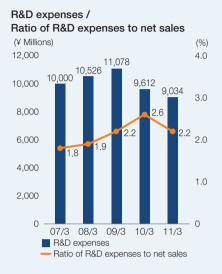
Research and Development

Consistently Pioneering Leading-Edge Technologies to Improve the Speed, Accuracy and Efficiency of Energy and Information

The Hitachi Cable Group aggressively promotes R&D based on core technologies that empower energy and communication. Our R&D activities underpin the Group's capabilities in accurately accommodating ever-diversifying customer needs.

The Corporate Advanced Technology Group leads the Group's R&D activities with the support of the Research & Development Laboratory and research & development departments of individual business groups. Through collaboration among these organizations, we work to grasp real-time trends in markets and technologies, both in Japan and overseas, while enhancing the capabilities of our R&D personnel. In this way, we are efficiently advancing strategic R&D for products and technologies in order to consistently stay ahead of the times.



R&D Results for the Year Ended March 31, 2011

The following section reviews R&D results and achievements by segment for the reporting term. On a consolidated basis, our R&D expenses totaled ¥9,034 million, and the ratio of R&D expenses to net sales stood at 2.2%.

Electronic & Automotive Products

This segment undertakes R&D for: (1) wires and cables for industrial applications; (2) magnet wires; (3) electronic devices; (4) transmission and connection technologies relating to fiber optic cables and submarine cables; and (5) brake hoses and other parts and components for automotive use. R&D expenses in this segment totaled ¥2,632 million.

R&D Achievements during Reporting Term

- 1. Development of a user-friendly electric vehicle (EV) charging station for home use
- Development of a compact board-edge-radiating type coupler for the TransferJet*1 short-range, high-speed wireless transfer system
- 3. World-first commercialization of inverter-surge-resistant, fine-rectangular, polyamide-imide enameled rectangular wires for hybrid vehicle motors
- 4. Development of power and communication cables with built-in $\mbox{RFID}^{\star_2}\mbox{chip}$
- 5. Development of flexible LAN cables

*1 TransferJet is a trademark of Sony Corporation.

*2 Radio frequency identification

Information Systems

This segment promotes R&D in such areas as: (1) information network devices; (2) optical communication components; (3) antennas for mobile photo base stations; and (4) antennas and power cables for digital terrestrial broadcasting. These and other products support the infrastructure of our information society. Segment R&D expenses amounted to ¥3,861 million.

R&D Achievements during Reporting Term

- 1. Launch of APRESIA*1 series 15000-32XL-PSR*2 and 15000-64XL-
- PSR, Ethernet^{*3} switches for data center networks 2. Development of 150 Gbps active optical cables
- 2. Development of 150 Gbps active opti
- *1 APRESIA is a registered trademark of Hitachi Cable, Ltd.
- *2 Power Supply Redundant
- *3 Ethernet is a registered trademark of Fuji Xerox Co., Ltd.

Semiconductor Materials & Packaging

In this segment, our R&D themes include: (1) downsizing and improving the functionality of mobile phones and other information devices; (2) tape automated bonding (TAB) tapes for chip scale packaging (CSP) and substrates compatible with memory products; (3) gallium arsenide and other compound semiconductors (single crystal and epitaxial wafers) and applied products; and (4) other products related to these products and technologies. Segment R&D expenses totaled ¥994 million.

Metal Materials & Component Products

This segment conducts R&D for: (1) copper strips for electronic parts and components; (2) lead frames; (3) heat transfer tubes for heat exchanger units; (4) fabricated copper products; and (5) superconducting wire materials and superconductors. Segment R&D expenses totaled ¥1,547 million.

R&D Achievements during Reporting Term

1. Development of copper sputtering target for LCD panels