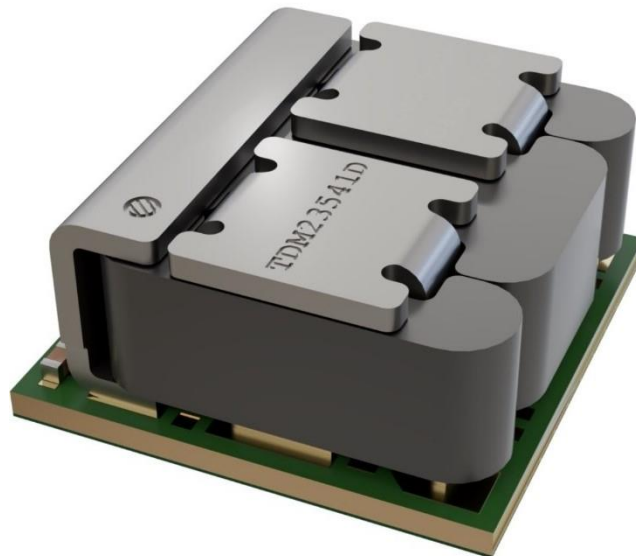


## High-Current-Density Power Modules Support AI Computing

[Infineon Technologies'](#) TDM2354xD and TDM2354xT dual-phase power modules are said to offer best-in-class power density and an industry best current density of 1.6 A/mm<sup>2</sup> in support of high-performance AI data centers. These modules enable true vertical power delivery (VPD) (see the figure). They follow the TDM2254xD dual-phase power modules, which were introduced by Infineon earlier this year.

Data centers are currently responsible for more than 2% of global energy consumption. Fueled by AI, this number is expected to grow to up to around 7% in 2030, matching the current energy consumption of India. Enabling efficient power conversion from grid-to-core is vital to enable superior power densities and thereby advance compute performance while reducing total cost of ownership (TCO).

The new modules were showcased at Infineon's global technology forum OktoberTech 2024 in Silicon Valley and at electronica 2024 in Munich. Samples of the OptiMOS dual-phase power modules TDM2354xD and TDM2354xT are available now. For more information see the power modules [page](#).



*Figure. The TDM2354xD and TDM2354xT modules combine Infineon's robust OptiMOS 6 trench technology, a chip-embedded package that enables superior power density through enhanced electrical and thermal efficiencies, and a new inductor technology to enable lower profile and therefore, true vertical power delivery. The TDM2354xT modules support up to 160 A and are the industry's first Trans-Inductor Voltage Regulator (TLVR) modules in a small 8- x 8-mm form factor. Combined with Infineon's XDP controllers, they offer extremely fast transient response and minimize on-board output capacitance by up to 50%, further increasing system power density.*