



PRESS RELEASE

X-FAB Announces Full Production Release of New High-Voltage Galvanic Isolation Technology

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X-FAB Silicon Foundries SE, the leading analog/mixed-signal and specialty foundry, has announced the full volume production release of its new high temperature galvanic isolation semiconductor process. This proprietary technology is fully automotive qualified, and offers greater reliability levels compared to options offered by the competition.

Galvanic isolation electrically separates circuits in order to improve noise immunity, remove ground loops, and increase common mode voltage. It can also protect human interfaces from contact with high voltages. An example where this plays an important role is the control of IGBT or SiC power modules in industrial and automotive environments. Further applications include data communication in field bus systems, battery management systems or the usage in medical equipment.

Key advantages of the new X-FAB galvanic isolation process include:

- Operational temperatures of up to 175°C
- Successfully tested up to 6,000 Vrms @ 50Hz and 10,000 VDC
- Uninterrupted barrier layer with 0 ppm residual contamination
- Demonstrated conformance with latest IEC 60747-17 semiconductor coupler draft standard
- Support for working voltages up to 1.7 kV

X-FAB offers two types of packaged galvanic isolation devices for customer evaluation. The capacitive coupler test chip, G3-C1, has an isolation layer thickness of 11 µm and was tested to withstand up to 6,000 Vrms (the maximum limit of the test setup). An inductive coupler test chip, G3-T06, is also available for customer evaluation and has an isolation layer thickness of 14 µm.

The new X-FAB galvanic isolation technology is manufactured at the company's Dresden facility, which is certified for automotive manufacturing in accordance with the IATF-16949:2016 International Automotive Quality Management System (QMS) standard. Design kits for all major EDA platforms can be downloaded from X-FAB's customer web portal. Samples can be supplied on request. Full process qualification reports are also available.

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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 4,000 people worldwide. For more information, please visit www.xfab.com

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