

[Press Release-Confidential]

## Seoul Semiconductor announces a new LED technology named “nPola” that increases brightness levels 5 to 10 times over existing LEDs.

- Seoul Semiconductor’s new product, highly praised by the father of LED, Shuji Nakamura, is based on non-polar LED technology.
- The company is the first to announce production of LEDs based on the new non-polar technology.

Seoul Semiconductor, a leading LED manufacturer, unveiled a new LED product based on a new technology on July 3rd at 'So Gong Dong Plaza Hotel' in Jong Lo Gu, to an audience of the Korean LED industry and press. This new product, called “nPola”, that Seoul Semiconductor holds the unique patented technology rights to, has been under development by Seoul Semiconductor for over 10 years. The brightness has been dramatically improved by 5 times over the conventional LED based on equivalent die surface area. The company expects further improvements will increase this to more than 10 times existing LEDs.

Currently, the brightness of a power chip LED in mass production is around 100 lumens in warm white but this new product produces 500 lumens which is 5 times better. As an example, when making a LED bulb for a 60W household bulb replacement, generally, 10-20 LED packages are used, but when this new product is applied, the same brightness can be achieved with only 1-2 packages.

### [Pictures]



- Conventional LED bulb (multiple packages used) - LED bulb using new technology (1 package used)

Seoul Semiconductor CEO, Chung Hoon Lee, expressed strong confidence in the new product by saying "I've worked very hard for the past 20 years in this industry and it is safe to say that this new product is the culmination of 20 years of core technologies development. It is a major milestone for the LED light source." Professor Nakamura Shuji, known as the father of the LED, was also present at this event to comment on the new technology. He is currently a professor at the University of California, Santa Barbara and an advisor to Seoul Semiconductor.

In addition to the release of the new product, the event provided booths where attendees could experience Seoul Semiconductor's core products such as its Acrich AC LED technology, UV LEDs, white LEDs, and others. The company said it will immediately begin production of this new product with sales domestically and in strategic markets abroad.

