



COMPANY PROFILE 2020



Contributing to change in digital and energy transformation and creating new social value

TDK was founded in 1935 to commercialize ferrite, a magnetic material. The innovation of TDK's founder created great value to the world that had not existed before. He believed strongly in the potential of ferrite and built a venture business with origins at the Tokyo Institute of Technology even though the new material's wide-ranging uses were yet to be discovered.

TDK has continued to create products with originality and a high level of value through manufacturing excellence —Monozukuri— making use of the five core technologies of materials technology starting with ferrite; process technology to maximize all of a material's properties; evaluation and simulation technology; product design technology; and production technology. Today, TDK offers its excellence in manufacturing across a range of product groups, including capacitors, inductors, transformers, sensors, actuators, magnetic heads, magnets, power supplies, batteries, and many types of electronic components and electronic devices.

Today, with historic changes being brought by digital transformation (DX) utilizing IoT and AI and energy transformation (EX) through the expansion

of renewable energy and other technologies, the importance of electronic components and electronic devices is greater than ever before. With our focus on our priority markets in automotive, information and communication technology (ICT), and industrial and energy, TDK will contribute to achieving DX and EX in society.

TDK has more than 200 sites in over 30 countries and regions around the world, with more than 100,000 employees. About 90% of those employees work at sites outside of Japan, and the rich diversity of our personnel is one of TDK's greatest strengths. We will leverage that strength in our use of global human resources and global governance systems to ensure the success of our growth strategy.

Our commitment to benefiting the world and contributing to society has been handed down as part of our corporate DNA since our founding, and we are actively working to achieve the Sustainable Development Goals (SDGs) adopted by the United Nations in 2015. To realize a sustainable society even in the post-coronavirus age, TDK will contribute to DX and EX, helping to create new social value.

President & CEO
Shigenao Ishiguro



Corporate Principles

VISION

Always take a new step forward with a vision in mind.
Creation and construction are not born without vision.

COURAGE

Always perform with courage.
Performing power is born by confronting contradiction and overcoming it.

TRUST

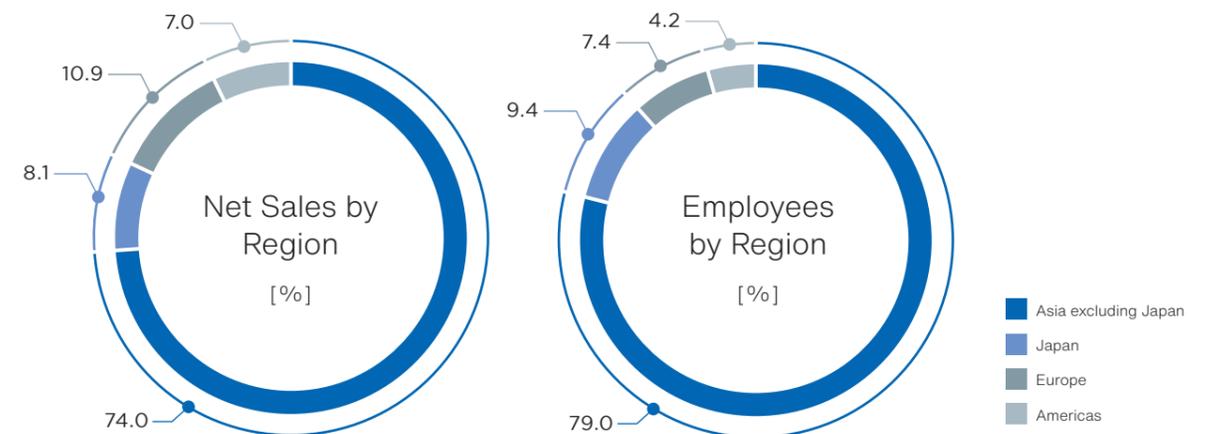
Always try to build trust.
Trust is born from a spirit of honesty and service.

General Outline of TDK

(Fiscal year ending March 31, 2020)

Corporate Name	TDK Corporation
Corporate Headquarters	2-5-1 Nihonbashi, Chuo-ku, Tokyo, Japan
Date of Establishment	December 7, 1935
Authorized Number of Shares	480,000,000 shares
Number of Shares Issued	129,590,659 shares
Number of Shareholders	21,922
Common Stock	32,641,976,312 yen
Securities Traded	Tokyo Stock Exchange
Consolidated Net Sales	1,363.0 billion yen
Consolidated Net Income	57.8 billion yen
Consolidated Number of Employees	107,138
Corporate Ratings *	A3 (Moody's), A - (Standard & Poor's), A+ (R & I)
Short-term Bond *	A-2 (Standard & Poor's)

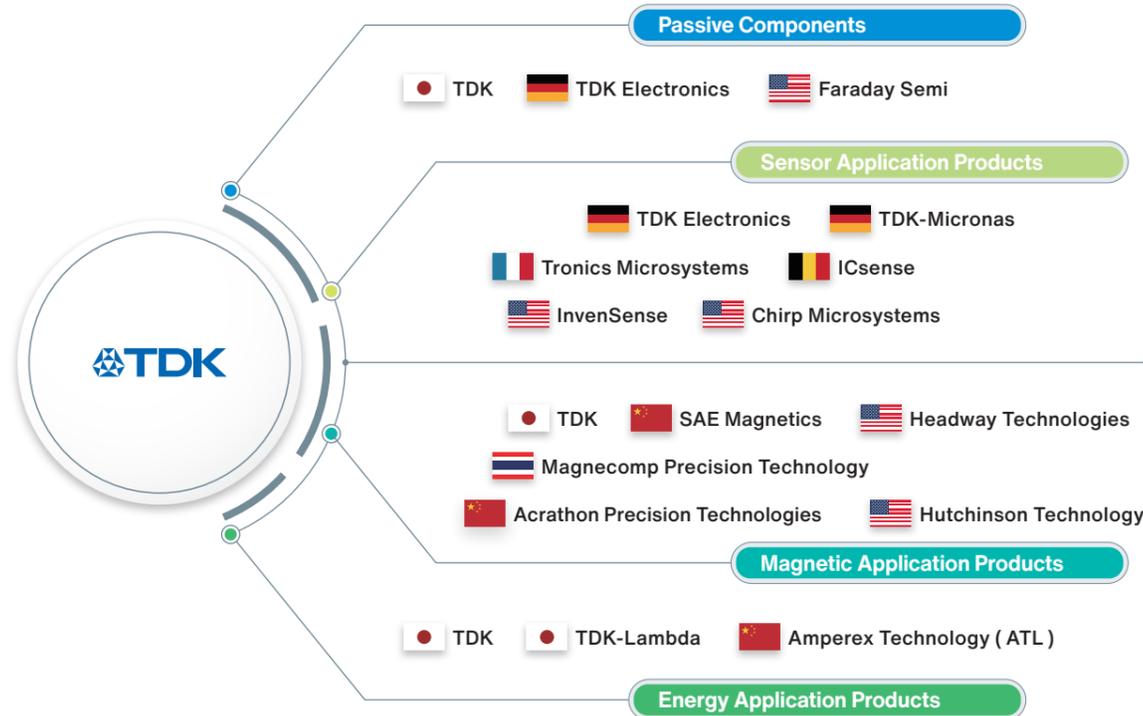
(* as of May 2020)



