

Energy and Electric Systems

Net Sales Breakdown by Business Segment



Net Sales

¥1,241.9 billion
up 1% year on year

Operating Income

¥51.7 billion
up ¥7.3 billion year on year

The social infrastructure systems business saw decreases in both orders and sales compared to the previous fiscal year due primarily to decreases in the transportation systems business outside Japan and the power systems business in Japan.

The building systems business remained substantially unchanged in orders, while sales increased compared to the previous fiscal year due primarily to growth in the renewal business in Japan and the new installation of elevators and escalators outside Japan.

As a result, total sales for this segment increased by 1% from the previous fiscal year to ¥1,241.9 billion. Operating income increased by ¥7.3 billion from the previous fiscal year to ¥51.7 billion due primarily to a shift in project portfolios.



Next-generation SiC Inverter for Railcars

Mitsubishi Electric has developed a traction inverter for railcars that incorporates silicon carbide (SiC), a new type of semiconductor. This new inverter, with its energy-efficient, compact, lightweight, low-maintenance, and low-noise design, is expected to play a major role in next-generation railcar propulsion systems.



Large-scale Visual Information System

Offerings in the Mitsubishi Electric Group's lineup of large-scale visual information systems boast Diamond Vision™—a technology that helps fuel audience excitement in such venues as stadiums—along with cutting-edge information distribution platforms that employ the internet and data broadcasting. As such, the Group provides visual information systems that enrich people's lives in various ways.

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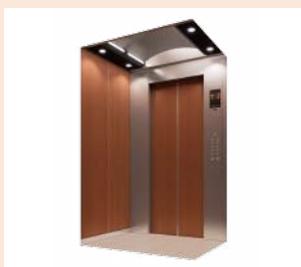
Transmission & Distribution Systems

Transmission and distribution facilities are essential parts of the electricity supply infrastructure, and to ensure stability their components must meet stringent requirements for reliability, functionality and performance. Satisfying customer needs for sophisticated solutions, Mitsubishi Electric boasts a broad lineup of high-quality products that support such facilities.



D-SMiree Smart Power Distribution Network Systems for Medium or Low Voltage Direct Current

In response to growing calls for standalone power distribution structures in which individual buildings' electricity needs are met by discrete on-site generation facilities, Mitsubishi Electric has created the Energy Management System (EMS), which is specifically designed for direct current distribution. Boasting predictive functions covering both generator output and electricity demand, the EMS helps control charging and discharging schedules to best utilize direct current generated by photovoltaic generators as well as that released from batteries, thus eliminating energy loss attributable to conversion to alternating current.



NEXIEZ Machine-room-less Elevators

Compact, lightweight, and energy-saving, NEXIEZ machine-room-less elevators are the global flagship product. They are widely used throughout the world, mainly in low- to mid-rise buildings. Models designed with various functions and features for specific regions are also available to meet the preferences and customer needs of each region.

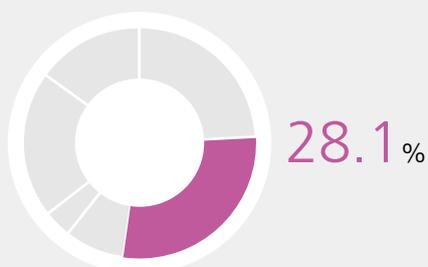


Series Z Escalators

The Z-Series escalators offer enhanced safety through several features that ease stepping on/off and help prevent clothing from getting caught, so that passengers of all ages, from small children to the elderly, can use the escalators safely. They also offer a higher level of energy conservation by providing optional features such as VVVF inverters. Environmentally friendly, people-friendly, and beautiful, the Z-Series show the future of escalators.

Industrial Automation Systems

Net Sales Breakdown by Business Segment



Net Sales

¥1,444.9 billion
up 10% year on year

Operating Income

¥190.8 billion
up ¥50.7 billion year on year

The factory automation systems business saw increases in both orders and sales from the previous fiscal year due primarily to growth in capital expenditures in the fields of organic light emitting diodes (OLED) mainly in Korea, smartphones and electric cars in China as well as buoyancy in exports by machinery manufacturers in Japan.

