UMC Certifies Synopsys IC Validator Physical Verification Tool for 28 nm

Collaboration Also Enables In-Design Physical Verification with IC Compiler

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Highlights:

- UMC extends existing support for Synopsys® IC Validator physical verification to 28 nm
- UMC support includes In-Design physical verification within Synopsys' IC Compiler™ place-and-route tool, enabling advanced design techniques
- IC Validator DRC and LVS decks are available for immediate download from UMC's foundry website

Synopsys, Inc. (Nasdaq:SNPS), a global leader providing software, IP and services used to accelerate innovation in chips and electronic systems, and United Microelectronics Corporation (NYSE:UMC;TWSE: 2303) ("UMC"), a leading global semiconductor foundry, today announced that UMC has certified Synopsys' IC Validator product for physical verification on UMC's 28-nanometer (nm) process. Joint customers can now reap the benefits of IC Validator for In-Design with confidence that the tool and its runsets have been fully qualified by UMC for accuracy and completeness.

"UMC is committed to providing the latest design support resources to help streamline our customers' path to silicon," said Steve Wang, vice president of IP Development & Design Support Division at UMC. "This joint development with Synopsys for IC Validator provides our customers with access to a highly reliable verification tool when designing on UMC's latest 28-nanometer manufacturing technology. We look forward to future collaborative milestones with Synopsys to introduce solutions that will further benefit our mutual customers."

Advances in process technology have placed exponentially growing demands on physical verification tools to check many more design rules that are also becoming much more complex. This evolution has created intense interest among IC designers for the latest and most capable physical verification tools that can address these new challenges. IC Validator is a comprehensive solution for all physical verification tasks, including DRC, LVS, electrical rule checking (ERC) and metal fill insertion. Its modern architecture and excellent multi-core scalability make IC Validator the signoff tool of choice for a growing number of customers from those doing small analog designs to customers working on the most advanced digital chip designs in the world.

Synopsys has collaborated with UMC to deliver IC Validator support for design verification at the 65-nm, 55-nm and 40-nm nodes and is now extending this to the latest 28-nm technology. UMC's 28-nm technology serves applications that require the highest performance with the lowest power leakage. It is based on technology that includes a poly/oxynitride process with gate-last, high-K metal gates to provide excellent performance. The High-performance Low Power (HLP) option delivers a 20 percent performance enhancement over competitive poly/SiON processes and is ideal for portable applications and consumer electronics, while the High Performance for Mobile (HPM) option is ideal for speed-intensive and power sensitive products. Several UMC customer ICs are in volume production using UMC's 28-nm process technology.

"We are committed to providing IC Validator customers access to the broadest possible selection of foundry processes," said Bijan Kiani vice president of product marketing, Design Group at Synopsys. "We have dedicated teams of technologists working jointly with UMC and other leading foundries to deliver fast and reliable verification solutions to our joint customers. We look forward to further cooperation with UMC as we work together on solutions for the next generation of manufacturing technologies."

Availability

IC Validator technology files for design rule checking (DRC) and layout vs. schematic (LVS) netlist checking are now available for customer download from UMC's foundry service portal at https://my.umc.com.

About Synopsys

Synopsys, Inc. (Nasdaq:SNPS) accelerates innovation in the global electronics market. As a leader in electronic design automation (EDA) and semiconductor IP, Synopsys delivers software, IP and services to help engineers address their design, verification, system and manufacturing challenges. Since 1986, engineers around the world have been using Synopsys technology to design and create billions of chips and systems. Learn more at https://www.synopsys.com.

About UMC

UMC (NYSE: UMC, TWSE: 2303) is a leading global semiconductor foundry that provides advanced technology and manufacturing for applications spanning every major sector of the IC industry. UMC's robust foundry solutions allow chip designers to leverage the company's leading-edge processes, which include 28nm poly-SiON and gate-last High-K/Metal Gate technology, mixed signal/RFCMOS, and a wide range of specialty technologies. Production is supported through 10 wafer manufacturing facilities that include two advanced 300mm fabs; Fab 12A in Taiwan and Singapore-based Fab 12i. Fab 12A consists of Phases 1-4 which are in production for customer products down to 28 nm. Construction is underway for Phases 5 and 6, with future plans for Phases 7 and 8. The company employs over 13,000 people worldwide and has offices in Taiwan, Japan, China, Singapore, Europe, and the United States. UMC can be found on the web at http://www.umc.com.

Note from UMC Concerning Forward-Looking Statements

Some of the statements in the foregoing announcement are forward looking within the meaning of the U.S. Federal Securities laws, including statements about future outsourcing, wafer capacity, technologies, business relationships and market conditions. Investors are cautioned that actual events and results could differ materially from these statements as a result of a variety of factors, including conditions in the overall semiconductor market and economy; acceptance and demand for products from UMC; and technological and development risks. Further information concerning these risks is included in UMC's filings with the U.S. SEC, including on Form F-1, F-3, F-6 and 20-F, each as amended.

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