maxell

Hitachi Maxell, Ltd.

CORPORATE GUIDE

In 1961, Maxell began as a manufacturer of alkaline dry batteries and magnetic tapes. Since then, in the Battery and Information Storage Media business areas we have pursued outstanding quality and performance. And, we have been able to commercialize products with high energy densities and information high storage densities ahead of competitors. As a result, we have built an unshakable standing in these business areas. Also, in the Material-Device-Electronic Appliance segment we capitalize on original analog core technologies honed in these business areas to develop such new markets as optical components and functional materials. In response to increasing demand for more advanced products, we will exploit our key “Monozukuri” manufacturing capabilities to create original products and achieve further growth.

BATTERY

The Battery segment comprises alkaline dry batteries, micro batteries, and lithium-ion rechargeable batteries. Originating from the “Maximum Capacity Dry Cell batteries”, the Maxell name testifies to our beginnings as a battery manufacturer. Worldwide, we boast large shares of markets for such micro batteries as silver oxide batteries used in wrist watches. Also, over the years we have shipped a huge number of prismatic lithium-ion rechargeable batteries for mobile devices. Moreover, we are creating new markets and expanding our businesses by rolling out batteries for a wide range of business areas. Central to these efforts is an electrode plant completed in February 2009. As well as small consumer-use products for mobile devices and other appliances, this plant manufacturers small and mid-size products for electric power tools and other commercial applications, electrodes for automobiles, and large commercial-use products.

INFORMATION STORAGE MEDIA

Magnetic tapes and optical discs are the mainstay products of this segment, a core operation since our foundation. Technological and developmental prowess has kept us at the forefront of the recording media industry. An array of world firsts and Japan firsts feature in the segment’s history. For example, in 1966 we were the first to market audio cassette tapes in Japan. In 1984, we unveiled the worlds’ first write-once optical disc. Further, Maxell is catering to the burgeoning demand for larger storage capacities accompanying the emergence of an information-based society. We are developing our existing technology with our sights set on creating the next-generation of data backup computer tapes. As a result of such unflagging initiatives, the Maxell brand has earned strong endorsement in markets worldwide.

MATERIAL-DEVICE-ELECTRONIC APPLIANCE

This segment primarily consists of optical components, functional materials, and small electronic appliances. We develop and improve these products by applying advanced analog core technologies accumulated and honed over many years in the Battery and Information Storage Media segments. Our optical components include pickup lenses for optical disc drives, camera lens units, and components for automobiles. Functional materials comprise adhesive tapes and industrial-use pigment inks. By cultivating technological and marketing synergies among its Group companies, Maxell is expanding into high-value-added product areas and strengthening its businesses. At present, we are establishing competitive advantages in performance and quality and steadily heightening our presence in various markets.

HALF A CENTURY OF EVOLUTION AND "MONOZUKURI"

2008

Cylindrical lithium-ion rechargeable batteries

Maxell begins shipping high-power cylindrical lithium-ion rechargeable batteries offering high outputs and outstanding safety.

2000

Computer tapes

Bringing to bear expertise garnered in operations for audio and video tapes and floppy discs, Maxell releases the LTO Ultrium 1 data cartridges (200GB*), the first product in the world of its type to acquire accreditation for technical compatibility.

1996

Lithium-ion rechargeable batteries

Maxell uses analog core technologies developed for batteries and magnetic tapes to begin manufacturing lithium-ion rechargeable batteries. Thanks to differentiated safety and high capacity, a large number of these batteries are shipped for cellular phones and handheld game consoles.

1990

1984

Optical discs

Maxell becomes the first to commercialize 12-inch write-once optical discs, OC301 (single sided: 1.3GB; dual sided: 2.6GB), the forerunner of optical discs. The dual sided discs have storage capacity equivalent to 40,000 A4 documents—a groundbreaking advance.

1980

1978

1976

Video tapes

Maxell commercializes the VHS video cassette tapes T-120E, T-90E, T-60E, and T-30.

1970

1966

Silver oxide batteries

Maxell launches Japan's first silver oxide batteries, featuring compactness and stable electric discharge. Today, Maxell has one the largest shares of the global market for these products.

Floppy discs

Maxell commercializes Japan's first 8-inch floppy discs: FD-3200S.

1963

Audio cassette tapes

With the C-60, Maxell introduces Japan to audio cassette tapes. Subsequently, Maxell releases a series of music-use audio cassette tapes.

1961

1960

Alkaline dry batteries

Maxell becomes the first in Japan to manufacture alkaline dry batteries. They are used as power sources for "micro televisions" and battery-operated razors.

Establishment

Nitto Electric Industrial Co., Ltd. (the present Nitto Denko Corp.), spins off its dry battery and magnetic tape divisions to establish Maxell.

* Compressed capacity (Uncompressed capacity: 100GB)

Yoshito Tsunoda
President and Chief Executive Officer

Pursuing a Two-Pronged Strategy to Become a Differentiated, Highly Profitable Company

Through a two-pronged approach to business management, Maxell aims to become a differentiated, highly profitable company. First, we will significantly develop our Batteries Business, which produce a key device for the “Social Innovation Business” on which Hitachi, Ltd., is concentrating efforts. Second, we will further heighten the profitability of Basis Maxell Business—which we have identified as Information Storage Media, brand businesses, optical components operations, and functional materials operations.