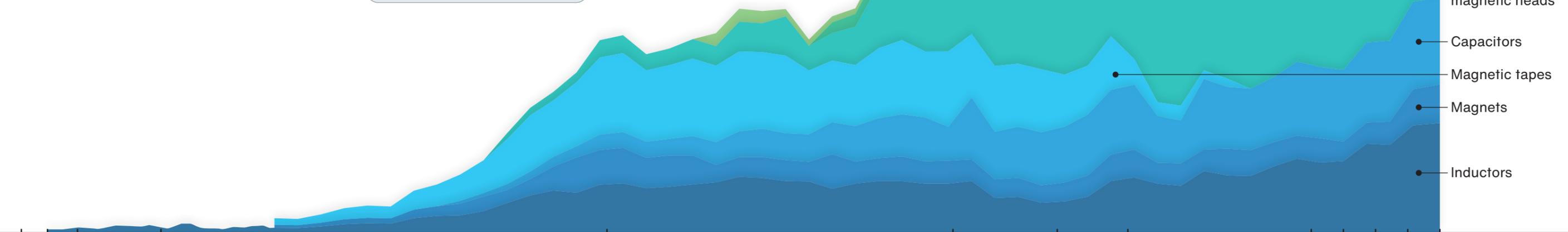
Constant value creation

— Continuing to supply valuable products and grow in changing markets —

Main Businesses & Group Companies



Constantly searching for new frontiers, the world of electronics has achieved dramatic evolution through the ages. In response to the changing times, TDK has consistently promoted technological innovation so as to supply products that meet the needs of society, applying and developing proprietary core technologies centered on ferrite-based materials technology and process technology. In addition, through proactive mergers and acquisitions, TDK has positively tackled the transformation of our main business portfolio and made efforts to expand new technologies in anticipation of future social demands. Such unique business development has been the driving force behind TDK's continued supply of valuable products and continued growth in changing markets over more than eight decades.



1935 1960 1961 1965 1970 1980 1986 1990 2000 2005 2008 2010 2016 2017 2018

Establishes TDK Electronics Corporation, a local subsidiary in New York (with manufacturing and sales sites later established around the world)
 TDK shares listed on the First Section of the Tokyo Stock Exchange

SAE Magnetics, a magnetic head manufacturer, joins the TDK Group

Headway Technologies, a magnetic head manufacturer, joins the TDK Group

ATL, a manufacturer and seller of rechargeable lithium polymer batteries, joins the TDK Group
 Lambda Power Group, the power supply business of Invensys plc, joins the TDK Group

Micronas, a developer and manufacturer of magnetic sensors, joins the TDK Group
 Hutchinson, an HDD suspension manufacturer, joins the TDK Group
 Tronics, a MEMS* inertial sensor specialist company, joins the TDK Group

EPCOS, an electronic device manufacturer, joins the TDK Group

Chirp Microsystems, a Time-of-Flight MEMS sensor specialist company, joins the TDK Group
 Faraday Semi, a developer of 3D embedded power solutions, joins the TDK Group

ICsense, an Application Specific Integrated Circuit (ASIC) development and custom IC design company, joins the TDK Group
 InvenSense, a company with an extensive portfolio of MEMS and other sensor products, joins the TDK Group

Ferrite was invented in 1930 by Drs. Yogoro Kato and Takeshi Takei of the Department of Electrochemistry at the Tokyo Institute of Technology. TDK was founded in 1935 to develop industrial methods of producing ferrite.



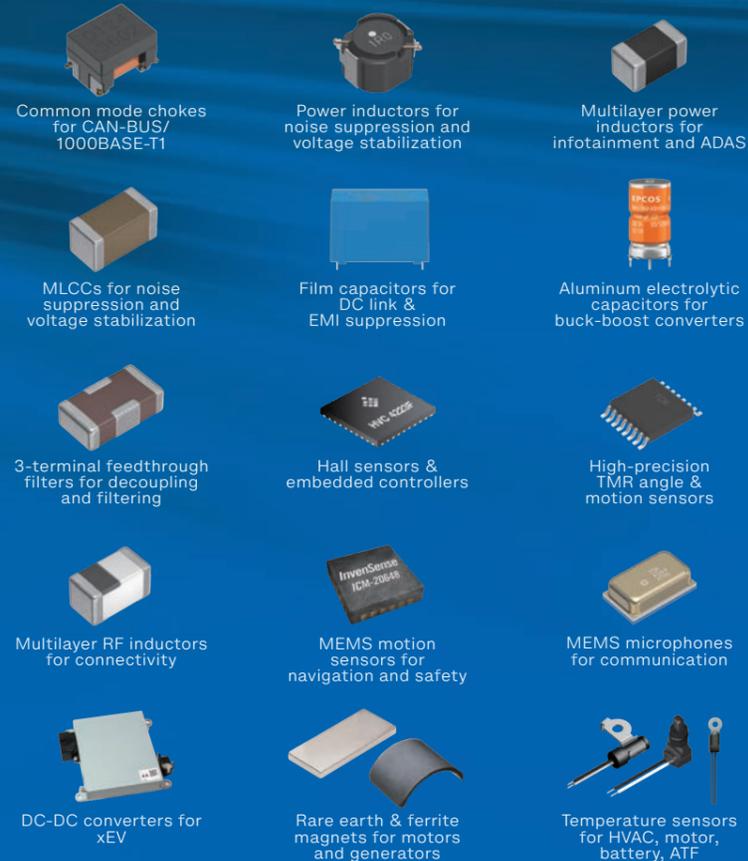
*MEMS = Micro Electro Mechanical Systems
 • This graph is an artistic impression of TDK's transition, including its business and M&As

