

Contribution to Society by Semiconductor Manufacturing Systems

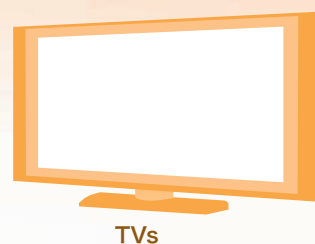
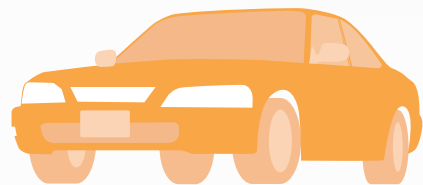
Establishment of an Affluent and Vigorous Society

Enhancement of electronic device by means of semiconductors helps establish an affluent and vigorous society.

The Hitachi Kokusai Electric Group manufactures, sells, and develops semiconductor-manufacturing equipment. These semiconductor manufacturing systems never take center stage in the world. You may therefore not clearly understand how such systems contribute to society. However, semiconductors are used in various products, covering wider range of applications, and beginning to be mounted on all kinds of products.

For example, such products include PCs, mobile phones, TVs, camcorders, game units, mobile music players, and automobiles. Semiconductors are the brain and heart of such products.

Automobiles



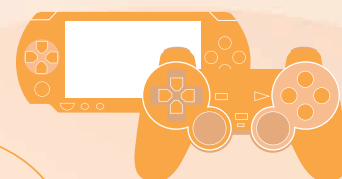
TVs



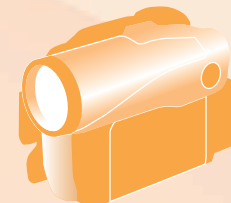
PCs



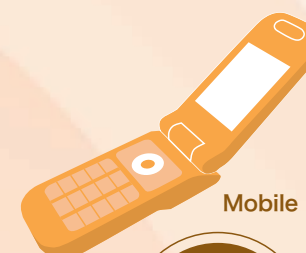
Mobile music players



Video games



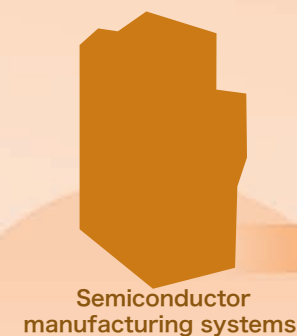
Camcorders



Mobile phones

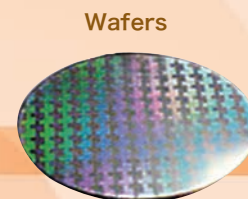


Semiconductors are familiar to us.

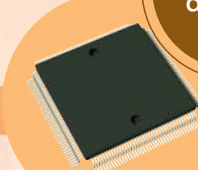


Hitachi Kokusai Electric Group

Toyama Works



Wafers



Semiconductors

Semiconductors are in various kinds of equipment

Semiconductor is produced by forming electric circuits on a substrate called a silicon wafer. We produce manufacturing equipment which is used in the semiconductor wafer process called "layer deposition" to form electric circuits on such a substrate.

Semiconductor technology continues to progress and electronic devices are getting more and more convenient and advanced. We conduct ongoing research, development, and production of equipment with excellent performance, and keep striving to realize an affluent and convenient society.

Product Profile

Vertical QTAT System

The vertical QTAT system (QUIXACE®) is a batch-type vertical diffusion/LP-CVD tool that achieves QTAT batch processing.



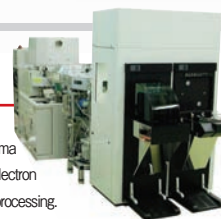
Vertical ALD system

The vertical ALD system (ALDINNA®) is a vertical furnace with high throughput by batch processing and ALD technology that achieves high-quality low temperature deposition.



Single-wafer MMT plasma oxinitridation system

The single-wafer MMT plasma oxinitridation system (MARORA®) uses a unique MMT plasma source which generates a soft plasma with a low electron temperature, and achieves a damage-free plasma processing.



Kokusai Electric Semiconductor Service Inc.

Service support system based on computer telephony integration (CTI)

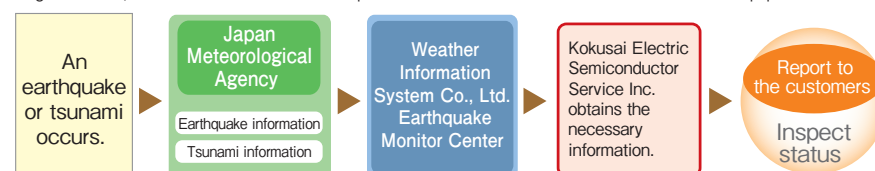
(technology for interlocking telephony with computers)

This technology responds to calls from customers experiencing trouble or other incidents 24 hours a day, 365 days a year, and thus protects their equipment.



Communication system for prompt earthquake information report (by e-mail)

When an earthquake strikes, this system automatically forwards e-mail messages of earthquake information to the mobile PCs and mobile phones of field service engineers and persons responsible, so that field service engineers and/or other resources can be dispatched to disaster-affected areas to restore the equipment.



Product Profile

Energy-saving power supply

- (1)Cleared the Fiscal 1994 Harmonics Control Guidelines of the Agency for National Resources and Energy
- (2)Highly effective in achieving an average power factor of 0.99 or higher (up by at least 60%), reducing CO₂ emissions, and curtailing reactive power



Topics

Provide Support in Partnership with our customers for Technical Enhancement and Production in line with demand season



Won the "Best Supplier Award" from Asia's biggest semiconductor manufacturer in October, 2006

The Hitachi Kokusai Electric Group has won the Best Supplier Awards from its customers, who are among the world's leading semiconductor manufacturers. The Best Supplier Award is a program recognizing those suppliers who have significantly contributed to the early startup and stable operation of new mass-production lines.

For example, the Hitachi Kokusai Electric Group does business with the world's largest and famous semiconductor manufacturer, along with Asia's largest semiconductor manufacturer and world's largest memory supplier, major Asian manufacturers specializing in OEM business, and a top Japanese manufacturer. All these business relationships can probably be attributed to the Group's efforts in meeting customer requirements and its high reputation for product quality, product supply capacity, expertise, and support capability.

The Hitachi Kokusai Electric Group intends to continue meeting customer requirements ahead of the competition and promoting partnerships with its customers (semiconductor manufacturers) worldwide.

*1 Layer deposition: A process of forming an oxide film, nitride film, other dielectric thin film, or a metal film for electric wiring of semiconductor wafers.

*2 QTAT: Quick Turn Around Time; To reduce time needed to complete a semiconductor wafer process

*3 LP-CVD: Low Pressure Chemical Vapor Deposition

*4 Batch: To process multiple wafers in groups

*5 ALD: Atomic Layer Deposition

*6 Single-wafer: To process wafers one by one

*7 MMT: Stands for "Modified Magnetron Type."