Maxell’s Battery Business began with the founding of the Company 50 years ago. We began by manufacturing alkaline dry batteries. Today, we have an extensive product lineup encompassing micro batteries through to lithium-ion rechargeable batteries. Particularly in the promising growth area of lithium-ion rechargeable batteries, we already have a long track record of shipping consumer-use batteries for mobile devices. In April 2010, Maxell became a member of Hitachi’s Battery Systems Company. We will develop Battery Business into our core operations by pursuing further synergies with

The Maxell Group's basic management philosophy is to benefit society by developing outstanding original technologies and products guided by a founding spirit that advocates "Harmony and Cooperation, Working with Heart and Soul, and Being of Service to Society." Also, the Group aims to reflect the perspectives of all of its stakeholders in its measures to increase corporate value. To that end, the Group stringently pursues equitable, transparent corporate activities while working as a good corporate citizen to truly enrich society by ensuring stringent product safety, seeking harmony with the environment, and contributing to society by actively participating in social contribution activities.

the Hitachi Group and significantly expanding operations that manufacture electrodes for automobiles and commercial-use batteries.

Meanwhile, we intend to further increase the profitability of Basis Maxell Business, which will support our two-pronged approach to business management. Information storage media such as computer tapes have been a major source of earnings for Maxell. In recent years, however, business conditions have become tougher due to fiercer market competition and unfavorable foreign exchange rates. Going forward, we aim to steadily grow the Information Storage Media segment as a mainstay of Basis Maxell Business. Also, Maxell has a strong sales network in Japan and overseas and a powerful brand name. We will exploit these strengths to realize global planning, development, and purchasing and thereby further heighten profitability. As for optical components operations and functional materials operations—which center on Group companies—Maxell will expand operations for existing products while opening up new business areas by collaboratively raising the level of "Monozukuri" manufacturing capabilities throughout the Group.

Focusing on Corporate Social Responsibility to Raise Corporate Value

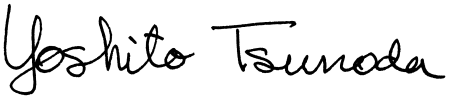
The Maxell Group aims to achieve corporate management that meets its corporate social responsibility. Therefore, we are ensuring product safety, taking steps to protect the global environment, strengthening corporate governance systems, and further developing internal control systems. Also, in accordance with the Hitachi Maxell Group Code of Conduct, which stipulates specific rules to which executives and other employees must adhere, we will stringently ensure good corporate ethics and further strengthen compliance management.

Based on high-quality business management that is strongly aware of the Company's responsibilities as a member of society, Maxell will make a concerted effort to raise its corporate value and remain a company that all of its stakeholders and society trust.

As we move forward, I would like to ask all of our stakeholders for their continued support.

October 2010

President and Chief Executive Officer



BATTERY

MAIN PRODUCTS

- Lithium-ion rechargeable batteries
- Coin-type lithium rechargeable batteries
- Silver oxide batteries
- Lithium primary batteries
- Alkaline dry batteries

Designing Batteries for a Diversifying Range of Smaller Devices

Covering primary batteries and rechargeable batteries, our products are used as power sources for devices in a wide range of fields such as telecommunications, video, IT, and medicine.

From the outset, Maxell has pioneered the development of batteries as a form of clean energy. In 1963, we were the first company in Japan to manufacture alkaline dry batteries. Since then, we have developed silver oxide batteries and lithium-ion rechargeable batteries. Moreover, we use technologies fostered for these lineups—such as battery materials technology, high-precision mixing and dispersion technology, thin-film coating technology, and precision sealing technology—to develop next-generation products.

In rechargeable batteries, the safety, thinness, and high capacity of Maxell's prismatic lithium-ion rechargeable batteries have earned them a solid reputation in the area of cellular phone and handheld game console applications. Taking advantage of these strengths, we are developing batteries that offer even more advanced performance, higher capacities, or new applications. For example, for electric power tools we began shipping high-power cylindrical lithium-ion rechargeable batteries that use less cobalt in July 2009. Also, in April 2010 we developed a high capacity battery with a silicon-based negative electrode, which we are rolling out for smart-phones. Other initiatives in step with market demand include the development of high capacity 140mA coin-type lithium rechargeable batteries with diameters of approximately 2cm as well as laminated lithium-ion rechargeable batteries for electric motorcycles and for use as storage batteries in smart grids. Further, we plan to develop the battery business into a major pillar of operations by rolling out electrodes for automobiles and large commercial-use products, mainly through a new electrode plant that consolidates the best of our battery technologies.

As for primary batteries, we are developing superior high-value-added products that leads the market. Such industry-leading products include the "Voltage" dry alkaline battery, which prevents electrolyte leakage[*1] and offers electrolyte leakage compensation[*2]; mercury- and lead-free silver oxide batteries; and heat-resistant, coin-type lithium manganese dioxide batteries usable in a wide range of temperatures.

Prismatic lithium-ion rechargeable batteries

Safety, thinness, and high capacities differentiate these batteries, which are primarily incorporated into such consumer products as cellular phones and handheld game consoles. At present, we are developing batteries with even higher capacities.

