

# **AWR to Develop a Design Platform for TSMC's 0.35-micron SiGe next-generation, high-performance wireless ICs**

July 27 2004

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To meet growing demand in the [wireless radio](#) frequency integrated circuit (RFIC) market for a capable, cost-effective RFIC design platform, Applied Wave Research, Inc. (AWR™), a leading provider of high-frequency electronic design automation (EDA) tools, today announced a corporate agreement with Taiwan Semiconductor Manufacturing Company Ltd. ([TSMC](#)) (TAIEX: 2330, NYSE:TSM) to jointly develop and deliver a design platform for TSMC's 0.35-micron silicon germanium (SiGe) process. The platform will include AWR's Analog Office™ RFIC design software, a TSMC 0.35-micron SiGe process design kit (PDK) based on open software standards, and an end-user full product support package.

Under the agreement, TSMC and AWR will develop a new set of process-calibrated and process-tuned device models for the TSMC 0.35-micron SiGe process. The model set will include the most advanced and accurate HICUM bipolar transistor models as well as a comprehensive set of accurately tuned spiral inductor models. XMOD Technologies, [www.xmodtech.com](http://www.xmodtech.com), a company specializing in RF device modeling, will provide the geometry scalable HICUM model libraries. The new models will enable analog and RFIC designers to develop next-generation, high-performance wireless ICs quickly and easily, leveraging the full capability of the advanced SiGe process, and with full confidence that the circuits will perform as designed in silicon. The newly developed models will be packaged as part of a complete PDK

based on the AWR unified data model and other open software platforms.

"AWR welcomes the opportunity to work with the world's most successful dedicated independent semiconductor foundry," said James Spoto, AWR president and CEO. "The combination of AWR's RF design software expertise and TSMC's semiconductor manufacturing leadership will result in a top quality, validated SiGe PDK that will greatly benefit not only the customers of both companies, but the high-frequency design community as a whole."

"A cost-effective RFIC design platform will be a welcome addition to the growing RF wireless design community worldwide, and particularly to emerging design markets," said Edward Wan, senior director of design services marketing for TSMC. "Our collaboration with AWR will provide advanced RF models and PDKs that differentiate TSMC RF process offerings, and will also allow us to more fully meet the library/PDK customization needs of customers."

### **About Analog Office™**

The Analog Office solution is the first complete IC design system in over a decade that is specifically architected and optimized from the ground up for analog and RFIC designs. The 2004 version has been enhanced to provide the industry's most open, unified design environment, offering full interaction with a comprehensive and powerful set of integrated tools. The toolset spans the entire IC design flow, from system-level to circuit-level design and verification, for complete top-to-bottom and front-to-back analog and RFIC design.

Source: Applied Wave Research Inc.

Citation: AWR to Develop a Design Platform for TSMC's 0.35-micron SiGe next-generation, high-performance wireless ICs (2004, July 27) retrieved 10 April 2024 from <https://phys.org/news/2004-07-awr-platform-tsmc-micron-sige.html>

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