

Power Integrations Demonstrates World's First 2200 V GaN Technology for Next-Era High-Voltage Power Systems

2026-08-05

Industry-first 2200 V PowiGaN™ technology enables higher power density, greater efficiency and safer and simpler system architectures for AI data centers, EVs, photovoltaic and HVDC infrastructure

SAN JOSE, Calif.--(BUSINESS WIRE)-- Power Integrations (NASDAQ: POWI), the leader in high-voltage integrated circuits for energy-efficient power conversion, today announced that PowiGaN™ gallium-nitride (GaN) technology is now rated at up to 2200 V, far exceeding the voltage capabilities of all other commercially available GaN technologies. This breakthrough positions PowiGaN as the leading technology solution for high-voltage data centers, EVs, renewable energy and HVDC infrastructure as they leverage higher-voltage bus architectures in search of greater power density.

Power Integrations Demonstrates World's First 2200 V GaN Technology for Next-Era High-Voltage Power Systems

"Our 2200 V PowiGaN technology provides substantial voltage margin for emerging

high-voltage power systems while enabling the high switching frequencies required to maximize power density," said Jennifer Lloyd, president and CEO at Power Integrations. "Emerging applications include next-generation AI data centers, where industry **roadmaps point toward 1500 V distribution architectures**, as well as future EV battery and auxiliary power systems operating at increasingly higher output voltages (48V). This milestone breakthrough extends the reach of GaN into voltage ranges traditionally served by SiC, enabling a compelling high-frequency alternative for applications such as solar, HVDC and advanced industrial power conversion."

GaN power switches are steadily supplanting silicon transistors in a wide range of power conversion applications

thanks to their higher efficiency and switching frequencies. However, GaN technology must keep pace with data center, EV, renewables and HVDC infrastructure roadmaps calling for higher voltages and greater power density. Alternatives include lower-frequency silicon carbide (SiC) or arrays of stacked, lower-voltage GaN devices that require compromises on power density, complexity and reliability.

PowiGaN ICs rated at 1700 V are already being designed into single-stage data center auxiliary power applications, while 1250 V PowiGaN offers a simpler alternative to stacked solutions in the main power path in 800 VDC data centers. The introduction of 2200 V PowiGaN technology means that even higher bus architectures can be supported, future-proofing power designs not only for data centers but also for EVs, photovoltaic inverters and battery-energy storage systems.

"The shift to 800 VDC bus architectures in AI data centers is reshaping power semiconductors," explains Roy Dagher, PhD, technology and market analyst, Compound Semiconductors at Yole Group. "GaN's voltage ceiling has kept it out of the main power path, ceding that ground to SiC. A 2200 V rating changes this, giving margin for single-stage topologies and future-proofing emerging 1500 V data center and EV designs. We expect the **power GaN device market to reach \$3.5 billion by 2031**, and extending GaN into these higher-voltage applications is an important part of that growth."⁽¹⁾

Resources

For further information, please read our **White Paper** or visit our **PowiGaN** page.

About Power Integrations

Power Integrations, Inc. is a leading innovator in semiconductor technologies for high-voltage power conversion. The company's products are key building blocks in the clean-power ecosystem, enabling the generation of renewable energy as well as the efficient transmission, conversion and consumption of power in applications ranging from milliwatts to megawatts in applications such as AI data centers, EVs and high-voltage direct current infrastructure. For more information, please visit **www.power.com**.

Forward-Looking Statements

Certain statements included in this press release that are not historical facts are forward-looking statements within the meaning of the federal securities laws, including the safe harbor provisions under the United States Private Securities Litigation Reform Act of 1995. Forward-looking statements generally relate to future events or the Company's future financial or operating performance and are sometimes accompanied by words such as "believe," "continue," "project," "expect," "anticipate," "estimate," "intend," "strategy," "future," "opportunity," "predict," "plan,"