Heat-resistant, coin-type lithium manganese dioxide batteries

These are high-value-added primary batteries that function in a wide range of temperatures, from as low as minus 40 degrees centigrade through to as high as 125 degrees centigrade. They are mainly used in tire pressure monitoring systems.

Alkaline dry batteries

For the "Voltage" dry alkaline battery, we were able to offer electrolyte leakage compensation[*2] thanks to a design that uses a new patented zinc alloy that prevents electrolyte leakage[*1]

*1 This is applicable to single type 3 and single type 4 alkaline dry batteries. It uses patented technology to prevent over-discharge electrolyte leakage.
*2 This is applicable to single type 3 and single type 4 alkaline dry batteries. If electrolyte leakage occurs within the recommended usage period, and the customer has observed the warnings and precautions, Maxell will replace the batteries or repair or replace the device.

INFORMATION STORAGE MEDIA

MAIN PRODUCTS

- Computer tapes
- Broadcasting video tapes
- Blu-ray Discs
- DVDs, CDs
- Audio tapes
- Video tapes

Seeking Ever Higher Storage Capacities and Performance

Capitalizing on expertise and technology garnered over a long history of being the industry's trailblazer enables us to market products with superior quality and performance.

As a leading manufacturer of recording media, Maxell has been commercializing numerous recording media as Japan and the world's first, including audio tapes and recordable optical discs. Our achievements include taking the lead in the computer tapes industry by becoming the world's first qualified manufacturer of the latest-format computer tapes. We did this by honing analog core technologies, such as high-precision mixing and dispersion technology and thin-film coating technology. Targeting the growing demand for recording media with higher storage capacities that the emergence of an information-based society is driving, we are developing next-generation products that realize 50TB-class storage capacity per cartridge.

In optical discs, we market recordable CDs and DVDs worldwide, and we have built up one of the largest market shares in Japan. Currently, we are using Super ODM*1 strategic production outsourcing, which is based on advanced Maxell-brand design concepts. In addition, under a system integrated from product planning through to design, quality assurance, and sales, we are offering product-based solutions that cater to customer's needs precisely and extending our lineup of Blu-ray Discs, for which demand is growing.

Further, we are commercializing new recording media formats to reflect changes in market demand. Such products include a high-storage-capacity cassette hard disc capable of recording high-definition content, "iV"; a removable hard disc for use in broadcasting operations, "iVDR EX"; and a rewritable Professional Disc compatible with the XDCAM optical disc system.

Computer tapes

Used for data backup, LTO Ultrium 5 data cartridges boast the world's largest*2 storage capacity to 3TB*3.

Blu-ray Discs

These high-storage-capacity optical discs have more than five times*4 the storage capacity of DVDs. The use of an advanced recording layer enables outstanding recording, reading, and storage performance.

"iV" cassette hard discs

Enabling the superior quality recording and storage of high-definition video, these hard discs can be removed easily in the same way as cassettes.

*1 Super ODM (Original Design Manufacturing): A production system that achieves high quality and low cost by comprehensively transferring Maxell's production equipment, manufacturing processes, materials, production engineering, and quality control to partner manufacturers.
*2 As of March, 2010. For the LTO Ultrium format. Survey by Maxell.
*3 Compressed capacity (Uncompressed capacity: 1.5TB).
*4 Comparison of a single sided single layer Blu-ray Disc (25GB) and a single sided single layer DVD (4.7GB).

MATERIAL-DEVICE-ELECTRONIC APPLIANCE

MAIN PRODUCTS

- Optical components
- Functional materials
- Adhesive tapes
- RFID systems
- Small electronic appliances
- Electroforming / precision components
- Metal / plastic molded products

Applying Analog Core Technologies to Create Advanced Performance High-Value-Added Products

We develop a broad spectrum of products in new business areas by applying technologies fostered in our core operations.

Based on the “Monozukuri” manufacturing capabilities and marketing capabilities of Maxell and its Group companies, the Company is maximizing synergies within the Group in order to cultivate and strengthen its businesses.

In optical components, we have used analog core technologies accumulated over many years, such as optical design technology, precision molding technology, and substrate molding technology, to create pickup lenses for optical disc drives, camera lens units, lens barrels for cameras, and a series of other high-quality products with advanced functionality. Currently, we are strengthening high-value-added products, including Blu-ray pickup lenses, silicone lenses for LED light sources, and advanced camera lens units, by taking advantage of the in-house integration of processes from design and stamping through to substrate molding and assembly. These integrated processes center on Maxell Finetech Ltd., established through the merger of Maxell’s Optical Components Division, Tohshin Seiko Co., Ltd., and Nagano Optics Laboratory Corporation in July 2009.

In functional materials, meanwhile, Sliontec Corporation leads initiatives to roll out adhesive tapes for packaging, masking, and construction. At the same time, Sliontec is developing highly original products in the priority areas of semiconductors, electronics, and automotive applications. Also, we are steadily extending our business areas through such efforts as exploiting high-precision mixing and dispersion technology fostered in magnetic tape operations to develop and market industrial-use pigment inks.

Regarding small electronic appliances, Kyushu Hitachi Maxell, Ltd., manufactures and sells products related to beauty, health, and the environment. Further, Kyushu Hitachi Maxell is developing products that benefit from original “EF²” (Electro Fine Forming) technology, which is revolutionizing ultra-precision machining. In addition, Maxell Seiki, Ltd., markets a wide variety of products that include the Coil-on-Chip RFID (Radio Frequency Identification) system.

