

Press Information

Kyocera presents its products at The Advanced Ceramics Show 2024

Kyocera will exhibit a wide range of semiconductor components, fineceramic and automotive components at the exhibition and conference taking place on May 15-16 in Birmingham, UK.

Kyoto/London, 8th May 2024. In 2024, Kyocera will once again participate at The Advanced Ceramics Show 2024 (Booth 1807). In order to enter different key markets, the company's divisions Fineceramics (KYOCERA Fineceramics Europe GmbH), Semiconductor Components (SC) and Automotive will present several products and innovations at the trade fair in order to contribute to an easier and more efficient life.

Kyocera aims to underline its presence in the following key markets by developing high performance products and solutions continuously:

1. Semiconductor Components
2. Fineceramic Components (KYOCERA Fineceramics Europe GmbH)
3. Automotive Components

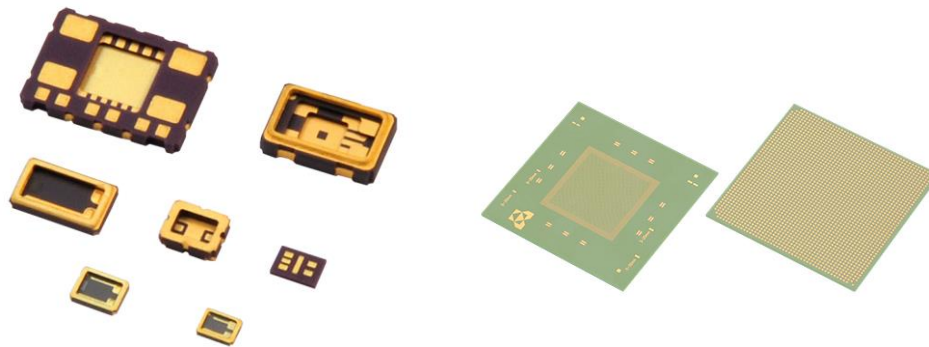
1. Semiconductor Components

Due to the fact that the demand for semiconductor components is still expected to keep rising in different fields, Kyocera focuses on the development of solutions and products that can be used in almost every surroundings. The company therefore develops solutions for the following fields:

- **Quantum Technologies:** [Quantum Technologies](#) are made for computing, sensing and secure communication. At the moment, the technology's development is in an early stage, but scientists see the potential in industries such as the financial sector, in pharmaceutical or medical applications as well as in the automotive and chemical fields. A qubit, the basic unit of quantum information, processes information in a fundamentally different way than a binary bit. With qubits, more complex as well as faster calculations are possible. Additionally, ultra-high sensitive measurements of magnetic fields can be made. For the quantum technology industry, Kyocera offers both high performance ceramics as well as assembly solutions.
- **Aerospace:** [Aerospace](#) applications require circuitry and have to work responsibly, even in special environments. The company's ceramic packaging offers the advantage of hermeticity, stable dielectric properties as well as loss-loss interconnects in a mechanically robust 3D or planar structure. As with other high-reliability electronics,

aerospace applications now and in the future will require increased functional integration and better power management over a much broader range of frequencies.

- **Data Transfer:** Connectivity needs fast and reliable [data transfer](#) to deploy its vast possibilities. Industrial IoT, connected healthcare services and autonomous vehicles can only be realized with real-time and secure wireless and wired data transfer technologies. Kyocera's wide product range as well as their components contribute to improved data highways, for example, optical fibre Ethernet as well as 5G and 6G Millimetre Wave technology.
- **Sensor Packaging:** Kyocera clients have the possibility to upgrade their specifications and sensing performance with the help of the company's packaging solutions.



Semiconductor Components: MEMS sensor packages and LTCC material for faster data transfer

- **High class and low cost ceramic technology:** Kyocera offers a variety of packages in order to meet market demands and full support of high design technology aiming to provide optimized packaging solutions for the individual requirements of every client. For example, a thinner, smaller surface mount type leadless package, as well as other customized design structures are available for [MEMS](#) which have an open air cavity structure or other specifications. The MEMS sensors are used in the Automotive sector, for example in the Electronic Stability Control (ESC) or in the Advanced Driver Assistance Systems (ADAS), and in the consumer field, for example in wearable devices or 3D virtual reality.

2. Fineceramic Components (KYOCERA Fineceramics Europe GmbH)

In the fine ceramics sector, Kyocera is continuously improving its product range and variety in order to present high performance solutions for almost every field.

- **Industrial:** Due to their superior material properties, advanced ceramics have an enormously diverse variety of applications. Furthermore, another advantage is that acids,

alkalis as well high temperatures do not cause problems for technical ceramics. Whereas metals as well as plastics have their limits, or where these limits are exceeded, Kyocera's [high-performance ceramics for mechanical and plant engineering](#) stand out from other materials.

