

**DOWA to be ready for Mass Production of Highest Output Power  
Deep Ultraviolet LEDs for disinfection**

DOWA ELECTRONICS MATERIALS CO., LTD. (Headquarters: 14-1, Sotokanda 4-chome, Chiyoda-ku, Tokyo; Capital: ¥ 1,000 million; President: Akira Otsuka), a subsidiary of DOWA HOLDINGS CO., LTD. (same address; Capital: ¥36,400 million; President: Masao Yamada), has developed a deep ultraviolet LED chip featuring the industry's highest output power in the world, with a peak wavelength of 280 nm, output of 75 mW and dimensions of 1 mm × 1 mm. The company has also been prepared for a mass production for these new products, with capacity equivalent to one million LED chips per month.

Since deep ultraviolet lights with a wavelength of 280 nm have a high efficiency of disinfection, replacing the conventional mercury lamps with these LEDs enables facilities to be smaller and mercury-free. With other advantages such as power saving, this product is expected to find new smart applications.

Combining a high-quality aluminum nitride (AlN) template with unique crystal growth technology, DOWA ELECTRONICS MATERIALS successfully began to mass-produce a finest deep ultraviolet LED chip that boasted one of the world's robustness in 2010. It has continued to serve potential customers and emerging applications while improving its performance. More recently, the company has achieved the world's highest output power of 75 mW in the wavelength of 280 nm, thanks to better luminous efficiency applying improved crystal growth technology together with an optimized LED chip design of dimension and structure.

This new products may provide light source manufacturers with a greater flexibility for selection of package formats, such as lamps and chip-on-board (COB). Meanwhile, by supplying not only the chips, but also some finished products such as various kinds of the surface mount device (SMD) and conventional TO-Can package, DOWA ELECTRONICS MATERIALS can flexibly meet customer's diverse requirements.. DOWA SEMICONDUCTOR AKITA Co., Ltd., a manufacturing subsidiary, will continue to bolster performance and productivity while expanding production capacity to meet demand.

DOWA ELECTRONICS MATERIALS offers an extensive lineup of products in the gallium based compound semiconductor industry, from materials such as high-purity gallium to wafers, LED chips, and some lamp modules. As it seeks to continue expanding its semiconductor business, the company remains committed to enhancing the performance of its next-generation products and improving productivity of the factory.



**Deep UV-LED Chips**