TDK

公人

Type Public (K.K)

Traded as TYO: 6762

<u>ISIN</u> <u>JP3538800008</u> €

Industry <u>Electronics</u>

December 7, 1935; 84 years ago

Founded as Tokyo Denki Kagaku Kōgyō

K.K.

Nihonbashi, Chūō,

Headquarters Tokyo

,

<u>Japan</u>

Area served Worldwide

Key people Shigenao Ishiguro (President)

Currently: Electronic components,

Products Power supplies, Sensors

Previously: Cassettes, CDs,

DVDs, Blu-ray Discs

▲JP¥1,271.7 billion

Revenue **LUS**\$12 billion

 $(2018)^{[1]}$

Operating

VUS\$807.9 million

income (2018)^[1]

▼JP¥63.5 billion

Net income ▼US\$598.7 million

 $(2018)^{[1]}$

▲JP¥1,905.2 billion

Total assets ▲US\$17.9 billion

 $(2018)^{[1]}$

▲JP¥831.2 billion

Total equity ▲US\$7.84 billion

 $(2018)^{[1]}$

Number of employees 102,883^[1]

Website www.global.tdk.com

TDK Corporation (TDK株式会社, *TDK Kabushiki-gaisha*), formerly TDK Electronics Co., Ltd (東京電気化学工業株式会社), is a Japanese <u>multinational electronics</u> company that manufactures electronic materials, <u>electronic components</u>, and recording and <u>data-storage media</u>. Its motto is "Contribute to culture and industry through creativity". [2]

"TDK" is an initialism of the original Japanese name of the company: Tokyo **D**enki **K**agaku Kōgyō K.K. (Tokyo Electric Chemical Industry Co., Ltd.). The company is listed on the <u>Tokyo Stock Exchange</u> and is a constituent of the <u>Nikkei 225</u> and <u>TOPIX</u> indices.

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History



A TDK SA-90 compact cassette

TDK was founded in Tokyo, Japan, on 7 December 1935 to manufacture the <u>iron</u>-based magnetic material <u>ferrite</u>, which had been recently invented by Yogoro Kato and Takeshi Takei. In 1952 and 1957 they began production of magnetic tapes, with <u>compact cassette</u> tapes following in 1966; it is for these that the company is most widely noted. TDK used to manufacture an extensive portfolio of magnetic and optical media, including several formats of <u>videotape</u> and blank <u>CD-R</u> and <u>recordable DVD</u> discs until the recording business was sold to <u>Imation</u> in 2007.

Operations in the USA began in 1965 with a New York City office, ^[4] and European operations began in 1970 with an office in Frankfurt, West Germany. ^[5]

In 1980, TDK developed a multilayering technology to create chip capacitors and inductors inside personal computers, laptops, smartphones, and other electronic devices.

In 1986, TDK acquired SAE Magnetics and introduced high-density recording heads to their product offerings. [6]

In the 1990s TDK's Mass Storage Division included <u>brushless DC spindle motors</u>, <u>magnetoresistance</u> (MR) heads, and thin-film heads.

Since 1997 TDK has gradually withdrawn from the production of compact cassettes. First with the MA-X and AR ("Acoustic Response"), then the AD ("Acoustic Dynamic") and SA-X line in 2001 and 2002 respectively, then the MA ("Metal Alloy") line in 2004. The SA ("Super Avilyn") and D ("Dynamic") lines were withdrawn in 2012 under Imation ownership. Industry trends see the company moving into new forms of media; in 2004 TDK was the first media manufacturer to join the companies developing BD post-DVD technology. [4] TDK operated a semiconductor division in California for about a decade, but divested it in 2005.

In late 2007, Imation acquired TDK's recording business, including flash media, optical media, magnetic tape, and accessories, for \$300 million. This also included a license to use the "TDK Life on Record" brand on data storage and audio products for 25 years. In September 2015, Imation announced that it had agreed to relinquish this license and would cease selling TDK-branded products by the end of the year.

Since the 2000s, TDK has turned its focus to the development, manufacture and sales of electronic components, HDD heads and suspension, and power supplies.