- **Mixing Grinding Products:** Due to their excellent corrosion resistance, high-performance ceramics can be used with acids, alkalis and solvents. This means that companies in the [chemical industry](#) can make their production processes even more efficient thanks to high-quality, technical ceramic components. Furthermore, Kyocera's advanced ceramics stand for their enormous reliability.
- **Semiconductor Industry:** Kyocera offers various high-quality products for the [semiconductor industry](#), from single-crystal-sapphire parts and metallised ceramics to monolithic large-scale components.

3. Automotive Components

Kyocera's aim is to develop responsible innovations making the world easier and more efficient. Therefore, the company is working amongst others in the following industries:

- **Heaters:** Kyocera's [ceramic heater](#) is widely used in industrial as well as in automotive applications. Over the years, the company has perfected its ceramic lamination technology and uses more than 30 years of experience in order to deliver robust quality heaters with outstanding performance. The highly reliable ceramic heaters allow customers to minimize the size of the heater while maintaining maximum wattage to support a rapid heating rate. Kyocera works with each customer to provide open-source tools or customized designs in order to meet their client's unique performance needs.
- **Solid Oxide Fuel Cell (SOFC):** In this year's edition of The Advanced Ceramics Show, Kyocera exhibits their [Solid Oxide Fuel Cell stack \(SOFC\)](#), a highly energy-efficient power generation system which is able to generate energy by chemically reacting fuel (hydrogen) and oxygen and is also able to supply energy as heat. Kyocera has engaged in the development of miniaturized SOFC technologies since 1985 and succeeded in installing their SOFC cell stack on the world's first residential SOFC in 2011. Now, Kyocera's SOFC will be available in the European market. In Japan, more than 200,000 units of the product have been sold since 2012. Since mass production started in 2011, Kyocera has continuously improved their SOFC and has achieved further miniaturization with the 3rd generation product.



Automotive: Solid Oxide Fuel Cell (SOFC)-stack

- **Piezo Products:** [Piezoelectric ceramic elements](#) have a unique characteristic whereby the element elongates or vibrates when an external voltage is applied, similar to how it generates electricity when external pressure is applied. Kyocera's piezoelectric elements transform and vibrate at levels of nanometres to micrometres level in less than a microsecond and repeat such movement rapidly and accurately, even in tough operating conditions, such as in a car. Conversely, when the piezo device receives mechanical pressure, it is converted to electricity, which becomes a signal and is used for a sensor or detector.

Overview – Kyocera at The Advanced Ceramics Show 2024

Show	The Advanced Ceramics Show 2024
Date	15 th and 16 th May 2024
Location	Birmingham, UK
Kyocera's booth	NEC Birmingham, UK Booth 1807

About The Advanced Ceramics Show 2024

[The Advanced Ceramics Show](#) is Europe's largest annual exhibition and conference regarding the technical ceramics supply chain. It is a free-to-attend exhibition and conference bringing together a highly focused audience from industry, academia and commercial R&D involved in the latest technical ceramic solutions. The show is a melting pot for specialists from industries like aerospace, energy, automotive, chemicals, electronics, medical and defence. Furthermore, the exhibition and conference is co-located with The Advanced Materials Show, the Battery Cells & Systems Expo and the Vehicle Electrification Expo. Taking place in May 2024, all four exhibitions will attend over 300 exhibitors and more than 4,000 visitors.



For more information on Kyocera: uk.kyocera.com

About Kyocera

Kyocera has been successful in Europe for over 50 years. From its European headquarters in Esslingen am Neckar, KYOCERA Europe GmbH operates 26 sites including manufacturing facilities, with products ranging from fine ceramics, electronics, automotive, semiconductor and optical components to industrial tools, LCDs, touch solutions, industrial printing components, solar systems and consumer goods such as kitchen and office products.

KYOCERA Europe GmbH is a company of the KYOCERA Corporation headquartered in Kyoto/Japan, a world leader in semiconductor, industrial and automotive components as well as electronic components, printing and multifunction systems, and communications technology. The technology group is one of the world's most experienced manufacturers of smart energy systems, with more than 45 years of industry expertise. The Kyocera Group comprises 292 subsidiaries (31 March 2024). In England, Kyocera has a subsidiary in Frimley, KYOCERA Fineceramics Ltd. With around 79,200 employees, Kyocera generated net annual sales of around EUR 12.29 billion in the 2023/2024 fiscal year.

Kyocera is ranked 672 on Forbes magazine's 'Global 2000' list for 2023, and ranked as 'The 100 Most Sustainably Managed Companies in the World' according to the Wall Street Journal. For the second year in a row, Kyocera qualified for the Dow Jones Sustainability Index (Asia-Pacific). As well, Kyocera receives a Gold rating on EcoVadis Sustainability Survey for the second consecutive year and was acknowledged as a 'Top 100 Global Innovator 2023', being one of the world's leading innovators, for the eighth time by Clarivate.

The company also takes an active interest in cultural affairs. The Kyoto Prize, a prominent international award, is presented each year by the Inamori Foundation — established by Kyocera founder Dr Kazuo Inamori — to individuals worldwide who have contributed significantly to the scientific, cultural, and spiritual betterment of humankind (equivalent to approximately €596,500 per prize category).

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