The automotive equipment business saw increases in both orders and sales from the previous fiscal year, due primarily to increases in sales volume of Japanese car manufacturers in China, as well as the weaker yen, despite decreased car sales in North America.

As a result, total sales for this segment increased by 10% from the previous fiscal year to ¥1,444.9 billion. Operating income increased by ¥50.7 billion from the previous fiscal year to ¥190.8 billion due primarily to an increase in sales.



Programmable Logic Controllers

Mitsubishi Electric's MELSEC series of programmable logic controllers supports a wide array of production and social infrastructure applications; solutions range from control and safety devices to information and instrumentation management. As a leading global brand, the MELSEC series contributes to the construction of cutting-edge control systems owing to its capabilities, performance, product variety, and high reliability.



AC Servos

The MELSERVO Series enhance all aspects of production devices and facilities. From rotary servo motors to linear servo motors and direct drive motors, a wide range of products is available to meet any number of applications and to significantly improve the performance of all relevant devices.



Computerized Numerical Controllers—CNCs

A broad range of CNCs is available. Including, for example, the M800/80 Series, which increases productivity and precision and optimizes machine tool operation through an independently developed dedicated CPU and abundant control functions. It is also compatible with the various field networks that are necessary for constructing automated systems.



Electrical Discharge Machines (EDMs)

Beginning with the newly launched MP series, a strategic product on a global scale, Mitsubishi Electric provides a lineup of EDMs that add value and improve the manufacturing productivity of molds and precision components. Such equipment is indispensable to the production of automobiles, home electronics, and IT-related devices.



Electric Power Steering (Motors and Controllers)

Mitsubishi Electric was the first company in the world to mass produce motors and controllers for electric power steering to assist driver steering in line with driving conditions. Over the years, Mitsubishi Electric has helped to improve steering feel, response, and stability while delivering compact units and high-output performance, and contributing to reduced automobile CO₂ emissions.



Car Navigation System

The DIATONE SOUND. NAVI NR-MZ300PREMI/NR-MZ200PREMI-2 car audio-navigation system offers superior quality in terms of responsiveness, image resolution, and design. It enhances the driving experience more than ever, with faster and more visually appealing navigation.

Information and Communication Systems

Net Sales Breakdown by Business Segment



Net Sales

¥436.0 billion
down 3% year on year

Operating Income

¥11.9 billion
down ¥0.7 billion year on year

The telecommunications equipment business saw decreases in both orders and sales compared to the previous fiscal year due primarily to decreased demand in communications infrastructure equipment.

The information systems and service business saw an increase in sales compared to the previous fiscal year, mainly owing to an increase in the system integrations business.

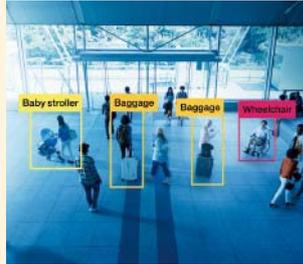
The electronic systems business saw an increase in orders compared to the previous fiscal year mainly due to increases in the defense systems and space systems businesses, while sales experienced a decrease compared to the previous fiscal year due primarily to a shift in large-scale projects in the defense systems business.

As a result, total sales for this segment decreased by 3% from the previous fiscal year to ¥436.0 billion. Operating income decreased by ¥0.7 billion from the previous fiscal year to ¥11.9 billion due primarily to a decrease in sales.



Information System Integrated Control Center

Specialist engineers are available 24/7 to remotely operate and monitor client information systems and to analyze and determine any problem that might occur using automated tools, enabling a rapid response to any system malfunction. (Mitsubishi Electric Information Network Corporation)



“kizkia”: Video Analysis Solution using Artificial Intelligence

Powered by AI, this system can identify attributes of persons or things and automatically recognize their movements, conditions and situations by analyzing security footage in real-time. It notifies irregular situations which may require staff’s support but would otherwise been overlooked by human observers. The system also makes it possible to support forecasting future conditions. (Mitsubishi Electric Information Systems Corporation)



DS2000 Standard Satellite Platform

The DS2000 is a standard satellite platform modeled after JAXA’s ETS-VIII. It meets the need for high-quality, low-cost satellites with shortened delivery times. It has already been adopted for use by Japan and other countries; more than ten satellites currently in orbit use it. It will eventually be incorporated into JAXA’s Engineering Test Satellite 9, which is being launched in response to the need for high-throughput communications satellites.



