

News Release

FOR IMMEDIATE RELEASE

Hitachi High-Technologies Ships 5,000th Advanced CD Measurement SEM (CD-SEM) Unit

Contributing to the development and manufacturing of cutting edge semiconductors

Tokyo, Japan, October 17, 2017—Hitachi High-Technologies Corporation (TSE: 8036, Hitachi High-Tech) announced that cumulative shipments of advanced Critical Dimension measurement Scanning Electron Microscopes (CD-SEMs*1) manufactured and sold by Hitachi High-Tech have exceeded 5,000 units. Since the launch in 1984, Hitachi High-Tech's CD-SEMs have dominated the market due to high image quality and powerful measurement capabilities. These tools are a core product for Hitachi High-Tech Group, maintaining a dominant market share representing 80.6%*2 of the global market.

The information society is developing globally, driven by technology innovation that relies on sensors, communication functions, control functions, and so forth, all of which are powered by semiconductor devices. As the expansion of cloud services and IoT*3-related businesses creates a growing need for processing, management, and transmission of high data volumes, semiconductor applications and demands continue to expand in social and industrial infrastructure sectors such as automobiles and railways in addition to the PC and smartphone sectors.

In response to this trend, Hitachi High-Tech has been working on development of semiconductor manufacturing equipment to meet diverse needs of semiconductor applications, such as high functionality and reliability, miniaturization, and low power consumption.

CD-SEMs allow high-precision measurement of the dimensions of the line widths of the fine circuit patterns, holes, and other features formed on semiconductor wafers. Customers use CD-SEMs primarily for process control and improvements in productivity. Hitachi High-Tech commercialized CD-SEMs using its expertise in electron beam technology, launching the first model, the S-6000 series, in 1984. The Company continues to work on technology innovation and performance enhancement. Its latest model, the CG6300, demonstrates measurement performance required by advanced device manufacturers down to several nanometers*4. The tool realizes processing capability for the latest high-volume semiconductor fabs*5 with capacity exceeding 10 million wafers per year. In addition, refinements include the achievement of stable long-term operation and improved matching between units, which helps to lower the cost of ownership*6 on the semiconductor-device production site.

For Hitachi High-Tech, surpassing 5,000 cumulative shipments of CD-SEMs is a milestone. The Company will continue to respond to diversifying needs at semiconductor-device production sites by providing timely, advanced, comprehensive solutions, pursuing and creating new value with customers and contributing to the cutting edge of manufacturing.

*1 CD-SEM (Critical Dimension-Scanning Electron Microscope) : A scanning electron microscope (SEM) for measuring a dimension of circuit patterns on semiconductor wafers.

*2 Calculated from average values of Gartner Inc. data for 2006-2016.

*3 IoT : internet of things.

*4 Nanometers : One billionth of a meter.

*5 Fab : Semiconductor fabrication plant.

*6 Cost of Ownership : The total cost necessary for installation, operation and management of facilities, equipment, and other hardware.

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