Pickup lenses

We use leading-edge optical design technology and substrate molding technology to realize compact and thin pickup lenses, which manufacturers incorporate into optical disc drives requiring ever thinner designs.

Adhesive tapes for packaging

Available in a rich variety of colors, our packaging tapes are used in many different areas. Easy to tear by hand, they help improve operational efficiency.

Industrial-use pigment inks

Our pigment inks are used in commercial-use inkjet printers that print indoor and outdoor posters, signs, and other items.

“Monozukuri” Manufacturing Capabilities— The Wellspring of Maxell’s Growth

The advanced “Monozukuri” manufacturing capabilities and expertise that Maxell Group has accumulated unceasingly is an intangible asset that cannot be replicated overnight. This asset enables the Maxell Group to create high-quality products with advanced functionality and is therefore a key growth driver. By exploiting these “Monozukuri” manufacturing capabilities to the utmost and collaborating organically, Maxell and its Group companies are achieving further technological innovations in an extensive range of business areas, thereby continuing to create new value. These business areas include optical components, functional materials, and small electronic appliances.

“Monozukuri” DNA— Evident in All Areas of the Maxell Group

Maxell Finetech Ltd.

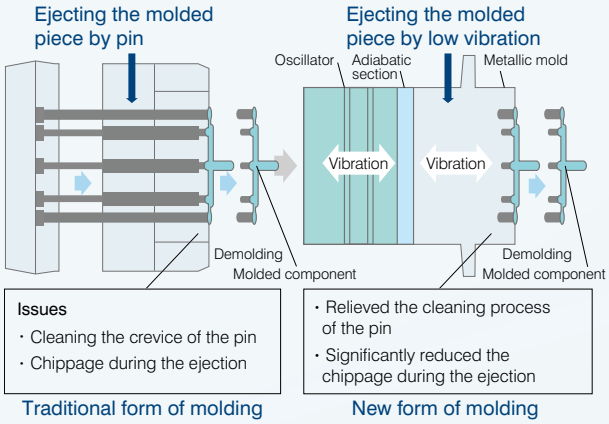
We established Maxell Finetech Ltd. through the merger of Maxell’s Optical Components Division, Tohshin Seiko Co., Ltd., and Nagano Optics Laboratory Corporation in July 2009. Capitalizing on the precision molding technology, substrate molding technology, unit assembly technology, optical design technology, structural design technology, and lens design technology that these companies developed over many years, Maxell Finetech manufacturers and sells high-value-added optical components. Further, Maxell Finetech’s operations integrate research, development, and design through to the mass production and assembly of molded components. Exploiting this strength, the company manufactures a wide range of products, including pressed components manufactured using precision molding technology and substrate molding technology, plastic lenses, and optical units.

Camera Lens Units

We take advantage of being able to design, manufacture, and assemble molded components in-house in order to roll out small size, high performance micro-camera lens units for cellular phones and automobiles.

Hard Silicone Lenses

With stronger resistance to heat and UV than general plastic lenses, hard silicone lenses promise to serve as lens for LED light sources and other high-intensity LED applications. Until now, however, mass production of such lenses has been difficult because, when molded, hard silicone resin tends to flow into the gaps of molds due to its low viscosity prior to heat curing, and after molding the lenses are fragile and difficult to remove from molds quickly. To overcome this problem, Maxell Finetech developed a highly efficient mass production system by redesigning the structures of molds and using ultrasonic vibration to remove lenses from molds. In recognition of this innovation, Maxell Finetech received the Minister of Economy, Trade and Industry Award in the Manufacturing and Production Process category of the Third “Monodzukuri Nippon Grand Award” in 2009.



Sliontec Corporation

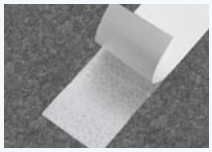
Sliontec Corporation researches and develops low-cost products with advanced functionality and uses its outstanding technological capabilities as well as a tried-and-tested production system to manufacture and sell a variety of adhesive tapes used for various everyday applications. As well as adhesive tapes for packaging and masking, Sliontec manufactures adhesive tapes for semiconductor manufacturing processes, electronic appliances such as flat-screen televisions and cellular phones, automobiles, and general household applications. Also, Sliontec realizes technological synergies by combining its adhesion processing and coating technologies with Maxell's dispersion and thin-film coating technologies. At the same time, the company is increasing the size of its business by rapidly developing and commercializing high-quality, high-value-added products in such priority areas as semiconductors, electronics, and automobiles.

Adhesive Tapes with Silicone Rubber Backing

These are the world's first*1 all-silicone double-faced adhesive tapes. And, they use thin-film silicone rubber as a base material. Given this new product's outstanding heat resistance*2 and stable cushioning*3 in a wide range of temperatures, we are rolling it out for such applications as heat-resistant carrier tapes, heat-resistant spacers, and heat-resistant cushions.

Thermally Conductive Adhesive Tapes

Thermally conductive insulating filler gives adhesive tapes excellent thermal conductivity and electrical insulation properties. Demand for tapes promises to grow for applications as securing the heat sinks of LED lighting and automotive electronic appliances.



