



TSMC Unveils 6-nanometer Process

7-nanometer Enhancement Combines Performance/Cost Advantage with Fast Time-to-Market

Hsinchu, Taiwan, R.O.C. – April 16, 2019 - TSMC (TWSE: 2330, NYSE: TSM) today announced its 6-nanometer (N6) process, which provides a significant enhancement of its industry-leading N7 technology and offers customers a highly competitive performance-to-cost advantage as well as fast time-to-market with direct migration from N7-based designs.

By leveraging the new capabilities in extreme ultraviolet (EUV) lithography gained from the N7+ technology currently in risk production, TSMC's N6 process delivers 18% higher logic density over the N7 process. At the same time, its design rules are fully compatible with TSMC's proven N7 technology, allowing its comprehensive design ecosystem to be reused. As a result, it offers a seamless migration path with a fast design cycle time with very limited engineering resources for customers to achieve the product benefits from the new technology offering.

Scheduled for risk production in the first quarter of 2020, TSMC's N6 technology provides customers with additional cost-effective benefits while extending the industry-leading power and performance from the 7nm family for a broad array of applications, ranging from high-to-mid end mobile, consumer applications, AI, networking, 5G infrastructure, GPU, and high-performance computing.

“TSMC N6 technology will further extend our leadership in delivering product benefits with higher performance and cost advantage beyond the current N7,” said Dr. Kevin Zhang, TSMC Vice President of Business Development. “Building upon the broad success of our 7nm technology, we're confident that our customers will be able to quickly extract even higher product value from the new offering by leveraging a well-established design eco-system today.”



About TSMC

TSMC pioneered the pure-play foundry business model when it was founded in 1987, and has been the world's largest dedicated semiconductor foundry ever since. The company supports a thriving ecosystem of global customers and partners with the industry's leading process technology and portfolio of design enablement solutions to unleash innovation for the global semiconductor industry.

TSMC serves its customers with annual capacity of about 12 million 12-inch equivalent wafers in 2019 from fabs in Taiwan, the United States, and China, and provides the broadest range of technologies from 0.5 micron plus all the way to foundry's most advanced processes, which is 7-nanometer today. TSMC is the first foundry to provide 7-nanometer production capabilities, and is headquartered in Hsinchu, Taiwan. For more information about TSMC please visit <http://www.tsmc.com>.

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