



Tower Semiconductor and Cadence Announce New Reference Flow for Advanced 5G Communications and Automotive IC Development

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Highlights:

- *Collaboration results in silicon-validated SP4T RF SOI switch reference flow using the Virtuoso Design Platform and integrated EM analysis*
- *Flow showcases advantages of a unified design environment for chip and package co-design and simulation*
- *Comprehensive flow includes custom IC design suite, EM solvers, and multiphysics analysis tools, providing a faster path to design closure*

SAN JOSE, Calif., and MIGDAL HAEMEK, Israel, August 16, 2021 – Cadence Design Systems, Inc. (Nasdaq: CDNS) and Tower Semiconductor (Nasdaq/TASE: TSEM), the leading foundry of high-value analog semiconductor solutions, today announced the release of a silicon-validated SP4T RF-SOI switch reference design flow using the Cadence® Virtuoso® Design Platform and RF Solution. The reference design flow provides a faster path to design closure for advanced 5G wireless, wireline infrastructure, and automotive IC product development.

This new RF reference design flow leverages a comprehensive set of mixed-signal and RF design, simulation, system analysis, and signoff tools that are tuned for Tower's [CMOS, BiCMOS, SOI](#), and [Silicon Germanium \(SiGe\)](#) process technologies. Using the new offering, joint customers can accelerate RF, mmWave and high-performance analog designs, and increase signoff confidence.

"This unique RF and mmWave full-flow solution has been jointly validated on Tower's CS18 RF SOI foundry process," said KT Moore, vice president, product management in the Custom IC & PCB Group at Cadence. "Our ongoing partnership with Tower has generated yet another highly beneficial solution, enabling advanced IC design, which meets the requirements of today's most complex systems. Cadence and Tower customers benefit from an integrated workflow using an all-Cadence toolset and a Tower reference design to rapidly develop compelling products."

Tower's RF and high-performance analog design enablement solutions, PDKs, and reference flows complement its best-in-class foundry wireless and wireline process technologies, including the CS18 and TPS65RS for RF-SOI and SBC18 for SiGe BiCMOS. RF and mmWave IC and package co-design has been a critical issue for Tower's customers, and they are now armed with silicon-validated tools and flows. Joint customers can design differentiated ICs optimized for cost and performance.

"We are excited to announce the expansion of our design enablement capabilities, providing our customers with new competitive advantages," said Mr. Ori Galzur, Tower Semiconductor Vice President of VLSI Design Center and Design Enablement. "Through our long-term collaboration with Cadence, a world-leading provider of highly advanced design tools, we are able to continuously deliver new and advanced design tools with unique features that best suit IC design requirements in leading markets, providing our customers with fast and accurate design cycle time."

As frequencies move higher, the need for accurately incorporating multiphysics effects grows. As such, the RF and mmWave PDKs available from Tower now incorporate the Cadence Celsius™ Thermal Solver, EMX® Planar 3D Solver and Clarity™ 3D Solver technologies to seamlessly account for electromagnetic (EM) and thermal integrity of the design. The multiphysics analysis products complement the existing Cadence toolset in use at Tower, including the Virtuoso environment, Spectre® Simulation Platform, Quantus™ Extraction Solution, integrated Litho Physical Analyzer, and Innovus™ Implementation System. For more information on the Cadence suite of chip, package, and multiphysics solutions, visit www.cadence.com/go/TowerReferenceFlow.

For more information about Tower Semiconductor's foundry technology and design enablement offerings, please visit [here](#).

About Cadence

Cadence is a pivotal leader in electronic design, building upon more than 30 years of computational software expertise. The company applies its underlying Intelligent System Design strategy to deliver software, hardware and IP that turn design concepts into reality. Cadence customers are the world's most innovative companies, delivering extraordinary electronic products from chips to boards to systems for the most dynamic market applications, including consumer, hyperscale computing, 5G communications, automotive, mobile, aerospace, industrial and healthcare. For seven years in a row, Fortune magazine has named Cadence one of the 100 Best Companies to Work For. Learn more at cadence.com.

About Tower Semiconductor

Tower Semiconductor Ltd. (NASDAQ: TSEM, TASE: TSEM), the leading foundry of high-value analog semiconductor solutions, provides technology and manufacturing platforms for integrated circuits (ICs) in growing markets such as consumer, industrial, automotive, mobile, infrastructure, medical, and aerospace and defense. Tower Semiconductor focuses on creating positive and sustainable impact on the world through long term partnerships and its advanced and innovative analog technology offering, comprised of a broad range of customizable process platforms such as SiGe, BiCMOS, mixed-signal/CMOS, RF CMOS, CMOS image sensor, non-imaging sensors, integrated power management (BCD and 700V), and MEMS. Tower

Semiconductor also provides world-class design enablement for a quick and accurate design cycle, as well as process transfer services including development, transfer, and optimization to IDMs and fabless companies. To provide multi-fab sourcing and extended capacity for its customers, Tower Semiconductor operates two manufacturing facilities in Israel (150mm and 200mm), two in the U.S. (200mm) and three facilities in Japan (two 200mm and one 300mm) through TPSCo. For more information, please visit: www.towersemi.com.

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Attachment

- [Tower_Cadence_Virtuoso Reference Flow Release_Final_081621](#)



Source: Tower Semiconductor