Vehicle-mounted Stations for Satellite Communications

Vehicle-mounted satellite communication equipment enables transmission of video and audio for broadcast news (satellite news gathering) and information for disaster management. Mitsubishi Electric products are employed by Japanese broadcasters, the public sector, and infrastructure companies such as gas and electricity utilities.



Broadband Optical Access Systems

Mitsubishi Electric is progressively installing Gigabit Ethernet Passive Optical Network (GE-PON) systems, which play a central role in broadband services. The need for GE-PON systems is steadily expanding due to high-capacity broadband content, including the increased use of visual services.



Digital CCTV (Closed-circuit Television) System

This digital CCTV system meets the expanding range of needs for video surveillance systems, which is achieved through new digital technology incorporated into its high-resolution megapixel camera and its high level of scalability, which can accommodate even large-scale systems.

Electronic Devices

Net Sales Breakdown by Business Segment



Net Sales

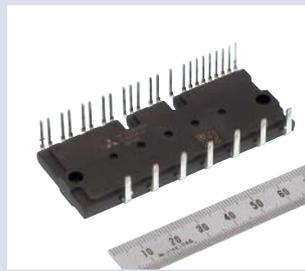
¥202.2 billion
up 8% year on year

Operating Income

¥14.5 billion
up ¥6.1 billion year on year

The electronic devices business saw an increase in orders from the previous fiscal year due to increases in demand for power modules used in consumer and industrial applications, despite a decrease in demand for optical communication devices, and total sales increased by 8% compared to the previous fiscal year to ¥202.2 billion.

Operating income increased by ¥6.1 billion from the previous fiscal year to ¥14.5 billion due primarily to an increase in sales.



1200V Large DIPIPM*™ Ver. 6

The Mitsubishi Electric has expanded its lineup of 1200V large DIPIPM™ Ver. 6 to include those suited for 40kW-class package air conditioners, thus contributing to downsizing, light-weighting and energy-saving inverters for use in air conditioners and other appliances.

* DIPIPM: Transfer mold package intelligent power module with short-circuit protection.

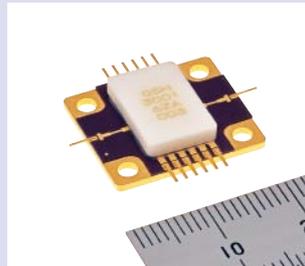


LV100-Type X-Series HVIGBT¹ Modules

Incorporating 7th-generation IGBT and RFC diodes, these high-voltage power semiconductor modules are designed to support traction, power transmission systems and large industrial application with their large capacities. The modules will offer high power and high efficiency of the inverter systems by realizing the greatest power density on the market² and it will enable inverter systems to be more flexible configurations and higher reliability by new package structure and optimized terminal layout.

¹ High Voltage Insulated Gate Bipolar Transistor

² As of May 11, 2017, Mitsubishi Electric research



Ka-Band¹ GaN² HEMT³ MMIC⁴ for Satellite Earth Stations

This GaN HEMT MMIC suitable for satellite communication system which are used for high-speed communication during natural disasters and in areas where ground networks are difficult to construct. Playing key roles in these systems, the GaN HEMT MMIC offers industry top-level low distortion⁵ and output power of 8W, will help to downsize satellite earth stations.

¹ Microwaves with frequencies ranging from 26 to 40 GHz

² Gallium Nitride

³ High Electron Mobility Transistor

⁴ Monolithic Microwave Integrated Circuit

⁵ Based on Mitsubishi Electric research as of October 4, 2017; compared with other Ka-band GaN HEMT MMIC devices for use in satellite earth stations



Compact Integrated 400Gbps¹ EML²-TOSA³

The Mitsubishi Electric became the first in the industry⁴ to release 400Gbps EML TOSAs conforming to the IEEE 400GBASE-LR8 standards⁵ established for high-capacity communication systems supporting 400Gbps transmissions by covering 8 wavelengths with a pair of TOSAs. Used in facilities such as data centers, these devices thus help enhance optical communications infrastructure by boosting transmission speed and capacity.

