

# INTELLECTUAL PROPERTY

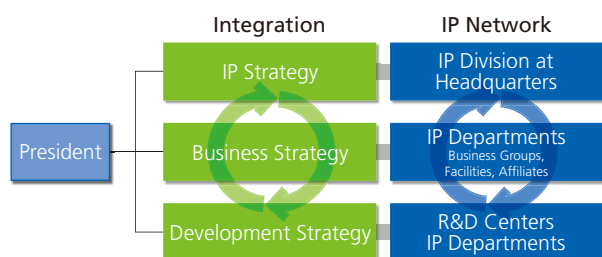
Essential to the Mitsubishi Electric Group's pursuit of global business development is the rigorous promotion and protection of intellectual property (IP) rights.

Recognizing IP as a vital resource that underpins corporate strength, the Mitsubishi Electric Group continues to integrate its business, R&D and IP activities. With approximately 37,000 patents and about 9,000 new applications filed each year in Japan and overseas, our extensive portfolio forms the wellspring of our global competitive advantage.

## Structure of the Intellectual Property Division

The Group's IP-related operations are the direct responsibility of the president and overseen by our IP division at headquarters under an appointed IP executive officer. Day-to-day issues are handled by IP departments at relevant facilities and R&D centers. Focusing on integration as the means to improve the structure and effectiveness of our IP network, we coordinate activities at each level. The IP division at headquarters formulates strategies for the entire Group, promotes critical IP-related projects, and coordinates interaction with the patent office. At the facility and R&D center level, IP departments pursue specific objectives in line with the Group's overall IP strategies.

### Integrating Business, R&D and IP Activities



## IP Strategy

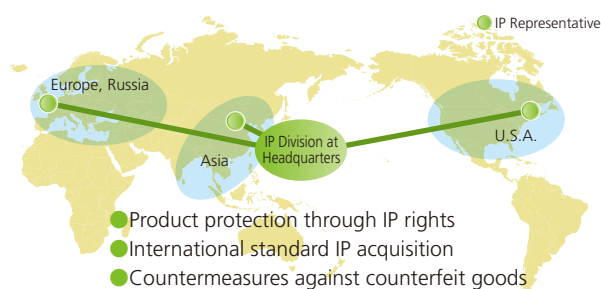
In all our IP-related activities, we strive to enhance IP capabilities in response to business conditions based on effective utilization of the IP creation cycle. Specifically, the IP division and its departments identify critical IP-related themes in connection with mainstay businesses and important R&D projects. In strategically promoting IP activities, we further reinforce the Group's global competitiveness.

In the face of rapid technological standardization worldwide, the Group is working to obtain certified patents for standards, with an aim to increase recognition of our technologies as international standards. In patents related to MPEG<sup>1</sup>, DVD and ARIB<sup>2</sup> digital broadcasting standards, we have taken the industry lead in the management of patent pool organizations such as MPEG LA and DVD 6C. These IP activities are contributing to the improvement and expansion of our business performance.

Moreover, in response to further business globalization, Group IP representatives in the United States, Europe and China actively work to strengthen IP capabilities and to accelerate our global IP activities.

In the critical area of protecting IP rights, we work closely with relevant industry associations and government agencies to prevent IP infringements and eradicate counterfeiting. In-house, we continually update and enforce internal controls for the appropriate management of confidential IP material.

### Further Strengthening Global IP Capabilities



## Mitsubishi Electric's Core Technologies and Patents

SEGMENT	FIELD	CORE TECHNOLOGY PRODUCTS/CORE TECHNOLOGIES/CORE PATENTS
<b>Energy and Electric Systems</b>	Power Systems	Power generation systems, Substation systems, Power distribution systems, Insulation technology, Large-current control systems
	Transportation Systems	Propulsion control systems, Transportation planning and control systems, Train information systems
	Elevators/Escalators	AXIEZ series - Operating and space efficient elevators, Elevator group control systems, Motion Search
	Supervisory Control Systems	Multiple large-screen display technology, Network visual monitoring systems, Security System Integration Platform (DIGUARD NET)
<b>Industrial Automation Systems</b>	Industrial Automation Products and Systems	Programmable controllers, Human machine interfaces, AC servo systems, Inverters, Low-voltage circuit breakers, Computerized numerical controllers, Electrical discharge machines, Laser processing machines
	Measurement and Control Systems	Energy diagnosis technology, Power meters, EcoMonitor
	Automotive Electric & Electronic Products and Car Multimedia Systems	Electrical power steering, High-efficiency alternators, High-power starters, Onboard ETC equipment, Car navigation systems
<b>Information and Communication Systems</b>	Wireless Base Stations	Digital modulation and demodulation technology, Wireless access control technology, Error detection and correction technology, Amplifier circuit technology
	Closed Circuit Television Systems	Video storage technology, Video encoding and decoding technology, Sensor information processing technology, Speech coding technology
	Space, Satellite Communication Systems	Satellites, Positioning augmentation services (PAS <sup>3</sup> ), Posture control technology
	Antennas and Radar Devices	Antennas, Microwave and millimeter wave technology, Tracking and signal processing technology
	Information Communications Network Systems	Information security technology, Encryption algorithms (MISTY), Data management technology, Optical access technology, Optical network technology, Optical transmission systems
<b>Electronic Devices</b>	Power Devices	Power transistors, Power modules, SiC power devices
	High Frequency and Optical Devices	Semiconductor lasers, MMIC <sup>4</sup> , Optical transmission modules, High-frequency MEMS <sup>5</sup> switch
	LCD modules	Display image processing technology, 3D LCDs
<b>Home Appliances</b>	Air Conditioning Systems	Heat pump technology, Air conditioners, S-wing fan residential ventilator
	Solar Power Generation Systems	Solar battery cells, Power conditioners
	Projection TVs	Thin DLP <sup>6</sup> optical engine, Wide color range and 6 primary color rear projection TVs, Digital broadcast receiver technology
	DVD Recorders and Players	Blu-ray Disc recorder, Highlight replay technology, Optical disc recording and play technology, MPEG <sup>1</sup> encoding technology

1 MPEG: Moving Picture Experts Group

2 ARIB: Association of Radio Industries and Businesses

3 PAS: Positioning Augmentation Services

4 MMIC: Monolithic Microwave Integrated Circuit

5 MEMS: Micro Electro Mechanical Systems

6 DLP<sup>®</sup> is a registered trademark of Texas Instruments Incorporated, U.S.A.