

History of Innovation

Origin of the Company Name

Maximum Capacity Dry Cell

Brand name of dry batteries, the company's founding product
『Maxell (Maximum Capacity Dry Cell)』



Foundation

1961

Spun off the dry battery and magnetic tape divisions from Nitto Electric Industrial Co., Ltd. (current Nitto Denko Corporation) and established as Maxell Electric Industrial Co., Ltd.

1966 | First in Japan |

Commercialized audio cassette tape

1976 | First in Japan |

Commercialized floppy disk

1978

Commercialized VHS video cassette tape

1981

Commercialized coin-type lithium manganese dioxide battery

1983 | First in Japan |

Commencement of production of lithium thionyl chloride battery for memory backup

1984

Commercialized 12-inch write-once optical disk cartridge, IC card and memory card

1987

Commercialized the world's smallest silver oxide battery

1989

Commercialized data cartridges for computer use. Entered the professional broadcasting video tape market

1995 | First in the world |

Commercialized optical modulation overdrive MO

1996

Commenced production of lithium-ion battery

1998 | First in the world |

Commercialized rewritable DVD-RAM disc

2004

Commercialized heat-resistant coin-type lithium manganese dioxide battery

2005

Commenced shipment of in-car camera lens unit

2008

Developed heat-resistant separator that improves the safety of lithium-ion battery

2017

Developed proprietary injection Foam molding technique "RIC-FOAM"

2018

Developed Air Patch™ Battery for medical/healthcare patches

2019

Commenced sample shipment of coin-shaped All-solid-state battery using sulfide-based electrolytes

2021

Commercialized AR Head Up Display for automotive applications

2021 | First in the world |

Developed Mountable Sulfide Based All-solid-state battery

2022

Commercialized AFID (Advanced Floating Image Display)

History of Innovation

1960s-1980s

Developed and launched a number of consumer products during the period of high economic growth, and established development, production, and sales systems in Japan and overseas.

In 1966, Maxell succeeded in commercializing the first audio cassette tape in Japan. In 1976, we commercialized the first floppy disk in Japan, and in 1987, we commercialized the world's smallest silver oxide battery. We were the first in the world to create new value in these ways. In addition to the "Mixing & Dispersion" technology accumulated from the development of dry batteries, which was our founding product, the technology for coating magnetic powder and the technology for forming the housing cultivated in cassette tapes are now being used in a variety of products as "Fine Coating" technology and "High Precision Molding & Forming" technology through further evolution.

Furthermore, we completed construction of a plant and a technology research laboratory in Kyoto. Overseas, we established sales bases in the United States, Germany, and the United Kingdom, and production bases in the United States, the United Kingdom, and Malaysia to build a system for global expansion.



Audio cassette tapes



Floppy disks

1990s-2010s

While supporting the digital society with high functional recording media, mainstay of the business was shifted from consumer products to industrial components.

While the market for cassette tapes, video tapes, and floppy disks shrank at the end of the 1980s, PCs, mobile phones, smartphones, and other products rapidly became popular. Against this backdrop, while supporting the transformation of the era from analog to digital, we have shifted the mainstay of our business from consumer products to industrial components.

Applying the technologies we have cultivated in tapes, we entered the market for data cartridges for computers and professional tapes for broadcast use. In 1996, we started production of lithium-ion battery. We also commercialized heat-resistant coin-type lithium manganese dioxide battery for TPMS (tire pressure monitoring systems) modules in 2004, and started shipment of in-car camera lens unit in 2005, which was the foothold for the business of automotive channel afterwards.



Professional video tapes



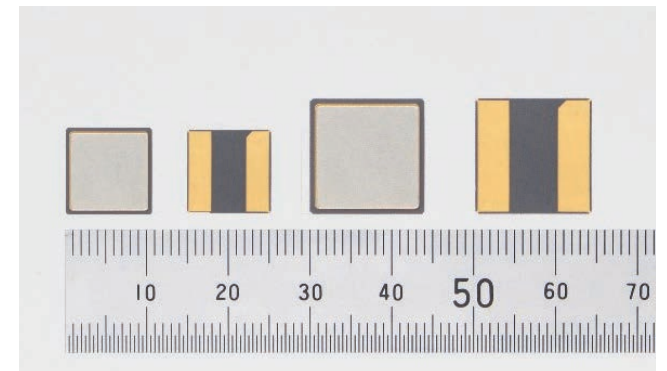
Lithium-ion batteries

2020s

Further enhancement of value creation through unique Analog Core Technologies

In 2020, we reviewed our management policy based on "MVVSS (Mission Vision Value Spirit Slogan)" and set up Vision to "Create **Maximum Excellence** for employees, customers and society by leveraging unique Analog Core Technologies (Mixing & Dispersion, Fine Coating, and High Precision Molding & Forming)." Under a new policy and organization, we have been concentrating in developing and commercializing all-solid-state battery, which is expected to be a next-generation battery, and responding to the needs of the world with the cutting-edge technologies such as world's first sulfide based surface-mountable feature, as well as high-voltage and high-output characteristics.

By combining the synergies with new group companies who joined since 2013 i.e. Maxell Frontier, Maxell Izumi, Maxell Kureha, and Ube Maxell Kyoto, we will continue to create new value that contributes to sustainable society by leveraging unique Analog Core Technologies.



Ceramic packaged all-solid-state batteries