*1. As of June, 2010. For double-faced adhesive tapes that use silicone rubber as a base material. Source: Sliontec Corporation.
*2. Maintains at least 90% of initial adhesive strength after being heated at 180 degrees centigrade for 500 hours. Source: Sliontec Corporation.
*3. Confirmed through the measurement of dynamic viscoelasticity within a temperature range of –40 degrees centigrade to 200 degrees centigrade. Source: Sliontec Corporation.

Kyushu Hitachi Maxell, Ltd.

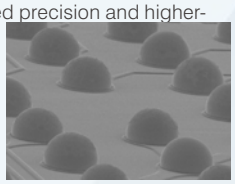
This company manufactures and sells electronic appliances related to health and beauty, such as Hitachi-brand electric razors and hairdryers, as well as products related to Maxell-brand audio and video tapes. Moreover, the company is currently extending its business area based on unique ultra-high-precision processing technology. In these initiatives, it provides key technologies to leading-edge industries such as the electronic device industry and the telecommunications industry and manufactures ultra-high-precision components. Aiming to consistently anticipate the needs of the times in its business development, the business strategies of Kyushu Hitachi Maxell, Ltd., are to pursue a product strategy that specializes in growth areas and strengthen the competitive strength of products further by exploiting core competences. Based on these strategies, the company advances research and development and supports product development.

Electronic Appliances Related to Health and Beauty

Our product lineups include electronic appliances related to health and beauty, such as rotary shavers, hairdryers, and appliances for cosmetic face care; a range of health-related appliances; and appliances related to medical treatment.

"EF²" (Electro Fine Forming)

Kyushu Hitachi Maxell supplies its "EF²" (Electro Fine Forming) technology to leading-edge industries that require micron and submicron level precision due to increased precision and higher-density packaging in the manufacturing of electronic components, semiconductors, and other components.

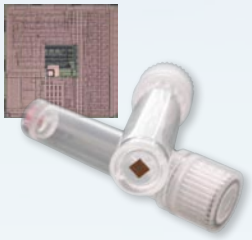


Maxell Seiki, Ltd.

This company has a wide range of businesses, including precision plastic molding, card production and printing, and business solutions. In particular, Maxell Seiki is one of the few companies in Japan that manufactures IC cards, IC card reader/writers, and device driver software entirely in-house. The company provides a large number of different products that cater to market demand. By organically combining technological and developmental capabilities, it generates a constant stream of new products, including an "Intelligent Microtube" with an RFID tag that can store samples (organisms) for medical or drug discovery use at temperatures as low as minus 80 degrees centigrade and various thin-walled precision molded products. We intend to continue providing leading-edge technology and developing unique technology.

Coil-on-Chip RFID Systems

These RFID systems are manufactured by using Kyushu Hitachi Maxell's unique "EF²" technology to mold and integrate a precision antenna onto the surface of a chip that is 2.5 mm². These Coil-on-Chip RFID Systems are used for applications including electronic keys, ID cards, and microtubes.



Contact/Non-Contact IC Cards

At in-house plants that have acquired accreditation from VISA and MasterCard, we manufacture these cards under tightly controlled security. Also, we have advanced technology for developing the integrated software installed in IC card chips and for designing antennas.

Unique and Speed

Under the banner “Unique and Speed”, Maxell’s R&D features the use of original, differentiated technologies to develop products rapidly and bring them to market. By applying analog core technologies accumulated since our foundation, we develop and market next-generation products ahead of competitors. Further, our optical components businesses and functional materials businesses apply these technologies to new business areas, thereby creating a constant flow of competitive products. Moreover, the Maxell Group advances technological innovation by working in close collaboration with the Hitachi Group, forming alliances with companies outside the Maxell Group, and participating in tie-ups among industry, government, and academia.

R&D Initiatives by Segment

Battery

We research and develop such rechargeable batteries as lithium-ion rechargeable batteries as well as primary batteries as micro batteries and alkaline dry batteries. For rechargeable batteries, we have launched a prismatic lithium-ion rechargeable battery that realizes high capacity thanks to its silicon-based negative electrode. Also, we are advancing R&D focused on laminated lithium-ion rechargeable batteries for small and mid-size products and high-output coin-type lithium rechargeable batteries for small devices. In primary batteries, we have commercialized “Voltage” as a dry alkaline battery that features electrolyte leakage compensation*1.

*1 This is applicable to single type 3 and single type 4 alkaline dry batteries. If electrolyte leakage occurs within the recommended usage period, and the customer has observed the warnings and precautions, Maxell will replace the batteries or repair or replace the device.

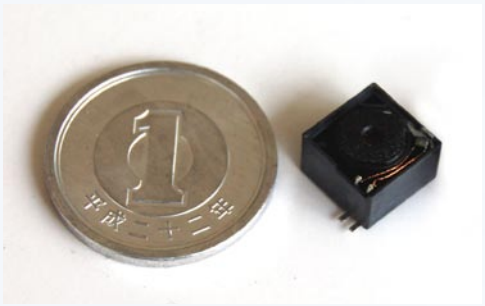
Information Storage Media

In this segment, our R&D concentrates on computer tapes and other high-storage-capacity magnetic recording media. Incorporating original fine ceramic armor metal particles with high coercive force has enabled us to market LTO Ultrium 5, with storage capacity of 3TB*2—the world’s largest*3 storage capacity per data cartridge.