"may," "should," "will," "would," "potential," "seem," "seek," "outlook," and similar expressions that concern the Company's expectations, strategy, priorities, plans, or intentions, predict or indicate future events or trends, or that are not statements of historical matters. Forward-looking statements are predictions, projections, and other statements about future events that are based on current expectations and assumptions and, as a result, are subject to risks and uncertainties. Forward-looking statements in this press release include, without limitation, statements about the introduction of 2200 V GaN technology, the uses of 2200 V GaN technology in emerging markets, such as AI data centers and EVs, and the benefits of higher voltage GaN technology, among others. These statements are based on various assumptions, whether or not identified in this press release. These forward-looking statements are provided for illustrative purposes only and are not intended to serve as and must not be relied on by an investor as a guarantee, an assurance, a prediction, or a definitive statement of fact or probability. Actual events and circumstances are very difficult or impossible to predict and will differ from the assumptions. Many actual events and circumstances are beyond the control of the Company. The Company's expectations and beliefs regarding these matters may not materialize, and actual results in future periods are subject to risk and uncertainties that could cause actual results to differ materially from the forward-looking statements in this press release, including but not limited to: (i) the risks that unbeknownst to the Company, a competitor has demonstrated 2200 V GaN technology or may do so sooner than anticipated; (ii) the risks that the 2200 V PowiGaN technology may not enable higher power density, greater efficiency, or simpler system architectures for AI data centers, EVs, photovoltaic, or HVDC infrastructure to the extent or in the time frame anticipated, or at all; (iii) the risks that the PowiGaN technology may not exceed the voltage capabilities of all other commercially available GaN technologies for the time frame anticipated, or at all; (iv) the risks that PowiGaN may not represent the leading technology solution to the extent anticipated, or at all; (v) the risks that high-voltage data centers, EVs, renewable energy, and HVDC infrastructure may not leverage higher-voltage bus architectures to the extent or in the time frame anticipated, or at all; (vi) the risks that industry roadmaps that point toward 1500 V distribution architectures and future EV battery and auxiliary power systems may not be realized in the time frame or to the extent anticipated, or at all; (vii) the risks that GaN power switches may not supplant silicon transistors to the extent or in the time frame anticipated, or at all; (viii) the risks that alternatives to this GaN technology, including silicon carbide (SiC) or lower-voltage GaN devices, may be sufficient to a greater degree than anticipated, or for a longer time frame than anticipated, for some or all of the data center, EV, renewables, and HVDC infrastructure uses; (ix) the risks that the introduction of 2200 V PowiGaN technology may not allow for even higher bus architectures for data centers, EVs, photovoltaic inverters, and battery-energy storage systems to the extent or in the time frame anticipated, or at all; (x) the risks that the shift to 800 V DC bus architectures in AI data centers may not occur to the extent or in the time frame anticipated, or at all; (xi) the risks that a 2200 V rating may not provide the margin for single-stage topologies or future-proofing emerging 1500 V data center and EV design to the extent or in the time frame anticipated, or at all; (xii) the risks that the power GaN device market may not reach \$3.5 billion by 2031, or at all; (xiii) the Company's ability to forecast its performance; (xiv) changes in trade policies, in particular the escalation and imposition of new and higher tariffs, which could reduce demand for end products that incorporate the Company's integrated circuits

and/or place pressure on the Company's prices as the Company's customers seek to offset the impact of increased tariffs on their own products; (xv) the Company's ability to supply products and its ability to conduct other aspects of its business, such as competing for new design wins; (xvi) changes in global economic and geopolitical conditions, including such factors as inflation, armed conflicts, and trade negotiations, which may impact the level of demand for the Company's products; (xvii) potential changes and shifts in customer demand away from end products that utilize the Company's integrated circuits to end products that do not incorporate the Company's products; (xviii) the effects of competition, which may cause the Company's revenue to decrease or cause the Company to decrease its selling prices for its products; (xix) unforeseen costs and expenses; unfavorable fluctuations in component costs or operating expenses resulting from changes in commodity prices and/or exchange rates; and (xx) product development delays and defects and market acceptance of the new products. These risks and uncertainties may be amplified by current or future global conflicts and current and potential trade restrictions, trade tensions, and tariffs, all of which continue to cause economic uncertainty. You should carefully consider the foregoing factors and the other risks and uncertainties described in the "Risk Factors" section of the Company's most recent Annual Report on Form 10-K and subsequent Quarterly Reports on Form 10-Q that the Company filed with the U.S. Securities and Exchange Commission, or the SEC, and other documents filed by us or that will be filed by us from time to time with the SEC. These filings identify and address other important risks and uncertainties that could cause actual events and results to differ materially from those contained in the forward-looking statements. Forward-looking statements in this press release are based only on information currently available to the Company and speak only as of the date they are made.

Investors are cautioned not to put undue reliance on forward-looking statements, and the Company disclaims any obligation and does not intend to update or revise these forward-looking statements, whether as a result of new information, future events, or otherwise, except as required by law. The Company gives no assurance that the Company will achieve any of its expectations.

Power Integrations, the Power Integrations logo and PowiGaN, are trademarks, service marks or registered trademarks of Power Integrations, Inc. All other trademarks are the property of their respective owners.

(1) Source: **Power GaN 2026 report**, Yole Group

Media Contacts

Linda Williams

Power Integrations

(408) 414-9837

linda.williams@power.com

Source: Power Integrations, Inc.