TDK's three focus markets and main products

AUTOMOTIVE

Supporting safe and environment-friendly "connected cars"

The world of automotive electronics keeps climbing to new levels of safety, comfort, and environmental compatibility. Limiting the volume of exhaust gas from automobiles is key to solving the serious problem of carbon dioxide emissions. This necessitates the rapid electrification, such as xEVs (hybrid, plug-in hybrid, and battery electric vehicles). In addition, the "connected car," which is constantly linked to the Internet, will enable the realization of advanced driver assistance systems (ADAS) and autonomous driving to further improve safety, accuracy, and comfort. TDK provides a wide range of electronic components and devices to assist the electrification and connectivity of automobiles. TDK's highly reliable products, ideal for automotive use, will support both the safety of automobiles and environmental countermeasures.



ICT

For the realization of an ultra-high speed, large-capacity network society

As well as being advanced information tools with not only mobile phone but also personal computer, camera, and other functions, smartphones are also increasingly used to connect and control smart homes, cars, and factories. Because of the arrival of ultra-high speed and large-capacity telecommunications like LTE and 5G, smartphones have evolved into key devices of the IoT society, even faster and connected to all kinds of things. Moreover, 5G is going to change our whole lives, beginning with the fields of transport,

medical, and logistics. TDK's products are essential to the new ultra-high speed, large-capacity network society. Our electronic components and sensors utilizing TDK's proprietary core technologies further support smartphone evolution. Our high reliability electronic components, such as RF components and products for power supply will contribute to the development of such telecommunications infrastructure as base stations and servers, the foundations of 5G.



INDUSTRIAL & ENERGY

Toward a sustainable society

One of the key challenges for humankind in the 21st century will be to effectively utilize limited resources to build an affluent society while reducing the adverse environmental impact, such as carbon dioxide emissions, as much as possible. Renewable energy systems, such as wind and solar power installations, have gained momentum as viable sources of clean energy.

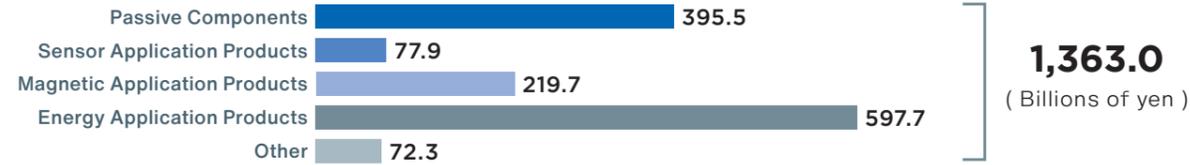
The industrial equipment and rail transport industries also are required to pursue higher efficiency and lightness for the effective utilization of energy. TDK is harnessing its unique materials and process technologies to provide key devices to these sectors and thereby contribute to the realization of a sustainable and smart society.



TDK's versatile product lineup

* The product lineup logomarks indicate product brands

Net sales by segment (Fiscal year ending March 31, 2020)



Passive Components

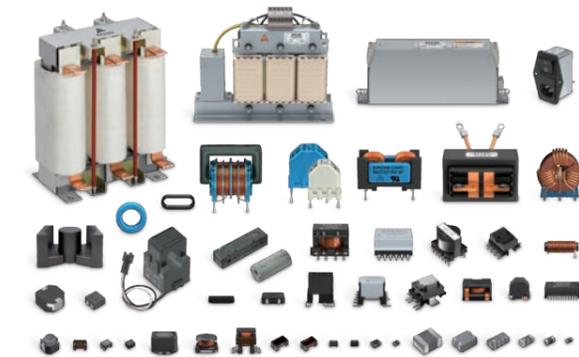
Ceramic capacitors

Used for noise suppression and signal processing in a wide range of electronic devices indispensable for daily life. More than 3,000 multilayer ceramic chip capacitors, the most commonly used type of ceramic capacitors, can be found in a single automobile, and use is expected to increase even further in the future.



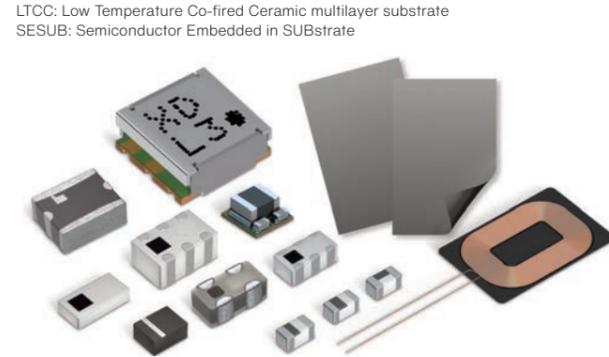
Inductive devices

The lineup includes inductors of different types including wire-wound, multilayer, and thin-film, as well as transformers and noise countermeasure components. These contribute significantly to fuel economy in cars, higher efficiency in communication systems, as well as higher sensitivity and longer battery life in smartphones.