*2 Compressed capacity (Uncompressed capacity: 1.5TB).
*3 As of March 2010. For the LTO Ultrium format. Survey by Maxell.

Material-Device-Electronic Appliance

This segment takes advantage of original technologies in order to further R&D in the areas of optical disc drives, optical components for micro-cameras, functional pigment inks, adhesive tapes, and magnetic bio-beads used in biotechnology. In optical components, the segment has developed the world's smallest*4 micro-camera lens units. Designed for mobile devices, these high-speed high-precision units incorporate piezo actuators*5 as drive parts. As for functional materials, we have brought to market highly sensitive UV-curable inks for commercial-use inkjet printers.



*4 As of September 2009. For micro-camera lens units. Survey by Maxell.
*5 These are drive mechanisms that use the displacement caused by the application of electrical voltage to a piezoelectric element.

Intellectual Property Strategies

The Maxell Group regards the appropriate protection and management of intellectual property as a priority management issue. Accordingly, the Group is implementing measures to strengthen strategies to protect from imitation such intellectual property as the Maxell Group's unique and outstanding original technology as well as the Maxell brand name.

Working in collaboration with operational divisions and the R&D Division, the Maxell Group's Intellectual Property Division concentrates its efforts on acquiring patents, establishing advantageous patent positions in relation to competitors, and strengthening countermeasures for imitation products that make unauthorized use of the Maxell Group's accumulated brand power. Given the increasing internationalization of the Maxell Group's markets and operations, the Group is focusing patent-related initiatives on the United States and Europe, and on China and other Asian countries, where production and sales are growing rapidly.

For original analog core technologies, the Group is developing a system aimed at acquiring patents that can be effectively exploited in the development of operations. In addition, the Maxell Group registers product designs, brand names, product names, and trademarks in countries in which it has operations. Further, the Group monitors markets to prevent improper use of its intellectual property.

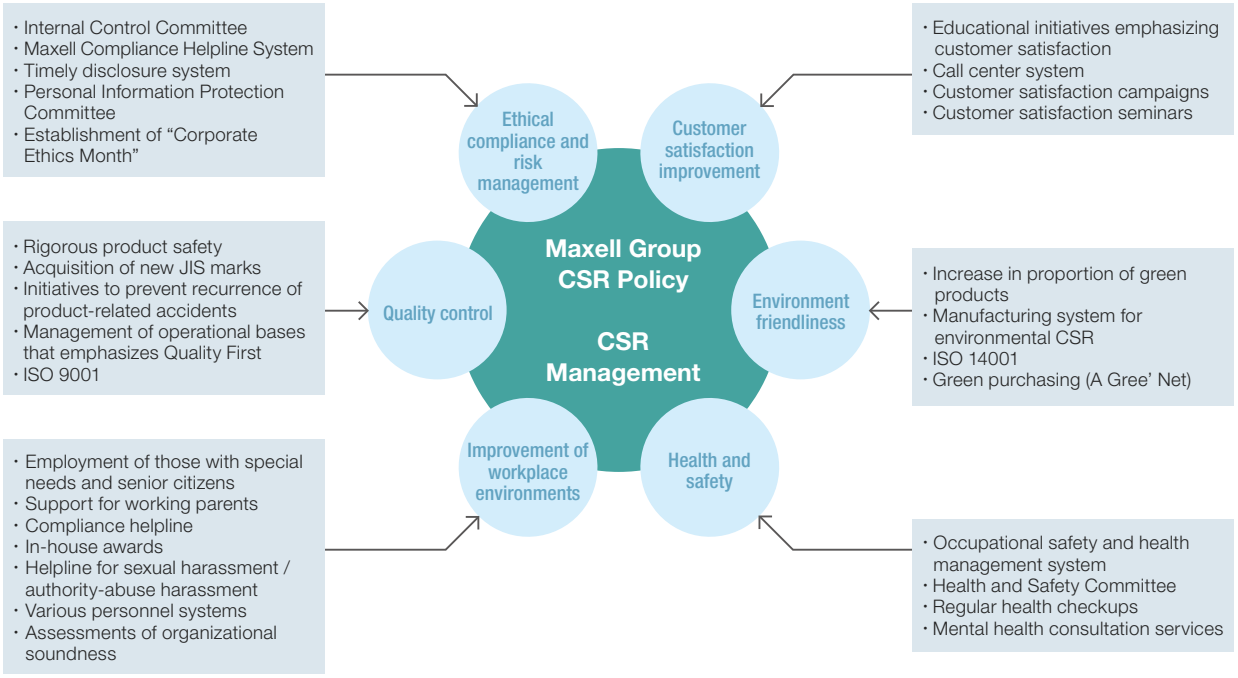
In filing, acquiring, and using patents, the Group pursues three types of patent filing and acquisition that reflect the three phases in the development of products and technologies. For newly created inventions, or long-term development themes, the Group aims to construct a network of filings and patents that secure the essence of the invention. For medium-term themes, the Group acquires more-effective patent rights by adjusting the content of filings. For short-term themes, the Group seeks patents that it will actually use in operations.

