



## Transphorm at APEC 2024: SuperGaN Innovation for Low to High Power Applications

February 6, 2024

*Silver Event Partner to Showcase Expanding GaN Device Portfolio and Advancements Powering Widest Range of Low to High Power Solutions from Versatile SuperGaN SiPs to Game-Changing 2- and 3-Wheeled Electric Vehicle Systems*

GOLETA, Calif.--(BUSINESS WIRE)--Feb. 6, 2024-- Silver Partner [Transphorm, Inc.](#) (Nasdaq: TGAN)—a global leader in robust GaN power semiconductors—announced today that its [APEC 2024](#) showcase will underscore the company's continued leadership in broad spectrum (low to high power) GaN power conversion. This leadership role positions Transphorm as one of the only GaN semiconductor companies making GaN's performance advantages accessible to higher power system manufacturers. Attendees can visit Transphorm at Booth 1813 during the event on February 25 – 29.

This year, Transphorm will highlight major innovation milestones to include the industry's first [1200 V GaN-on-Sapphire device](#) model and leading [short circuit robustness](#). The company's versatile [SuperGaN® device portfolio](#) will also be emphasized—to include recently announced packages such as the TO-247-4L, TOLL, and TOLT that round out a complete, flexible packaging selection for higher power systems requiring different heatsinking configurations. Lastly, on-site demonstrations will showcase the company's technology in a wide variety of groundbreaking power systems from high performance uninterrupted and bi-directional power supplies to disruptive solar energy microinverters as well as 2- and 3-wheeled electric vehicle systems.

Transphorm's ability to empower customers with superior GaN solutions that outperform competitive options (i.e. e-mode GaN, SiC, silicon) stems from the future-proofed SuperGaN platform, which embraces and amplifies fundamental physics. Transphorm manufactures a normally-off d-mode GaN technology in cascode. This design configuration allows inherent platform phenomena to perform to their greatest potential. These phenomena include the 2DEG GaN HEMT Channel and the SiO<sub>2</sub>/Si gate interface (created by the low-voltage MOSFET paired with Transphorm's GaN HEMT). The company's recently released white paper outlining these advantages can be downloaded here: <https://bit.ly/dmodeadvwp>.

### One Core Platform, Crossing the Power Spectrum

Transphorm is the leading GaN power semiconductor company differentiated by its technology's:

**Manufacturability:** Vertically integrated owning the EPI design, wafer process, and FET die design.

**Designability:** Offering well-known, industry standard packages and performance packages while partnering with renowned global leaders in firmware (Microchip Technology) and hardware integration (Weltrend Semiconductor) for easy design in.

**Drivability:** Offering devices that are driven like silicon and pair with off-the-shelf controllers and drivers while requiring minimal external circuitry.

**Reliability:** Still leading the industry with a current FIT rate of < 0.05 across more than 100 billion field hours of operation in low to high power applications.

Transphorm today supports the largest range of power conversion requirements (45 W to 10+ kW) across the widest range of power applications. The company's FET portfolio includes 650 V and 900 V devices with 1200 V device(s) in development. These devices are JEDEC and AEC-Q101 qualified, making them optimal solutions for power adapters and computer PSUs through to broad industrial UPSs and electric vehicle mobility systems. The mix of customer products to be displayed at APEC underscore the broad usability of Transphorm's SuperGaN platform.

### Speaking Engagements

Transphorm experts will educate audiences on site via the following presentations:

#### *High Power GaN Devices and Applications*

Professional Education Seminar (S17): February 26 at 8:30 a.m.

Speakers: Davide Bisi, Member of Technical Staff, Office of the CTO; Philip Zuk, SVP Business Development and Marketing; Tushar Dhayagude, VP of Worldwide Sales and FAE

#### *The SuperGaN Difference: Advantages of Normally-Off d-Mode GaN Power Semiconductors*

Exhibitor Seminar: February 27 at 2:15 p.m.

Speaker: Jenny Cortez, Technical Sales Manager

#### *GaN Four Quadrant Switch Technology for Microinverters and Motor-Drives*

Industry Session (IS16.2): February 28 at 1:55 p.m.

Speaker: Geetak Gupta, Member of Technical Staff, Office of the CTO

#### *15-mΩ GaN Device with 5-μs Short-Circuit Withstand Time*

Industry Session (IS22.6): February 29 at 10:55 a.m.

Speaker: Davide Bisi, PhD, Member of Technical Staff, Office of the CTO

### Meet With Us

To schedule a meeting with Transphorm during the show, please contact [yipin.bothra@transphormusa.com](mailto:yipin.bothra@transphormusa.com).

## About Transphorm

Transphorm, Inc., a global leader in the GaN revolution, designs and manufactures high performance and high reliability GaN semiconductors for high voltage power conversion applications. Having one of the largest Power GaN IP portfolios of more than 1,000 owned or licensed patents, Transphorm produces the industry's first JEDEC and AEC-Q101 qualified high voltage GaN semiconductor devices. The Company's vertically integrated device business model allows for innovation at every development stage: design, fabrication, device, and application support. Transphorm's innovations move power electronics beyond the limitations of silicon to achieve over 99% efficiency, 50% more power density and 20% lower system cost. Transphorm is headquartered in Goleta, California and has manufacturing operations in Goleta and Aizu, Japan. For more information, please visit [www.transphormusa.com](http://www.transphormusa.com). Follow us on Twitter @transphormusa and WeChat at Transphorm\_GaN.

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