High-frequency components

TDK supplies high-frequency components and modules based on advanced technologies such as LTCC technology, thin-film technology, ferrite material technology and SESUB technology. Ongoing development of new products in this area contributes to the world's most advanced mobile devices.



LTCC: Low Temperature Co-fired Ceramic multilayer substrate
SESUB: Semiconductor Embedded in SUBstrate



Piezoelectric material products, circuit protection devices

Piezoelectric materials application products such as the piezo actuators which are minute, and are available for high-precision drives. Other key items in this area are circuit protection devices such as varistors and arrestors.



Aluminum electrolytic capacitors and film capacitors

Aluminum electrolytic capacitors feature high capacitance and come in various types, such as large products for industrial equipment, higher liability axial lead types for automotive applications, etc. Film capacitors have high voltage and low loss characteristics and are used in many different applications.



Sensor Application Products

Sensors

The lineup includes temperature sensors, pressure sensors, gear tooth sensors, current sensors and various other sensors that are essential for realizing multifunction capability in electronic devices, improving the functionality of automotive electronics, and driving progress in factory automation and office automation. Furthermore, TDK offers a variety of motion sensors including acceleration and gyro sensors, along with ultrasonic Time-of-Flight, atmospheric pressure sensors and similar, providing added value to ICT and industrial applications.



Magnetic Application Products

HDD magnetic heads and suspensions

TDK's high-performance magnetic heads have continuously supported increases in HDD recording capacity for many years. TDK will continue contributing to even higher recording capacities by new magnetic head technologies that incorporate energy assist recording methods.



Magnets

In addition to ferrite magnets and neodymium magnets, TDK also offers rare earth free magnets. These contribute to energy and resource conservation and higher efficiency in the automotive sector as well as infrastructure and industrial equipment.



Energy Application Products

Energy devices

TDK contributes to the storage of electrical energy in many instances, ranging from low-profile batteries in tiny devices such as smartphones to the massive high-capacity batteries of solar power generation systems.



Power supplies

Designed mainly for industrial equipment, the lineup includes AC-DC switching power supplies, programmable power supplies, DC-DC converters, and power supplies for charging storage batteries. Automotive power supplies for xEV are also available.



Other

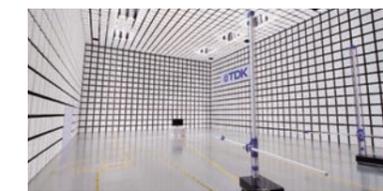
Flash memory applied devices

TDK supplies solid state drives (SSDs) and CompactFlash cards with proprietary memory control chips for industrial use. For example, these can be found in communication base stations and traffic control systems, providing support for the age of Big Data.



Anechoic chambers

Anechoic chambers from TDK have gained an excellent reputation around the world as top-level tools for measurement accuracy, efficiency, and reliability. TDK also offers EMC solutions comprising highly accurate EMC measurement services to support effective noise countermeasures.



Factory automation equipment

TDK's expertise in mechatronics gained in the production of outstanding electronic components is available in the form of production equipment. We provide Load Ports for various wafer sizes and Flip Chip Bonding Systems as well as a range of other advanced factory automation equipment.



Five-fold core competence for creating cutting-edge electronic components

Ever since its beginnings rooted in the magnetic material ferrite, TDK has strengthened its base by moving forward, exploring multilayering and thin-film techniques. Now, we are researching spintronics technologies for future applications. In the quest to further expand the potential of magnetism on the nanometer level, TDK is harnessing the five core technologies outlined here.

5 CORE TECHNOLOGIES

Process

“Process technology” realizes control on the nanometer level

Process technology is the science of getting the best out of the characteristics of the material. Thin-film technology and spintronics are just two examples where manipulation on the order of nanometers is employed to create state-of-the-art electronic components. For example, thin-film technology is applied for the formation of electrodes, coils, and head elements on wafers to produce HDD heads, sensors, actuators, and similar products.

Analysis & Simulation

“Analysis & simulation technology” is applied to accurately analyze ultra-fine aspects of a process.

Even the most advanced materials and process technology would not lead to successful product development without accurate and trustworthy analysis and simulation techniques. Starting from material analysis, TDK evaluation and simulation technology is widely applied to assess structural and thermal aspects, analyze electromagnetic field properties, and perform noise measurement and design noise countermeasures using an anechoic chamber.

Production

“Production technology” : Outstanding facilities developed and manufactured in-house

Excellent products can only come from excellent manufacturing facilities. TDK not only develops innovative manufacturing techniques but realizes these by building much of the required equipment in-house. This comprehensive approach is the key to superior Monozukuri craftsmanship. We supply services meeting market needs by better quality, lower cost, shorter lead times and promoting integrated production from materials to finished products.

Product Design

Product design technology combines expertise with innovation to create new ideas

Product design uses insight into how our products are used, integrating materials and electronic components from our many product lines, to create electronic devices and modules with safe, optimal configurations. It also encompasses software design that harnesses the full features of those devices and modules. Additionally, TDK supplies energy devices which combine power conversion, storage, and energy control functions. These integrated solutions have quickly become crucial for life in a sustainable society.

Material

The culmination of over 80 years of experience and know-how: “Materials technology”

Advanced materials technology pursues the characteristics of the source material from the atom level on up, to meet highly sophisticated needs. Control of main raw material composition as well as microadditives is an effective approach for achieving specific targeted properties. In over 80 years of operation, TDK has accumulated an enormous wealth of experience and knowledge that leaves competitors far behind.



For detailed information, please see <https://www.tdk.com/corp/en/sustainability/>

Aiming to promote both a sustainable society and corporate growth

TDK Group's sustainability vision

Various issues exist in the society surrounding the TDK Group, including environmental problems, such as climate change, energy, exhaustion of resources, and social problems, such as aging and the digital divide. TDK seeks to contribute to the solution of these problems and the building of a sustainable society for future generations. As well as our fundamental stance of aiming to solve social issues through our business on the basis of our corporate philosophy, we have formulated the TDK Group's Sustainability Vision, which proclaims that by fully utilizing TDK's proprietary core technologies and solutions, we will "advance the development of a sustainable society and champion well-being for all people." We are sharing this vision throughout the Group, putting it into practice in our business, and considering and implementing specific measures toward the realization of a happy society.

