

PRESS RELEASE

X-FAB and efabless Co-Sponsor a Design Challenge to Create Ultra-Low Power Voltage Reference

The 3 winning IPs will be designed using X-FAB's advanced low noise semiconductor process for commercial use

ERFURT, Germany, November 29, 2016 - In order to drive further ingenuity in IC development, X-FAB Silicon Foundries and efabless corporation have announced the launch of an open mixed-signal design challenge. The objective of this challenge is to give designers across the globe, of all levels of experience, the opportunity to deliver a completed design IP for an ultra-low power voltage reference. The IP will be developed in X-FAB's 350nm mixed-signal process with designers being granted access to the required models, design files and technical documentation. The 3 winners will each receive an attractive monetary reward and their IP will subsequently be made available to the X-FAB customer base through both the company's [IP Portal](#) as well as via efabless' [try-before-buy online marketplace](#). All participants in the design challenge will fully retain their IP ownership.

The efabless/X-FAB open mixed-signal design challenge is the first of its kind in the semiconductor industry, as it is fundamentally outcome based with reference to target specifications. It will simultaneously focus on both encouraging greater design creativity and also maximizing execution quality in line with the performance requirements that have been set. Entrants for the design challenge will be accepted up to 20th February 2017. To get more information and to sign up go to efabless.com.

X-FAB's 350nm mixed-signal process (XH035) on which the designs will be implemented is highly optimized for telecom, industrial and automotive applications. It provides strong signal integrity characteristics, as well as having industry-leading high-voltage capabilities. The world class noise behavior of its p-mos and n-mos transistors makes this process highly suitable for circuits requiring a high signal-to-noise ratio. The efabless design environment provides all entrants with the tools needed to design, verify and deliver the IP they envisaged.

"X-FAB continues to seek novel and imaginative ways by which to strengthen the IP offering available to our customers," states Ulrich Bretthauer, Manager of Industrial & Medical Solutions at X-FAB. "efabless' unique crowdsourcing approach to semiconductor development, and the highly-engaged engineering community it has built up around this, clearly complement our existing portfolio of valued IP partners. This means that customers have access to on-demand IP that is fully optimized to meet their particular

needs. The cooperation of our two companies on this design challenge will be an effective means by which to highlight the pioneering foundry and design services we respectively specialize in."

"The semiconductor industry continues to evolve, with new sectors like IoT, eHealth, home automation and wearable technology all showing huge potential. The growing diversity of development projects means that there will be many places where IP on demand is destined to be a critical factor," adds Mohamed Kassem, co-founder and CTO of efabless. "The efabless concept is to bring the dynamics of crowdsourcing to the design and delivery of semiconductor IP. We have created a platform upon which members of our community can sell or license the IP they've created to customers worldwide, resulting in a vibrant, highly responsive marketplace. We are excited by the prospect of working together with X-FAB. The jointly announced design challenge enables further refinement to our business model as well as highlighting its inherent benefits," he continues. "It is open to all engineers - from students right through to seasoned industry veterans - thus staying true to efabless' philosophy of democratizing the design process."

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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 processes in geometries ranging from 1.0 to 0.13 μm , and its special BCD, SOI 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 approximately 3,800 people worldwide. For more information, please visit www.xfab.com

About efabless

efabless corporation is the first fabless semiconductor company to apply crowdsourcing and open community innovation to all aspects of IC development and commercialization. Specializing in the design of analog/mixed signal ICs, power management ICs MEMS and agile ASICs, the company gives designers all the means needed to define, develop and monetize their work. It has built up a community of over 700 members from 30 countries around the world. For information visit: www.efabless.com

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