

IEEE Recognizes Asahi Kasei Microdevices' Commercialization of Thin-Film Hall Elements as an IEEE Milestone

TOKYO – February 19, 2026 – Asahi Kasei Microdevices Corporation (AKM) has announced that its commercialization of thin-film Hall elements, initiated in 1983, has been recognized as an IEEE Milestone by the Institute of Electrical and Electronics Engineers (IEEE). The IEEE Milestone program honors historic achievements that represent groundbreaking innovations in electrical and electronic engineering. To be recognized, at least 25 years must have passed since the development, and the achievement must have made significant contributions to society and industry.

The 1983 launch of AKM's [HW Series](#) marked a major milestone in the successful mass production of magnetic sensors using thin-film Hall elements, laying the foundation for the technology's evolution and broader adoption in consumer electronics. Today, thin-film Hall elements are recognized as one of the standard magnetic-sensing technologies found in a wide range of electronic devices globally.

Early thin-film Hall elements lacked sensitivity and suffered substantial reliability issues, particularly regarding thermal stability. In response, AKM placed a thin-film indium antimonide (InSb) layer between two ferrites to concentrate magnetic flux and substantially boost detection sensitivity. AKM then implemented a three-layer electrode structure that allowed for gold wire bonding, greatly enhancing thermal stability and the durability required for mass production. These innovations enabled the full-scale industrialization of these devices: To date, over 50 billion units of Hall sensor products based on this technology have been shipped worldwide.

Since its introduction, AKM's Hall elements have been widely used in brushless motors, such as those in cooling fans for personal computers and servers, enabling further miniaturization of information technology (IT) infrastructure and consumer electronics. Products based on this technology have also contributed to energy conservation by allowing for the development of more efficient heating, ventilation, air conditioning, and refrigeration equipment.

AKM continues to expand magnetic sensing into new domains, including precision [position detection](#) and [current sensing](#). These advancements have improved smartphone camera performance and enhanced the efficiency and driving range of electric vehicles. The technologies developed through this program have also been applied to infrared sensors, LEDs, and other device categories.

Satoshi Takehara, Executive Officer of Asahi Kasei Microdevices, commented, "We are grateful to our customers for their longstanding trust in our thin-film high-sensitivity Hall elements, as well as to our suppliers and stakeholders for their continued support throughout many years of production. This IEEE Milestone recognition encourages us to further strengthen the quality and reliability of our products while advancing technological development that meets the evolving needs of society."

Asahi Kasei positions Electronics as a First Priority business in its [medium-term management plan](#). This recognition illustrates Asahi Kasei's long-term commitment to driving long-term, sustainable growth through its electronic materials and components.

To learn more about Asahi Kasei's Hall sensor products, visit <https://www.akm.com/us/en/products/hall-sensor/what-makes-akm-different/>.

About IEEE

The Institute of Electrical and Electronics Engineers is one of the world's largest professional organizations dedicated to advancing technological innovation in fields such as electrical and electronic engineering, communications, computing, and information technology. With 500,000 members across approximately 190 countries, it contributes to scientific and technological progress and society through international standardization activities, publication of academic papers, and hosting technical conferences.

About Asahi Kasei Microdevices Corporation (AKM)

AKM, a Japan-based company, operates an electronic components business as a member of the Asahi Kasei Group's Material sector. AKM provides customers with unique products by combining the compound semiconductor technology used in magnetic sensors with the ASIC/analog circuit technology used in silicon semiconductors. AKM's unique products and solutions are featured across a wide range of markets, including mobile communication devices and consumer products, as well as automotive electronics devices, household equipment, and industrial equipment. Additional information is available on <https://www.akm.com/>.

About Asahi Kasei

Asahi Kasei is a diversified global company that contributes to life and living for people around the world. Since its foundation in 1922, with businesses in ammonia and cellulose fiber, Asahi Kasei has consistently grown through proactive portfolio transformation to meet the evolving needs of every age. With 50,000 employees worldwide, the company contributes to sustainability by providing solutions to the world's challenges across its three business sectors: Healthcare, Homes, and Material. For more information, visit <https://www.asahi-kasei.com/>.

North America Contact:

Asahi Kasei America Inc.
Christian OKeefe
christian.okeefe@ak-america.com

Europe Contact:

Asahi Kasei Europe GmbH
Sebastian Schmidt
sebastian.schmidt@asahi-kasei.eu