

TOSHIBA AMERICA, INC.

1251 AVENUE OF THE AMERICAS, SUITE 4110
NEW YORK, NY 10020

Environmental Vision 2050 Spotlight

Portégé R500 – A thin-and-light laptop with a light environmental impact

With the Portégé R500, Toshiba introduced several world's-first technologies to its thin-and-light laptop: world's lightest widescreen 12.1-inch notebook at 1.72 pounds, world's first laptop with a 7mm DVD-SuperMulti drive, world's first indoor/outdoor transreflective LED backlit display, world's longest battery life in a widescreen 12.1-inch notebook and world's thinnest notebook with an optical drive.

Beyond all of these firsts, however, the Portégé R500 earned distinction by taking top rating as the No. 1 laptop of the Electronic Product Environmental Assessment Tool (EPEAT) Gold-compliant notebooks.

As of June 2008, Toshiba had more Gold-rated laptops than any other notebook computer manufacturer, with seven of its premiere business laptop PCs having achieved Gold status, EPEAT's highest possible rating.

The EPEAT (Electronic Product Environmental Assessment Tool) program evaluates computer desktops, laptops and monitors on the basis of 51 environmental criteria developed through an extensive stakeholder consensus process supported by United States Environmental Protection Agency. All EPEAT-registered products must meet 23 mandatory environmental criteria in the following eight categories: reduction/elimination of environmentally sensitive materials; materials selection; design for end-of-life; product longevity/life cycle extension; energy conservation; end-of-life management; corporate performance, and packaging. Gold-rated products must meet all required criteria plus rate 75 percent or higher in additional product-specific criteria.

The Portégé's high marks came from restricting hazardous substances from the computer, including cadmium, mercury and lead from batteries and other components; hexavalent chromium; SCCP flame retardants and plasticizers in certain applications; and PVC from large plastic parts. The use of an LED lamp also eliminated mercury in the light sources.

All new Toshiba notebooks are RoHS compatible, effectively reducing the environmental impact by restricting the use of lead, mercury and certain other hazardous substances. Toshiba now offers a computer trade-in and recycling program for all manufacturers' PCs as well, further reducing environmental impact and promoting the efficient utilization of resources.

Toshiba Group, as a corporate citizen of planet Earth, practices environmental management that promotes harmony with the Earth, contributing to the creation of a richer lifestyle for society.



TOSHIBA AMERICA, INC.

1251 AVENUE OF THE AMERICAS, SUITE 4110
NEW YORK, NY 10020

Environmental Vision 2050 Spotlight

Toshiba's SCiB – Charging ahead in battery innovations

Toshiba is taking rechargeable batteries to a new level of power with the SCiB, a super-charge ion battery that can recharge to 90-percent power in less than five minutes with a lifecycle of more than 10 years.

While ordinary lithium-ion batteries' performance deteriorates after repeating the charge-discharge cycle several hundred times, SCiB offers exceptionally long life with minimal capacity loss even after more than 5,000 repetitions of the charge-discharge cycle – a life cycle that is often as long as that of the electronic device in which it's used. Such a long life promises to reduce the quantity of batteries making their way to landfills, an element of Toshiba's long-term commitment to the environment outlined in its *Environmental Vision 2050* initiative.

The SCiB primarily targets the industrial systems and automotive products market, aiming to make the high-potential battery a mainstay for battery-powered bicycles, motorcycles, automated guided vehicles, electric forklift trucks and construction machinery, which already use rechargeable batteries. The SCiB is also a promising candidate for emergency power sources, electric power regeneration in wind power systems and stabilization of electric power supply. Application in hybrid cars is also planned, with the intent of incorporating the SCiB cell in electric cars in the future following further development.

A major advance from the rechargeable lithium-ion technology Toshiba first announced in March 2005, the SCiB adopts a new negative-electrode material with high thermal stability and a high flash point electrolyte. This enables a highly reliable rechargeable battery that offers excellent safety.

Toshiba Group, as a *corporate citizen of planet Earth*, practices environmental management that promotes harmony with the Earth, contributing to the creation of a richer lifestyle for society.



TOSHIBA AMERICA, INC.

1251 AVENUE OF THE AMERICAS, SUITE 4110
NEW YORK, NY 10020

Environmental Vision 2050 Spotlight

Toshiba's E-CORE LED Downlight: Lighting a Brighter Future

For more than a decade, Toshiba has met environmental challenges through innovation. Announced in November 2007, *Environmental Vision 2050* is Toshiba Corporation's long-term commitment to a better environment by recognizing and responding to environmental issues. A key element of *Environmental Vision 2050* is its focus on environmentally-conscious design.

Energy-efficient light-emitting diodes, or LEDs, serve as an inspired example of Toshiba's environmental innovation. Toshiba's award-winning LED lighting product, the E-CORE 60, is one of the first to meet Toshiba's high standards for its new designation – "Excellent ECP" (environmentally conscious product).

Unlike conventional lighting technologies that employ fluorescent or incandescent bulbs, LED lighting directly converts electrical energy into optical energy. This creates a longer-lasting bulb that produces one-sixth of the greenhouse gas emissions of incandescent lights.

Widespread use of LED lighting is a key measure under the Japanese government's plan to accomplish the Kyoto Protocol's greenhouse gas reduction targets. The Japanese government issued a challenge to create an LED bulb that consumes less than one-fifth the energy at a price differential of less than 3.8 times that of an incandescent bulb. The E-CORE 60, Toshiba's highly efficient LED downlight, is the first product to achieve these performance targets.

Consuming one-seventh the power of an incandescent lamp and maintaining an exceptionally long life of 40,000 hours, the E-CORE 60 has won several awards – including the Chairman of the Energy Conservation Center Award of the Energy Saving Grand Prix. These awards attest to the E-CORE 60's winning combination of environmental and economic value.

Toshiba is no stranger to the lighting business; the first Japanese light bulb was manufactured by Toshiba in 1890. Plans are now in place to phase out most of the company's incandescent lighting production by 2010 – a testament to Toshiba's continued leadership in environmental innovation.

Toshiba estimates that switching 60 percent of the world's incandescent lights with LED lights would reduce greenhouse gas emissions by 125.5 million tons in 2025, compared to 2000.

Toshiba Group, as a *corporate citizen of planet Earth*, practices environmental management that promotes harmony with the Earth, contributing to the creation of a richer lifestyle for society.

