Foreword

Becoming an Even Stronger Global Leader by Developing Innovative Products and Services

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Toshiba Group is making maximum use of its technological assets to continue to contribute to the restoration of social infrastructure in the areas affected by the Great East Japan Earthquake of March 11, 2011. At the same time, we are striving to speed up our pace of innovation, as we develop the technologies, products and services that will create an exciting and satisfying future for society. We are strengthening the research and development of technologies for smart community-related businesses in the fields of electricity storage, power transmission and distribution, power control, information and communication technology (ICT), and energy conservation, with the aim of achieving the goal of a low-carbon society and realizing stable supplies of electricity by increasing the efficiency and improving the safety of existing power-generation systems. In parallel, we will further accelerate our renewable energy capabilities and expand into new energy fields such as solar and wind power, while achieving the best mix of existing mainstay power generation systems and renewable power generation.

In the medium term, with the aim of becoming an even stronger global leader with unrivalled global competitiveness, we are promoting research and development from the planning of optimal systems with the potential needs of customers as the starting point through to the component technologies necessary to bring them into fruition. We are making continuous strenuous efforts aimed at the creation of attractive "first in the world" products as well as products and services that can gain the top share globally in new and growing business fields such as those related to smart communities, power electronics, memory/storage and digital products.

During the past fiscal year we introduced a succession of innovative new products and services to the global market. In the field of digital products, for example, we commercialized the glasses-free 3D REGZA™ series of LCD TVs that for the first time in the world offer three-dimensional (3D) images that can be viewed without dedicated glasses. Making full use of synergies between our semiconductor and image processing technologies, this series uses advanced integral 3D imaging to reproduce real objects as stunning 3D images. It features a multi-parallax design that results in images that change depending on the viewer's position.

We also started mass-production of high-density 64 Gbit NAND flash memories that achieve the world's smallest chip size for 2-bit-per-cell products using the leading-edge 24 nm process, and this fiscal year we have already started sample shipments of the world's smallest and highest density 2-bit-per-cell 64 Gbit NAND flash memories using the 19 nm process, the finest level yet achieved.

In the healthcare field, we developed an innovative computed tomography (CT) image reconstruction technology as well as a unique dual-energy helical scanning technology. We incorporated these innovations into our Aquilion™ PRIME series 160-slice multi-detector CT scanner that provides high-quality clinical images with the advantages of an ultra-low radiation dose and ultra-fast workflow.

Due to their rapid-charging performance, long charge/discharge lifetime, and safety, our SCiB™ rechargeable batteries have been highly evaluated in the market, as shown by their adoption for electric vehicle applications, including the electric motorcycles of Honda Motor Co., Ltd. and electric vehicles of Mitsubishi Motors Corporation. SCiB™ batteries are also being used as storage batteries for the Miyako Island Mega Solar Demonstration Research Facility of The Okinawa Electric Power Company, Inc. We will also apply SCiB™ batteries as an electricity storage technology for smart grids.

Going forward, we intend to use our creative powers of imagination to demonstrate our strong innovation capabilities on the global level and to sharpen our sensitivity to the diversity of R&D needs in various regional markets. Examples of such innovation breakthroughs are introduced in *TOSHIBA REVIEW Science and Technology Highlights 2011.* I hope you find the information provided in this special issue stimulating and useful.