To ensure those three types of development themes reflect priority operational areas, the Group prepares specific action plans upon which it bases patent filing and acquisition activities. For each development theme, the Group aims for the timely identification of important discoveries and the establishment of at least five strategic patents (5SP) for each active competitor, which can be used to compete with other companies. In addition, to enable the concerted organizational pursuit of initiatives for respective development themes, operational divisions and the Intellectual Property Division collaborate on the development of FSP (Flagship Patents).

CSR Initiatives

Corporate social responsibility is becoming more important as globalization progresses, society becomes increasingly information-driven, and concern about global warming grows. Reflecting a founding spirit that advocates promoting “Harmony and Cooperation, Working with Heart and Soul, and Being of Service to Society,” the Maxell Group aims to realize a truly rich society by developing outstanding original technologies and products that benefit society. In addition, as a good corporate citizen, the Maxell Group fulfils its corporate social responsibilities through a corporate management approach founded on rigorously equitable and transparent business activities, stringent product safety, harmony with the environment, and continuous social contribution.

Initiatives by Category



Maxell website: CSR/Environmental Reports

http://www.maxell.co.jp/e/corporate/csr/index.html

For corporate social responsibility initiatives, please visit our website.
For further details, please refer to our CSR Report.

Basic Philosophy on Corporate Governance

At Maxell, one of our basic management policies is to enhance corporate value through the implementation of fair, transparent management measures that reflect the standpoints of all stakeholders, including customers, client companies and employees.

In accordance with this policy, we regard expediting management decision making and operational implementation, strengthening oversight systems, and ensuring stringent management compliance as fundamental to sound corporate governance and the enhancement of corporate value.

BOARD OF DIRECTORS AND COMPANY AUDITORS

At of June 15, 2010

Title	Name	Responsibilities
President and Chief Executive Officer	Yoshito Tsunoda	Overall Business
Representative Executive Officer Senior Executive Managing Director	Yoshihiro Senzai	Business Strategy
Senior Executive Managing Director	Akira Matsumoto	Global Marketing
Executive Managing Director	Yoshiharu Katsuta	Rechargeable Battery
Executive Managing Director	Masami Nakayama	General Affairs
Board Director	Kenji Sumiya	R&D,“Monozukuri” Manufacturing Base
Board Director	Masao Okafuji	Information Storage Media
Board Director	Osamu Kajii	Primary Battery
Board Director	Meiro Iwasaki	Accounting
Board Director*1	Tetsuo Horiuchi	

Title	Name
Full-Time Corporate Auditor*2	Kazuhiro Ueda
Corporate Auditor	Michiharu Nakamura
Corporate Auditor*2	Shigeo Sakase

*1 Outside director as provided in Paragraph 2, Clause 15 of the Corporate Law in Japan.
*2 Outside auditor as provided in Paragraph 2, Clause 16 of the Corporate Law in Japan.

