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Mitsubishi Electric to Invest in Coherent's New SiC Business

Aiming to grow its SiC power device business through vertical collaboration with Coherent

TOKYO, October 10, 2023 – [Mitsubishi Electric Corporation](https://www.mitsubishielectric.com) (TOKYO: 6503) announced today that it has agreed with Coherent Corp. (NYSE: COHR) to invest USD 500 million (approx. 75 billion yen¹) in a new silicon carbide (SiC) business to be carved out from Coherent, aiming to expand its SiC power device business by strengthening vertical collaboration with Coherent, who has been a supplier of SiC substrates to Mitsubishi Electric.

The electric vehicle market is expanding worldwide and is one of several emerging applications driving the exponential growth of SiC power devices, which offer lower energy loss, higher operating temperatures and faster switching speeds than conventional silicon power devices. The high efficiency of SiC power devices is expected to contribute significantly to global decarbonization and green transformation.

Mitsubishi Electric has been a leader in SiC power modules for high-speed trains, high-voltage industrial applications, and home appliances for many years. The company made history by launching the world's first SiC power modules² for air conditioners in 2010, and became the first supplier of a full SiC power module³ for Shinkansen high-speed trains in 2015. Mitsubishi Electric has also accumulated extensive expertise by meeting market needs for advanced performance and high reliability by deploying superior processing, screening, etc. for the development and manufacture of SiC power modules.

Mitsubishi Electric has been procuring high-quality 150mm SiC substrates from Coherent for the production of SiC power modules for many years. In addition to developing high-quality 200mm SiC substrates with Coherent, Mitsubishi Electric plans to invest approximately 100 billion yen to construct a new 200mm SiC wafer plant in Kumamoto Prefecture, Japan beginning in 2026.⁴

By further deepening its collaboration with Coherent through this investment, Mitsubishi Electric aims to stabilize its procurement of SiC substrates for SiC power modules, for which demand is forecasted to grow

¹ Calculated at a rate of 1 USD = 149.6 yen (TTM rate as of the end of September 2023)

² According to Mitsubishi Electric research as of August 24, 2010

³ According to Mitsubishi Electric research as of June 25, 2015

⁴ Announcement on March 14, 2023 <https://www.MitsubishiElectric.com/news/2023/0314-b.html>

rapidly, and thereby expand its supply of reliable high-performance SiC power devices to meet rising global demand.

Dr. Masayoshi Takemi, Executive Officer, Group President, Semiconductor & Device of Mitsubishi Electric, said: “Demand for SiC power semiconductors is expected to grow exponentially as the global market for electric vehicles increases in line with the transition to a decarbonized world. To capitalize on this trend, we have decided to expand our SiC power semiconductor production capacity, including by constructing a 200mm wafer plant in the Shisui area of Kumamoto Prefecture. We are delighted to strengthen our partnership with Coherent by investing in this new SiC company, which will provide us with a stable supply of high-quality SiC substrates essential for our increased supply capacity.”

About Coherent

Coherent empowers market innovators to define the future through breakthrough technologies, from materials to systems. The company delivers innovations that resonate with its customers in diversified applications for the industrial, communications, electronics, and instrumentation markets. Headquartered in Saxonburg, Pennsylvania, Coherent has research and development, manufacturing, sales, service, and distribution facilities worldwide. For more information, please visit www.coherent.com.

CEO	Dr. Vincent D. Mattera, Jr.
Location	Saxonburg, Pennsylvania, USA
Established	1971
Revenue	5.2 billion USD (FY2023)
Employees	26,000 (end of FY2023)
URL	https://www.coherent.com

About Mitsubishi Electric's Power Semiconductor Business

Mitsubishi Electric has positioned its power device business as a key growth driver capable of contributing to a more sustainable world through decarbonization. The company's power semiconductor products help to realize significant energy savings in a wide range of fields, including automobiles, home appliances, industrial equipment and traction motors. Going forward, Mitsubishi Electric expects to continue make timely investments in the power semiconductor business to support the company’s solid business growth.

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About Mitsubishi Electric Corporation

With more than 100 years of experience in providing reliable, high-quality products, Mitsubishi Electric Corporation (TOKYO: 6503) is a recognized world leader in the manufacture, marketing and sales of electrical and electronic equipment used in information processing and communications, space development and satellite communications, consumer electronics, industrial technology, energy, transportation and building equipment. Mitsubishi Electric enriches society with technology in the spirit of its “Changes for the Better.” The company recorded a revenue of 5,003.6 billion yen (U.S.\$ 37.3 billion*) in the fiscal year ended March 31, 2023. For more information, please visit www.MitsubishiElectric.com

*U.S. dollar amounts are translated from yen at the rate of ¥134=U.S.\$1, the approximate rate on the Tokyo Foreign Exchange Market on March 31, 2023