Toshiba launches portable fuel-cell for mobiles

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(PhysOrg.com) -- For people fed up with their mobile telephone or iPod batteries running out, Japan's Toshiba Corp. announced Thursday the launch of a portable fuel-cell that can power up digital gadgets on the move.

Toshiba Corporation today announced the launch of its first direct methanol fuel-cell product: Dynario, an external power source that delivers power to mobile digital consumer products.

The power consumption of mobile electronic devices, including mobile phones, has greatly increased with added functionality, including TV reception and Internet connectivity. As a result, battery exhaustion has become a major concern. Dynario's DMFC delivers almost instant

refueling that untethers electrical equipment from AC adapters and power outlets. It runs on mix of methanol and ambient oxygen, and the chemical reaction between the two in the fuel cell produces electricity.

Toshiba recognizes the DMFC as a high potential solution for portable equipment and is promoting intensive technology and product development, including improved practical use and downsizing.

The palm-sized Dynario is Toshiba's first DMFC product. Once fueled with an injection of methanol solution from its dedicated cartridge, Dynario starts to generate electricity that is delivered to a digital consumer product—a mobile phone or a digital media player—via a USB cable. On a single refill of methanol which can be made in an instant period (around 20 seconds), Dynario can generate enough power to charge two typical mobile phones.

Dynario integrates Toshiba's state-of-the-art fuel cell technology, allowing it to operate with only a small volume of concentrated methanol solution, reducing the size and weight of the fuel tank and the overall

product. An ingenious fuel feed structure realizes uniform methanol delivery, and stable output to any attached device is fine-tuned by a built-in microcomputer. Performance is also optimized by Dynario's hybrid structure, which uses a lithium-ion battery charged by the fuel cell to store electricity. The dedicated fuel cartridge was co-developed with Toyo Seikan Kaisha, Ltd., one of Japan's leading packaging container companies.

Dynario and its fuel cartridge fully comply with the International Electrotechnical Commission's safety standards (provisional edition).

Dynario, together with a dedicated fuel cartridge for refueling on the go, will be launched in Japan, in a limited edition of 3,000 units only, and will be exclusively available at Shop1048 (shop1048.jp), Toshiba's direct-order web site for digital consumer products in the Japanese market. Orders will be accepted from October 22, and shipping will start on October 29.

Toshiba plans to gauge customer reaction and opinion from the Japanese release of Dynario and reflect them in the development of future DMFC products.

Source: Toshiba Corporation

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