading N5P technology for our next-generation automotive development platform," said Noriaki Kubo, Corporate Executive Vice President and the Head of Automotive & Industrial Business Group at Socionext. "The ADAS/AD segment requires extremely high arithmetic processing, and Socionext will contribute to customers' next-generation automotive development by utilizing this advanced process technology from TSMC, our important partner in a wide range of products from consumer to automotive products."

"Innovative semiconductor technology is essential for accelerating the development of next-generation smart automobiles," said Dr. Cliff Hou, Senior Vice President of Europe and Asia Sales and Corporate Research at TSMC. "The collaboration with Socionext demonstrates our commitment to offering world-leading semiconductor technologies to achieve maximum value for customers' products."

### **Collaboration Boosts Socionext's Leadership in ASIC Products for Auto Applications Worldwide**

Socionext has a long history of delivering application-specific integrated circuit (ASIC) products to the global automotive market, where its expertise in imaging, graphics, high performance computing, and high-speed analog/RF design help optimize hardware and software implementations. With full support for ISO26262 functional safety product development, AEC-Q100

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#### **Press Inquiry:**

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and IATF-16949 quality and reliability requirements, and a strong third party IP and design partner network, Socionext delivers automotive SoCs that achieve exceptional performance and low-power consumption to differentiate itself in the fiercely competitive automotive market.

Socionext's next-generation automotive custom SoC solutions achieve the high performance and safety demands of future autonomous-driving cars and the rapidly evolving automotive electronic systems, where increasing workloads and capabilities are required. Using TSMC's industry-leading N5P process technology, Socionext's offerings address a variety of functions such as high-speed switching devices, high-resolution sensor data processing, high-performance domain controllers, autonomous driving, advanced networking, and more.

Socionext and TSMC expect to deliver risk samples of N5P devices to Socionext's customers around the second quarter of 2022.

#### **About Socionext**

Socionext is a global, innovative enterprise that designs, develops and delivers System-on-Chip solutions to customers worldwide. The company is focused on technologies that drive today's leading-edge applications in consumer, automotive and industrial markets. Socionext combines world-class expertise, experience, and an extensive IP portfolio to provide exceptional solutions and ensure a better quality of experience for customers. Founded in 2015, Socionext Inc. is headquartered in Yokohama, and has offices in Japan, Asia, United States and Europe to lead its product development and sales activities. For more information, visit <https://www.socionext.com>.

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