PRESS RELEASE

X-FAB's Automotive 180nm BCD-on-SOI Technology Platform Further Optimized for Smart Actuators and Power Management

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X-FAB Silicon Foundries SE, the leading analog/mixed-signal and specialty foundry, has announced the availability of new medium-voltage transistors – complementing the company's leading 180nm BCD-on-SOI technology platform (XT018).

The new medium voltage devices cover voltages from 12V to 32V. With that customers now have access to a complete portfolio of different voltage options – covering a 10V to 200V voltage range. These new complementary NMOS/PMOS devices support automotive AEC-Q100 grade 0 designs and deliver competitive on-resistance (Rdson) figures combined with robust safe-operating areas for Rdson, Idsat and Vth. Designs may be optimized for operational performance and size by selecting the most appropriate transistors. X-FAB's XT018 technology is also the only one that offers a full range of automotive grade-0 qualified memory options, including SONOS-based Flash and embedded EEPROM.

In addition to the availability of the new medium-voltage devices, X-FAB has also announced the full volume production of the 70V to 125V high-voltage transistors that it first released last summer. These devices are mainly targeted at the growing market for automotive 48V board net and battery management system (BMS) ICs. X-FAB has already received a number of customer designs that utilize the different voltage options in automotive, industrial and consumer applications.

BCD-on-SOI is superior in many aspects when compared to conventional bulk BCD technologies, making it very attractive to design engineers. Key advantages include virtual latch-up free circuits, strong EMC resilience (due to complete isolation with buried oxide/DTI), lowest substrate coupling for fast switching DC/DC converters and simplified handling of below ground transients. Furthermore, through the potential for significant die size reduction along with first-time-right implementation, development periods can be accelerated and lower costs per die can be achieved.

"We are excited to see increasing customer adoption of our 180nm BCD-on-SOI process," states Tilman Metzger, product marketing manager high-voltage at X-FAB. "Closing up the gap on the medium-voltage side in XT018 will enable our customers to design more cost-effective products, such as 100V and 200V high-side gate drivers and smart integrated brushless DC motor drivers."

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About X-FAB

X-FAB is the leading analog/mixed-signal and MEMS foundry group manufacturing silicon wafers for automotive, industrial, consumer, medical and other applications. Its customers worldwide benefit from the highest quality standards, manufacturing excellence and innovative solutions by using X-FAB's modular CMOS and SOI processes in geometries ranging from 1.0 to 0.13 µm, and its special SiC and MEMS long-lifetime processes. X-FAB's analog-digital integrated circuits (mixed-signal ICs), sensors and micro-electro-mechanical systems (MEMS) are manufactured at six production facilities in Germany, France, Malaysia and the U.S. X-FAB employs about 3,800 people worldwide. www.xfab.com

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Acronyms

BCD	Bipolar CMOS DMOS
BMS	Battery Management System
DTI	Deep-Trench Isolation
EMC	Electro-Magnetic Compatibility
Idsat	saturation current
SOI	Silicon-on-Insulator
Vth	Threshold voltage