

TAIYO YUDEN CO., LTD.

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TAIYO YUDEN

Company Profile



**Propelling the Times Forward
through Advanced Creativity**



K. Sase

Katsuya Sase
Representative Director, President and CEO

TAIYO YUDEN is an electronic components manufacturer that was founded in 1950. We are engaged in research and development, production, and sales of various electronic components such as capacitors, inductors, and FBAR/SAW devices, and are expanding our business globally.

To provide products that meet the needs of our customers and society, we firmly believe in creating products starting from the development of materials. As a result, our products have been highly rated in a wide range of fields, including electronic devices such as smartphones and tablets, automobiles which are rapidly being transformed by IT and electronics technology, and information infrastructure and industrial equipment.

As stated in our management philosophy, TAIYO YUDEN is committed to building mutually beneficial relationships with our stakeholders. With our advanced technological capabilities and "wonders of science" that we have cultivated since our founding, we are supporting the evolution of electronics technology, which is indispensable for people's safe, secure, comfortable, and convenient lives.

We sincerely appreciate your continued support.

Mission

**Stronger and more socially aware through
the wonders of science**

Management philosophy

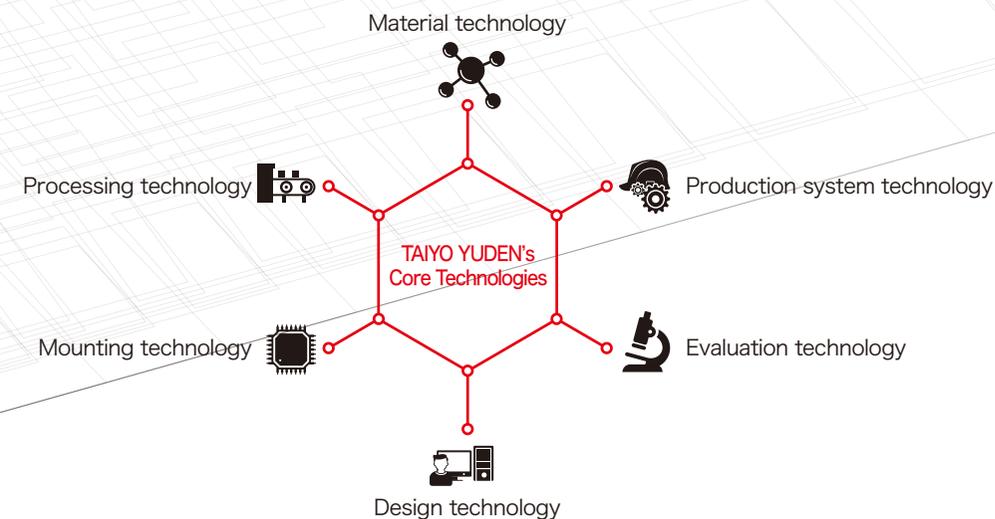
**Employee well-being
Betterment of local communities
Responsibility to provide returns to shareholders**

Vision

**To be an excellent company that enjoys the trust
and highest regard from all stakeholders**

KEY TECHNOLOGY

TAIYO YUDEN's Key Technology



Material technology

Inspiring our company name, dielectric (Japanese: yuden) materials play a key role in determining MLCC features and barium titanate is mainly used at the moment. TAIYO YUDEN is a rare MLCC manufacturer in that we make full use of sophisticated technology, such as synthesizing raw materials and particle control, to develop materials by ourselves. TAIYO YUDEN continues to this day to uphold the principle of the founder that the "commercialization of products should start from the development of materials."

Lamination technology (Processing technology)

We have continued to make MLCCs smaller but with higher capacity, helping the further miniaturization and functionality of electronic devices. The amount of electricity stored by an MLCC increases depending on the dielectric layers, so lamination technology, which examines how many layers thinned to the maximum can be piled up precisely, is the key to miniaturization and capacity enlargement. TAIYO YUDEN has sophisticated this technology and realized laminate structures of 1,000 or more layers in a tiny MLCC just a few millimeters tall.

Mastering electronic components with inimitable technology

TAIYO YUDEN has continued to develop and manufacture capacitors as the company's main product since its foundation.

Our smaller, thinner, high-capacity, and highly-reliable multilayer ceramic capacitors (MLCC) play a major role behind the scenes as components indispensable to the electronic devices that we all use in everyday life.

It is our material and lamination technologies, cultivated in the process of MLCC advancement, which form the nucleus of TAIYO YUDEN's superior technical skills, and they are widely applied also to the development and manufacturing of electronic components besides MLCC.



