

Vitesco Technologies and ROHM have signed a long-term SiC supply partnership

- › Partnership enables capacity assurance for energy-efficient silicon carbide (SiC) power semiconductors
- › Total project volume of over one billion US dollars between 2024 and 2030 is expected
- › Basis is the development partnership for chips made of silicon carbide that began in 2020
- › As early as 2024 the first series production of SiC power electronics for two major customers is planned
- › These chips support highly efficient electric driving and fast charging at the same time

Regensburg, Willich, June 19, 2023. Vitesco Technologies, a leading international manufacturer of modern drive technologies and electrification solutions, has secured strategically important capacities in energy-efficient silicon carbide power semiconductors through a long-term supply partnership with ROHM – worth over one billion US dollars until 2030. The development partnership with the manufacturer ROHM, which began in 2020, created the basis for the supply partnership now signed in Regensburg. Vitesco Technologies' advanced inverters with integrated ROHM SiC chips will be adopted by two customers, to be applied inside electric vehicle powertrains. Vitesco Technologies will start supplying a first series project as early as 2024. The company is thus even ahead of the originally targeted timeline.

SiC devices enable the design of particularly efficient power electronics, such as those needed for electric car inverters. SiC chips are a key technology, particularly for high voltages and for vehicles with demanding range targets and optimum overall efficiency. During the existing development partnership with ROHM the relevant SiC chips were further optimized for use in automotive inverters starting in 2024.

"The supply partnership agreement with ROHM is an important building block for securing Vitesco Technologies' SiC capacities in the years ahead," said Andreas Wolf, CEO of Vitesco Technologies, at the signing ceremony in Regensburg. "We have had very good experience in our development cooperation so far and are now looking forward not only to continuing it, but also to intensifying it further," adds Wolf.

"In the high-growth automotive market, SiC is a pathfinder for higher efficiency. With an expected higher market share of more than 30 percent, we are strongly positioned here and have gained a strategic partner in Vitesco Technologies for further market penetration," said Dr. Kazuhide Ino, Member of the Board, Managing Executive Officer and CFO of ROHM Co. Ltd. at the signing ceremony.



Mr. Andreas Wolf, CEO of Vitesco Technologies (right)
 Dr. Kazuhide Ino, Member of the Board, Managing Executive Officer
 and CFO of ROHM Co. Ltd. (left)

Small cause – big effect

Silicon carbide belongs to the so-called wide bandgap semiconductors, whose wide bandgap (simplified: the energy gap between the non-conductive state and the conductive state of the electrons in the material) enables lower electrical resistance, fast and low loss switching chips for power electronics. At the same time, SiC chips are more thermally resistant, so that the power density of electronics can be increased.

Thanks to these features, SiC electronics have reduced conversion losses compared to conventional silicon (Si). Especially at high voltage levels such as 800 V, SiC inverters are more efficient than Si models. Since 800 V is the prerequisite for fast and thus convenient high-voltage charging, SiC devices are at the beginning of a worldwide boom. Reduced conversion losses in the inverter are also significant for the overall efficiency of electric driving and thus for range. Competition for sufficient capacities in components made of this high-tech material is correspondingly fierce.

About Vitesco Technologies

Vitesco Technologies is a leading international developer and manufacturer of cutting-edge drive systems for sustainable mobility. With intelligent system solutions and components for electric, hybrid, and internal combustion drive systems, Vitesco Technologies is making mobility clean, efficient, and affordable. The product portfolio includes electric drives, electronic controls, sensors and actuators, and exhaust gas treatment solutions. In 2022, Vitesco Technologies generated sales of around €9.07 billion and employs a workforce of around 38,000 employees at 50 locations. Vitesco Technologies is headquartered in Regensburg, Germany.

About ROHM Semiconductor

ROHM Semiconductor is a global company of 507.9 billion yen per March 31st, 2023, with over 23,700 employees. The company develops and manufactures a very large product range from SiC Diodes and MOSFETs, Analog ICs such as Gate Drivers and Power Management ICs to Power Transistors and Diodes to Passive Components. The production of our high performing products is taking place in state-of-the-art manufacturing plants in Japan, Germany, Korea, Malaysia, Thailand, the Philippines, and China. ROHM Semiconductor Europe has its Head Office near Dusseldorf serving the EMEA region (Europe, Middle East, and Africa). For further information, please contact www.rohm.com

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