Beginning in 2005, TDK has acquired all manner of electronic device manufacturers including passive component developers, sensors manufacturers and power supply companies. These areas remain TDK's focus today. [6]

Since acquiring numerous companies and honing its product line focus in recent years, TDK has begun building a portfolio of varying sensors, actuators and power electronic components through these brands. These include multi-axis MEMS motion tracking devices and MEMS microphones from InvenSense, ^[12] a point-of-load DC-DC converter from Faraday Semi, ^[13] and MEMS-based ultrasonic Time-of-Flight sensors from Chirp Microsystems intended for consumer electronics, AR/VR, robotics, drones, IoT, automotive, and industrial market segments. ^[14] Other areas of TDK's recent focus include power components for mobile devices, ^[15] high-stability MEMS accelerometers from Tronics, ^[16] and miniaturized haptic actuators. ^[17]

Since 2016, Shigenao Ishiguro has been President and CEO of TDK. [18]

Key acquisitions and joint ventures

- 1986: SAE Magnetics (H.K.) Ltd., a magnetic head maker based in Hong Kong [19]
- 2000: Headway Technologies, a magnetic head maker based in the United States [19]
- 2005: Amperex Technology Limited, a Lithium Polymer battery company based in Hong Kong^[19]
- 2005: Lambda Power Division, a group of power supply businesses of London-based Invensys PLC. [20]
- 2008: Epcos, an electronic device manufacturer based in Germany [21]
- 2016: Micronas Semiconductor Holding AG, a magnetic sensor company based in Switzerland^[22]
- 2016: Hutchinson Technology Inc., a manufacturer of HDD suspension assemblies based in the United States^[23]
- 2017: RF360 Holdings Singapore PTE Ltd. a joint venture with Qualcomm Inc. (USA)^[24]
- 2017: InvenSense, Inc., a sensor specialist based in the United States^[25]
- 2018: Chirp Microsystems, a developer of low power, ultrasonic 3D-sensing solutions based in the United States^[26]
- 2018: Faraday Semi LLC, a developer of miniature Point of Load (PoL) solutions based in the United States^[27]

Sponsorship and advertising



The TDK sign at Piccadilly Circus in London.

TDK has sponsored the IAAF World Championships in Athletics since the 1983 inaugural event in Helsinki. [28]

TDK sponsored Ajax for several years in the 1980s during which it won UEFA Cup Winners' Cup in 1987. From 1993 to 1999, TDK were also the sponsors of the English football club Crystal Palace, who were promoted to the Premier League twice during this era, though lasting for just one season before being relegated on both occasions. TDK was also a minor sponsor of the Brisbane Broncos Rugby League Team during the early 1990s. It is a current sponsor of the IAAF World Championships in Athletics. It also sponsors activities and events such as those at The Cross nightclub in Central London, and it had a prominent sign at Piccadilly Circus from 1990. The contract for this sign was terminated in 2015, as TDK was moving away from consumer electronics [29].

TDK has owned a sign on <u>One Times Square</u> since 2000. The screen is placed under that of <u>Toshiba</u> and can be seen during the annual Times Square New Year's <u>Ball Drop</u>. [30]

Since 2001, TDK has supported performances of some of the world's distinguished orchestras in Japan within the company's "TDK Orchestra Concerts" program. TDK's "Outreach-Mini Concerts" and "Special Rehearsals and Main Concert Invitations" additionally serve as avenues for the company to attract younger audiences.^[31]

In 2002, the company's consumer electronics division was the presenting sponsor of the Third Annual <u>Jammy Awards</u>, with the TDK Live Performance of the Year award honoring the best live performance that was legally available on the Web as a free download. The award was given to the band <u>moe</u>. for their performance at the <u>Bonnaroo Music Festival</u>.

TDK's own football club, based in <u>Nikaho</u>, <u>Akita</u>, recently split from the corporation to become independent football club <u>Blaublitz Akita</u>, with the aim for the professional leagues.

Museum



TDK Museum

TDK operates a company museum in Nikaho, Akita, Japan. The museum is open to the public, free of charge. Among its exhibits are a comprehensive history of the company, its products and technologies, and emerging developments. [32]

TDK products



D60 audio cassette from 1979



MA60 - A later example



 $\ensuremath{\text{D-C180}}$ - This three hour audio cassette was unusually long



VHS-C video cassettes



Blank DVD



MiniDisc



DDS-3 data cartridge