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## GaN Power Modules Ease Development Of High-Power Applications

<u>Infineon Technologies'</u> EasyPACK CoolGaN transistor 650-V module is an addition to the company's GaN power portfolio. Based on the Easy Power Module platform, the module has been specifically developed for high-power applications such as data centers, renewable energy systems, and dc electric vehicle charging stations. It is designed to meet the growing demand for higher performance while providing maximum ease of use, helping customers accelerate their design processes, and shorten time-to-market.

The EasyPACK CoolGaN module integrates 650-V CoolGaN power semiconductors with low parasitic inductances, achieved through compact die packing—enabling fast and efficient switching. Delivering up to 70 kW per phase with just a single module, the design supports compact and scalable high-power systems.

Furthermore, by combining Infineon's .XT interconnect technology with CoolGaN options, the module enhances both performance and reliability, says the vendor. The .XT technology is implemented on a high-performance substrate, significantly reducing thermal resistance, which in turn translates to higher system efficiency and lower cooling demands. This results in increased power density and excellent cycling robustness, even under demanding operating conditions (see the figure).

With support for a broad range of topologies and customization options, the EasyPACK CoolGaN module addresses diverse requirements in industrial and energy applications. For more information, see "First EasyPACK with CoolGaN Transistor 650 V".

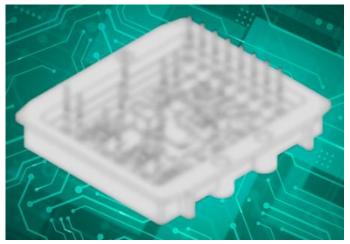


Figure. With the introduction of the CoolGaN power semiconductors in this package, Infineon is now expanding the application range of GaN as its use creates more demand into very high kilowatt applications. The EasyPACK series leverages Infineon's PressFIT contact technology, which ensures highly reliable and durable electrical connections between the module and the PCB. This advanced design reduces manufacturing time and eliminates potential solder-related defects, offering a robust solution for high-reliability applications. Additionally, with its compact design, EasyPACK modules occupy up to 30% less PCB surface area than other conventional discrete layouts.