

onsemi Silicon Carbide Technology Enables All-Electric VISION EQXX to Go Further on a Single Charge

As part of a strategic collaboration with Mercedes-Benz, onsemi provides the carmaker with high-efficiency silicon carbide (SiC) power modules that increase the range of its VISION EQXX

MUNICH – Nov. 14, 2022 – onsemi (Nasdaq: ON), a leader in intelligent power and sensing technologies, today announced that [Mercedes-Benz](#) adopted [onsemi silicon carbide \(SiC\) technology for traction inverters](#) as part of a strategic collaboration. onsemi's VE-Trac SiC modules increase the efficiency and lower the weight of the all-electric Mercedes-Benz VISION EQXX's traction inverter, extending the electric vehicle's (EV's) range by up to 10%. The EV completed a 1,202 km (747 mile) trip from Stuttgart, Germany to Silverstone, England, holding the record for longest distance traveled on a single charge.

The [VISION EQXX](#) sets new standards for electric range and efficiency, while remaining sustainable and luxurious – and consuming less than 10 kWh of energy per 100 km (62 miles). This was achieved by a benchmark drag coefficient of just 0.17, lightweight design, reduced rolling resistance and the use of a battery that stores 100 kWh in 50% less space (and with 30% less weight) than comparable batteries. Key to the unprecedented range is an electrical system that ensures that 95% of the energy stored in the traction battery reaches the wheels – a huge improvement over internal combustion engine (ICE) vehicles that are only able to achieve around 30%.

"In addition to its superior SiC technology delivering extended range, onsemi also provides assurance of supply for its SiC solutions, the necessary scale to support production and a broad portfolio of intelligent power and sensing solutions," said Simon Keeton, executive vice president and general manager, Power Solutions Group at onsemi. "The high efficiency of our SiC solutions allows customers to avoid trade-offs between the cost of the battery and the range of the vehicle."

A core piece of differentiation is the expertise in packaging, which is critical for improving heat dissipation and increasing power output at a smaller footprint than the closest competitor, as well as reducing the weight and cost of a power module. onsemi is the only large-scale supplier of SiC solutions with end-to-end supply capability, which includes volume SiC boule growth, substrate, epitaxy, device fabrication, best-in-class integrated modules and discrete package solutions.

You can experience the VISION EQXX, learn about the onsemi technology behind it and meet with onsemi experts in hall C4 booth 101 at electronica. The world's leading trade fair and conference for electronics is taking place at the Trade Fair Center Messe München, Germany, November 15–18, 2022.

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About onsemi

onsemi (Nasdaq: ON) is driving disruptive innovations to help build a better future. With a focus on automotive and industrial end-markets, the company is accelerating change in megatrends such as

vehicle electrification and safety, sustainable energy grids, industrial automation, and 5G and cloud infrastructure. **onsemi** offers a highly differentiated and innovative product portfolio, delivering intelligent power and sensing technologies that solve the world's most complex challenges and leads the way to creating a safer, cleaner, and smarter world. **onsemi** is recognized as a Fortune 500® company and included in the S&P 500® index. Learn more about **onsemi** at www.onsemi.com.

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