

TriQuint Semiconductor Selects Synopsys' TCAD Sentaurus for Compound Semiconductor Technology Development

Advanced Device Simulation Capabilities Support III-V and III-Nitride Device Development

MOUNTAIN VIEW, Calif., May 27 [PRNewswire-FirstCall](#)/ -- Synopsys, Inc. (NASDAQ: SNPS), a world leader in software and IP for semiconductor design, verification and manufacturing, today announced that TriQuint Semiconductor has adopted Synopsys' TCAD Sentaurus device simulation software to support its research and development of high-frequency and high-power semiconductor devices targeting mobile handsets, 3G and 4G base stations, Wi-Fi, WiMAX, and defense and aerospace applications. TCAD Sentaurus' accurate modeling and other advanced capabilities enable TriQuint to speed up the development of heterojunction field-effect transistors (HFETs), heterojunction bipolar transistors (HBTs), and other devices fabricated with compound semiconductors. TCAD Sentaurus accomplishes this by supporting wafer experiments with detailed simulations of the electrical and thermal behavior of these devices.

Compound semiconductor devices are critical components in high-frequency applications where silicon-based devices cannot meet frequency, power generation or efficiency requirements. As a leader in radio frequency (RF) components and solutions, TriQuint develops a wide range of III-V and III-Nitride devices tailored to specific RF applications.

"Many of our products at TriQuint combine high-frequency and high-efficiency requirements which can only be met with compound semiconductor transistor technology. TCAD Sentaurus helps us tailor and optimize the design of these transistors to specific applications, and to deliver truly innovative solutions to our customers," said Otto Berger, director Advanced Technology at TriQuint.

The TCAD Sentaurus product family comprises 2D and 3D process and device simulation tools used for exploring and optimizing silicon and compound semiconductor technologies.

"Compound semiconductors play a vital role in today's and tomorrow's wireless world. We've seen a rising interest in the application of our simulation tools to the design of these devices as companies continue to push against the envelope of high-frequency and high-efficiency to meet stringent wireless requirements," said Howard Ko, senior vice president and general manager of the Silicon Engineering Group at Synopsys. "TriQuint is a leader in the compound semiconductor segment, and its adoption of TCAD Sentaurus is a testament to the value Synopsys TCAD simulation brings to the market."

About Synopsys TCAD

Technology CAD (TCAD) refers to the use of computer simulation to model semiconductor processing and device operation. TCAD provides insight into the fundamental physical phenomena that ultimately impact performance and yield.

About Synopsys

Synopsys, Inc. (NASDAQ: SNPS) is a world leader in electronic design automation (EDA), supplying the global electronics market with the software, intellectual property (IP) and services used in semiconductor design and manufacturing. Synopsys' comprehensive, integrated portfolio of implementation, verification, IP, manufacturing and field-programmable gate array (FPGA) solutions helps address the key challenges designers and manufacturers face today, such as power and yield management, software-to-silicon verification and time-to-results. These technology-leading solutions help give Synopsys customers a competitive edge in bringing the best products to market quickly while reducing costs and schedule risk. Synopsys is headquartered in Mountain View, California, and has more than 60 offices located throughout North America, Europe, Japan, Asia and India. Visit Synopsys online at <https://www.synopsys.com/>

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