¹ Gigabits per seconds

² Electro-absorption Modulated Laser diode

³ Transmitter Optical Sub Assembly

⁴ As of March 7, 2018, based on internal research

⁵ Ethernet basic standards formulated by the American Institute of Electrical and Electronics Engineers for 400Gbps communication speed, 10 km transmission distance and eight different wavelengths



19.0-inch SXGA

TFT-LCD Modules with Touch Panels for Industrial Applications (19.0-inch SXGA, 8.0-inch WVGA, 12.1-inch XGA/WXGA)

These projected capacitive touch panels using cover glass of up to five millimeters in thickness, support maximum 10 simultaneous touch inputs, and can be used even with thick, heat-resisting gloves or when the screen is wet. They are ideal for outdoor applications that require impact or water resistance.



8.4-inch
VGA

10.4-inch
XGA

Transflective Series TFT-LCD Modules for Industrial Applications (8.4-inch VGA and 10.4-inch XGA)

Transflective series TFT-LCD modules ensure low power consumption by switching off backlight when ambient light is available. As these modules boast market-leading visibility under direct sunlight and are capable of operating in wide temperature range, this lineup provides superior solutions for display used outdoors in industrial equipment.

Home Appliances

Net Sales Breakdown by Business Segment



Net Sales

¥1,049.3 billion
up 4% year on year

Operating Income

¥56.0 billion
down ¥13.6 billion year on year

The home appliances business saw a 4% increase in sales compared to the previous fiscal year to ¥1,049.3 billion, due to increases in sales of air conditioners in the European, Chinese and U.S. markets, in addition to positive influences caused by the weaker yen.

Operating income decreased by ¥13.6 billion compared to the previous fiscal year to ¥56.0 billion due primarily to increases in material prices and sales expenses.



Air Conditioning Systems

In addition to KIRIGAMINE room air conditioners, Mitsubishi Electric offers an extensive lineup of products with applications extending from stores, offices, and buildings to factories and industrial facilities while featuring environmentally compatible, energy-saving technologies. These qualities allow Mitsubishi Electric to meet air conditioning needs globally.



Home Equipment

ENEDIA is a system that effectively uses renewable energy through the ingenious application of a home energy management system (HEMS) that stores electricity generated by solar panels in the batteries of an electric vehicle. ENEDIA is based on Mitsubishi Electric's concept of a smart electric home that conserves energy by using highly efficient air conditioners, water heaters, and cooking equipment. It gives residents a way to conserve energy without sacrificing comfort.



Home Appliances

Mitsubishi Electric develops home appliances by incorporating its unique technologies and perspectives so that its products can be used in various scenes of daily life, such as the kitchen, living room, and bedroom. Efforts are made to develop products that contribute to making life more comfortable for users, meeting and even surpassing their expectations.



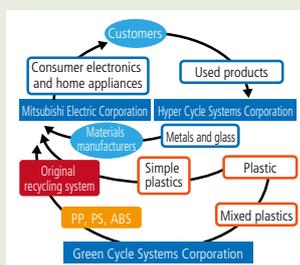
Lighting Fixtures and Light Bulbs

Mitsubishi Electric offers an extensive lineup of high-efficiency, long-lasting LED products that meet diverse needs for energy-saving light bulbs and equipment in households, stores, offices, and factories. The company's LED products make the future brighter for families and society as a whole.



Visual Equipment for Public and Business Applications

Mitsubishi Electric's high-quality image processing technologies deliver exceptionally sharp images with superior color reproduction and are incorporated in a wide range of products developed to suit a variety of application needs. These systems are being used in Japan and abroad for large-screen applications, such as digital signage used to display images, data, and information at public facilities and other venues.



Recycling Consumer Electronics and Home Appliances

Mitsubishi Electric has developed technologies for automatically sorting the three major types of plastic (polypropylene (PP), polystyrene (PS), and acrylonitrile-butadiene-styrene (ABS)) used in consumer electronics and home appliances. This original recycling system is being utilized to promote the reuse of plastics in the company's products by improving the physical properties of the sorted materials.