Excelling in all areas of society

Supporting the advancement of electronic devices, TAIYO YUDEN's products and solutions are utilized in many areas of society and the value provided by them continues to grow in scope.



BUSINESS DOMAIN

TAIYO YUDEN's Business Domain

Automobiles

As the computerization and electrification of cars advances, the number of electronic components used in a single car is continuing to increase. TAIYO YUDEN provides electronic components that satisfy the high-reliability demands of the automobile market, and supports the future of mobility and cars where "CASE" is constantly transforming.

*Four megatrends that express mobility innovations = CASE (Connected, Autonomous (automatic driving), Shared & Services, and Electric)

- Advanced Driver-Assistance Systems (ADAS)
- Meter cluster
- Electronic control unit



Communication equipment

Smartphones are becoming increasingly sophisticated and multifunctional to match the further advancement and functionality of communication technology including 5G transition. TAIYO YUDEN has been highly praised for contributing to space-saving design by offering small and high-performance leading-edge electronic components.

- Smartphones



IT infrastructure / Industrial equipment

In line with the spread of the 5th Generation Mobile Communications System (5G), the development of information infrastructures, such as base station communication equipment or servers that handle the high-speed transmission of large volumes of data, is progressing at a great pace. The electrification of industrial equipment is also advancing and the growth of the medical sector and robot market cannot be overlooked.

- Base station communications equipment
- Servers
- Security cameras



Information equipment

TAIYO YUDEN's electronic components are widely applied to the electronic equipment that we use in our everyday lives including information equipment such as PCs and tablets and consumer products like TVs, game machines, and smart watches.

- Tablet devices
- PCs
- HDD, SSD



- TVs
- Game consoles
- Smart watches



PRODUCT LINEUP

TAIYO YUDEN's Product Lineup

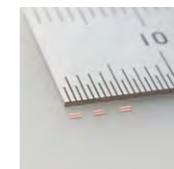
Capacitors

Capacitors are installed in a wide range of electronic devices. They fulfill the functions of temporarily storing electricity and removing noise.

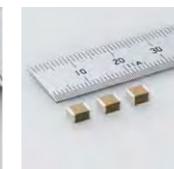
◎Multilayer ceramic capacitors



Ultra-small multilayer ceramic capacitor
0.25mm×0.125mm



Ultra-thin multilayer ceramic capacitor
0.6mm×1.0mm
Thickness: 0.064mm

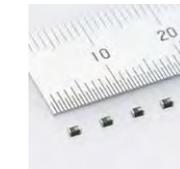


High capacitance multilayer ceramic capacitor
4.5mm×3.2mm
Capacitance: 1,000 μ F

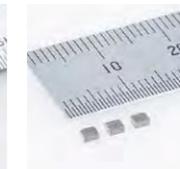
Inductors

Making use of the property to pass direct current but not alternating current, inductors are used in the power circuits of electronic equipment.

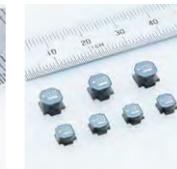
◎Wire-wound inductors ◎Multilayer inductors



Metal multilayer power inductor
MCOIL™



Metal wire-wound power inductor
MCOIL™

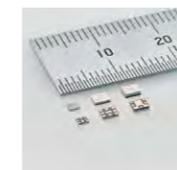


Ferrite power inductors

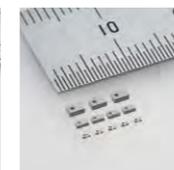
Integrated modules & devices

Main mobile communication devices support high-speed and high-quality communication in smartphones.

◎FBAR/SAW devices for mobile communications ◎Circuit modules



FBAR/SAW devices for mobile communications



Multilayer ceramic filters



Regenerative electric assist system

Others

We also have a lineup of products suitable for installation in increasingly computerized automobiles.

◎Aluminum electrolytic capacitors ◎Power storage devices



Conductive polymer hybrid aluminum electrolytic capacitors



Electric double-layer capacitors

Exceeding electronic component expectations and ideals

We have a wide and varied lineup of industry-leading electronic components that harness the advanced technical strengths of TAIYO YUDEN. These range from increasingly small and high-capacity multilayer ceramic capacitors to small and high current power inductors, and high-performance mobile communications devices.

Picturing a sustainable future

SDGs (sustainable development goals) were selected at the United Nations of 2015 as joint goals of the international community. To achieve some of those goals aiming for a prosperous and vigorous future, TAIYO YUDEN has been taking concrete action by, for example, working to reduce its environmental footprint, and developing and supplying products and providing solutions that help to tackle social problems.