TDK Group's Sustainability Vision
"Technology for well-being of all people"

TDK Group strives to restore and protect the global environment while promoting respect for human rights. Through its innovative core technologies and solutions, TDK Group advances the development of a sustainable society and champions well-being for all people.

The "Value Creation 2020" Medium-Term Plan and sustainability

In "Value Creation 2020," our Medium-Term Plan, we aim to contribute to society by creating the three values making up corporate value and, as a result, grow our business. Among these values, we believe that "Social Value" in other words, aiming to realize a sustainable society and company is the starting point of the cycle leading to the creation of "Commercial Value" and "Asset Value". By promoting our Medium-Term Plan, which explains our belief in the compatibility of sustainability and growth, we aim to simultaneously contribute to sustainability through our business and achieve corporate growth.

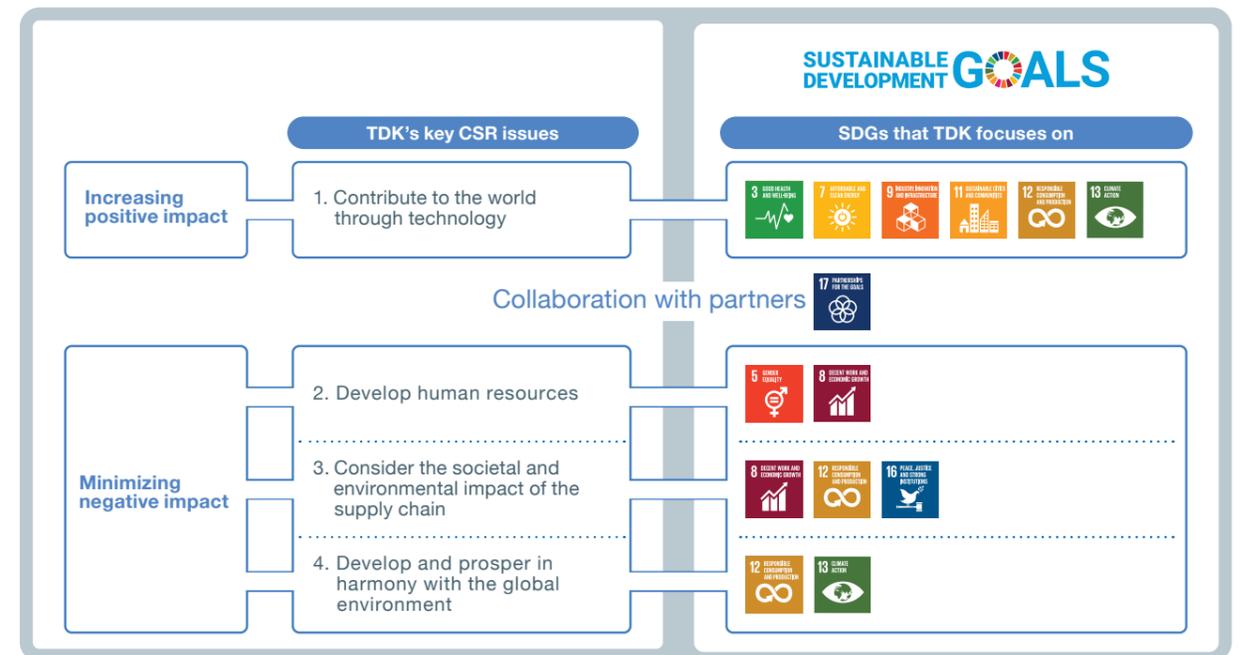


TDK's key CSR issues (Materiality)

SDGs and key CSR issues (Materiality)

The United Nations' Sustainable Development Goals (SDGs) indicate 17 goals that the whole world should work toward their achievement by 2030. TDK believes that tackling the global-scale issues stated in the SDGs

through our business will lead to the enhancement of our corporate value. Specifically, the TDK Group is addressing the SDGs by pinpointing four key CSR issues (materiality) that should be given priority.



Important themes of key CSR issues (Materiality)

In order to tackle the specified materiality and achieve definite results, the TDK Group stipulates concrete important themes. Each competent department strives to make continuous improvements by rotating the PDCA cycle for the important themes for which it is responsible.

Important themes are revised every year at the time of formulating business plans in view of social trends and other factors, with final decisions made after approval has been received from the Executive Committee.

Key CSR Issues	Important Themes
1 Contribute to the World through Technology	<ul style="list-style-type: none"> Addressing social issues by developing new kinds of products the world has not yet seen Pursue zero-defect product quality
2 Develop Human Resources	<ul style="list-style-type: none"> Develop global human resources Cultivate a corporate culture that respects diversity
3 Consider the Societal and Environmental Impact of the Supply Chain	<ul style="list-style-type: none"> Consider the work environment at manufacturing sites Consider the work environment of suppliers Responsible sourcing of minerals
4 Develop and Prosper in Harmony with the Global Environment	<ul style="list-style-type: none"> Reduce environmental load throughout life cycle stages Creating a framework for gauging product contributions

The global network of the worldwide leader in electronics



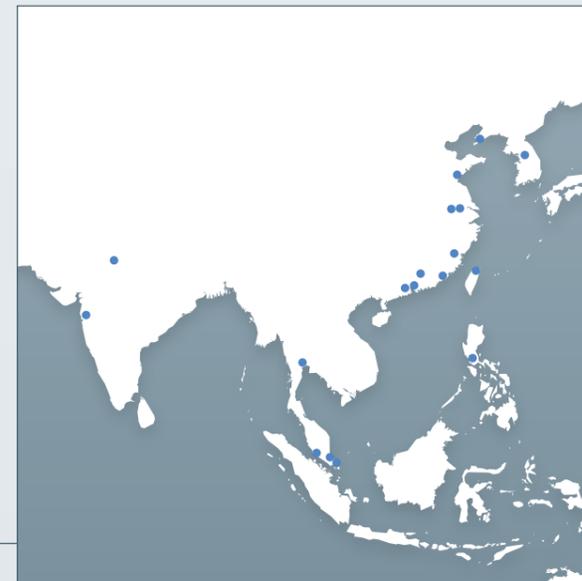
Japan

- TDK Corporation
- TDK-Lambda Corporation
- TDK Akita Corporation
- TDK Shonai Corporation
- TDK Kofu Corporation
- TDK Precision Tool Corporation
- SolidGear Corporation



