

CGD's ICeGaN HEMTs Awarded "Best Demo" AT TSMC European Innovation Zone

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CAMBRIDGE, England--(BUSINESS WIRE)-- **Cambridge GaN Devices (CGD)**, the fabless, clean-tech semiconductor company that develops a range of energy-efficient GaN-based power devices to make greener electronics possible, today announced that its ICeGaN™ GaN HEMT System-on-Chip (SoC) was awarded "Best Demo" at the Innovation Zone of TSMC's 2023 Europe Technology Symposium.

CGD's ICeGaN, which has entered high-volume production for global customers using TSMC's GaN process technology, is bringing the complexity of a typical external driving circuit into the GaN HEMT, monolithically integrated. This concept reduces the component count at PCB level and significantly improve the robustness and reliability of the power transistor and the whole system, while enabling the user to couple it with a gate driver of choice. This concept is easily scalable to higher power and in voltages, which CGD is actively pursuing. ICeGaN is an Industry First: GaN eMode HEMTs can be driven like a Si MosFET. Recognizing the differentiation that it brings to the market, ICeGaN was voted "Best Demo" by visitors to the Innovation Zone, TSMC's showcase for start-up customers' cutting-edge products at its largest annual event in Europe.

GIORGIA LONGOBARDI | CHIEF EXECUTIVE OFFICER, CGD

"CGD recognises TSMC's leadership in high voltage GaN – we believe that they have the most mature and reliable process in the industry, which is why we chose to have our proprietary ICeGaN technology SoCs made there. Consequently, we are also delighted to win TSMC's prestigious award for innovation. This is particularly important and meaningful for us, since innovation is one of CGD's key values, and we aim to achieve a leadership position through technology. The award is also a very real demonstration of the success that our two companies are achieving in bringing game changing, innovative GaN technology to the market."

PAUL DE BOT | GENERAL MANAGER, TSMC EUROPE

"Our warmest congratulations to CGD, which has won well-deserved recognition for its innovative technology. TSMC is excited to cooperate with CGD to deliver its easy-to-use 650V ICeGaN GaN transistors in high volume to companies working on diverse applications worldwide. We look forward to close collaboration with them in the field of GaN power semiconductor technology."

ICeGaN H2 single-chip eMode GaN HEMTs, our 2nd generation of 650V GaN ICs recently launched in the market, have demonstrated record low losses in No Load – Light Load operations, which is key for many consumer and industrial applications. Together with H1 portfolio, CGD has demonstrated the highest efficiency and reliability in the entire range 65W to 3kW, at the prestigious TSMC European event and in several reknown conferences worldwide. CGD is committed to extend their portfolio in the near future.

ICeGaN includes a monolithically integrated GaN interface circuitry within the power transistor chips. This simplifies their use, enabling them to be driven like a Silicon MOSFET, without the need for special gate drivers, complex and lossy driving circuits, negative voltage supply or external clamping components. This innovative design results in devices that are extremely rugged and reliable, while achieving the highest performance among available eMode GaN technologies.

ENDS

About Cambridge GaN Devices

Cambridge GaN Devices (CGD) designs, develops, and commercialises GaN transistors and ICs enabling a radical step change in **energy efficiency** and **compactness**. Our mission is to bring innovation into everyday life by delivering effortless energy efficient GaN solutions. CGD's ICeGaN™ technology is proven suitable for **high volume production** and the company is rapidly scaling up with manufacturing and customer partnerships in place. A fabless enterprise, CGD was spun out from Cambridge University, and its founders, CEO Dr Giorgia Longobardi and CTO Professor Florin Udrea, still retain strong links with the world-renowned High Voltage Microelectronics and Sensors group (HVMS) at the University. CGD's ICeGaN HEMT technology is protected by a strong and constantly growing IP portfolio which is a result of the company's commitment to innovation. The technical and commercial expertise of the CGD team combined with an extensive track record in the power electronics market has been fundamental to the market acceptance of its proprietary technology.

About TSMC

TSMC pioneered the pure-play foundry business model when it was founded in 1987, and has been the world's leading dedicated semiconductor foundry ever since. The Company supports a thriving ecosystem of global customers and partners with the industry's leading process technologies and portfolio of design enablement solutions to unleash innovation for the global semiconductor industry. With global operations spanning Asia,

Europe, and North America, TSMC serves as a committed corporate citizen around the world.

TSMC deployed 288 distinct process technologies, and manufactured 12,698 products for 532 customers in 2022 by providing broadest range of advanced, specialty and advanced packaging technology services. The Company is headquartered in Hsinchu, Taiwan. For more information please visit <https://www.tsmc.com>.

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