

<https://www.infineon.com/cms/en/product/promopages/wbg-for-obc/#10-kw-l-gan-based-ev-charger-with-wide-output-voltage-range>

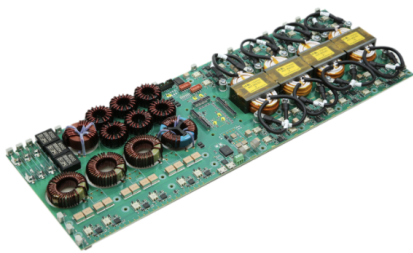
Next generation On Board Chargers

OBC design challenges & solutions

Single phase 7 kW On Board Charger Demonstrator

10 kW/L GaN-based EV charger with wide output voltage range

10 kW/L GaN-based EV charger with wide output voltage range



In collaboration with the Power Electronic Systems Laboratory at ETH Zurich, a 10 kW EV charger design with a super high power density of 10 kW/l (excl. housing) has been developed.

This 10 kW EV charging unit is a 3-phase converter that employs a Vienna Rectifier PFC front-end and four cascaded Dual Active Bridges (DABs) as isolated DC-DC converter stages. The converter utilizes novel modulation schemes to reach a peak efficiency of 96% and a wide EV battery voltage range from 250 to 1000 V_{DC,out}.

> [Open 3D model](#)

+ System approach

+ Highlight products

+ Customer benefits

10 kW electric vehicle charger with CoolGaN™

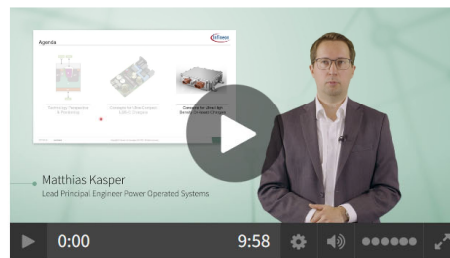
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The latest Ultra-high-density 3-phase 10 kW isolated EV charger from packs outstanding power density and efficiency into one device. This presentation looks at how this done with GaN and Vienna rectifiers.

Concepts for ultra-high density on-board chargers

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In this 10-Min.-video Matthias Kasper, Lead Principal Engineer Operated Systems at Infineon shows you, how to reach power density levels >4kW/l in OBC designs.

ETH zürich

For more information on the Power Electronic Systems Laboratory at ETH Zurich visit the > [website](#).