Americas

- Chirp Microsystems, Inc. (U.S.A.)
- Faraday Semi, Inc. (U.S.A.)
- Headway Technologies, Inc. (U.S.A.)
- Hutchinson Technology Inc. (U.S.A.)
- InvenSense, Inc. (U.S.A.)
- TDK Components U.S.A., Inc. (U.S.A.)
- TDK Electronics do Brasil Ltda. (Brazil)
- TDK Ferrites Corporation (U.S.A.)
- TDK-Lambda Americas Inc. (U.S.A.)
- TDK RF Solutions Inc. (U.S.A.)
- TDK U.S.A Corporation (U.S.A.)
- Tronics MEMS, Inc. (U.S.A.)



China & Asia

- Acrathon Precision Technologies (HK) Ltd. (Hong Kong)
- Amperex Technology Ltd. (Hong Kong)
- Dongguan Amperex Technology Ltd. (Dongguan)
- Dongguan NVT Technology Co., Ltd. (Dongguan)
- Guangdong TDK Rising Rare Earth High Technology Material Co., Ltd. (Meizhou)
- Hutchinson Technology Operations (Thailand) Co., Ltd. (Thailand)
- Magnecomp Precision Technology Public Co., Ltd. (Thailand)
- Navitasys India Private Ltd. (India)
- Ningde Amperex Technology Ltd. (Ningde)
- Poweramp Technology Ltd. (Dongguan)
- PT. TDK ELECTRONICS INDONESIA (Indonesia)
- Qingdao TDK Electronics Co., Ltd. (Qingdao)
- SAE Magnetics (H.K.) Ltd. (Hong Kong)
- TDK Dalian Corporation (Dalian)
- TDK Dongguan Technology Co., Ltd. (Dongguan)
- TDK Electronics (Malaysia) SDN. BHD. (Malaysia)

- TDK Ganzhou Rare Earth New Materials Co., Ltd. (Ganzhou)
- TDK Hong Kong Co., Ltd. (Hong Kong)
- TDK India Private Ltd. (India)
- TDK Korea Corporation (Korea)
- TDK-Lambda (China) Electronics Co., Ltd. (Wuxi)
- TDK-Lambda Malaysia Sdn. Bhd. (Malaysia)
- TDK (Malaysia) Sdn. Bhd. (Malaysia)
- TDK Philippines Corporation (Philippines)
- TDK (Suzhou) Co., Ltd. (Suzhou)
- TDK Taiwan Corporation (Taiwan)
- TDK (Thailand) Co., Ltd. (Thailand)
- TDK Xiamen Co., Ltd. (Xiamen)
- TDK (Xiamen) Electronics Co., Ltd. (Xiamen)
- TDK (Xiaogan) Co., Ltd. (Xiaogan)
- TDK (Zhuhai) Co., Ltd. (Zhuhai)
- TDK (Zhuhai FTZ) Co., Ltd. (Zhuhai)



