

Power Device Technologies: Challenges and Chances

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A brief introduction of Infineon, its core business and its divisions will be followed by a summary, focusing on power device technologies. Those include ones pioneered by the company (e.g. CoolMOS) but also ones, which have become industry benchmark in the corresponding application areas (e.g. OptiMOS). Further, we will focus on new and emerging technologies, especially GaN-based. We will discuss some of the differentiating factors of the GaN material system and GaN-based power device concepts and also their advantages and limitations. A short recap of stringent reliability requirements and their implications will be followed by an outlook of possible future developments and areas of cooperation.