

NEWS RELEASE

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Peregrine Semiconductor Develops Next Generation of RF CMOS Semiconductor Process with IBM Microelectronics

Exclusive agreement targets 180nm UltraCMOS™ process as part of long-term SOS roadmap

San Diego, CA, May 10, 2010 -- Peregrine Semiconductor Corporation, a leading supplier of high-performance RF CMOS integrated circuits (ICs), today announced an exclusive joint development agreement with IBM for the development and manufacture of future generations of Peregrine's patented UltraCMOS™ silicon-on-sapphire (SOS) process technology, the industry's highest-performance radio frequency complementary metal-oxide semiconductor (RF CMOS) process. When fully qualified, the next-generation UltraCMOS RF ICs will be manufactured by IBM for Peregrine in the jointly-developed 180-nanometer process at IBM's 200mm semiconductor manufacturing facility in Burlington, Vermont.

Peregrine's UltraCMOS technology delivers unmatched levels of RF performance and monolithic integration for high-growth applications such as the RF front-end of mobile phones and multi-mode, multi-band mobile wireless devices; broadband communications including 4G LTE equipment and base stations; mobile DTV/CATV RF signal conditioning; and space satellite systems.

IBM, a global leader in microelectronics, adds Peregrine's UltraCMOS technology to its advanced semiconductor processing capability. This development marks the first commercial use of 200mm (8-inch) wafer processing for silicon-on-sapphire process -- a patented variation of silicon-on-insulator (SOI) technology that incorporates an ultra-thin layer of silicon on a highly insulating sapphire substrate -- a milestone which will drive the next decade of UltraCMOS engineering.

"We are pleased to be working with Peregrine to enable the next generation of RF circuits on sapphire and extend our leadership in insulating substrates by adding the 180nm UltraCMOS process to our world-class portfolio of RFSOI technologies," said Regina Darmoni, director of IBM's Analog/Mixed-Signal and Digital Foundry business.

Migration to 200mm wafers facilitates the evolution of the process to advanced 180nm, 130nm and 90nm nodes. It also provides access to advanced manufacturing toolsets and enables significantly expanded digital integration capability. Further, the agreement with IBM provides, through its world-class Technology Alliance partners, unprecedented levels of manufacturing capacity and a robust supply chain.

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ADD ONE – PEREGRINE/IBM DEVELOP NEXT GEN ULTRACMOS

“We are extremely proud to be developing future generations of UltraCMOS with one of the global leaders in semiconductor process technology,” stated Jim Cable, president and C.E.O. of Peregrine Semiconductor. “Our company has long been committed to driving technological change in RF by bringing our silicon-on-sapphire RF process into the global mainstream. By combining the strengths of our two companies, we are continuing to deliver the promise of Moore’s Law for high-performance RF CMOS.”

Collaboration between the two companies began in 2008 as the ability to use CMOS for RF designs emerged as a viable alternative to compound semiconductor processes such as gallium arsenide (GaAs). The benefits of CMOS include reliability, cost-effectiveness, high yields, portability, scalability and integration, all of which UltraCMOS demonstrates. Further, Peregrine is known for its pursuit of engineering inventions and intellectual property which advance UltraCMOS technology. One of the earliest innovations is the HaRP™ design methodology, which brought about unprecedented levels of harmonic performance. More recently, Peregrine introduced DuNE™ technology, which produced innovative digitally tunable capacitors that solve longstanding industry design challenges in RF tuning.

“The realization of our 180nm UltraCMOS process on 200mm sapphire wafers is a very important phase of our long-term process development strategy,” commented Mark Miscione, vice-president and chief strategist for technology solutions at Peregrine Semiconductor. “Throughout the last several years, we have invested significant capital and effort with our partners to strengthen the overall SOS supply chain and improve the economics of the base sapphire substrate material. This has been accomplished by the global acceptance of SOS technology, as evidenced by the more than 600 million UltraCMOS RF ICs shipped from our foundries within the past few years. These improvements have also been fueled by the tremendous volume of sapphire now being used by the rapidly expanding LED lighting industry.”

The first 180nm UltraCMOS RFICs have sampled to a key customer and commercial production release is expected in 2011. Initial product roadmaps include configurable RF cellular front ends in the form of high-power RF switches, tunable components, and power amplifiers.

About Peregrine Semiconductor

Peregrine Semiconductor Corporation designs, manufactures, and markets high-performance communications RF ICs for the wireless infrastructure and mobile wireless; broadband communications and infrastructure; and high-rel markets. Manufactured on the Company’s proprietary UltraCMOS mixed-signal process technology, Peregrine products are uniquely poised to meet the needs of a global RF design community in high-growth applications such as LTE, HSDPA and WCDMA digital cellular and mobile TV; broadband communications such as DTV/PCTV/DVR; and in high-reliability applications such as telecom infrastructure, industrial, automotive, military and satellite systems. Peregrine UltraCMOS devices are manufactured under licensed foundry partnerships with CMOS semiconductor manufacturers located throughout the world. The Company, headquartered in San Diego, California, maintains global sales support operations and a worldwide technical distribution network. Additional information is available on the web at www.psemi.com.

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