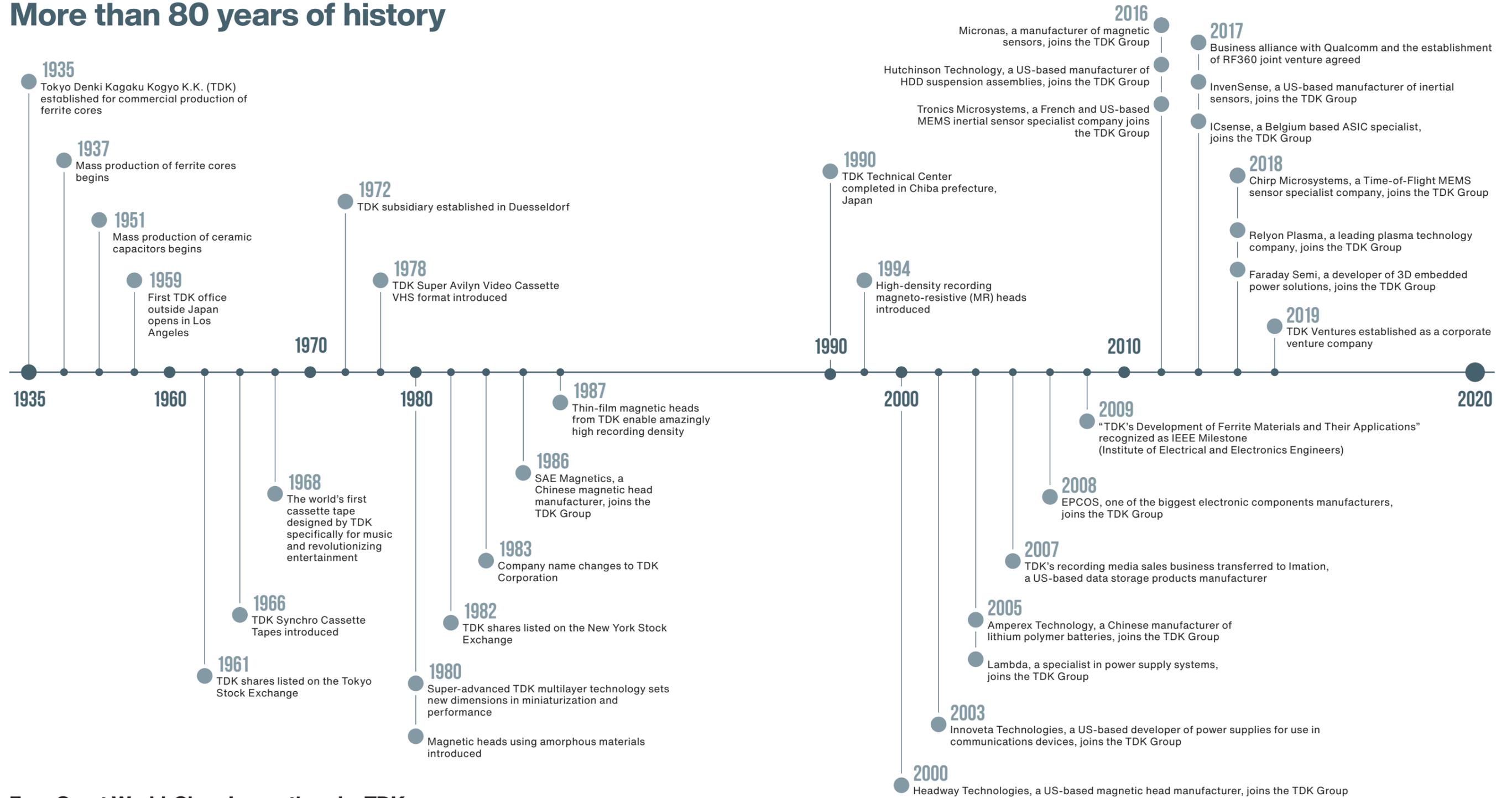
EMEA

- ICsense NV (Belgium)
- TDK CROATIA d.o.o. (Croatia)
- TDK Electronics AG (Germany)
- TDK Electronics Components, S.A.U. (Spain)
- TDK Electronics GmbH & Co OG (Austria)
- TDK Electronics s.r.o. (Czech)
- TDK Foil Iceland ehf (Iceland)
- TDK Foil Italy S.p.A. (Italy)
- TDK Hungary Components Kft. (Hungary)
- TDK-Lambda Ltd. (Israel)
- TDK-Lambda UK Ltd. (UK)
- TDK-Micronas GmbH (Germany)
- TDK-Micronas Ltd. (UK)
- TDK Sensors AG & Co. KG (Germany)
- Tronics Microsystem SA (France)

*EMEA: Europe, the Middle East and Africa

(The locations on this list are major production or R&D bases, as of June 1, 2020)

More than 80 years of history



Four Great World-Class Innovations by TDK

Innovation 01

Ferrite



Innovation 02

Music cassette tapes



Innovation 03

Fine multilayering technology



Innovation 04

Thin-film head technology



Attracting Tomorrow

TDK's communication message "Attracting Tomorrow" implies an attitude of making deliberate efforts ourselves to attract the future, rather than just waiting for the future to arrive. Turning this stance into inspiration aimed at the realization of a harmonious society, TDK has been pursuing global branding activities in seven applications by developing and introducing innovative technologies and products. Each of these in turn will be instrumental in achieving Sustainable Development Goals (SDGs).

Motion and pressure sensors are also used in drones that carry out social missions such as transporting medical supplies to remote locations or islands. The sensors contribute to stable flight performance and provide accurate position information, thereby enabling drones to perform critical tasks in various places around the world.

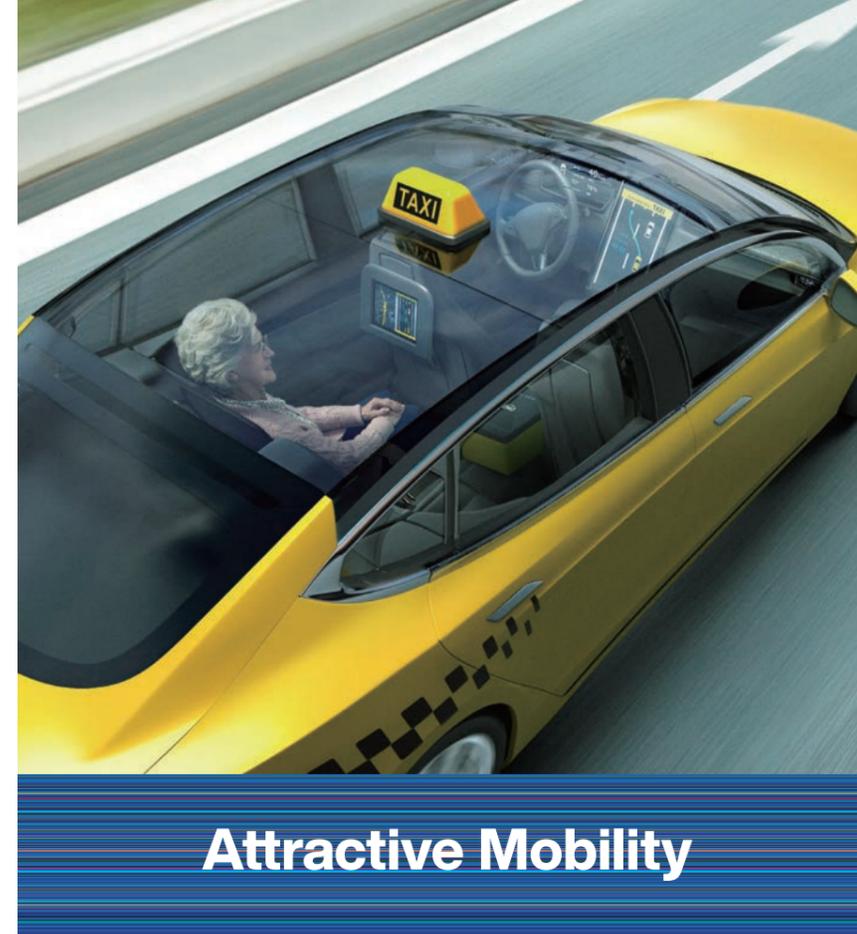


7 - Axis MEMS Motion and Pressure Sensors

The world's smallest 7-axis sensor, which combines a 6-axis inertial sensor with a pressure sensor, incorporates reliable sensing technologies that are not adversely affected even under harsh environmental conditions. This makes it possible to control drones effectively to ensure stable flight.



