GLOBALFOUNDRIES Offers Enhanced 55nm CMOS Logic Process with ARM Next-Generation Memory and Logic IP Support for Low Voltage

February 19, 2013

55nm LPe 1V is optimized for ultra-low power, reduced cost and improved design flexibility

MILPITAS, Calif., February 19, 2013 –GLOBALFOUNDRIES today announced additional enhancements to the foundry's 55-nanometer (nm) Low-Power Enhanced (LPe) process technology platform – 55nm LPe 1V – with qualified, next-generation memory and logic IP solutions from ARM. The 55nm LPe 1V is the industry's first and only enhanced process node to support ARM's 1.0/1.2V physical IP library, enabling chip designers to use a single process that supports two operating voltages in a single SoC.

"The key advantage of this 55nm LPe 1V offering is that the same design libraries can be used whether you are designing at 1.0 voltage or 1.2 voltage power option," said Bruce Kleinman, Vice President of Product Marketing at GF. "What it means is that same set of design rules and models can be adopted, with no extra mask layer or special process required. This translates into cost saving and design flexibility without compromising on the power and optimization features."

Based on ARM's 1.0V/1.2V standard cells and memory compilers, GF 55nm LPe 1V enables designers to optimize their design for speed, power and/or area and is especially beneficial for designers who are faced with power constraints in designing System-on-Chip solutions.

ARM offers a comprehensive, silicon-validated platform of 8-track, 9-track and 12-track libraries along with high-speed and high-density memory compilers for GF's advanced 55nm LPe process.

"The combination of 1V and 1.2V operation along with supporting level shifting logic provides the best combination of low power, high performance and reduced chip area," said Dr. John Heinlein, vice president of marketing, Physical IP Division at ARM. "Dual-voltage domain characterization support coupled with Artisan next-generation memory compiler architecture reduces dynamic and leakage power by more than 35 percent, compared to previously available solutions."

The 55nm LPe 1V is especially suited for high-volume, battery-operated mobile consumer devices, as well as a broad range of green or energy-saving products. PDK and EDA tools are available now, along with MPW shuttle availability.
Artisan memories offer flexible manufacturing options and are shipping in billions of products worldwide. Part of a broader platform of Artisan physical IP from 65nm to 20nm, these next-generation memories include low voltage and stand-by modes enabling extended battery life, ultra high-speed caches for maximum processor speed, and proprietary design techniques resulting in reduced area for low-cost SoC designs.

ABOUT GF

GF is the world's first full-service semiconductor foundry with a truly global footprint. Launched in March 2009, the company has quickly achieved scale as the second largest foundry in the world, providing a unique combination of advanced technology and manufacturing to more than 150 customers. With operations in Singapore, Germany and the United States, GF is the only foundry that offers the flexibility and security of manufacturing centers spanning three continents. The company's three 300mm fabs and five 200mm fabs provide the full range of process technologies from mainstream to the leading edge. This global manufacturing footprint is supported by major facilities for research, development and design enablement located near hubs of semiconductor activity in the United States, Europe and Asia. GF is owned by the Advanced Technology Investment Company (ATIC). For more information, visit http://www.globalfoundries.com.

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