

Sony Develops Highly Efficient RGB Laser Light Source Module for Large Screen Projectors

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External view of module

Sony Corp. today announced the development of a RGB laser light source module suitable for large screen projectors such as digital cinema projectors. The module incorporates high power lasers of the three primary colors: Red, Green and Blue (RGB) with a combined output power of 21W (equivalent to 5,000 lumens), in a single package measuring just 530cc, among the industry's smallest.

The newly developed RGB laser module uses semiconductor diodes for the red and blue lasers, and a compact, high power solid-state SHG laser

for the green. Both the red and green lasers were developed internally by Sony. The three lasers generate output power of 10W for red, 6W for green, and 5W for blue, resulting in a total of 21W.

Furthermore, energy conversion ratios for the lasers range from 15 to 22% (18% on average), representing extremely high efficiency for power visible lasers. This high [energy conversion](#) ratio also realizes low [energy consumption](#) within the module itself.

This module can be used as the light source for a range of projectors, from 1,000 lumen home theater projectors to 10,000 lumen large screen projectors, and even digital cinema projectors. This is due to the scalability of the module design, which outputs collimated light beams for each of the three colors, enabling multiple modules to be stacked. When used in place of the xenon lamps which are the light source for projectors today, this module realizes the following key advantages based on the strengths of its advanced laser technology.

Source: Sony

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