CORPORATE HISTORY

1961	The dry battery and magnetic tape divisions of Nitto Electric Industrial Co., Ltd. (the present Nitto Denko Corp.), were set up independently as Maxell Electric Industrial Co., Ltd.
1963	Commenced production of the first alkaline dry batteries in Japan.
1964	Changed company name to Hitachi Maxell, Ltd
	Established sales headquarters in Tokyo.
1966	Introduced the first audio cassette tapes into the Japanese market.
1967	Completed the Kyoto Works.
1968	Established Maxell Seiki, Ltd.
1969	Established Maxell Corporation of America.
1970	Commercialized UD series of audio cassette tapes.
	Established Kyushu Hitachi Maxell, Ltd.
1973	Released the world's first high-performance zinc manganese batteries.
1976	Introduced the first 8-inch floppy disks (FD3200S) into the Japanese market.
	Established Maxell Europe GmbH in Germany.
	Commercialized Japan's first silver oxide battery.
1977	Listed on the 2nd sections of the Tokyo Stock Exchange (TSE) and the Osaka Securities Exchange (OSE).
1978	Established Kyoto Research Laboratory.
	Released VHS video cassette tapes.
1980	Established Maxell (U.K.) Limited (the present Maxell Europe Ltd.) in the U.K.
	Listed on the 1st sections of the TSE and the OSE.
	Completed a video tape facility at the Kyoto Works.
1981	Commercialized coin-type lithium manganese dioxide (CR) batteries.
1982	Completed the Tsukuba Works.
1983	Commenced production of the first lithum thionyl chloride (ER) batteries for memory backup use in Japan.
1984	Released 12-inch optical disks (OC301).
	Completed Maxell (U.K.) Limited Telford Plant in the U.K.
	Commenced production of IC cards and memory cards.
1986	Completed the Fukuchiyama Works.
1987	Released the world's smallest diameter (4.8mm) silver oxide batteries SR421SW and SR416SW.
1989	Established Maxell Electronics (Malaysia) Sdn. Bhd.
	Created audio cassette tapes Metal Vertex, the world's first cassette tapes using back-coated metal tapes.
	Released data cartridge (HS-4, HS-8) for computer use.
	Released the BETACAM SP/B-MBQ series and entered the professional broadcasting video tape industry.
1991	Established the Recording Media Research Laboratory in Tsukuba.
	Commercialized 3.5 magneto-optical (MO) disks.
1992	Completed the Ono Works.
	Launched computer backup tape DLTtape® III.
1993	Released digital audio MiniDisc (MD-RM).
1995	Released writable compact discs (CD-R).
	Commercialized the world's first optical modulation overdrive MO (RD-M230).
1996	Commenced production of lithium-ion rechargeable batteries.
	Commenced production of coin-type lithium manganese dioxide (ML) rechargeable batteries.
	Established Wuxi Hitachi Maxell Co., Ltd., in Wuxi, China.
	Released nickel-metal hydride rechargeable batteries.
1997	Commenced production of button-type titanium carbon lithium (TC) rechargeable batteries.
	Developed Write Once and Reliable Data Security (WORDS) technology.
1998	Obtained ISO 14001 at all production facilities.
	Released the world's first rewritable DVD-RAM discs.
	Developed and released glossy photographic papers for inkjet printers.
	Commercialized CD-R and CD-RW discs for music.
1999	Established the Battery Research and Development Laboratory.
	Introduced the Dynamic series of high-performance alkaline dry batteries.
	Commercialized high capacity polymer lithium-ion batteries.
2000	Released 4.7GB DVD-R discs.
	Released 4.7GB DVD-RAM discs.
	Commercialized 2.8GB compact (8cm) DVD-RAM discs for video cameras.
	Released LTO Ultrium 1 data cartridges.
	Released Super DLTtape® I data cartridges.
2001	Commercialized Coil-on-Chip RFID.
	Released new alkaline batteries with a power tank construction.
	Commenced production of 3.8mm-thin lithium-ion rechargeable batteries.
2002	Launched the New Dynamic series of alkaline dry batteries with power expander technology.
	Completed construction of the Maxell Tokyo Building.
	Commenced shipments of LTO Ultrium 2 data cartridges.
2003	Obtained the world's first qualification certificate of Super DLTtape® II data cartridges.
	Commenced shipments of camera lens units for cellular phones.
	Launched Blu-ray Discs for recordings.
	Commenced production of pickup lenses.
2004	Commercialized heat-resistant, coin-type lithium manganese dioxide batteries.
	Released a brand-new alkaline battery, Epsialpha.
	Commenced shipments of commercial-use pigment inks.
	Commercialized the world's first 5X DVD-RAM disc.
	Commenced shipments of LTO Ultrium 3 data cartridges.
2005	Commenced shipments of camera lens units for vehicles.
	Commercialized a silver oxide battery that is completely mercury-and lead-free.
	Commercialized lithium manganese dioxide (CR) cylindrical batteries.
2006	Merged Maxell Electronics (Malaysia) Sdn. Bhd. with Tohshin Precision (Malaysia) Sdn. Bhd. to establish a new company: Maxell Tohshin (Malaysia) Sdn. Bhd.
	Developed a fuel cell that uses hydrogen derived from water and aluminum.
	Became the world's first qualified DLTtape manufacturer and commenced shipments of Maxell DLTtape® S4 data carthidges.
	Launched a write-once BD-R disc and a rewritable BD-RE disc.
2007	Became the world's first qualified LTO manufacturer and commenced shipments of Maxell LTO Ultrium 4 data cartridges.
	Launched world's first iVDR-standard hard disc drive, iV, capable of recording copyright-protected high-definition content.
	Developed technology for high capacity tape media that uses ultra-thin, high-density nano-granular magnetic film.
	Commercialized the world's first 7.5GB (8cm) BD-R/RE discs for video cameras.
	Made Sliontec Corporation a subsidiary.
2008	Launched Dynamic Voltage high-performance alkaline dry batteries that are long-lasting and have triple-power.
	Developed a high-activity catalyst that enables higher performance fuel cells.
	Began mass production of glass pickup lenses for Blu-ray Disc drives.
	Developed heat-resistant separator that improves the safety of lithium-ion rechargeable batteries.
	Began shipments of power-source-type cylindrical lithium-ion rechargeable batteries.
	Transferred head-office functions to Osaka (Ibaraki).
2009	Launched New Voltage, an alkaline dry battery offering electrolyte leakage compensation*1.
	Completed construction of electrode plant in Kyoto Works.
	Merged Tohshin Seiko Co., Ltd., and Nagano Optics Laboratory Corporation to create Maxell Finetech Ltd.
	Began shipments of high-power cylindrical lithium-ion rechargeable batteries that use significantly less cobalt.
	Developed the world's smallest*2 micro-camera lens units, which incorporate piezo actuators.
2010	After delisting from the first sections of the Tokyo Stock Exchange and the Osaka Securities Exchange, became a wholly owned subsidiary of Hitachi, Ltd.
	Began shipping LTO Ultrium 5 data cartridges.
	Developed magnetic tape technology realizing the world's largest*3 areal recording density, 45.0Gb/in^2 (=69.8Mb/mm^2).

*1 This is applicable to single type 3 and single type 4 alkaline dry batteries. If electrolyte leakage occurs within the recommended usage period, and the customer has observed the warnings and precautions, Maxell will replace the batteries or repair or replace the device.

*2 As of September 2009. For micro-camera lens units. Survey by Maxell.

*3 As of April 2010. For storage tape media using linear storage format. Survey by Maxell.

maxell
Hitachi Maxell, Ltd.

maxell = The “Maxell” name was created by shortening the “Maximum Capacity Dry Cell” description of our dry cell batteries.

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Hitachi Maxell, Ltd.

http://www.maxell.com/

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