TAIYO YUDEN's Materiality (Key issues) and SDGs Targets

Category	Materiality	SDGs Targets
Economic value	<ul style="list-style-type: none"> Strengthen core technologies to make our core business grow Create solutions to solve social issues 	
Social value Environment	<ul style="list-style-type: none"> Strengthen measures to address climate change Use resources effectively and contribute to create recycling society 	
Social value Society	<ul style="list-style-type: none"> Achieve health-oriented management and work style reforms at safety first workplace Train and develop human resources based on the diversity policy 	
Social value Governance	<ul style="list-style-type: none"> Improve management quality to support business growth Establish and evolve BCM for disaster and infectious disease 	

SDGs Case Study

Reducing energy through miniaturization of electronic components



As a main product of TAIYO YUDEN, we are conducting research on a daily basis to further miniaturize while increasing the functionality of multilayer ceramic capacitors (MLCCs). There is a growing need for MLCCs to evolve in concert with the increasing miniaturization, functionality and power-saving qualities of electronic devices.

While supporting the advancement of electronic technology by miniaturizing MLCCs, TAIYO YUDEN has been striving to make a social contribution by cutting the amount of used raw materials and packaging materials and the amount of energy used for production and transportation.



Efforts to reduce GHG emissions



In order to realize carbon neutrality by 2050, TAIYO YUDEN has set a mid-term goal to reduce GHG emissions. To achieve this goal, we are endorsing the TCFD (Task Force on Climate-related Financial Disclosures) recommendations and disclosing information in line with TCFD recommendations based on the implementation of energy conservation, energy creation, and energy recovery, and we are also installing solar panels at domestic and overseas sites, etc. We will convert 100% of the electricity used at the R&D Center to renewable energy from the 2024 fiscal year.



Global development, production and supply systems

The TAIYO YUDEN Group has built a network of global bases covering Japan and other parts of Asia, as well as North America and Europe. Building an integrated system to cover all process from the development to the production and sale of electronic components means that we can speedily and flexibly meet customers' requests.

Japan

TAIYO YUDEN CO., LTD.

- ★ Head Office [Chuo-ku, Tokyo]
- ★ Takasaki Global Center [Takasaki-shi, Gunma]

[Sales Offices]

- Sendai Sales Office
- Metropolitan Sales Office
- Gunma Sales Office
- Nagoya Sales Office
- Osaka Sales Office
- Fukuoka Sales Office

[Manufacturing and Development Bases]

- Haruna Plant [Takasaki-shi, Gunma]
- Nakanajo Plant [Agatsuma-gun, Gunma]
- Tamamura Plant [Sawa-gun, Gunma]
- Yawatabara Plant [Takasaki-shi, Gunma]
- ◆ R&D Center [Takasaki-shi, Gunma]
- ◆ Shin-Kawasaki Center SOLairoLab [Kawasaki-shi, Kanagawa]

[Subsidiaries]

- TAIYO YUDEN CHEMICAL TECHNOLOGY CO., LTD. [Takasaki-shi, Gunma]
- TAIYO YUDEN TECHNO SOLUTIONS CO., LTD. [Takasaki-shi, Gunma]
- FUKUSHIMA TAIYO YUDEN CO., LTD. [Date-shi, Fukushima]
- NIIGATA TAIYO YUDEN CO., LTD. [Joetsu-shi, Niigata]
- TAIYO YUDEN ENERGY DEVICE CO., LTD. [Nishishirakawa-gun, Fukushima]
- WAKAYAMA TAIYO YUDEN CO., LTD. [Hidaka-gun, Wakayama]
- ◆ TAIYO YUDEN Mobile Technology Co., Ltd. [Ome-shi, Tokyo]
- ★ ELNA CO., LTD. [Chuo-ku, Tokyo]
- Sun Vertex Co., Ltd. [Takasaki-shi, Gunma]
- Kankyo Assist Co., Ltd. [Takasaki-shi, Gunma]



● Sales offices ■ Manufacturing bases ◆ Development bases ★ Headquarters ○ Others

