## **HISTORY HIGHLIGHTS**

Hitachi founder Namihei Odaira realized a dream in 1910 when he constructed a 5-HP electric motor in his small workshop. In the hundred years since then, we at Hitachi have taken up our founder's mission of devising our own technology and have put this ideal into practice through our Corporate Credo of "contributing to society through the development of superior, original technology and products."

1910	<ul> <li>Founded by Namihei Odaira as an electrical repair shop</li> <li>Succeeded in manufacturing three 5-HP (3.6775-kW) electric motors as the company's first products</li> <li>Completed a 5-kVA transformer</li> </ul>	<ul> <li>Completed the first cars for the Shinkansen (bullet train)</li> <li>Manufactured monorail running between Haneda Airport and Hamamatsu-cho, Tokyo</li> <li>Developed hybrid LSI</li> </ul>
	for Hitachi Kozan 1910	Developed 300-m/min elevators for high-rise buildings
1915	• Completed 10,000-HP (7,355-kW) water turbine	Completed on-line banking system     Developed and mass-produced     all-transistor color televisions
1924	Completed the first large-scale     DC electric locomotive to be     manufactured in Japan  1924	Developed computer-aided traffic control system for the Shinkansen (bullet train)
1931	<ul> <li>Completed 10,000-A hydraulic electrolytic cell</li> <li>Completed Hitachi's first electric refrigerator</li> </ul>	1970
1943	Completed 85,000-kW Francis water turbine and 70,000-kVA alternating current generator	Developed new-type image pickup tube
1952	• Completed 21,000-kW two-stage pump-turbine	• Commercial operation began at Japan's first 460,000-kW nuclear power station • Released the first series of
1954	Completed the first large-scale cold strip mill to be produced in Japan	general-purpose large-scale computers
1955	Completed 100,000-kW Francis water turbine and 93,000-kVA alternating current generator	1975 • Developed Hitachi High Crown Control Mill
1958	Electron microscope awarded the grand prix at the World Exposition in Brussels	<ul> <li>Completed world's first field emission electron microscope with record-high resolution</li> <li>Experimental color camera with solid-state miniature image device developed</li> </ul>
1959	Completed electronic computers based on transistors     Hitachi America, Ltd. established	<ul> <li>Hitachi Europe Ltd. established</li> <li>Succeeded in world's first micro-level observation of magnetic field by the use of electron beam holography</li> <li>Listed on New York Stock Exchange</li> </ul>
1961	Completed experimental nuclear reactor	1984 • Started mass production of 256-kbit DRAMs

- Completed the "JT-60" large-scale Tokamak device for break-even plasma experiments
  - Established the Hitachi Foundation to promote cultural, educational and scientific exchanges between Japan and the U.S.
- 1988 Hitachi Asia Pte. Ltd. established
- Developed world's fastest superconductive computer.
  - Developed superconductive MR imaging equipment
  - Established two R&D centers in the U.S. and two laboratories in Europe
- Released very large-scale computer with the world's fastest processing speed at that time
- Developed inverter-controlled electric locomotive with the world's largest control capacity
  - Developed highly sensitive image pickup tubes



- Developed Shinkansen (bullet train) with new maximum service speed of 270 km/h
  - Developed capillary array DNA sequencer
- 1994 Hitachi (China), Ltd. established
  - Developed the original 32-bit RISC processor SuperH family
- Developed Super TFT LCD module featuring ultra-wide viewing angles
  - Developed 10-Gbit/s fiberoptic transmission equipment



1995

- Developed 320-Gbit/s optical data transmission system
  - Developed the experimental 128-Mbit single-electron memory



1998

- Established dependable autonomous hard real-time management technology
- Developed 52.5-Gbit/in<sup>2</sup> perpendicular magnetic recording method
- Developed Notary and Certificate Authority systems for e-government
  - Developed mobile web-gateway system
  - Developed application processor for mobile phones

- Developed world's first silent water-cooling notebook
   PC
  - Developed world's smallest
    0.3-mm square contactless IC chip
  - Developed compact DNA analysis system genetic for SNP typing



2002

- Developed and commercialized compact, highly accurate, high-speed finger vein authentication system
  - Successful measurement of infant brain functions using optical topography



2003

- Dr. Hideaki Koizumi, a Hitachi Fellow, presented a lecture at the 400th Anniversary of the Foundation of the Pontifical Academy of Sciences, Vatican City
- Developed world's smallest sensor-net terminal with a battery life of over one year
  - Developed high-temperature lead-free solder paste
- Explosives Trace Detection System received U.S. TSA certification
  - Exhibited two-wheel mobile robot "EMIEW" capable of direct dialogue at the 2005 World Exposition Aichi, Japan
  - Established Hitachi (China)
     Research & Development
     Corporation



2005

- Confirmation of electro-luminescence phenomena on injection of electrical current in ultra-thin silicon
  - Basic experiment on the application of Optical Topography as a brain-machine interface
  - Mass production of 2.5-inch HDD using perpendicular magnetic recording technology
  - Prototype of world's smallest noncontact RFID powder IC chip (dimensions 0.05 mm × 0.05 mm)
  - Prototype of the 2-Mbit non-volatile SPRAM chip using magnetization reversal by spin injection
  - Developed EMIEW 2, a small and lightweight interactive robot
  - Developed lithium-ion battery system technology for use in high-speed diesel hybrid trains
  - Developed technology for small but highly efficient electric motors that do not use rare metals
- Prototype 3-kV-class SiC diodeDeveloped vehicular lithium-ion
  - batteryDeveloped thin-type finger vein authentication technology



2009

2007

2008