Attractive IoT



Attractive Mobility

Motion sensors together with dedicated software can provide the acceleration and direction data that are needed to guide a car to a given destination. They also support autonomous driving technologies that can safely divert cars to the side of the road in the rare event of a failure or emergency. This holds substantial potential for the creation of a safe society with no traffic congestion or accidents.



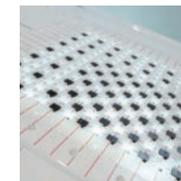
MEMS Motion Sensors

We have realized the industry's smallest 7-axis sensor module that combines gyroscope, accelerometer, and temperature sensing components on a single substrate. Highly accurate acceleration and direction measurement data are key to ensuring that a car will safely reach its destination.



We created a compact biomagnetic sensor by integrating MR* element process know-how gained in the magnetic head sector with magnetic circuit design technologies. Such sensors are ideal for devices that are more compact than existing products, making it feasible to perform diagnostic tasks with minimal stress for patients.

*MR = Magneto-resistive



Biomagnetic Field Sensors

Compact sensors that can measure even very weak biomagnetic fields enables the realization of biomagnetic field measurements without the insertion of a device into the body, something that was not possible in the past. This allows non-intrusive assessment of internal physiological activity in three dimensions.

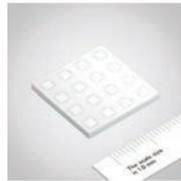


Investigational Device. Not currently available for sale in the U.S. or elsewhere.

Attractive Wellness



With 5G, musicians can enjoy live music while playing with each other in real time, despite being in different locations. TDK has integrated filtering functionality in antennas that receive and transmit radio waves. Minimizing losses and ensuring high efficiency in this area significantly contributes to high-volume data communication.



5G Chip Antennas / Multilayer Band Pass Filters

RF (radio frequency) components with enhanced filtering and maximized total performance will empower our customers to create superior products with less effort. We are developing products for all 5G applications such as infrastructure, autonomous driving, and tele-medicine.

Attractive Connections



Capacitors used in lightweight, compact, and high-reliability devices for power electronics facilitate high-efficiency generation and transmission of renewable energy and improve people's quality of life. TDK is looking to contribute to the creation of a sustainable society through clean energy.

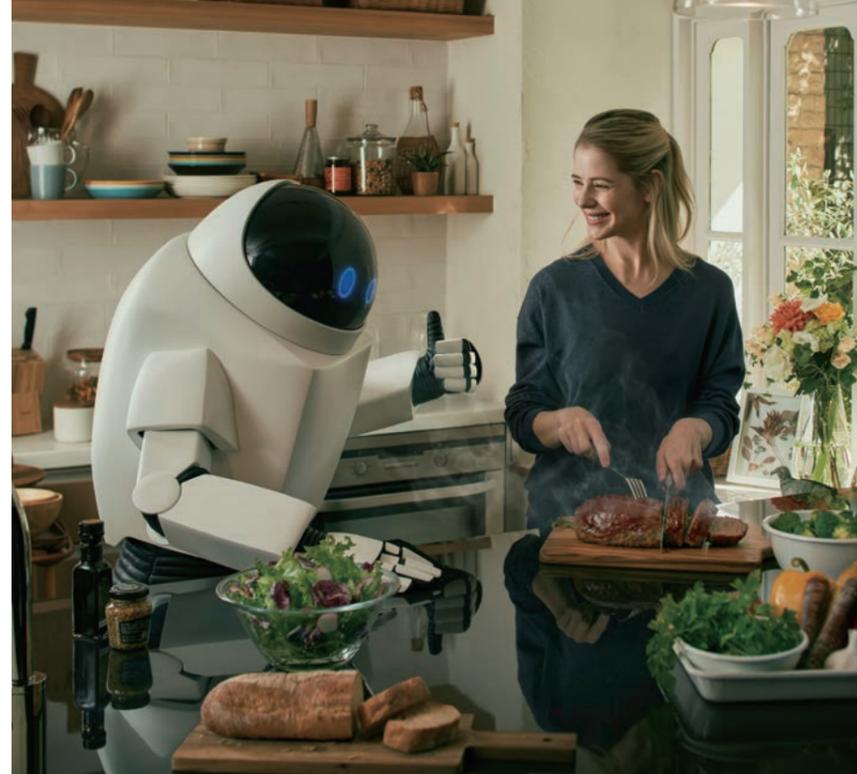


Power Electronic Capacitors (PECs)

Proprietary flat-winding technology helps to achieve high capacities while keeping dimensions compact. With a view towards the future, we are designing low-inductance capacitors suitable for high switching frequencies that will contribute to increased efficiency both in power generation and power transmission.

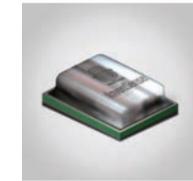


Attractive Energy



Attractive Robotics

Robots equipped with MEMS microphones can detect voices and other sounds at relatively large distances, and the use of multiple microphones also enables the robot to identify the direction where the sound is coming from. Such applications will help hearing-impaired individuals and make it easier for persons with limited mobility to obtain help during an emergency.

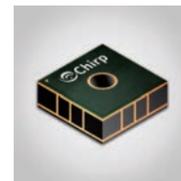


MEMS Microphones

The application of silicon MEMS technology has enabled the development of MEMS microphones which operate on very low power while featuring a high clipping point. This makes it possible to design communication robots with superior sound perception capabilities.



VR and AR applications have enriched experiences in education and brought about significant progress and quality enhancement in learning by children. TDK's ultrasonic sensors can detect a device's orientation, rotation, position, and other information with high precision and determine accurately the movement of a hand in a virtual space.



MEMS Ultrasonic Time-of-Flight Sensors

Ultra-compact sensors can be integrated directly into headset displays to accurately assess spatial relationships. Systems using such sensors will bring interactive experiences to more and more people.



Attractive Experience