Asia

- KOREA TAIYO YUDEN CO., LTD. [Seoul, Korea]
- KOREA KYONG NAM TAIYO YUDEN CO., LTD. [Sacheon, Korea]
- ★ TAIYO YUDEN (CHINA) CO., LTD. [Suzhou, China]
- TAIYO YUDEN (SHANGHAI) TRADING CO., LTD. [Shanghai, China]
- Beijing Office
- Tianjin Office
- Suzhou Office
- Wuhan Office
- TAIYO YUDEN (CHANGZHOU) CO., LTD. [Changzhou, China]
- TAIYO YUDEN (SHENZHEN) ELECTRONICS TRADING CO., LTD. [Shenzhen, China]
- Xi'an Office
- Chengdu Office
- Xiamen Office
- TAIYO YUDEN (GUANGDONG) CO., LTD. [Dongguan, China]
- TAIWAN TAIYO YUDEN CO., LTD. [Taipei, Taiwan]
- HONG KONG TAIYO YUDEN CO., LTD. [Hong Kong]
- ★ TAIYO YUDEN (SINGAPORE) PTE. LTD. [Singapore]
- TAIYO YUDEN TRADING (THAILAND) CO., LTD. [Thailand]
- TAIYO YUDEN (PHILIPPINES), INC. [Philippines]
- TAIYO YUDEN CO., LTD. [Philippines]
- Manila Representative Office [Philippines]
- TAIYO YUDEN (MALAYSIA) SDN. BHD. [Malaysia]
- Kuala Lumpur Office [Malaysia]
- Penang Office [Malaysia]
- TAIYO YUDEN (SARAWAK) SDN. BHD. [Malaysia]

North America

- ★ TAIYO YUDEN (U.S.A.) INC. [United States]
- Chicago (Sales Headquarters) Office [United States]
- San Diego Office
- San Jose Office
- Dallas Office
- Boston Office

Europe

- ★ TAIYO YUDEN EUROPE GmbH [Germany]
- UK Office [United Kingdom]
- Scandinavia Office [Sweden]



TAIYO YUDEN Group details
<https://www.yuden.co.jp/or/company/globalnetwork/>

Source of creating countless “world firsts”

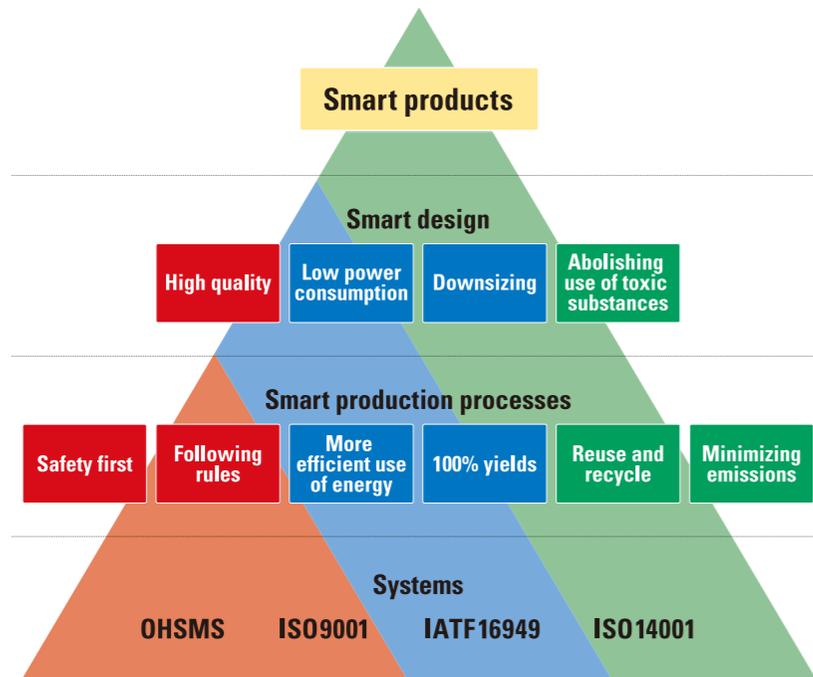
Since our founding, research and development (R&D) have formed the basis of TAIYO YUDEN's growth as a company with the long-term principle of creating new products from the material development stage. Technological innovation by R&D is seen as the source of creating the TAIYO YUDEN Group's future and we are actively working to create key products and new business. In addition, our research covers topics ranging from material development to the domain of manufacturing process technology which determines product performance, and we are constantly aiming to innovate further.

“Smart product” development system

TAIYO YUDEN is actively seeking to develop products that are not only environmentally-conscious, but also cut out the 3Ms (Japanese: “muda,” “mura,” and “muri” – translated as “wastefulness,” “inconsistency” and “overburden”) in the entire product lifecycle spanning from design to manufacture, sale, installation in the end product, and disposal. Such products are defined as ‘smart products’.

We firmly believe that realizing an even higher level of smart products through R&D will lead us to “become an excellent company that enjoys the trust and highest regard from all stakeholders”.

To be an excellent company that enjoys the trust and highest regard from all stakeholders



TAIYO YUDEN's innovative and creative journey

Since our founding, TAIYO YUDEN has focused firmly on the advancements of constantly changing electronic equipment, and created and provided a succession of products and new value in line with market demands. Our passion of creating value that builds a prosperous society is something that continues to the current day.

