

P R E S S R E L E A S E

X-FAB Releases Industry's First CMOS Foundry Process for High-Temperature Analog/Mixed-Signal Applications ***New XA035 Process Allows Lifetime/Temperature Tradeoffs, Production of Automotive and Other ICs with Operating Temperatures up to 175°C***

ERFURT, Germany, Sept. 8, 2009 – X-FAB Silicon Foundries, the leading analog/mixed-signal foundry and expert in “More than Moore” technologies, today announced XA035, a comprehensive, analog/mixed-signal complementary metal-oxide-semiconductor (CMOS) high-temperature foundry process for integrated circuits (ICs) requiring operating temperatures up to 175 degrees Celsius. The modular 0.35 micrometer process is the first to enable high-temperature-capable system-on-chip (SoC) solutions, combining high-voltage (HV) and embedded non-volatile memory (NVM) elements. Design support includes the XA035 Lifetime Calculator, a unique new tool that calculates expected IC lifetime for a given mission profile to help determine lifetime/temperature trade-offs. The new XA035 high-temperature process surpasses the stringent AEC-Q100 qualification tests for automotive IC quality and reliability. Compared to the more costly discrete solutions, it allows the manufacturing of cost-effective IC solutions for operation in hostile environments. The XA035 process is ideally suited for high-precision analog circuits, sensor front-ends, and brushless DC motor controls for automotive, industrial, aerospace and military markets.

According to Thomas Hartung, X-FAB's vice president of sales and marketing, “We expect the XA035 process with its unprecedented range of support and accurate temperature effect modeling will open new markets for high-temperature engine management applications in the automotive space and for energy-conversion products. Customers seeking a cost-effective solution for high-temperature applications – like valve control for factory automation, brushless DC motor controls, sensor interfaces, or drilling or jet engine control – now have it with XA035.”

Comprehensive Solution, Flexible Design Support

XA035 technology includes a large portfolio of primitive devices such as high-voltage transistors and pre-qualified non-volatile memories, among others, enabling analog/mixed-signal SoC design. The 0.35-micrometer single poly, triple metal N-well CMOS basic process features operating temperatures up to 175°C, with an absolute maximum of 185°C. It covers voltage ranges from 3.3 to 45V. It also comes with small-area EEPROM blocks including a charge pump, meeting

automotive quality requirements. The design rules and transistor performance for all XA035 modules are compatible with X-FAB's corporate state-of-the-art 0.35-micrometer CMOS processes.

X-FAB offers XA035 design kits covering all major EDA platforms. It also features a variety of dense standard cell libraries optimized for area, speed, low power or low noise; and I/O libraries, including ESD support. All libraries take the temperature effects into account.

In addition, XA035 supports parasitic diode modeling. This new feature enables pre-layout parasitic diode leakage simulation and lets designers simulate leakages at high temperatures early in the design flow.

Availability

The new XA035 technology for high-temperature applications is available now.

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About X-FAB

X-FAB is the leading analog/mixed-signal foundry group manufacturing silicon wafers for analog-digital integrated circuits (mixed-signal ICs). X-FAB maintains wafer production facilities in Erfurt and Dresden (Germany), Plymouth (UK), Lubbock, Texas (US) and Kuching, Sarawak (Malaysia), and employs approximately 2,600 people worldwide. Wafers are manufactured based on advanced modular CMOS and BiCMOS processes with technologies ranging from 1.0 to 0.18 micrometers, for applications primarily in the automotive, communications, consumer and industrial sectors. For more information, please visit www.xfab.com.

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