

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

X-FAB Announces Industry's First Foundry Process Optimized for High-Speed Optoelectronic Applications ***New XO035 Process Targets Leading-Edge Blu-ray and Optical Data Communication Markets***

ERFURT, Germany, January 19, 2010 – [X-FAB Silicon Foundries](#), the leading analog/mixed-signal foundry, today expanded its 0.35 micrometer technology offerings with the first foundry technology optimized for Blu-ray and high-speed optical data communication applications. Dubbed XO035, the new 0.35 micrometer process includes X-FAB's unique blue PIN module. This integration of the PIN diode into the widely used 0.35 micrometer CMOS environment enables the design of high-performance photo detectors. Both the sensitivity – especially in the blue wavelength range – and the speed for the entire detectable light spectrum are higher than for X-FAB's optical sensor at 0.6 micrometers, allowing customers to develop their next generation of products. Available now, the XO035 is ideal for all applications for which high sensitivity and high bandwidth are crucial – such as photo detector chips (PDICs) for Blu-ray and other optical data storage applications, optical data communication devices and high dynamic range cameras.

Dr. Konrad Bach, Fellow & Manager CMOS / BiCMOS development at X-FAB, said, "X-FAB is pushing the optoelectronics envelope with its new PIN diode. It offers the highest sensitivity for blue light in the market – about 0.31 Amperes per Watt – which is close to the physical limit. This high sensitivity, combined with high bandwidth and low noise, enables the design of a leading-edge PDIC with 12 times Blu-ray speed."

The PIN diode's sensitivity for red and IR wavelengths is higher than 0.4 A/W, resulting in good performance for DVDs and CDs, and making it suitable for combined optical data storage drives. The modular approach also offers bipolar transistors required for low noise applications, and fast MOS transistors required to support high-speed PIN diodes with signal conditioning.

X-FAB is the only foundry that provides integrated PIN diodes as part of its standard CMOS offerings, in combination with optical window etching and an ARC (Anti-Reflective Coating) layer on top. X-FAB also offers a suite of RF active and passive components as part of its general analog/mixed-signal standard offering. These features allow customers to design

integrated optoelectronic systems on a single chip instead of the two-chip solutions required previously. A single-chip solution increases total performance for sensitivity and bandwidth, and reduces total system costs.

Availability

An XO035 process design kit (PDK) is available. As a special feature, it includes a dedicated VERILOG-A behavioral photo diode model. This model enables designers to apply their standard electrical design flow to the complicated physical process of light sensing. The XO035 PDK also features a variety of dense standard cell libraries optimized for area, speed, low power and low noise; and I/O libraries, including ESD support. The PDK, and analog and digital libraries, are available from X-TIC, X-FAB's online Technical Information Center.

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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), Lubbock, Texas (US) and Kuching, Sarawak (Malaysia), and employs approximately 2,500 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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